GLOBAL BIOENERGIES

French *société anonyme* with a Board of Directors and share capital of €225,438.05

Registered office: 5, rue Henri Desbruères 91000 Evry, France

508 596 012 R.C.S. Evry

Registration Document

including

The 2017 Annual Financial Report and Management Report of Global Bioenergies SA

Consolidated financial statements at 31 December 2017

AMF AUTORITÉ DES MARCHÉS FINANCIERS

The present Registration Document was filed with the *Autorité des Marchés Financiers* (the French Financial Markets Authority, or AMF) on 27 April 2018, in accordance with Article 212-13 of its general regulations. It may be used in support of a financial transaction when accompanied by a prospectus approved by the AMF. It was prepared by the issuer and is binding on its signatories.

This Registration Document includes by way of reference:

- the Registration Document filed with the AMF on 27 April 2017 under number D.17-0442;
- the Registration Document filed with the AMF on 22 September 2016 under number D.16-0852;
- the Registration Document filed with the AMF on 05 June 2015 under number D.15-0574;
- the Registration Document filed with the AMF on 21 November 2014 under number D.14-1067;
- the Registration Document registered by the AMF on 7 June 2013 under number R.13-0031.

Copies of this Registration Document are available free of charge at the registered office of Global Bioenergies. This document may also be examined online on the Company's website (www.global-bioenergies.com) and on the website of the AMF (www.amf-france.org).

Dear Shareholders,

For the past three years, we in the renewable energy sector tried to make headway in adverse macro-economic conditions due to the over-abundance and relative cheapness of oil.

But now all that has changed. Not only is the price of oil increasing (as we may be nearing production capacity), but the prices of agricultural commodities, particularly industrial sugars, are dropping sharply, due to the end of quotas in Europe.

Moreover, global warming is proving itself to be, more with every passing day, an undeniable reality, with potentially disastrous consequences. Governments and businesses are taking action, and technologies to reduce humanity's carbon footprint are viewed with growing interest.

The crisis of recent years was a chance for us to show our resilience. We made progress, on a forced march, and it made us stronger.

Our demo plant, patiently designed and then built in Leuna, Germany, now produces at tonne scale. This determination to continue on the path laid out from the company's earliest days has paid off. With the products from this demo plant, we can now carry out application tests in materials and cosmetics, as well as engine tests and road tests.

We have formulated a 34% renewable gasoline, which is a world record, and put it on display in a track event arranged with Audi. This fuel is in line with current standards and does not require any modifications to the vehicle or to fuel retailing. It will be broadly marketed once the IBN-One plant begins commercial operations.

Our ambition is to have this plant financed by the end of the year and to begin its construction right after. It should take about two years to build. Other plans for plants are under study.

Additionally, we recently stated our goals in the field of jet fuel. This is an exciting area, where the search for renewable, environmentally-friendly solutions has grown intense.

We also have high ambitions for meeting another market requirement: diversifying the feedstock in our process. In 2017 the European Union granted sizeable funding to Global Bioenergies and five other partners for the re-use of wheat straw and its conversion into other materials. We also acquired a company, Syngip, in order to adapt our technology to the use of industrial gases, primarily from steel mills.

Lastly, our Company has made good progress in developing a second process, which we call C3 because it involves the biological production of 3-carbon compounds. Our portfolio is expanding...

2018 will be a banner year: The technologies developed by Global Bioenergies will take an even more prominent place among those that will really matter in the coming energy and environmental transition.

Marc Delcourt
Chief Executive Officer and Co-Founder
invest@global-bioenergies.com

PREAMBLE / GENERAL COMMENTS

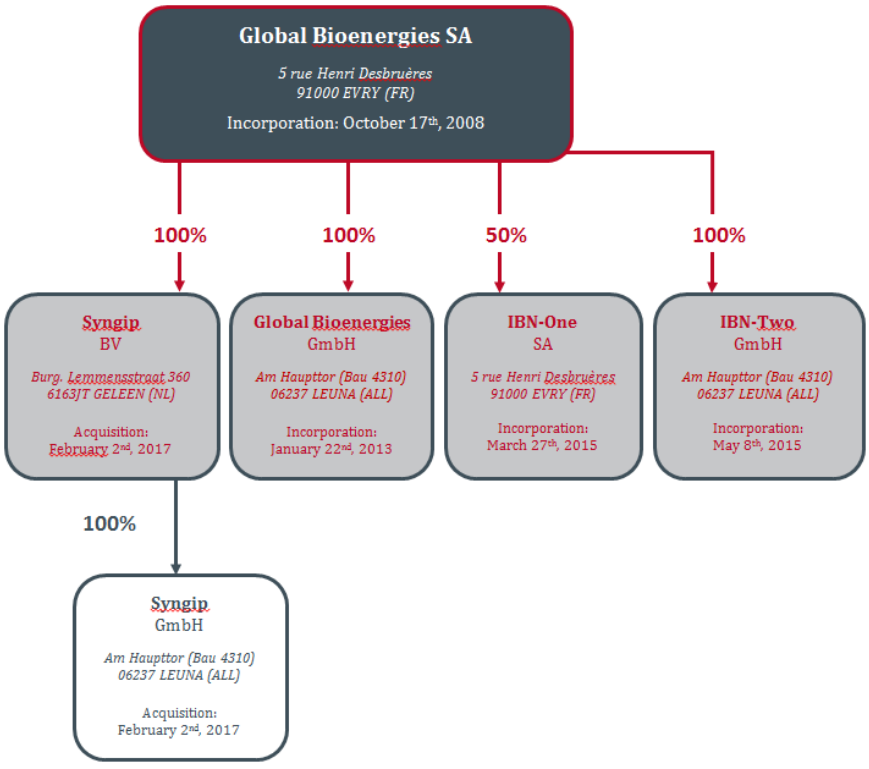
In this Registration Document (hereinafter the "Registration Document"), unless otherwise specified, the term "Company" refers to Global Bioenergies SA. The terms "Group" and "Global Bioenergies" refer to the Company and its subsidiaries as described hereunder.

The Company wholly owns a subsidiary based in Leuna, Germany: Global Bioenergies GmbH. The purpose of this subsidiary, set up on 22 January 2013, is to implement the project involving the design, construction and operation of a demo plant in Germany. Global Bioenergies GmbH also aims to provide engineering services, in particular to the Group's subsidiaries focused on the construction and operation of plants using the processes developed by Global Bioenergies.

Moreover, the Company holds 50% of IBN-One SA, while this company's remaining capital is held by the Cristal Union sugar group, via its subsidiary Cristal Financière. The corporate purpose of IBN-One SA is the construction and operation of the first plant dedicated to transforming renewable resources into isobutene (the IBM-One plant), as well as the marketing of this product. In addition, the Company fully owns IBN-Two GmbH, whose corporate purpose is the construction and operation of a plant to transform renewable resources into hydrocarbons in Germany. The Company is contemplating partnerships with investors on a similar model as that used with IBN-One SA.

Finally, it should be noted that after the Extraordinary General Meeting of Shareholders of 2 February 2017, Global Bioenergies acquired the Dutch company Syngip B.V., based in Geleen, founded in 2014 and specialising in the conversion of third generation feedstocks into fuels and materials. Syngip B.V. itself wholly owns a subsidiary in Germany, Syngip GmbH, whose purpose is to facilitate the introduction of potential German investors in order to finance the activities of Syngip B.V.

GLOBAL BIOENERGIES GROUP
AS OF 31/12/2017



CROSS REFERENCE TABLE

REGISTRATION DOCUMENT ⇔ ANNUAL FINANCIAL REPORT

To make the Annual Financial Report easier to read along with the Management Report as required by the French Commercial Code, the following table indicates the location in this Registration Document of the principal disclosures provided:

HEADINGS IN THE ANNUAL FINANCIAL REPORT	IN THE REGISTRATION DOCUMENT
Corporate financial statements, incl. Auditors' report	CH20
Consolidated Financial Statements, incl. Auditors' report	CH3, CH9, CH10, CH20
Subsidiaries, equity investment and controlled companies	CH7
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VI. Proposed allocation and distribution of profit (loss)

- Proposed allocation of profit (loss)	CH9 (9.3)
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1 PERSONS RESPONSABLE

1.1 PERSON RESPONSIBLE FOR THE REGISTRATION DOCUMENT

Marc Delcourt, Chief Executive Officer of Global Bioenergies.

1.2 STATEMENT FROM THE PERSON RESPONSIBLE FOR THE REGISTRATION DOCUMENT

"'I hereby certify that, after having taken all reasonable measures to that effect, the information contained in this Registration Document is true and contains no material omission.

I certify that, to the best of my knowledge, the financial statements have been prepared in compliance with applicable accounting standards and are a true representation of the assets, financial situation and results of the Company and all consolidated companies, and that the Management Report attached to this Registration Document accurately presents the ongoing business, results and the financial situation of the Company and of all consolidated companies and describes the main risks and uncertainties these companies face.

I obtained an end-of-mission letter from the Statutory Auditors certifying that they have verified the financial and accounting information provided in this Registration Document and that they have read the document in its entirety".

Evry, 27 April 2018.

Marc Delcourt
Chief Executive Officer

1.3 PERSON RESPONSIBLE FOR THE FINANCIAL INFORMATION

Samuel Dubruque
Chief Financial Officer
Phone: +33 (0)1 64 98 20 50
Fax: +33 (0)1 64 98 20 51
E-mail: invest@global-bioenergies.com

2 STATUTORY AUDITORS

2.1 PRINCIPAL AUDITOR

SARL France Audit Consultants International
represented by Max Peuvrier
10 allée des Champs-Elysées, 91042 Evry
Start of first mandate: 6 October 2008

First appointment on the incorporation of the Company on 6 October 2008. Mandate renewed by the General Meeting on 19 June 2014 for a period of six years, expiring at the end of the General Meeting ruling on the financial statements for the year ended 31 December 2019.

2.2 ALTERNATE AUDITOR

Olivier Charreau
28 rue Henri Janin, 78470 Saint-Rémy-lès-Chevreuse
Start of first mandate: 6 October 2008

First appointment on the incorporation of the Company on 6 October 2008. Mandate renewed by the General Meeting on 19 June 2014 for a period of six years, expiring at the end of the General Meeting ruling on the financial statements for the year ended 31 December 2019.

2.3 INFORMATION ON STATUTORY AUDITORS WHO RESIGNED, WERE DISMISSED, OR WERE NOT REAPPOINTED

None.

3 SELECTED FINANCIAL INFORMATION

The financial statements prepared were consolidated under French accounting standards on a voluntary basis as the Group did not reach the legal thresholds requiring the presentation of consolidated financial statements. These financial statements were audited and certified by the Statutory Auditor. The financial information contained below was extracted from the consolidated financial statements of the years ended respectively on 31 December 2015, 2016 and 2017. These financial data are reviewed in detail in Chapter 9 "*Review of the financial situation and results*", Chapter 10 "*Cash and capital*" and Chapter 20 *"Financial information on the assets, financial situation and results of the Issuer*" of the Registration Document.

Key figures of the Group's consolidated profit and loss account:

€ thousands	01/01/17 at 31/12/17 12 months	01/01/16 at 31/12/16 12 months	01/01/15 at 31/12/15 12 months
Operating income	2,369	3,292	2,228
Operating expenses	18,002	15,216	14,240
Operating profit (loss)	(15,634)	(11,924)	(12,013)
Financial profit (loss)	(708)	(530)	(258)
Exceptional profit (loss)	89	(50)	(109)
Income tax	(1,999)	(1,896)	(1,985)
Net profit (loss)	**(14,253)**	**(10,607)**	**(10,395)**

Key figures from the Group's consolidated balance sheet:

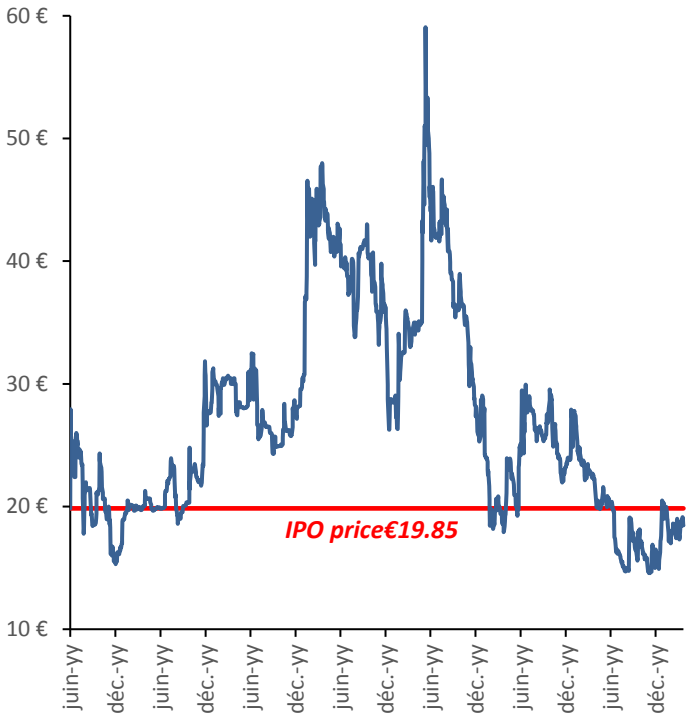
Assets (€ thousands)	*31 Dec 2017*	*31 Dec 2016*	*31 Dec 2015*
Intangible assets	1,267	69	106
Assets	11,075	12,182	7,230
Financial assets	365	146	142
NON-CURRENT ASSETS	**12,707**	**12,397**	**7,478**
Inventories - Receivables - Prepaid Expenses	4,504	5,074	4,313
Cash and equivalents	13,639	8,066	10,418
CURRENT ASSETS	**18,143**	**13,140**	**14,731**
TOTAL ASSETS	**30,850**	**25,537**	**22,209**

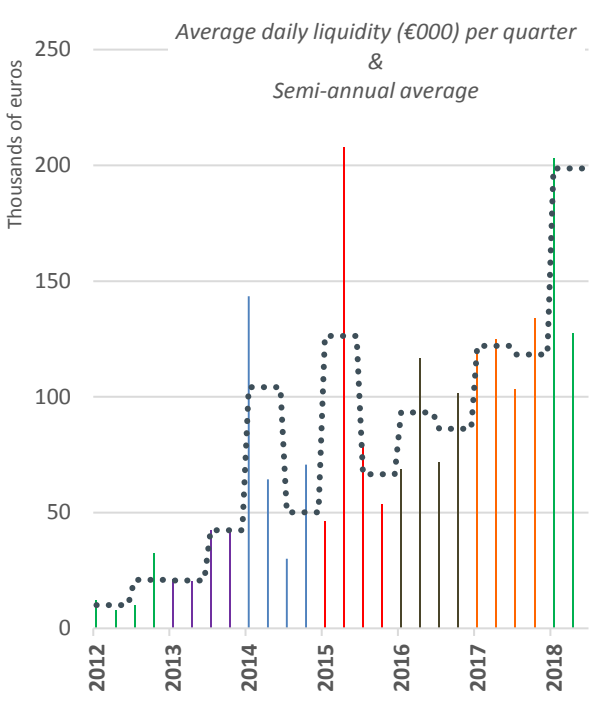
Liabilities (€ thousands)	*31 Dec 2017*	*31 Dec 2016*	*31 Dec 2015*
Capital	224	168	142
Share premium	67,867	49,409	37,817
Retained earnings	(40,673)	(30,066)	(19,665)
Profit (loss)	(14,253)	(10,607)	(10,395)
Equipment subsidies	553	391	0
EQUITY	**13,718**	**9,295**	**7,899**
PROVISIONS	**57**	**42**	**30**
Conditional advances and loans	10,213	11,483	10,440
Trade payables and related accounts	4,622	4,120	3,181
Other payables, accrual adjustments and prepaid income	2,240	597	660
PAYABLES	**17,075**	**16,200**	**14,281**
TOTAL LIABILITIES	**30,850**	**25,537**	**22,209**

Key figures from the Group's consolidated cash-flow statement:

CASH-FLOW (€ thousands)	2017	2016	2015
Operating cash-flow	**(9,066)**	**(9,279)**	**(8,840)**
Net profit (loss)	(14,253)	(10,607)	(10,395)
Amortisation (+)	2,857	1,213	979
Gain on asset disposal (-)	-	-	-
Change in Working Capital Requirement	2,330	115	576
Investing cash-flow	**(2,022)**	**(6,120)**	**(4,488)**
Acquisition of non-current assets (-)	2,024	6,125	4,489
Sale of non-current assets (+)	2	6	1
Financing cash-flow	**16,143**	**12,676**	**7,873**
Capital increase in cash (+)	17,890	12,527	1,882
Capital-increase costs charged to share premium (-)	737	908	71
Other changes	-	(6)	-
Equipment subsidies	289	391	-
Repayable advances received (+)	-	1,109	1,726
Loans contracted (+)	300	1,019	5,800
Repayable advances repaid (-)	-	-	338
Loans repaid (-)	1,612	1,581	1,125
Contributions from associates' current accounts (+)	12	126	-
Net cash-flow	**5,055**	**(2,722)**	**(5,454)**
Cash at start of year	*7,431*	*10,153*	*15,608*
Cash at year-end	*12,486*	*7,431*	*10,153*

Change in the Global Bioenergies share price and the liquidity of the ALGBE share since the initial public offering





4 RISK FACTORS

The Group has conducted a review of the risks which could have a significant negative impact on its business, financial situation or results (or its capacity to achieve its objectives) and considers that, to date, there are no significant risks other than those set out in this chapter. These risks are those that the Group considers, on the date of the Registration Document, as liable to have a significant negative impact on the Group, its business, its financial situation, its results or its development. Certain risks or uncertainties currently unknown or considered as insignificant could also have a negative impact on the Group, its business, its financial situation or its results. Should one or several of these risks or uncertainties materialise, the Group's business, financial situation, results or development may be negatively affected.

4.1 RISKS ASSOCIATED WITH THE GROUP'S ACTIVITIES AND THE ECONOMIC AND SOCIAL ENVIRONMENT

The Group's business and development are based on the success of its R&D programmes focused on the bioproduction of molecules of interest, including light olefins, the fundamental molecules of petrochemistry, and on the Group's ability to industrialise and commercialise its processes. The development and industrialisation of bioprocesses depend on engineering techniques which present technological risks.

Historically, the R&D programmes developed by the Group have focused on the following molecules:

- Isobutene (the "Isobutene" programme);
- Butadiene (the "Butadiene" programme);
- Acetone, isopropanol and propylene (the "C3" programme).

These three programmes, for which the Group has successfully completed the research phase, are still in the development phase. Since the priority objective of the Group is to bring its first technology to industrial maturity, efforts have been concentrated in recent years on improving the performance of the Isobutene process so that it can move to a demo plant.

The C3 program made considerable progress at year end 2017 by reaching industrial scale, but it remains at a lower point of development than the Isobutene programme. The risks associated with the Butadiene programme remain higher than those associated with the two other programmes due to its earlier stage of development.

The Group may face difficulties, be unable to achieve the final enzyme activity objective, or find that this objective requires more time and resources than initially expected.

While the commercial deployment of processes developed by the Group depends on achieving performance targets, it also depends on the economic environment and societal acceptance of new value chains. Since 2014, the Group has worked to diversify feedstock for its processes. The work aimed at compatibility with so-called second generation resources (see Chapter 6) and the longer term integration of approaches for recycling of CO_2 should improve the overall economic equation of the processes implemented. The societal acceptance of these latter should be encouraged by the improvement of their ecological impact and by their dissociation from traditional agricultural products. This work is thus going to expand in the coming years. In this regard, the acquisition of Syngip B.V. in February 2017 has enabled the Group’s programmes to be more clearly positioned on the path to diversifying its feedstock.

4.1.1 Risks associated with any delay or failure in the development of the Group's bioprocesses and industrial strains

The three bioprocesses currently being developed by the Group are at different stages of development, and each has its own development schedule.

Any delay in the development of the bioprocesses would entail the postponement of the Group's exploitation and commercialisation phase of its bioprocesses. Imperfect results in the industrialisation of the bioprocesses or significant delays could entail the loss of the bioprocesses' competitiveness and reduce their commercial prospects.

Consequently, any delay or impediment in the development of these bioprocesses is liable to have a significant negative impact on the Group's business, outlook, financial situation, results and development.

The fact that the Group's management includes persons with extensive experience in the industrialisation of bioprocesses reduces the risk of impediments or delays.

4.1.2 Risks associated with the protection of strains

The successive generations of production strains are stored in conditions allowing their long-term conservation. They are generally resistant and able to reproduce rapidly. Despite the precautions taken by the Group, these strains could be stolen and subsequently exploited in breach of industrial property rights. Moreover, given the fact that no duplicate of the strains is kept on a separate site, they could be destroyed in a fire or natural disaster affecting the laboratory in which they are stored.

Consequently, any problem affecting the strains is liable to have a significant negative impact on the Group's business, outlook, financial situation, results and development.

The risk increases as the performance of each strain improves, and is managed by the parallel increases in protective measures. The laboratory is located on an enclosed, continuously guarded site. This reduces the risk of intrusion but does not guarantee the impossibility of such an offence.

4.1.3 Risks associated with a change in feedstock prices

4.1.3.1 Rise in the price of plant-based feedstocks

The first products liable to be converted into olefins using the processes developed by the Group are:

- sugar, the global production of which has been rising since the early 1990s at the average rate of 2.2% per year. In 2014/2015, production once again hit the record levels of previous years at over 177 million tonnes, resulting in a surplus of around 7 million tonnes. The 2015/2016 and 2016/2017 harvests were reported down as a result of a particularly intense El Niño phenomenon. They are expected to reach 165 and 170 million tonnes respectively and result in shortfalls of 7 and 4 million tonnes[1]. The end of the sugar quotas in Europe is now the main influence on the market. 2017/2018 production is estimated to surge to 179 million tonnes, generating a surplus of 5.2 million tonnes[2] due to the strong increase in land area dedicated to growing grow sugar beet. This new context has been dragging prices down since early 2018 and the sugar price is falling, reaching $275/t (around 12.5 cents/pound);

[1] USDA May 2016 Sugar World Markets and Trade
[2] https://ec.europa.eu/agriculture/sites/agriculture/files/dashboards/sugar-dashboard_en.pdf

- starch, the world's principal agricultural commodity. Starch is the main constituent of maize, wheat and other cereals, as well as manioc and potatoes. Global cereal production was approximately 2,500 million tonnes in 2015/2016 and is expected to increase for the 2017/2018 harvest (2,650 Mt). These strong levels of production, greater than demand, encourage high global inventories, which stand at a record[3] high of approximately 750 million tonnes.

These feedstocks account for a major part of the cost of the products stemming from the Group's bioprocesses. A significant and sustained increase in the purchase price of these feedstocks could jeopardise the profitability of the bioprocess concerned. Such a change could result in the suspension or definitive stoppage of the project development or commercialisation and have a significant negative impact on the Group's business, outlook, financial situation, results and development.

To limit the risk associated with the cost of feedstocks, the Group hopes to be able to extend the performance of its processes to the use of lower-cost feedstocks. In particular, the Group is looking into agricultural waste (straw from wheat or maize) and forest waste (short rotation coppice and sawmill waste) from which fermentable sugars can be extracted. In March 2015, the Group announced that it had managed to produce isobutene from plant waste, with performance levels comparable to those observed when using glucose derived from wheat. Then, in September 2016, the Group announced it had produced isobutene from straw at the pilot installation of Pomacle-Bazancourt. These developments are now supported by a collaboration sponsored by the H2020 Program of the European Union. The conversion of this waste into sugar could represent millions of tonnes of additional sugars, i.e. many times the current global agricultural production. Various technologies are currently being developed to extract such sugars; the industrialisation of these technologies could provide a new resource for the Group's process, thereby considerably increasing the quantity of affordable sugars.

The Group is also looking into the use of household waste or industrial effluents as feedstocks for the bioprocesses it has developed. This approach aims to develop fermentation processes based on specific micro-organisms, e.g., ones able to ferment carbon monoxide (CO). The carbon monoxide is obtained through the pyrolysis of household waste, and through the capture of gaseous effluents from steelworks. Developing a microorganism capable of transforming carbon monoxide – a product available at zero or even negative cost, i.e. a waste – into isobutene would free the Group from the above-mentioned risks associated with the cost of feedstocks. In this connection, in February 2017 the Group acquired the Dutch company Syngip B.V., which since 2014 is developing a process based on a proprietary micro-organism able to metabolize carbon dioxide and carbon monoxide in order to convert them into light olefins.

4.1.3.2 Drop in oil prices

Light olefins, which are core objectives of the Group, are currently produced from petroleum.

A significant and sustained drop in oil prices could jeopardise the profitability of the bioprocesses developed by the Group. Thus, the discovery of large quantities of readily available oil could significantly bring down oil prices for one or two decades. Such an event already took place in the recent past: the oil counter-shock of 1979 thus ended the wave of enthusiasm prevailing in the 1970s for biofuels.

[3] http://www.fao.org/worldfoodsituation/csdb/en/

Oil prices started their sharp decline in June 2014, when the monthly average Brent price hit nearly $112 per barrel[4]. The fall in price appears to stem from numerous economic and geopolitical factors, as well as the market itself – most significantly, the rise in North American production through the extraction of shale oil, and the price war waged by OPEC against this new resource. The price of oil reached a low in January 2016, when the average Brent price fell to just less than $31 per barrel. Prices gradually increased during the first half of 2016; the threshold of $50 per barrel was crossed in June and prices appear to have firmed up since then, as supply and demand have come into balance after more than two years of surplus production[5]. In fact, in 2017 prices rose nearly 20%, the Brent price moving up from about $55 a barrel to $65-70 a barrel one year later.

Changes in oil price affect the price of light olefins in varying proportions; the Group closely tracks these prices. The Group deems that its Isobutene process would be competitive on certain specific markets, supported by tax incentives and corresponding to several full-size plants, when oil prices are at $50-60 per barrel.

4.1.3.3 Combination of changes in feedstock prices

The conjunction of a rise in plant feedstock prices and a drop in oil prices or any combination of changes in feedstock prices which would reduce the difference between the cost of the bioprocesses developed by the Group and the cost of oil-based production could jeopardise the profitability of the Group's related products. Such a change could result in the suspension or definitive stoppage of the project development or commercialisation and have a significant negative impact on the Group's business, outlook, financial situation, results and development.

4.1.4 Risks associated with the procurement of feedstocks of plant origin

The bioprocesses developed by the Group are based on the use of sugar, starch, cereals, agricultural waste and forest waste which can be transformed into fermentable sugars. The development of an agricultural and forest waste treatment industry should contribute to securing a major sugar resource.

The shortage of agricultural feedstock, due to a change in the balance between supply and demand on the local or global level, could impede or limit the industrialisation of the Group's bioprocesses and have an impact on its business.

Likewise, the delayed or failed development of alternative routes based on the use of agricultural, forest, domestic or industrial waste, could limit the exploitation of the Group's bioprocesses if the agricultural feedstocks proved too costly. This would have an impact on the Group's business.

4.1.5 Risks associated with competition

The Group only has a small number of competitors, most of whom are based in the USA. Some of these companies have reached more advanced development stages than the Group and have more funds at their disposal.

Certain competitors could develop their bioprocesses more rapidly than the Group, or develop more efficient or less costly bioprocesses than those developed by the Group.

[4] Source: Reuters / DGEC
[5] Source: Monthly report of the International Energy Agency (IEA) published on 14 June 2016

The success of one of these competitors could result in agreements with certain oil or chemical industry players, making it more difficult for the Group to enter into agreements with these companies. However, the coexistence of several industrial agreements with the same oil industry player has already been observed (e.g. an agreement between Total and Gevo, as well as an agreement between Total and Amyris).

Moreover, the signing of major agreements between competitors and agricultural industry players (sugar producers, starch producers, etc.) could reduce their motivation to consider the exploitation of the processes developed by the Group.

4.1.6 Risks associated with the emergence of competing technologies

The Group is using very innovative approaches and concepts, which made it possible to develop the first artificial metabolic pathway during its first years of existence, i.e. consisting of several novel enzymatic activities.

The innovative results obtained by the Group are now used as models by other companies working in the field of industrial biology. These competitors may manage to develop similar processes to those developed by the Group. Concerning the Isobutene programme, only a few players are engaged in directly competing programmes, as described in Section 6.3.6 of this document. The main competition stems from the biofuels industry, since biofuels are one of the applications of isobutene.

Competition is stiffer for the butadiene programme than for the other olefins and mainly stems from two American companies, Genomatica and Invista. It would seem that Braskem is also interested in the production of biosourced butadiene, as confirmed by the publication of a collaboration agreement between Braskem and Genomatica in December 2013. The players' respective positions in terms of intellectual property are not yet fully known, as most of the patent applications are still at an early stage. However, to the Group's knowledge, no patent threatening its freedom of exploitation has yet been delivered. On the other hand, in April 2014 and then in October 2015 Global Bioenergies was granted two US patents covering key stages of its biosourced butadiene production process.

Concerning propylene, the intellectual property positions of the various players in this field are not yet fully known, partly because the founding patents have not all been published yet.

It would seem that these other biology companies are trying to emulate the Group's developments. This is liable to constitute new competition and thus represents a risk for the Group.

Furthermore, the use of new technological approaches, which would reduce the interest of the approaches developed by the Group, cannot be excluded. However, the risk of the premature obsolescence of the processes developed by the Group is limited, and no innovation stemming from a third party has so far had such an impact.

4.1.7 Industrial risks related to the environment

The production of agrolefins (plant-derived olefins) requires a special environment on two levels:

- firstly the microorganisms used for the production of agrolefins are genetically modified microorganisms, which must be kept in a confined environment. After the production phases, they must thus be destroyed through specific thermochemical processes, and various incident levels must be anticipated beforehand to minimise the risks that such genetically modified microorganisms escape into the natural environment;

- like petroleum-based olefins, agrolefins are inflammable, and even explosive when present at high concentrations in the air. From the pre-industrial development phase, their production must thus take place in a non-explosive atmosphere meeting the specific ATEX standards laid down in this respect: protected electrical installations, earthing of all devices, etc.

The Company has obtained a certification for the handling of genetically modified microorganisms within the scope of its Isobutene programme. This approval was obtained in 2011 for a period of five years, i.e. until 2016, and was recently renewed until 2021.

Possible changes in legal requirements concerning the handling of genetically modified microorganisms and ATEX installations could alter the conditions for the development and exploitation of the processes. The Group keeps track of the legislation in this respect.

The Group is bound by various restrictive laws and regulations, in particular concerning the environment, health and safety, especially for the storage, use, handling, transport and disposal of hazardous chemical or biological products, industrial waste and genetically modified organisms.

The need to comply with the laws and regulations, the consequences of their possible breach, the Company's loss of any authorisations granted to it, the failure to obtain the required authorisations, in particular the certifications delivered by the local government for the storage, use, handling, transport and disposal of hazardous chemical or biological products, industrial waste and genetically modified organisms, could entail costs for the Group (taxes, investments to ensure compliance with the laws and regulations, in particular concerning the environment, health and safety).

The Group may incur additional expenses to comply with new laws or regulations concerning the environment, health and safety. In particular, the Group may be required to buy new equipment, make changes in its premises or installations and, in general, incur other significant expenses. In the event of accidental contamination, bodily injury or damage of any kind, the Group may be held liable for such damage. This could have a negative impact on its activities and financial situation, even if the Group has insurance covering certain risks inherent in its business.

4.2 RISKS ASSOCIATED WITH THE OPERATING OF THE GROUP

4.2.1 Specific risks associated with historical and estimated future losses

The Group recognised a net loss of €10.4 million for 2015, €10.6 million for 2016 and €14.3 million for 2017 (in particular when depreciation of the Leuna demo plant began).

The growth in these losses is primarily attributable to the commitment to industrialising the Isobutene process undertaken in 2013. To this end, many people have been hired (69 employees at 31/12/2017 as against 36 at 01/01/2013), and employee costs still represent the Group's largest expense item.

The income recognised in profit and loss account refers mainly to revenue from partnerships developed with manufacturing companies and to operating subsidies from the French and German governments.

The recognition of further operating losses is expected for the next few years.

The Group's profitability will depend on its capacity to successfully develop, produce and licence its technology and processes. In the short term, the granting of licence options will help to finance R&D efforts. The Group will only become profitable once the granting of definitive licences for the process has started. It is not certain that the granting of licences will have the expected success, and the risk that the Group may fail to achieve this licence granting objective is real.

4.2.2 Risks associated with financing needs

Since its incorporation in 2008, the Group has mainly financed its research through capital increases.

As at 31 December 2017, the gross financial resources injected into the Group since its incorporation can be summarised as follows[6]:

In thousands of euros	Capital increase	Subsidies	Repayable advances	Innovation loans	Bank loans	Total
From 17/10/08 to 30/06/09	637	0	0	0	0	**637**
From 01/07/09 to 30/06/10	600	20	330	0	0	**950**
From 01/07/10 to 30/06/11	8,589	40	0	0	0	**8,629**
From 01/07/11 to 30/06/12	1,403	75	332	0	0	**1,810**
From 1/7/12 to 31/12/12	3,038	59	193	0	0	**3,290**
From 1/1/13 to 31/12/13	23,000	20	143	740	0	**23,903**
From 01/01/14 to 31/12/14	1,148	1,372	398	0	1,018	**3,936**
From 1/1/15 to 31/12/15	1,882	859	1,726	1,400	4,400	**10,267**
From 1/1/16 to 31/12/16	12,526	3,141	1,109	0	0	**16,776**
From 1/1/17 to 31/12/17	17,890	2,214	0	0	0	**20,104**
Total	**70,713**	**7,800**	**4,231**	**2,140**	**5,418**	**90,302**

As at 31 December 2017, the Group's financial liabilities amounted to €10.2 million (comprising bank loans of €4.5 million, repayable advances of €4.9 million, the restated value of leased assets of €0.3 million, the balance outstanding of convertible bonds unconverted as at 31/12/17 as part of the Bracknor contract of €0.3 million, as well as a liability of €0.1 million owed by IBN-One following a payment of €250,000 from Cristal Union in September 2016).

On 4 June 2013, the Group was granted total funding of €4 million by the French government. The proceeds were received in March 2014 in the amount of €0.6 million, in March 2015 in the amount of €1.7 million, in December 2015 in the amount of €0.9 million and the balance of €0.8 million in December 2016 under the Investissements d'Avenir programme managed by ADEME[7]. This programme supports the construction and operation of the pilot plant of Pomacle-Bazancourt for the development of the Isobutene process.

Moreover, in November 2013, the Federal Ministry of Education and Research (Germany) decided to support the construction and operation of the Group's demo plant in Leuna, near Leipzig (Germany), by granting a first subsidy of €5.7 million to the Group's German subsidiary Global Bioenergies GmbH. As of 31 December 2017, €5.7 million had been credited to the latter, including €0.4 million in the form of provisions.

[6] The subsidies are shown according to the amounts recognized in the profit and loss account; for the other headings the amounts correspond to the amounts received during the year

[7] *Agence de l'Environnement et de la Maîtrise de l'Energie* [the French Agency for the Environment and Energy Management]

In 2014, the Group made its first use of bank debt by obtaining two loans from two French banks for a total of €1 million, enabling the partial financing of the Pomacle pilot plant and miscellaneous equipment in the Evry laboratory. Furthermore, on 31 March 2015, the Group announced that it had obtained a further loan of €4.4 million from a consortium of four French banks for the full financing of the Leuna demo plant in Germany.

At the beginning of 2015, the Group obtained an interest-free loan of €1.4 million from Bpifrance.

In June 2016, the Group was granted new funding under Investissements d'Avenir for "demonstrators of the environmental and energy transition" operated by ADEME. This overall funding of €9 million is for the ISOPROD project (€5.7 million for Global Bioenergies SA and €3.3 million for IBN-One), which is focused on achieving the conditions necessary for the IBN-One plant to be constructed and operated. As of the date of this Registration Document, a first instalment of €1.4 million of this funding has been recorded.

In July 2016, the Group was granted an additional subsidy of €0.4 million by the Federal Ministry of Education and Research (Germany) to finance a project dedicated to the production of renewable gasoline additives. Only a balance of €0.1 million remains to be received from this second German subsidy.

Lastly, in May 2017 the Group announced that it had succeeded in winning a European subsidy as part of a consortium of 6 participants including Global Bioenergies, for the purpose of converting residual wheat straw into oligomers usable in lubricants, rubbers, solvents, plastics and fuels. The project is known as Optisochem and benefits from the Bio-Based Industries Joint Undertaking (BBI-JU), a public-private partnership between the European Union and the Bio-Industries Consortium (BIC), in the amount of €9.8 million, out of a total cost of €16.4 million. Global Bioenergies will ultimately receive €4.4 million from this project in the form of a subsidy. A first advance of €1.1 million has already been received and recorded in the financial statements of Global Bioenergies, including €266,000 in the form of subsidies as at 31/12/2017 (the rest in deferred income).

In addition, in May 2014 the Group signed an optional line of equity financing with Yorkville Advisors. The Group obtained more than €1.4 million from this line against the exercise of 37,272 warrants, before deciding to terminate this contract. Following the termination of the contract with Yorkville Advisors, a new line of equity financing was signed (a PACEO ®) with Société Générale in October 2015. At the date of the Registration Document, the Group has obtained €3.5 million from this new line against the exercise of 135,000 warrants. In September 2016 the Company signed a first contract with Bracknor Investment, which has enabled it to obtain €8.25 million against the issuance of 410,963 new ordinary shares through the conversion of convertible bonds. A second contract, providing for higher monthly tranches, was agreed in May 2017. This has allowed €2.2 million to be received against the issuance of 171,205 new ordinary shares through the conversion of convertible bonds.

To date, the Group has only generated negative net operating flows and the continued industrialisation of its processes will still require major expenses. The Group deems that, other than its available cash as at 31 December 2017 and the above-mentioned[8] public funding already awarded, its principal sources of financing over the next few years will be the following:

[8] €0.4 million remains to be received from the €5.7 million subsidy from the German Ministry, €0.1 million of the €0.4 million subsidy by the same German Ministry, €7.7 million remains to be received under the "ISOPROD" project and €3.3 million remains to be received under the "OPTISOCHEM" project.

- payments received from industrial players within the scope of licence or licence option agreements. The income generated by the Group should account for a significant and growing part of its financing. The Group's ability to generate income from licences and licence options granted to third parties for the use of its technologies is an important factor for its financial equilibrium on the medium term. The Group has thus allocated business development resources who will contribute to the set-up of new contracts likely to generate short-term lump-sum income for the Group and licence fees over the medium and long term;
- revenue from the provision of engineering services to companies wishing to build and operate plants that use the Group's processes;
- the research tax credit;
- the income derived from the exercise of warrants as part of lines of equity financing;
- to a more marginal extent, income from cash management and short-term financial instruments.

Moreover, other factors could require the finding of additional sources of funding:

- new opportunities for the development of new processes or the acquisition of technologies or other activities;
- higher costs and slower-than-expected progress of the Group's research and development programmes;
- increased costs to defend its patents and other intellectual property rights.

The interruption of one of these sources of income or the postponement of any of them could have a significant negative impact on the Group's business, outlook, financial situation, results and development. In particular, the Group may have to:

- delay, reduce or even eliminate research and development programmes, or reduce its workforce;
- obtain funds through agreements or partnerships which may require it to relinquish rights to some of its technologies or products; or
- grant licences or conclude new collaboration agreements which may be less favourable that those it may have been able to secure under a different context.

The Group may be unable to raise additional funds, or such funds may not be available under acceptable financial conditions when it needs them.

If the Group raises capital through the issuing of new shares, its shareholders' stakes could be diluted.

The materialisation of one or more of these risks could have a negative impact on the Group, its business, its financial situation, its results and its development.

4.2.3 Risks associated with access to grants from non-trading partners

Like all research programmes benefiting from public grants, the Group is exposed to the risk of having to reimburse all or part of such grants in the event of non-compliance with its commitments.

Should the Company not comply with the contractual terms and conditions provided in the agreements signed with ADEME as part of the BioMA+ and ISOPROD projects, it could have to repay in advance the sums disbursed. Such a situation could deprive the Group of some of the financial resources it needs to carry out its research and development projects. Indeed, the Group cannot guarantee that it will have the required additional financial resources, time, or the possibility of replacing such financial resources with others.

4.2.4 Risks associated with the research tax credit

To finance its activities, the Group also relies on a French research tax credit (CIR) for its parent company. This research tax credit is available to companies investing significantly in research and development. The research expenses eligible for the CIR include, in particular, salaries and emoluments, consumables, services outsourced to certified research bodies (public or private) and intellectual property fees.

It cannot be ruled out that the tax authorities may challenge the methods used by the Group for the calculation of its research and development expenses or that the CIR may be denied by the tax authorities despite the Company's compliance with the documentation requirements and eligibility of the expenses, or that the CIR may be amended through a change in regulations. Such a situation could have a negative impact on the Group's results, financial situation and outlook.

For information purposes, the Company was subject to a tax audit begun in 2015 primarily regarding the research tax credits in the years 2012, 2013 and 2014. The conclusions of this audit and the expert's report relating to the research tax credits highlighted a "very comprehensive project not only from a technical/scientific point of view but also in terms of the financial data and supporting documents, allowing a thorough analysis of the projects and the work carried out. These can unequivocally be called R&D work, combining applied research and experimental development." The entire audit concluded without any adjustments required.

4.2.5 Risks associated with the loss of the Young Innovative Enterprise (JEI) status

Upon its incorporation, the Company opted for the Young Innovative Enterprise (JEI) status. The tax authorities of the French département Essonne approved the Company's request for eligibility to the JEI status.

The JEI status exempts young companies carrying out research and development projects from paying employer contributions and reduces their tax burden.

Thus, companies with the JEI status are exempt from the payment of employer's social security contributions for the employees dedicated to research and development (researchers, technicians, R&D project managers, lawyers tasked with protecting industrial property, etc.). This exemption also applies to corporate officers coming under the general social security regime. These exemptions have been granted until 2015 (for the entire fiscal year), provided the Company complies with the five following conditions at the end of each year:

- be a company based in the European Union which, in respect of the year or tax period for which it wishes to benefit from the JEI status, must employ less than 250 people and earn less than €50 million in revenue or post a balance sheet total of less than €43 million;
- have incurred, at the end of each fiscal year, research expenses accounting for at least 15% of its tax-deductible expenses in respect of the particular fiscal year (these research expenses are based on those eligible for the CIR);
- have been in operation for less than eight years;
- not have been created within the framework of a business combination, restructuring or extension of an existing business or the takeover of such a business within the meaning of Article 44 sexies, III, of the French General Tax Code (CGI);

- be independent within the meaning of Article 44 sexies-0 A of the CGI, i.e. be at least 50%-owned in a continuous way by:
    - natural persons, or
    - a company meeting the same conditions of which at least 50% of the capital is owned by natural persons, or
    - venture capital companies, venture capital funds, regional development companies, innovation funds or one-person venture capital companies, provided there is no interdependence between the JEI and such companies, or
    - foundations or scientific associations recognised as being of public utility, or
    - a company with the JEI status carrying out research and development projects, or
    - public research and education institutions or their subsidiaries.

The Company definitively lost this preferential status on 31 December 2015, as it had been in existence for more than eight years.

For 2015, the JEI status saved the Group around €190,000 in employer contributions.

4.2.6 Risks of dependence on key skills

The Group's success largely depends on the work and expertise of its co-founders: Marc Delcourt, Chief Executive Officer and Chairman of the Board of Directors from the creation of the company until 31 August 2015 - *following the change in chairmanship of the Board of Directors, Mr Delcourt retained his duties as a Director and Chief Executive Officer*, and Philippe Marlière, a Director who supports the progress of the scientific teams.

Philippe Marlière's scientific knowledge has been essential during the research phase of the Isobutene bioprocess. The Group has now moved into an industrial development phase which relies on teams comprising some 50 scientists.

A "Key Person" insurance policy (covering permanent disability and death) was taken out on 15 June 2011 with ACE Europe to cover Marc Delcourt, Chief Executive Officer, up to an amount of €1 million. Moreover, the recruiting of each new manager reduces the risks for the Group in the event of the incapacity of Marc Delcourt.

The Group also has several key employees, who have major responsibilities within the Group. These include the heads of the business development and finance activities, as well as the directors of the various departments dedicated to the Group's research and development activities. In June 2013, the Group hired Frédéric Pâques, formerly Scientific Director at Cellectis. Frédéric Pâques is the Chief Operations Officer at Global Bioenergies. In May 2015, the Group hired Bernaud Chaud, whose career to date has been split between the chemicals industry (plant manager), the sugar industry (director of biofuels) and the French civil service (ministry of agriculture). Bernard Chaud now manages the industrial strategy of the Group; he is also Chairman & CEO of IBN-One SA.

The Company's two operational Vice-Presidents, Charles E. Nakamura and Richard E. Bockrath, joined the Group in 2012. Both of them have lengthy experience in the development of industrial biology processes and play a key role in the industrialisation of the Isobutene process.

Generally speaking, the departure of certain key employees could result in:

- losses of know-how and the jeopardising of certain activities, all the more so if a key employee joins the competition; or
- shortcomings in terms of technical skills that may slow down activities and eventually alter the Group's ability to achieve its objectives.

The Group is in competition with other companies, research bodies and academic institutions for the recruitment and retention of highly qualified scientific, technical and management personnel. As this competition is fierce, the Group may be unable to attract or retain such key personnel under economically acceptable conditions.

The Group's inability to attract and retain such key persons could generally prevent it from achieving its objectives and thus have a significant negative impact on its business, results, financial situation, development and outlook.

4.2.7 Risks associated with the management of organic growth

The Group is anticipating significant growth in its business. It might need to recruit staff in order to be able to expand its operations. It will thus need to rally its internal resources and, in particular:

- train, manage, motivate and retain a growing number of employees;
- anticipate the expenses and investments associated with this growth, as well as the related financing needs;
- anticipate, for its products, the income they may be able to generate; and
- increase the size of its existing IT systems dedicated to operations, finance and management.

The Group may be unable to manage its growth and could encounter unforeseen difficulties in its expansion. If this were to be the case, the Group's business, outlook, financial situation and development could be affected.

4.3 LEGAL RISKS

4.3.1 Risks related to industrial property

The Group exploits a certain number of patents and patent applications (patents pending) relating to processes for the biological production of light olefins from renewable resources. These patents and patent applications are the Group's core business. To date, 57 patents have been granted, as detailed in Chapter 11 of the Registration Document.

Thirty-four families of patents and patent applications have been filed to date, of which thirty-one have been published.

Among these 34 families and patent applications: (i) 9 are held by SCIENTIST OF FORTUNE, (ii) 19 are jointly held by SCIENTIST OF FORTUNE and the Company, and (iii) 6 are held by the Company.

Uncertainties associated with the protection provided by the patent applications

A significant number of the patent applications exploited by the Group (see Chapter 11 of the Registration Document for details) are currently under examination, which means that there is an uncertainty as to the outcome of the granting procedure, as in all such procedures.

The Patent Office's decision to issue the patent (or not) is solely based on the examination conducted by the examiners. In actual fact, this decision may take several years. Moreover, at the time a patent application is filed, despite the checks conducted, there may be prior art of which the requester is unaware, for example patent applications already filed by third parties but not yet published. Consequently, the granting of a patent does not guarantee its validity, which may be challenged by third parties at any time.

Consequently, the Group cannot guarantee that:

- the patent applications under examination will effectively give rise to the granting of a patent;
- the patents granted, whether held under licence, owned or co-owned by the Company, will not be challenged by third parties and/or invalidated by a competent court;
- the scope of the protection provided by the patents will be sufficient to protect it from its competitors (the Group deems that this risk is limited by (i) the broad nature of the claims made in the patent applications exploited by the Group, and (ii) the anticipation of that risk through an active search for alternative solutions which the Group will be able to claim before a third party does so);
- its products do not infringe on third-party patents, or will not be accused of doing so (however, the Group conducts an active watch in this regard and, to date, has detected no prior art on its patent applications, enabling it to consider that this risk is very low); or
- third parties will not take legal action or claim a property right on the patent applications or other intellectual property rights exploited by the Group.

The occurrence of one of those events concerning one of the patents or intellectual property rights held and/or exploited by the Group could have a negative impact on its business, outlook, financial situation, results and development.

Legal actions could prove necessary to enforce the Group's intellectual property rights, protect its know-how and trade secrets, or determine the validity and extent of its intellectual property rights. Any legal dispute could cause considerable expenses, reduce the amount of potential profits that could be generated by the Group and fail to provide the protection sought. The Group's competitors could successfully challenge its patents or patent applications, whether these are held under licence, fully owned or co-owned, before a competent court, thereby reducing the scope of the Group's patent portfolio. Furthermore, the laws of certain countries do not protect industrial property rights in the same way as in Europe or the USA, and the procedures and rules required to defend the Group's rights may not exist in such countries. Moreover, these patents or patent applications could be counterfeited or successfully circumvented by third parties.

The granting of a patent does not guarantee its validity and third parties may challenge it. The granting of a patent in the field of biotechnology is uncertain and raises complex legal and scientific questions. Until now, no uniform policy has emerged on the global level in terms of the content of the patents granted and scope of the claims authorised in the field of biotechnology.

Risks of patent competition from third parties not yet perceived and which may represent a threat for recently filed patent applications

Generally speaking, patent applications are published 18 months after their filing date.

The fact that patent applications filed by third parties are kept secret for 18 months deprives the Group of an exhaustive vision of its competitors' latest developments. There is thus a risk for the Group, as well as for any company involved in the innovation, that third parties may have filed patent applications constituting prior art to the inventions covered by the patent applications exploited by the Group. In such a case, to continue to exploit these inventions, the Group would be forced to obtain a licence for the use of the patents held by third parties, or failing that, interrupt or modify certain activities or processes, or even develop or obtain alternative technologies. This would be liable to have negative impacts on the development of its products and on its future income.

However, the specific risk associated with third-party patents not yet published only concerns patent applications filed over the past 18 months. The first patent applications exploited by the Company were filed over 18 months ago, thereby eliminating any uncertainty, except for the specific case of the USA. Uncertainties still exist for the most recent patent applications.

In the USA, specific laws may give rise to a different situation. In particular:

(i) patent applications may remain unpublished until the granting of the patent if the applicant requests it and undertakes not to extend its patent application outside the USA;

(ii) patents may thus be granted according to the invention date, which may pre-date the filing date. Consequently, the patent is not always granted to the first applicant to file the request. This rule was repealed by a law dated 16 September 2011, enforcing the "first to file" system (instead of the "first to invent" system). However, this new system is only applicable to patent applications filed as from 16 March 2013.

This situation could, in certain cases, prove to be unfavourable for the Group. However, to date, no element liable to limit the Group's exploitation rights due to this specific law has been identified. At any rate, any damages liable to arise in this respect would solely concern the exploitation of the inventions on US territory.

Risks associated with the fact that the Group exploits patents filed under an exclusive licence agreement or under co-ownership

The majority of patent applications exploited by the Group are either co-owned or used under the two licence agreements between SCIENTIST OF FORTUNE SA and the Group (via the parent company Global Bioenergies SA). For further information concerning these licence agreements, please refer to Section 11.2.3 of the Registration Document.

The fact that the Company does not own all its patents and patent applications, but holds some of them under exclusive licence or co-ownership, does not prevent it from fully exploiting the patents and patent applications since the licence agreements are written in such a way that the Group has all related exploitation rights for the production of light olefins.

The first licence agreement requires the Group to commit a minimum amount to research and development or to earn a minimum revenue from the exploitation of these patents and patent applications.

Thus, every year, the cumulative amount of (i) the sums invested for the development of patent applications granted under that licence and (ii) the revenue earned from the exploitation of these patent applications, must be at least €500,000[9]. If this condition is not met, SCIENTIST OF FORTUNE SA has the right to convert the licence into a non-exclusive licence on simple notice to the Group. To date, the Group has largely fulfilled this obligation by far.

[9] Minimum amount calculated at the end of a 12-month period, on the contract anniversary date, i.e. on 13 February of each year.

Furthermore, riders 5 and 6, respectively signed in September and October 2012 (see Chapter 11 of the Registration Document), which bring into the scope of the first licence agreement new inventions, in particular concerning the biological synthesis of propylene, provide that each year, the cumulative amount of (i) the sums committed for the development of these new inventions, including all operating expenses, and (ii) the revenue earned from their exploitation (including the know-how, results, patent applications, any upgrades and the related biological material), must be at least €500,000[10]. This second minimum amount is added to the minimum amount initially set in the first licence agreement.

The second licence agreement also includes an obligation for the Group to commit a minimum amount to research and development (at least €450,000 per year) or earn a minimum revenue from the exploitation of the technology (at least €500,000 per year). If this condition is not met, Scientist of Fortune is entitled to convert the licence into a non-exclusive licence.

This legal situation entails specific risks, given the fact that SCIENTIST OF FORTUNE SA holds significant intellectual property rights. In addition to any disagreement, differing interpretations and/or disputes that may arise concerning the licence agreements and the early termination of such agreements by SCIENTIST OF FORTUNE SA could have a significant negative impact on the Group's business, financial situation and outlook. The early termination of these licence agreements would mean that the Group would no longer be able to exploit the patents or patent applications or the part of such patents or patent applications it holds under licence, since it would no longer have the authorisation to do so.

Risks associated with imperfect protection of the confidentiality of the Group's data and know-how

It cannot be ruled out that the methods for protecting the know-how developed by the Group or licenced to the latter may not be optimal or may be violated, that the Group may not have appropriate solutions against such violations, or that its know-how and trade secrets may be disclosed to its competitors or developed independently by them, with the understanding that the protection of confidentiality is rarely infallible. The materialisation of one or more of these risks could have a significant negative impact on the Group's business, outlook, financial situation, results and development.

The Group occasionally supplies information and biological material to researchers working within universities or other public or private entities, and asks them to conduct certain tests. In all cases, it signs appropriate confidentiality agreements with each of these entities and a research contract granting it all or part of the rights related to the results of the research carried out, whether these can be protected by intellectual property rights or kept secret as know-how. The Group also relies on technologies, processes, know-how and non-patented confidential data, which it protects through confidentiality agreements with its employees, consultants and certain sub-contractors. Nevertheless, the Group cannot guarantee that such agreements will be complied with, that the Group will have adequate means of redress in the event of disclosure, nor that such confidential data will not be disclosed to third parties in any other way or used and developed independently by competitors. Should the Group be unable to ensure the confidentiality of particular data, the value of its technologies and products could be affected.

Moreover, some elements of know-how come under the licence agreements mentioned above and are thus subject to the same risks as the patents and patent applications covered by these agreements.

Risks associated with the succession of contracts for the same technology

[10] Minimum amount calculated at the end of a 12-month period, on each rider's anniversary date, i.e. on 12 September of each year for Rider 5 and on 30 October of each year for Rider 6.

The Group exploits patent applications through chains of contracts allocating their ownership/exploitation to various entities: Scientist of Fortune (owner or co-owner), Global Bioenergies SA (licencee, owner or co-owner), and various sub-licencees.

While the outcome of the intellectual property rights relating to the work conducted within the scope of these contracts is properly managed, identifying what belongs to a particular party may sometimes prove difficult and give rise to disagreements. Thus, risks of disputes in this regard cannot be ruled out.

Risks with respect to inventors

The patents filed (or to be filed) by the Company, either on its own or jointly with Philippe Marlière or SCIENTIST OF FORTUNE SA, cover inventions stemming from the Group's employees or non-employee corporate officers (such as Marc Delcourt), or external consultants (such as Richard Bockrath).

Concerning employees entrusted with an inventive mission (Research Directors, Project Managers, Engineers, etc.), the Group (which automatically has the ownership rights to the inventions they develop) pays them a bonus for their contribution.

Concerning employees not entrusted with an inventive mission, the Group (which has a pre-emptive right over the inventions they develop) will, where applicable, need to give them a "fair price" for the acquisition of their contribution.

Concerning Marc Delcourt, a transfer agreement was signed on 28 April 2011 between Marc Delcourt and Global Bioenergies SA covering the transfer of Marc Delcourt's past contributions, and a commitment for the transfer of any future contribution he may make during the performance of his duties.

The transfer of contributions prior to 28 April 2011 concerns two patent applications, which hold very different places in the Group's intellectual property portfolio:

- patent application A2 ("Production of alkenes by […] enzymatic conversion of 3-Hydroxyalkanoic acids", see Section 11.2.1 of the Registration Document) is an improvement of patent application A, on which the Group's activity is based. This improvement is significant. However, this patent application cannot be exploited independently from patent application A;
- patent application Z ("Method for the enzymatic production of isoprenol using mevalonate as a substrate", see Section 11.2.1 of the Registration Document) does not concern the Group's main project. It concerns the biological production of another molecule, isoprene.

Concerning the transfer of contributions after 28 April 2011, the Group may be required to settle the amount of the transfer with Marc Delcourt on a case-by-case basis, for his contribution to the inventions for which he intends to file patent applications.

Lastly, concerning Richard Bockrath, the latter signed a consultancy contract with the Group on 20 December 2011, stipulating that he was to transfer to the Group all intellectual property rights related to the work carried out within the scope of the performance of the contract. The transfer of the rights that Richard Bockrath holds on inventions for which two published patent applications were filed by the Group in December 2012 and published in 2014 was confirmed through a specific contract dated 1 December 2012.

Specific risks associated with counterfeiting

The Group's competitors could infringe on the patents and patent applications exploited by the Group. To prevent this, the Group may need to initiate infringement actions which may prove to be long and costly. The Group cannot guarantee that it will always be able to ensure the enforcement of its industrial property rights.

However, the Group considers that it is less exposed to infringement than other players operating in other industries, for several reasons:

- firstly, given the high investment requirement, it would be difficult for a counterfeiting institution to invest in the set-up of a production plant worth tens of millions of euros, while being aware of the risk of having to stop its operations rapidly due to an infringement action brought against it by the Group;
- secondly, counterfeiting is detectable and the traceability of the product is an indispensable element to detecting possible counterfeiters. The agrolefins produced by the Group are easy to trace using a system which measures the carbon 14 content, which makes it possible to date the carbon, i.e. determine the moment when the carbon was incorporated in the living matter. This technique makes it possible to separate olefins of petroleum (fossil) origin from olefins produced from plants. The performance of such tests on olefin samples or olefin-based products (a piece of inner tube, plexiglass, a fuel sample, etc.) will make it possible to determine with certainty whether the product is of fossil origin or stems from a bioprocess, thereby facilitating the identification of the counterfeiters and their prosecution.

Any dispute or claim brought against counterfeiters by the Group, irrespective of their outcome, could entail substantial costs and, consequently, risks for the Group. Moreover, it cannot be ruled out that the third-party counterfeiters may not initiate a counter-claim for invalidation of the patent(s) they are accused of counterfeiting.

Dependence on technologies held by third parties

The Group exploits the inventions and know-how developed by SCIENTIST OF FORTUNE SA, either on its own or in collaboration with the Group within the framework of licence agreements (see Chapter 11.2).

4.3.2 Risks associated with the Group's liability arising from its products

The Group could be found liable in the event of non-conformity of its products, or non-compliance with regulatory requirements and standards applicable to said products, as well as the environment associated with their production, transport, storage or use. Should the use of one of the products cause damage, the Group could be subject to legal proceedings that could prove costly.

4.3.3 Litigation risks

As at the filing date of the Registration Document, to the Group's knowledge, there are no administrative, criminal, judicial or arbitration proceedings against it, including any pending or threatened proceedings, liable to have, or having had over the past 12 months, a significant negative impact on the Group, its business, its financial situation, its results or its development. Consequently, the Group has booked no litigation provision.

4.4 FINANCIAL RISKS

4.4.1 Foreign exchange risk

The Group's revenue is denominated in euros and its expenses are mainly paid in the same currency. A minor part of the Group's expenses is paid in US dollars, due to the use of consultants based in the US for industrialisation studies. For that reason, the Group has opened an account in dollars in order to manage its foreign exchange risk as best as possible. However, the Group may be exposed to fluctuations in foreign exchange rates within the framework of the licences or licence options it will be granting under agreements liable to be denominated in foreign currencies.

To date, the Group is not exposed to any significant foreign exchange risk.

The Group's exposure to such foreign exchange risk will mainly depend on the currency in which it will earn its revenue and pay all or part of its expenses. The extent of this risk will depend on the countries in which the Group develop its business, its future partners, as well as the currency in which it will have to pay its operating expenses. If the Group is able to expand its industrial and commercial activities to countries outside the euro zone, it will probably earn revenue and pay expenses in other currencies. The Group will then look for the most appropriate method to monitor and manage its foreign exchange risk.

The economic advantages provided by the Group largely depend on the price of the materials on markets pegged to the US dollar. A significant and sustained variation in the euro/dollar exchange rate could result in the reduction or even the loss of the competitive advantage of one or more of the bioprocesses developed by the Group in a particular geographical region. This risk may vary depending on the geographical situation and local market data.

4.4.2 Liquidity risk

As at 31 December 2017, the Group's available cash and marketable securities totalled €13.6 million. On the same date, the Group's commitments under various repayable advances and loans totalled €10.2 million, of which €2.3 million is due within one year. The Group conducted a specific review of its liquidity risk and considers that it has the required funds to meet its upcoming commitments.

4.4.3 Interest rate risk

To date, the interest-bearing credit facilities extended to the Group all bear interest at fixed rates:

- the repayable advances and innovation loan granted by BPI France (formerly OSEO) are interest-free;
- the repayable advance of €2.7 million granted by ADEME under the Investissements d'Avenir programme "BioMA", for which the repayment schedule is set out in Chapter 10.1.3, bears fixed-rate interest;
- the repayable advance of €9 million granted by ADEME under the Investissements d'Avenir programme "ISOPROD", for which the repayment schedule is set out in Chapter 10.1.3, bears fixed-rate interest;
- the bank loans of €5.4 million to finance miscellaneous equipment and tooling at the Evry laboratory but in particular to complete the financing required for the Pomacle pilot plant and the Leuna demo plant, are also at a fixed rate.

The Group considers that it is not exposed to any interest rate risk.

4.4.4 Counterparty risk

To date, the Group's commercial activity is still limited, and the Group only covers a small part of its expenses with payments made by its customers. The Group's exposure to customer debts (unpaid receivables) is thus very limited.

4.4.5 Equity risk

To date, the Group holds no stakes in listed companies and is thus not exposed to any equity risk.

4.4.6 Risks relating to cash management

The Group manages its cash and cash equivalents in a prudent way. Its currently available cash position consists of cash and marketable securities held by the Group (mainly shares in money-market funds and term deposits). As at 31 December 2017, the cash and marketable securities held by the Group totalled €13.6 million and mainly consist of low-risk easily liquidatable instruments.

4.5 INSURANCE AND RISK COVERAGE

The Group has set up a policy to cover its main insurable risks. It deems that the amounts of cover provided are compatible with the nature of its business.

Type of policy / Risks covered	Insurer	Limit	Term
RC Zurich n° 7400027942 **Civil liability during operation and/or construction**	ZURICH		Renewable automatically on 1 May
Damage of all kinds INCLUDING:		€8,000,000 per claim	
- gross negligence for all claims in the same year of insurance;		€2,000,000 per year of insurance and €500,000 per victim	
- consequential material and intangible damage;		€8,000,000 per claim	
- damage to entrusted goods;		€150,000 per claim	
- non-consequential intangible damage;		€500,000 per claim	
- damage resulting from accidental environmental harm.		€1,000,000 per year of insurance	
Civil liability after delivery			
- Damage of all kinds		€5,000,000 per year of insurance	
- Consequential material and intangible damage		€5,000,000 per year of insurance	
- Non-consequential intangible damage		€1,000,000 per year of insurance	
- including costs of removal and refitting - and recall expenses incurred by the Third Party		€500,000 per year of insurance	
Optional coverage - Professional third party liability		€500,000 per year of insurance	
- Legal defence		€100,000 per year of insurance	
Professional multi-risk coverage no. 5068318604	AXA		Renewable automatically on 1 May
Theft		€31,468	
Glass breakage		€25,333	
Fire and related risks Equipment, furniture (at replacement value) and supplies		€209,796	
Information materials		€17,538	
Losses, including substantiated indirect losses		€83,918	
Claims by neighbours and third parties		€2,097,972	
Machinery breakdown coverage no. 119.120.509	MMA	€4,998,513	Renewable automatically on 1 May

Machinery breakdown coverage no. 141.312.487 -Value of the assets insured (fermenter + Pomacle purifier)	MMA	€955,232	Renewable automatically on 1 May
Machinery breakdown coverage no. 6816470004 - Value of new replacement (central air handler)	AXA	€227,651	Renewable automatically on 1 September
Machinery breakdown coverage no. 127.128.376 - Value of new replacement of assets named by Syngip BV	MMA	€165,298	Renewable automatically on 1 March
Individual accident insurance No. FRBCOA06835	CHUBB	€1,000,000	Renewable automatically on 1 May
Local civil liability insurance, Germany no. 801.380.035.866	ZURICH	€1,000,000	Renewable automatically on 1 May
Civil liability insurance of officers and corporate officers no. 7.916.695	AIG	€5,000,000	Renewable automatically on 1 May
Auto insurance for business use of employees' vehicles no. 56807299	Allianz	Cf contract	Renewable automatically on 1 July
Machinery breakdown coverage no. 120.140.422 - Value of assets insured (purification/fermentation unit)	MMA	€9,940,000	Renewable automatically on 1 January
Comprehensive worksite coverage no. 127.125.079	MMA	Construction cost of the building structure: €72,332	Temporary, set to end on 15/09/2025
Provident Insurance No. 11016233/NAG01_1	GENERALI	Cf contract (non-executive academy)	Renewable automatically on 1 January
Local civil liability insurance, Holland no. 24525	ZURICH	€1,000,000	Renewable automatically on 2 February

The overall amount of insurance premiums recognised by the Group for the year ended 31 December 2017 for all insurance policies contracted totals €92,000. (excluding local policies for Germany and Holland, Provident, Comprehensive Worksite and Auto insurance for business use of employees' vehicles).

5 INFORMATION CONCERNING THE ISSUER

5.1 HISTORY AND DEVELOPMENT OF THE COMPANY

5.1.1 Company's legal name and trading name

The Company's legal name is "Global Bioenergies".

5.1.2 Company's place of registration and registration number

The Company is listed in the corporate and trade register of Evry under the single identification number 508 596 012.

The Company's activity code is 7211 Z. This corresponds to biotechnology research and development.

5.1.3 Date and term of incorporation

The Company was incorporated as a simplified joint-stock company by private deed on 6 October 2008. It was registered in the corporate and trade register on 17 October 2008.

The Company was incorporated for a term of 99 years as from the date of its registration in the corporate and trade register, i.e. until 17 October 2107, unless this period is extended or the Company is dissolved before that date.

5.1.4 Company's registered office, legal form and applicable legislation

The Company's registered office is located at 5, rue Henri Desbruères – 91000 Evry – France.

The Company's contact phone number is +33 (0)1.64.98.20.50.

Initially set up as a simplified joint-stock company, the Company was transformed into a public limited company with a Board of Directors by decision of the Extraordinary General Meeting of the partners which took place on 13 February 2009.

The Company is a French public limited company ("société anonyme") with a Board of Directors. It is governed by applicable current and future French laws and regulation, in particular the French Commercial Code and its amendments, as well as the Company's Bylaws.

The Company is subject to regulations on health, safety and the environment, in particular concerning the use, handling, transport and disposal of hazardous chemical and biological products and genetically modified organisms.

The confined use of genetically modified organisms (GMOs) is governed by the French Environment Code. The confined use of genetically modified microorganisms (GMMs) for research and development purposes is subject to certification by the Haut Conseil des Biotechnologies. This certification requires compliance with procedures relative to the handling of GMMs (staff training), waste treatment, the fitting-out of premises and their decontamination. These procedures, as well as the prevention and detection of breaches in confinement and storage, have been set up within the Company with the help of the Quality, Health, Safety and Environment team. The Company has obtained a certification for the handling of genetically modified microorganisms within the scope of its Isobutene programme. This certification was obtained on 4 April 2011 for a period of five years, i.e. until 4 April 2016. The Company has requested additional certifications for each new R&D programme and approval has been extended until 2021.

5.1.5 Company history

- October 2008: founding of Global Bioenergies by Marc Delcourt and Philippe Marlière
- February 2009: first round of funding raising €0.6 million from funds managed by Masseran Gestion (subsidiary of the BPCE venture capital group) within the framework of a total investment of €3.2 million
- First half of 2009: start of research and development in the premises of the Genopole business incubator in Evry
- June 2009: creation of the Scientific Board, made up of eminent scientists
- October 2009: proof-of-concept obtained for the bioproduction of a first product, isobutene
- February 2010: agreement in principle for funding of €760,000 from OSEO to step up the development of the isobutene bioproduction process
- April 2010: move to new premises covering 708 sq.m.
- September 2010: first integrated prototype of isobutene production on a laboratory scale
- October 2010: opening of offices in Munich
- November 2010:
  - agreement for OSEO AIR grant (Aid for Responsible Innovation) of a maximum estimated amount of €100,000
  - licence option granted to a major American manufacturer
- June 2011: Company's initial public offering on NYSE Alternext in Paris
- July 2011: partnership signed with the Synthos Group – a leading European manufacturer of synthetic rubber – for the development of a biological process to produce butadiene
- September 2011:
  - Synthos acquired a stake in Global Bioenergies via a capital increase of €1.4 million
  - a repayable advance of €475,000 was obtained for the programme *of "pre-industrial development of a bacterial strain for the production of isobutene on the laboratory scale"*
- October 2011: extension of Evry premises to obtain a total surface area of 1,428 sq.m.
- November 2011:
  - collaboration agreement signed with a German car manufacturer wishing to integrate sustainable development into its activities (this agreement has expired but the parties have initiated talks to continue their collaboration)
  - collaboration agreement signed with LanzaTech to study the feasibility of the production of biological isobutene from carbon monoxide
- May 2012: appointment of two operational Vice Presidents to support the Isobutene process industrialisation phase

- June 2012: opening of an office in the United States

- July 2012:
  - capital increase via a public offering on NYSE Alternext Paris
  - start of the laboratory pilot phase for the Isobutene process

- September 2012: the Company won the Europabio prize for the most innovative biotechnology company in Europe

- October 2012: proof-of-concept obtained for propylene

- December 2012: proof-of-concept obtained for butadiene, along with the completion of a stage in the strategic partnership with Synthos

- March 2013: new OSEO funding of €740,000 to create an isobutene bioproduction strain compatible with the conduct of tests in a pilot plant

- June 2013: funding of €4 million secured under the Investissements d'Avenir programme (all of which was received by the date of the Registration Document) for the construction of a pilot plant for the development of the Isobutene process

- July 2013: capital increase with public offering of €23 million, via the creation of 927,419 new shares on Alternext Paris

- October 2013: technical objective achieved, allowing Global Bioenergies to initiate exclusive negotiations with a major American manufacturer, with a view to securing a licence agreement

- November 2013: subsidy of €5.7 million granted to Global Bioenergies GmbH by the German Federal Ministry of Education and Research (BMBF) for the launch of the Leuna demo plant

- December 2013: EnterNext prize for the most successful financial operation (capital increase of €23 million in July 2013) awarded at the 3rd annual stock market conference in Paris

- January 2014: announcement of the signing of a partnership with car manufacturer Audi to develop the biological production of high-performance isooctane from isobutene

- March 2014:
  - Global Bioenergies announced that the design of its second pilot plant would be handled by the Engineering division of The Linde Group, a global leader in the field of gas and engineering
  - Granting of two patents by the Australian Intellectual Property Office covering the key stages of the process for the conversion of renewable resources into isobutene

- April 2014: granting of a key patent by the United States Patent and Trademark Office (USPTO), for the biosourced butadiene production process

- May 2014: set-up of an optional line of equity financing with Yorkville Advisors, for a maximum of €3 million over a period of three years;

- July 2014:
    - Contract signed between Global Bioenergies and the Fraunhofer Centre for Chemical - Biotechnological Processes for the commissioning and operation of Global Bioenergies' demo plant, built on the site of the Leuna refinery
    - Global Bioenergies announced the acceptance testing of the fermentation unit and its satellites on the Pomacle site
- November 2014:
    - Successful start-up of Global Bioenergies' first pilot plant on the Pomacle-Bazancourt site
    - First production of biosourced butadiene by direct fermentation
- December 2014: First production of biosourced propylene by direct fermentation
- February 2015: Completion of the first key stage of the BioMA+ project for the defining of a process to convert plant feedstock into methacrylic acid, an essential component of acrylic paints. The completion of this stage gave rise to a payment of €1.7 million
- March 2015:
    - First isobutene production from waste biomass
    - Completion of the basic engineering phase of the Leuna demo plant
    - Start of construction of the demo plant in Germany Additional financing of €4.4 million obtained
- May 2015:
    - First batch of biosourced isobutene delivered to Arkema
    - First production of liquid hydrocarbons from plant feedstock using the Isobutene process
    - Delivery to Audi of the first batch of renewable gasoline produced on the Pomacle site
    - Joint venture created by Cristal Union and Global Bioenergies to build and operate, in France, the first biosourced isobutene plant
- July 2015: Adaptation of the Isobutene process to sucrose, the main component of sugar cane and sugarbeets. Until then, the process was developed on a glucose base, derived from cereals, potatoes or cassava
- August 2015: Adaptation of the Isobutene process to xylose, a sugar extracted from wood
- September 2015: The French Butane and Propane Commission (CFBP) and Global Bioenergies announce the success of a series of tests including renewable isobutene in domestic bottled gas
- November 2015: Two new milestones reached in the BioMA+ project
- December 2015: Installation of the central unit of the Leuna demo plant, a 5,000 litre fermenter

- January 2016:

    - Heightened cooperation with Audi and LanzaTech through the signature of two new agreements to broaden the field of raw materials compatible with the Isobutene process
    - Capital increase of approximately €6.5 million through the issuance of 274,931 new shares via a private placement

- April 2016:

    - Achievement of 99.77% purity level for the isobutene produced from the Pomacle-Bazancourt pilot plant and purified with the assistance of Processium. This very high purity level expands potential markets, including those with high added value
    - Delivery of batches of isobutene produced in Pomacle-Bazancourt to ARLANXEO, world leader in synthetic rubber

- May 2016: Fully satisfactory scale-up of the Isobutene process; the performance (productivity, yield, robustness) obtained a few months earlier in the laboratory is now achieved by the Pomacle-Bazancourt pilot plant

- June 2016:

    - New funding for the portion of the Investissements d'Avenir programme managed by ADEME; this new funding of €9 million is for the ISOPROD project focused on achieving the conditions necessary for the construction of the IBN-One plant. The €9 million of financing will be shared between Global Bioenergies SA (€5.7 million) and its subsidiary IBN-One SA (€3.3 million). This new project incorporates participation of Cristal Union and L'Oréal
    - All of the major equipment for the Leuna demo plant was received
    - The industrial groups Arkema and Clariant announce that they separately conducted validation tests of the isobutene produced by Global Bioenergies, which proved conclusive

- July 2016:

    - New €400,000 subsidy received from the Federal Ministry of German Education and Research for a project on the production of renewable gasoline additives
    - Partnership announced with the Swedish group Aspen, world leader in alkylate gasoline for small 2- and 4-stroke engines. This agreement secures a right of access for Aspen to the isobutene which will be produced in Leuna and by the IBN-One plant

- August 2016: IBN-One announced it had awarded the first engineering contract from its bio-isobutene plant to French groups Technip and IPSB

- September 2016:
    - Arrangement of bond financing by the reserved issue of OCABSAs (bonds convertible into warrants or shares) with Bracknor Investment. The transaction could ultimately result in an equity contribution of €18 million (€11.25 million through convertible bond subscriptions (OCAs) and €6.75 through the exercise of the warrants (BSAs))
    - Global Bioenergies joined a Swedish consortium to establish a biosourced gasoline sector in Sweden. The value chain will rely on Sveaskog's forestry activities, on Sekab's biomass to sugar conversion process, on Global Bioenergies' Isobutene process and Preem's know-how in gasoline production, blending and retailing activities
    - First production of isobutene from wheat straw at the industrial pilot scale
- November 2016: End of construction of the demo plant in Leuna, Germany
- December 2016: Approval by the main German national certification agency, TÜV, to start operations of the Leuna demo plant, which will begin its activities sequentially: First the fermenter, then the purification unit and lastly the filling station
- January 2017:
    - Success and last payment in the BioMA+ project financed by the French government
    - Exclusive partnership signed with Butagaz, which would become the first gas distributor in France to market butane and propane containing bio-isobutene
- February 2017:
    - Acquisition of Syngip B.V., a Dutch company developing since 2014 a process to convert carbonised gaseous resources into light olefins; this acquisition enabled reliance internally on technologies using so-called third generation resources, at significantly improved economic and environmental cost
    - A world first: production of entirely renewable ETBE, which is an additive to gasoline representing a global market of over €2 billion
    - New delivery of batches of isobutene to Clariant, following the announcement of the success of the first phases of tests
- April 2017: Success of the scale-up of the Isobutene process on the Leuna demo site, in the form of a first production of fermentative isobutene with a duration and performance superior to that previously obtained on the scale of the Pomacle pilot plant
- May 2017:
    - Coordination of a European consortium as part of a project tender organised by the BBI-JU. The Optisochem project, to convert residual wheat straw into isobutene and then into oligomers, is funded by a €9.8 million subsidy, including €4.4 million for Global Bioenergies on a project whose total cost, for all partners, is estimated at €16.4 million
    - Agreement with Bracknor Investment to reorganise the financing programme by issuing 20 new tranches of €1.2 million each

- June 2017: Launch and success of a private placement of approximately €10.25 million in consideration for the issuance of 640,000 new ordinary shares

- September 2017: First bottled packaging on the Leuna demo plant

- October 2017: Strengthening the management team: Recruitment of Luc Mathis to the position of Chief Business Officer, appointment of Samuel Dubruque as Chief Financial Officer, and appointment of Karlheinz Segebrecht to the position of Director of Engineering of the German subsidiary Global Bioenergies GmbH

- November 2017:

    - Delivery of the first batch of a renewable cosmetic ingredient to L'Oréal as part of the ISOPROD project supported by ADEME

    - Commitment to the scale-up of the C3 process (acetone / isopropanol, which can then be converted into propylene); first pilot test conducted successfully

- January 2018:

    - Development of a new biosourced cosmetic polymer, enabling more natural formulations in compliance with ISO Standard 16128:2016

    - Announcement of the estimated 69% reduction in greenhouse gas emissions for entirely renewable ETBE as compared to fossil gasoline

    - Presentation and distribution of the first household bottles of biosourced gas as part of an operation conducted with Butagaz; up to 40% less CO_2 emissions over the life cycle of bottled gas

- March 2018: Achievement of a new milestone as part of the production agreement between Global Bioenergies and Audi, with the delivery of a batch of 60 litres of renewable gasoline produced at Leuna

- April 2018:

    - Formulation of a 34% renewable gasoline, in compliance with standard EN228, and confirmation of its very high performance

    - Announcement of the collaboration between Global Bioenergies and SkyNRG on the ASTM certification of bio-isobutene and its conversion to a sustainable aviation biofuel

5.2 INVESTMENTS

5.2.1 Main investments made

Intangible items:

In 2014-15, the Group began deployment of its Laboratory Information Management System (LIMS) for the automatic management of the data from its screening platform. Designed to increase this platform's analysis throughput, this application ensures the traceability of the samples tested and stored and facilitates the analysis of the results. The enzyme optimisation department also acquired new software to push ahead with its molecular modelling work.

Tangible items:

In the Evry laboratory

The purchases from the years 2013 to 2015 enabled a highly ambitious level of equipment in the Evry laboratory to be achieved. The fermentation platform is now at leading world-class scale. Equipment incorporating the latest technologies round out the existing assets, in particular in metabolomic research, which make it possible to identify and quantify the intracellular metabolites involved in the processes.

In 2016, with the heavy investments made over previous years, acquisitions within the laboratory represented only €130,000. In 2017, the replacement of some devices at the end of their useful life brought this figure to €462,000.

On the site of the Pomacle-Bazancourt pilot plant

In 2014, the Group's pilot plant emerged with the aim of producing 100% biosourced isobutene on a larger scale than that of the laboratory, purifying this isobutene, and bottling it in pressurised containers. The facility is mainly composed of a 500-litre fermenter and a purification and bottling unit, interconnected by an automated module.

Some minor work relating to this pilot was subsequently done totalling less than €0.1 million, particularly on spare parts.

On site of the Leuna demo plant

The Group's largest investments in hardware have been concentrated at the Leuna demo plant since 2015. In June 2016, all the major equipment had been received. The teams then connected and checked the various modules. The construction of the Leuna demo plant was completed in November 2016, following which official authorisation to start operations was issued by the German organisation TÜV. Depreciation of the facility began on 1 April 2017.

5.2.2 Main investments made by the Group during the current year and type of financing

The capital spending during the year 2017 focused primarily on finishing construction of the Leuna demo plant, which represented a total investment of approximately €11.4 million. This was financed in part by equity, but particularly with the subsidy obtained from the German Federal Ministry of Education and Research in 2013 (€5.7 million) and by the four bank loans granted in 2014 (€4.4 million).

5.2.3 Main upcoming investments

The major investments made in the Evry laboratory since 2013 have made it possible to achieve a high and ambitious equipment level, allowing the furthering of the research started in the various programmes. To date, no need for any additional investment has been identified.

On the site of the Pomacle-Bazancourt pilot plant, adjustments could be necessary to adapt the equipment to the specificities of other processes. The facility, which is fully operational for the Isobutene process, could thus benefit from additional modules to make it adaptable to the other processes. On the longer term, similar adjustments could be considered for the Leuna demo plant in Germany. Furthermore, a unit dedicated to the production of fuels is also planned to adjoin the Leuna demo plant by 2019.

6 OVERVIEW OF ACTIVITIES

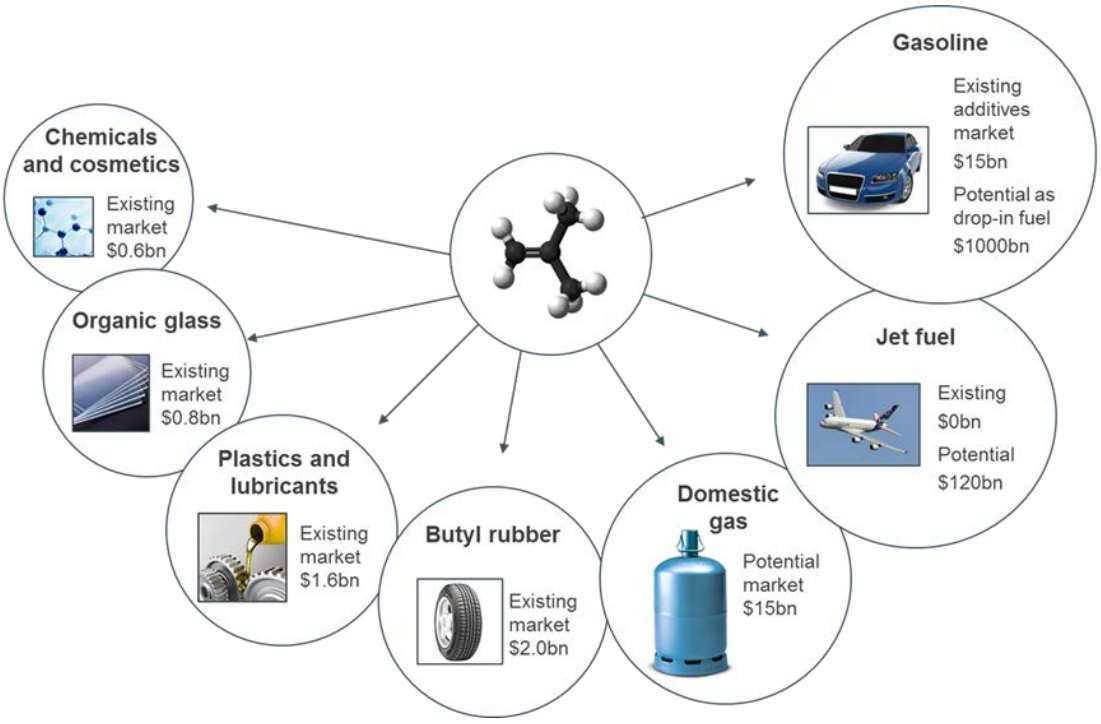
6.1 SUMMARY

Faced with the two major challenges of our times – climate change and ever-increasing energy needs – the world needs a new, low-carbon energy mix, and a new way of producing chemicals and materials. Renewable resources are key in developing alternatives to fossil resources for sustainable development. Two complementary solutions are being developed:

- **renewable electricity** (hydroelectricity, wind power, solar power) for domestic and industrial use, rail and urban road transport;
- **industrial biology** to produce biofuels (long-distance road transport, air transport) and biomaterials (plastics, rubber, chemical products, etc.).
    - industrial biology involves converting renewable resources into the chemical products used in fuels and materials,
    - several hundred ethanol plants have been built over the last two decades,
    - it is difficult to produce other molecules due to complex purification processes,
    - there is still unmet demand for biofuels and biomaterials.

Global Bioenergies is developing a biological process for converting renewable resources (sugar, cereals, agricultural and forestry waste) into isobutene, a hydrocarbon currently extracted from oil and representing a market of around $20 billion (15 million tonnes).

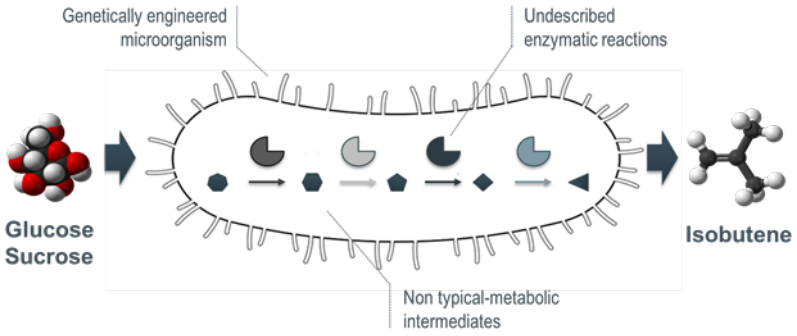
This isobutene is then converted into cosmetic products, rubbers, plastics, lubricants and fuels.



By substituting oil by biomass feedstock, the process developed by Global Bioenergies has two main advantages:

- since it is based on the use of renewable resources, it contributes to the development of a new industrial sustainability;
- its environmental footprint is significantly better than processes based on petrochemicals. In particular, it will emit significantly less CO_2, the main cause of climate change, according to the IPCC.

Micro-organisms do not naturally produce isobutene. Forcing micro-organisms to produce isobutene represents a very significant technological barrier. The innovative synthetic biology approach selected by the Group is based on the design of artificial metabolic pathways.



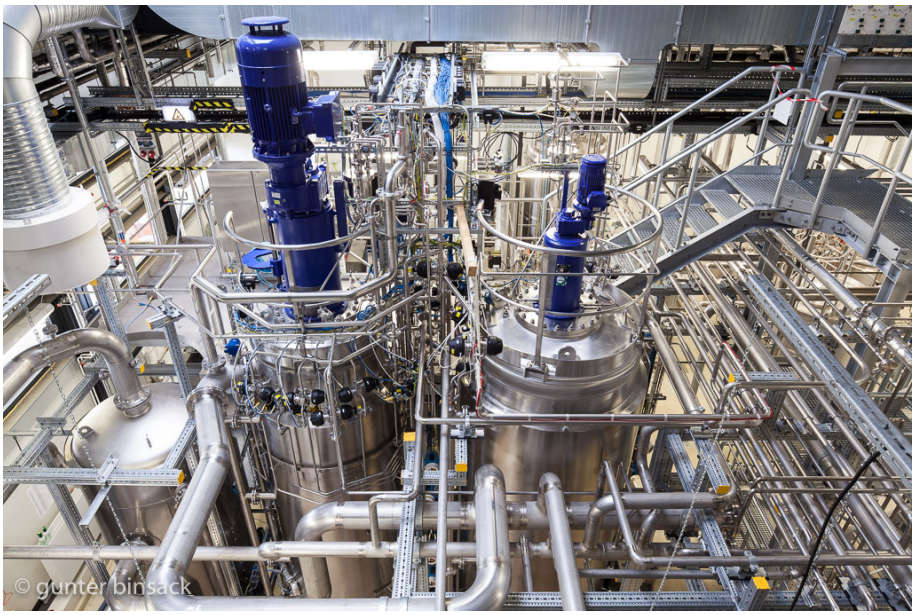
Firstly, Global Bioenergies proved the validity of this concept by "recoding the software of micro-organisms" so that they would produce isobutene, in a small-scale prototype.

The process was then developed in the laboratory, using both first-generation sugars (wheat or corn glucose, beet sucrose) and second-generation sugars (from straw or wood chips). R&D work is still ongoing and the performance of the Isobutene process are still being improved towards the commercial target. Global Bioenergies has also begun developing a process to produce a similar molecule, propylene, as well as its metabolic precursors, acetone and isopropanol, for which there are also significant market. This process was named "C3" because the molecules it targets each have three carbons.

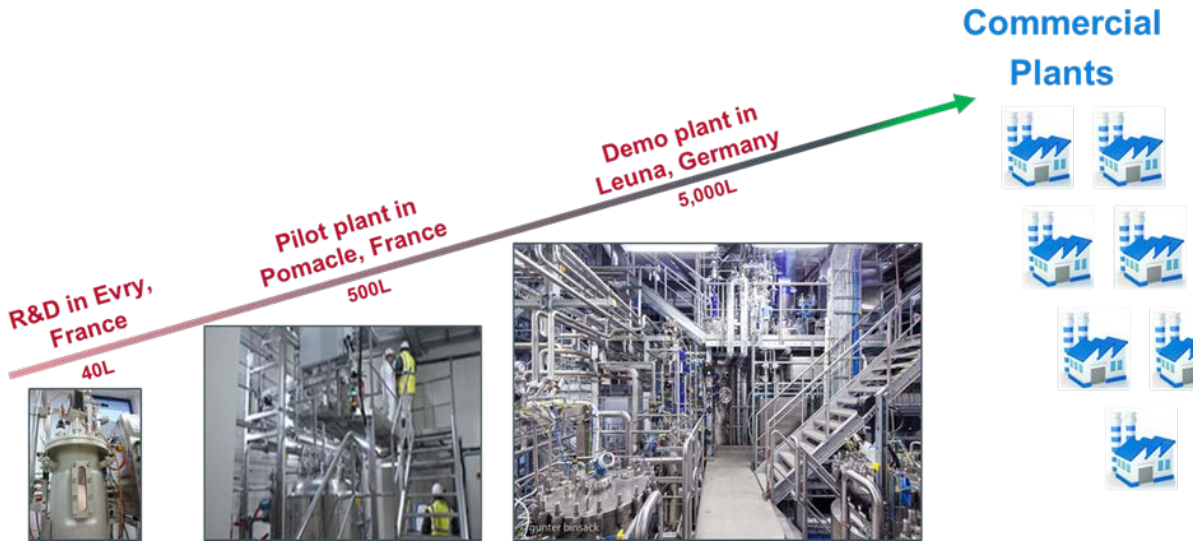
The third phase, which involves industrialisation of the Isobutene process, began in mid-2013 and is split into two phases: building and operation of a pilot plant in France and of a demo plant in Germany.

The pilot plant, with a capacity of 10 tonnes per year, was built and installed at Pomacle-Bazancourt, the largest agro-industrial site in Europe, located close to Reims. Batches of isobutene have been produced, purified and packaged there, and sent to various industrial companies such as Arkema, Butagaz, Arlanxeo and Clariant. Furthermore, since 2015, liquid isooctane (a hydrocarbon that can be mixed into gasoline in unlimited proportions), has been produced using isobutene from the pilot plant and sent to Audi, with whom a partnership has been in place for several years.

The demo plant, with a nameplate capacity of 100 tonnes per year, has been in operation since the end of 2016. Installed at the Leuna refinery in Germany, it prefigures the commercial plants but on a smaller scale. This demo plant is innovative in its design, adapted to the gas fermentation process concept promoted by the Company. This design includes a fermentation unit and a purification unit, enabling the commercial process to be validated, and large batches of high-purity isobutene to be produced. The batches are then shipped to the Company's partners, or converted into biofuels on-site.



The operation of this demo site is the final stage in the development of the process. Once the process shall be operated close to the target performance there, the process will be considered mature enough for full-scale industrial operation.



Development stages for the isobutene programme

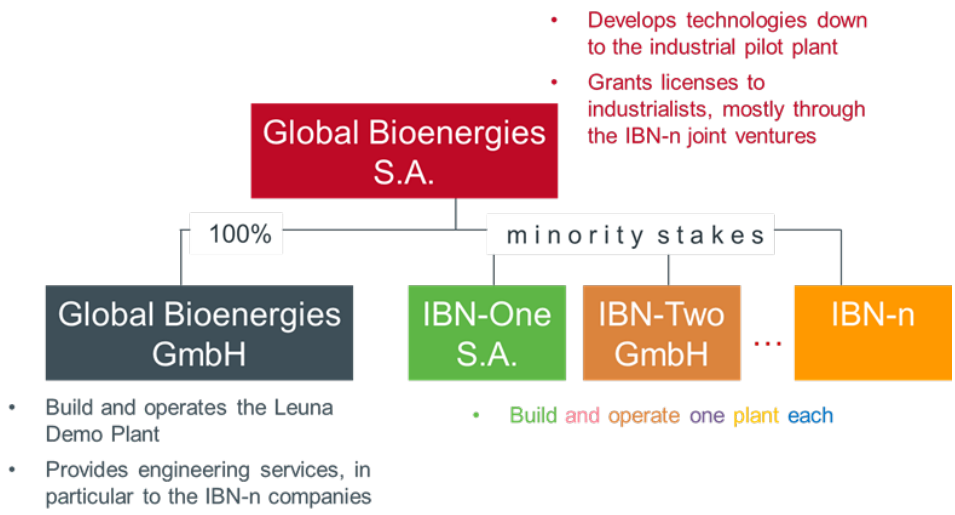
The commercial phase began fully in May 2015, when Global Bioenergies and Cristal Union set up a joint venture called "IBN-One". This company, whose initial capital of €1,000,000 was provided on a 50/50 basis by Global Bioenergies and Cristal Union, was set up to finance, build and operate the first biological isobutene plant in France.

This first plant will require an investment in the region of €115 million. This financing is expected to come from four main sources: Cristal Union, the French Government, infrastructure funds and bank loans. Global Bioenergies is only planning to invest a few million euros in IBN-One, and will then become only a very minor shareholder in it.

Global Bioenergies will be remunerated via a license agreement already granted to IBN-One for a plant in France with maximum capacity of 50,000 tonnes of isobutene. Global Bioenergies will receive milestone payments as financing for the unit is secured, as well as license fees.

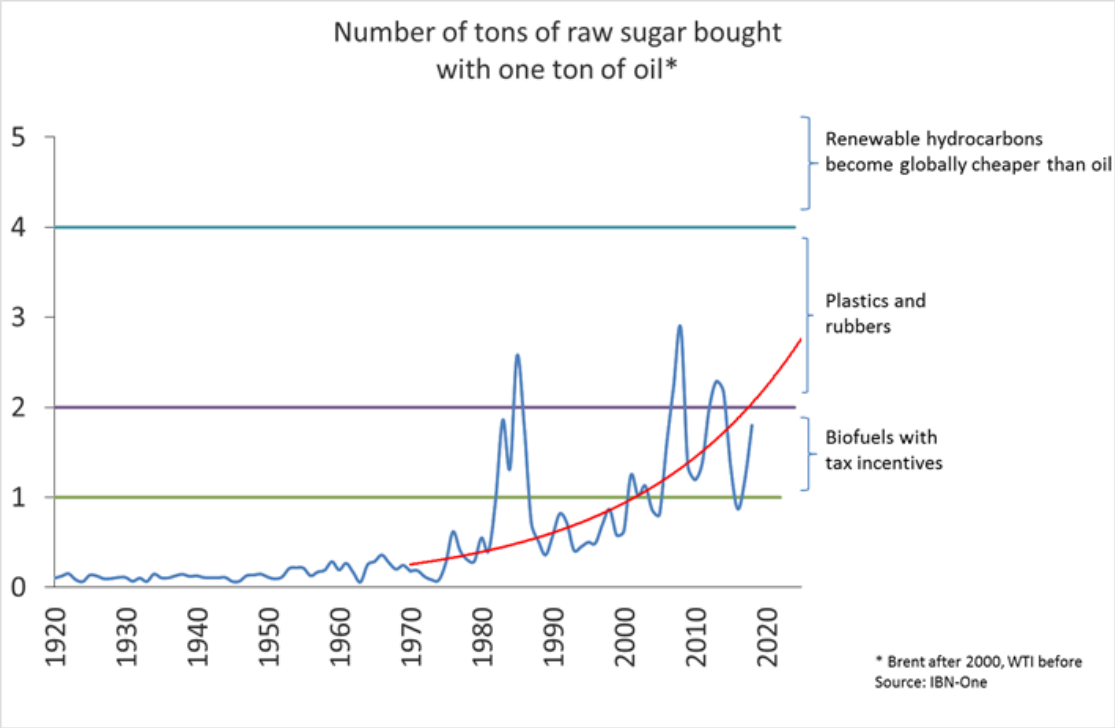
In the short term, IBN-One is carrying out a Front End Engineering study, following up the Feasibility Study and Conceptual Design conducted jointly by Global Bioenergies and Cristal Union from 2015.

Global Bioenergies plans to replicate this licence model with other industrial groups and in different countries, with or without creating joint ventures. A hundred or so discussions are underway, and plant projects are already emerging, particularly in Europe, where sugar-producing companies are seeking new uses for their surplus sugar.



This licensing business model, whether direct or involving the setup of project companies and combined with the supply of engineering services, will require little in the way of capital investment. It will enable Global Bioenergies to move from its current position as technological leader to become an established industrial player.

At today's sugar prices, the Isobutene process would be competitive on the biofuels market at oil prices above $50-$60 a barrel, associated with attractive tax incentives. The first plants could be installed in the near future. At $80 a barrel ($/bbl), the materials market ($5 billion) would be open. It globally represents a market equivalent to 25 plants. In order to compete directly with oil in the gasoline and kerosene markets, where prices are lower, oil would need to be above $120-$130 a barrel. The market will then represent hundreds, if not thousands, of plants.



Global Bioenergies aims to become one of the main players in energy transition, implementing breakthrough innovations that meet the needs of the largest chemicals and fuel markets.

6.2 SUPPORT MARKETS: FOSSIL HYDROCARBONS AND BIOMASS RESOURCES

Isobutene is a hydrocarbon which is currently produced using fossil reserves extracted from underground deposits. The process developed by the Group therefore bridges a gap between two quite separate worlds: hydrocarbons (oil, gas, coal) and biomass resources (agriculture, forestry, etc.).

6.2.1 Fossil hydrocarbons

6.2.1.1 Introduction

There are three major categories of fossil hydrocarbons, which can be distinguished by their nature: oil (liquid), natural gas (gas) and coal (solid). These three resources underlie the modern economy; they are fundamental to the energy generating sectors (heat and electricity), transportation (fuels) and petrochemicals (plastics, synthetic rubbers, etc.).

It is therefore necessary to understand the hydrocarbon markets in order to assess the future potential of the various markets targeted by the Group.

Oil

Since the first discoveries in the mid-19th century, oil has become increasingly ingrained in the everyday lives of developed societies. Its low extraction cost, its high energy content, the ease with which it can be transported and transformed into various fuels and materials, have placed the petroleum industry at the centre of our civilisation.

Oil comprises various sized hydrocarbons, which can be separated in order to produce, notably:

- tars (heavy compounds, solids);
- fuels, (intermediate products, liquids); or
- naphtha (light liquid product), which can then be transformed by steam cracking into gaseous olefins, such as isobutene, butadiene and propylene. The olefins are then transformed into numerous products, such as plastics, synthetic rubbers, solvents, specialty or commodity chemicals, fuel additives, etc.

Until recently, oil was almost the sole resource used for the production of liquid fuels and petrochemicals. The increase in oil prices from 2000 onwards, widespread fracking and the modernisation of old coal conversion technologies have brought about a resurgence of natural gas and coal as resources for petrochemicals and fuel production.

Natural gas

Natural gas is mainly composed of methane, comprising a single carbon atom and four hydrogen atoms. Gas production began in the early 19th century. Natural gas was initially used for lighting, before becoming widespread in the production of heat and electricity.

Natural gas is generally accompanied by a variable quantity of associated liquids that are separated and purified in natural gas processing plants. Traditionally associated with energy production, these liquids are increasingly often transformed into chemical compounds for industrial use. This trend has escalated since the discovery of large quantities of shale gas in the United States. The availability of these resources at low prices makes them very attractive for the production of certain intermediate petrochemicals.

Coal

Coal is both the most abundant hydrocarbon and the one boasting the longest history. Archaeologists believe that prehistoric man already used coal for heating and it has been proved that the Romans used it in England in the first century AD. As with other hydrocarbons, it was the industrial revolution that drove the industrialisation of its production and use. Its use for electricity generation began at the end of the 19th century and the 20th century saw its applications proliferate. Initially, processes were developed to convert coal into liquid fuels. More recently, and in particular, in China, new processes have been industrialised to enable the conversion of coal into intermediate chemicals. These processes require large quantities of energy and are generally associated with high production costs and a very bad environmental footprint.

Fossil hydrocarbons are partially interchangeable. When one resource is unavailable, it may be replaced by increased production of two others, whose markets are affected accordingly.

Hydrocarbons are thus used in the energy sectors (production of heat and electricity), transportation (as liquid fuels) and petrochemicals (production of plastics, synthetic rubbers, etc.).

6.2.1.2 Application in the energy sector

Energy generation is the principal use for hydrocarbons. Around 80% of energy requirements are covered by hydrocarbon production. Even though their share is predicted to fall slightly, due to the emergence of new energy sources, hydrocarbons are still expected to represent around 40% of the additional primary energy to be generated by 2040.[11]

According to British Petroleum (BP), coal is currently the leading resource in energy-generation, followed by gas, oil and nuclear. Renewable resources (hydroelectric, wind, sun, biofuels, etc.) are expected to gain market share, rising from 11% of demand currently to 21% in 2040.

Energy consumption in emerging countries will have a major impact on the development of resources and hydrocarbon prices. In particular, today, half of the global annual coal production is consumed by China. For environmental reasons, China could move partially away from coal [12]and compensate this drop in consumption by increasing the use of gas and oil, with a potential impact on the markets for these resources. An analysis of BP data from 2017[13] shows that in 2014, 2015 and 2016, China reduced its coal consumption by 1.4% every year on average, offset by a corresponding rise in the use of renewable energies and other hydrocarbons (oil and gas).

6.2.1.3 Use in transportation

Fossil fuels used in transportation currently come almost exclusively from oil refining. When oil is heated, it separates into its component parts and three principal fuels are obtained from three distinct petroleum fractions:

- gasoline, comprising alkanes typically with eight carbon atoms ("octane");
- kerosene (molecules typically having 12 carbon atoms); and
- diesel (typically 16 carbon atoms).

[11] BP 2018 Energy Outlook to 2040

[12] http://french.xinhuanet.com/economie/2014-09/20/c_133658940.htm
http://french.peopledaily.com.cn/n/2014/0807/c96851-8766344.html

[13] BP 2017 Statistical review of the world

Since they do not contain any oxygen, which is a dead weight in terms of energy, fossil fuels have a high energy density. They comprise hydrocarbons, i.e. molecules composed of carbon and hydrogen atoms. This high energy density was one of the main drivers in the development of motorised transportation (land, air and sea) and explains the rapid mechanisation of all sectors of the economy in the 20th century, starting with the agricultural sector.

More than 4,000 million tonnes of oil are produced each year, i.e. around 93 million barrels per day (Mb/d). The transportation sector represents more than 50% of demand for oil, and strong growth, coming from emerging countries, is expected by 2035. In order to meet this growing demand, oil production will need to increase. The rise in production will come increasingly from the exploitation of unconventional fossil resources, but this growth may not be sufficient to meet constantly-rising demand.

6.2.1.4 Use in petrochemicals

The petrochemicals industry is based on the large-scale use of building blocks derived from oil, gas or coal and their transformation into diverse synthetic compounds. It is estimated that around 11% of petroleum production is used in this industry[14]. Finished goods made from petrochemicals include synthetic rubbers, plastics, fuel additives, synthetic textiles, solvents, cosmetics and pharmaceutical products.

These building blocks are made from naphtha, the lightest liquid fraction extracted from oil. Naphtha contains hydrocarbons with between 5 and 12 carbon atoms, and is used in steam crackers to produce even smaller molecules with between two and five carbon atoms: the gaseous olefins. The family of gaseous olefins includes ethylene (two carbon atoms), propylene (three carbon atoms), isobutene, butadiene and n-butene (four carbon atoms) and isoprene (five carbon atoms).

These building blocks, from which petrochemistry derives many products, together comprise an enormous market of over 200 million tonnes with a value, closely indexed to oil prices, fluctuating between $200 and $300 billion.

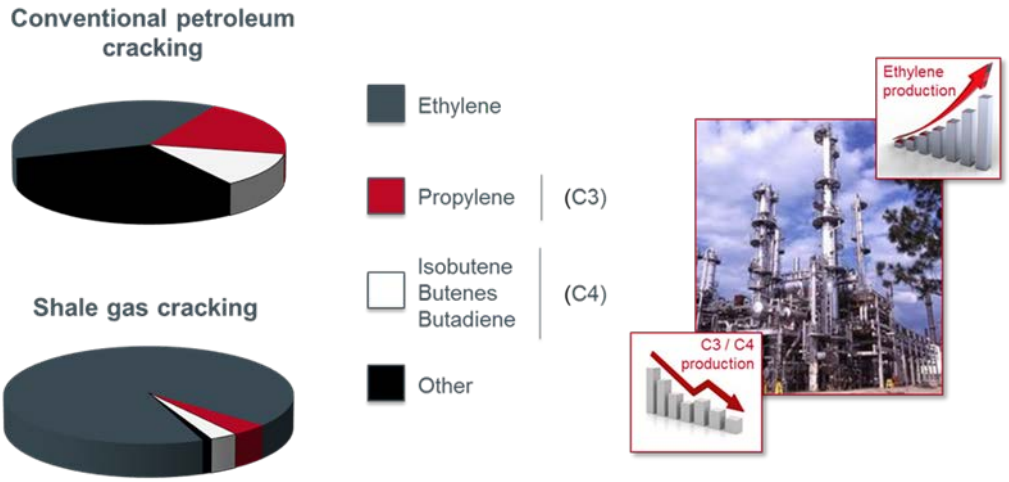
The prices of gaseous olefins are relatively volatile. One of the principal parameters determining the price of these gaseous olefins is the price of oil. The fall in the price of oil between September 2014 and January 2016, then its gradual rise since February 2016, was particularly reflected in the price of gaseous olefins and isobutene in particular.

A second parameter influencing the price of gaseous olefins is the rapidly growing production of shale gas, as has been observed in the United States for the past five years. The impact of shale gas on the price of gaseous olefins is presented below. It creates specific opportunities for olefins with three or more carbon atoms, i.e., for propylene, isobutene and butadiene.

Until recently, gaseous olefins were mainly produced by naphtha steam cracking. In this approach, ethylene accounts for around 38% of the products obtained, propylene 20% and the "C4 fraction", comprising a mixture of all 4-carbon olefins, around 12%. The remaining 30% contains the aromatic compounds known as "BTX" and gasoline[15][16][17]. Their joint production method means that the markets for the various olefins are related. Accordingly, it is not possible to produce large quantities of propylene without also producing ethylene, and so on. This constraint has a significant impact on the volumes used and the price of each olefin.

[14] OPEP World Oil Outlook 2012.
[15] Chemistry of Petrochemical Processes second edition 2001.
[16] Process Data Description for the Production of Synthetic Organic Materials - Joosten LAJ, Utrecht University 1998.
[17] http://www.rbnenergy.com/lets-get-crackin-part5-natural-gasoline

For several years, the olefins market has been heavily affected by the change in the feedstock used: the growing production of ethylene from gas (shale gas in the United States, and, to a lesser extent, refinery gas in the Middle East). These gases mainly contain methane (a single-carbon hydrocarbon) and a small percentage of ethane (2-carbon atoms). Three- and four-carbon compounds are very few. Shale gas cracking therefore results in the production of a vast majority of ethylene, without the usual by-products (three- and four-carbon olefins, including propylene, isobutene and butadiene).



Change in the breakdown of products from steam cracking according to the feedstock

Representing the largest market, ethylene has always been the economic driver of steam crackers. The use of cheap gas allows the steam crackers to generate much larger margins than those using naphtha and thus improves their competitiveness on international markets. It is this heightened competitiveness that justifies the change in feedstock and has led to new capacity under construction being predominantly designed for shale gas.

Competition from shale gas steam crackers is leading to closure of traditional steam crackers. Global production of 3- or more carbon olefins has fallen and shortages of these have already been observed. Accordingly, the price of the "C4 fraction", comprising the various four-carbon gaseous olefins (n-butene, isobutene and butadiene) prior to their purification, increased from $300/t in early 2009 to $1,700/t by early 2012, before dropping again to slightly below $1,000/t in 2014.[18][19]

The current relative weakness in oil prices is now the main factor affecting olefin prices, which are below the values seen until 2014. In January 2018, the C4 fraction was traded at around $887/t, and butadiene at $930/t[20].

[18] www.icispricing.com "Crude C4 Europe" May 2012
[19] Argus Dewitt July 2014.
[20] Argus DeWitt January 2018

Product	Content in naphtha cracking products	Content in gas cracking products	Short term effect on price
Ethylene	38%	92%	↘
Propylene	20%	3%	↗
N-butene	12%	4%	↗
Butadiene			↗
Isobutene			↗
BTX / Gasoline	30%	1%	↗

Impact of the widespread use of shale gas on the price of olefins

In the next five to ten years, there will be rebalancing solutions for some olefins: the Group believes that solutions involving the conversion of ethylene into propylene, linear butenes and even into butadiene will be used on a massive scale to rebalance these markets. Production of olefins from coal is also being developed, as well as production of propylene by dehydrogenation of the propane present in certain shale gases at low concentration. These alternative technologies will be expensive. The price of the olefins in question will be dependent on the costs of these technologies to satisfy marginal demand.

Isobutene is different: there are no industrially viable alternatives to offset the isobutene production shortfall created by the change in feedstock used in steam crackers.

- Linear butene isomerisation into isobutene does not work satisfactorily and is only used in certain particular cases.

- It would be possible to dehydrogenate the isobutane that could be isolated from conventional natural gas or shale gas. However, only very small quantities of this compound are found in natural gas and the reaction used is known to be difficult to control and requires chromium catalysts, themselves linked to major environmental risks.

- Petrochemical isobutene is a by-product of Fluid Catalytic Cracking (FCC) in refineries. The compounds making up the flow of by-products from FCC are therefore not usually separated but are recovered as fuel, using alkylation.

In summary, it is likely that the price of olefins will rise in the long term and that the absence of an alternative chemical process for producing isobutene will lead to the price of this molecule also rising in the long term.

6.2.1.5 State of fossil fuel reserves

Fossil hydrocarbons are limited resources that can only be said to be renewable on a geological time scale. They are formed by the decomposition of organic matter accumulated in certain underground sites and which is slowly transformed over several thousand years and under pressure.

The question of the size of the remaining accessible reserves is therefore a central concern of the industry and many reports and forecasts are published on this topic each year. A fundamental notion is that of peak oil. By analogy, it is possible to talk of peak gas and peak coal and, overall, of peak hydrocarbons. This peak is the date on which worldwide production of the hydrocarbon in question will have reached its maximum due to scarcity of the resource or for economic reasons.

Forecast peak oil is controversial and several historical forecasts have already passed without the peak being observed.

The key indicator for fossil reserves is the R/P ratio (Reserves to Production) expressed in years. This measures the number of years known reserves can sustain production at the current rate. The ratio can be calculated for each of the three resources using data published annually by BP in its Statistical Review of World Energy. This gave the following results in June 2016:

- oil: 53 years, rising slightly (+0.5 years/year on average since 1982);
- gas: 53 years, stable overall since 1982;
- coal: 113 years, dropping sharply (-5 years/year on average since 1982).

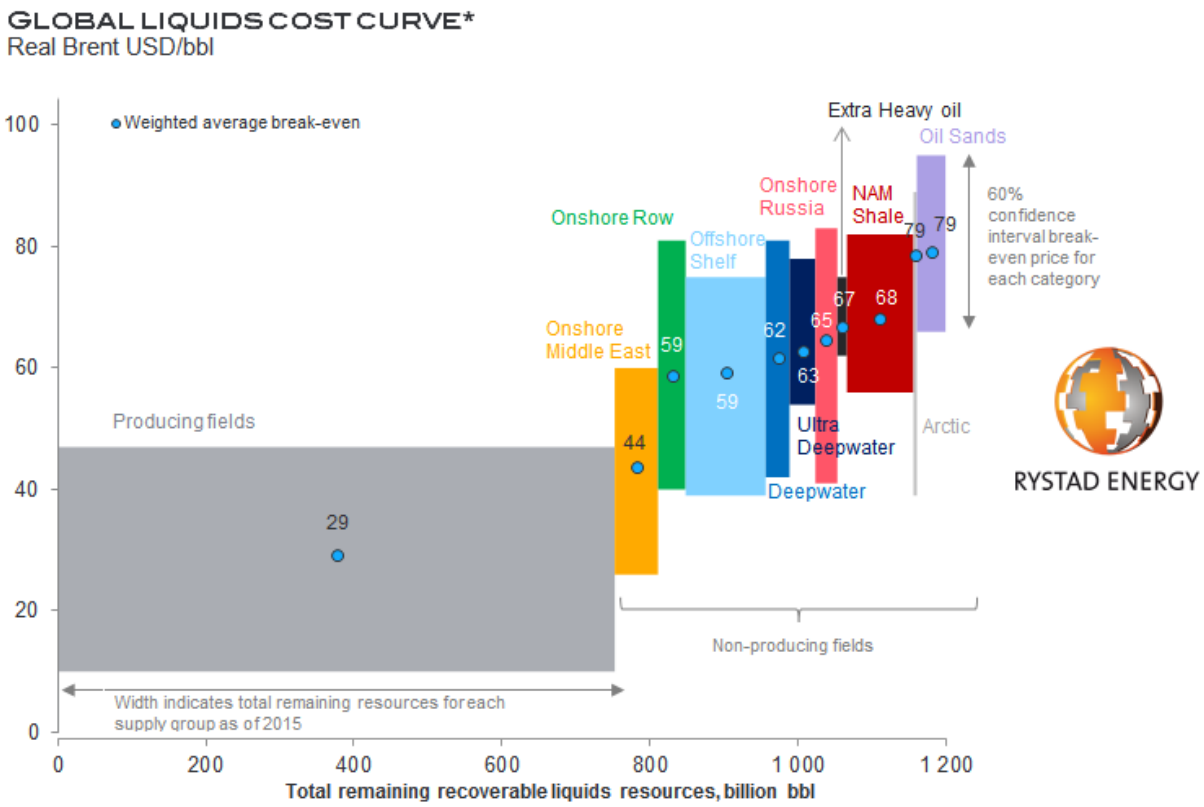
The R/P ratio can also be calculated for all hydrocarbons combined by expressing and adding each one in tonnes of oil equivalent (toe). This indicates 73 years of visibility, a reduction of 1.3 years/year on average since 1982. This reduction has accelerated to reach 1.7 years/year on average since 2000.

An unexpected updating of coal reserves has taken place in certain countries, including China in 2016-2017, dramatically increasing the R/P ratio for this hydrocarbon to 153 years. The figures in the coming years should clarify this change.

In its forecasting report, Energy Outlook 2040, published in January 2018, BP forecasts that hydrocarbon consumption will continue to increase significantly until at least 2040, to meet the planet's growing energy requirements (+35%). By 2040, annual oil consumption is expected to have risen by 9%, gas consumption by 47% and coal consumption by 0.8% (after peaking at 2.4% in 2030).

New reserves will therefore need to be found and exploited to meet this demand. This constant effort to find and exploit new reserves has already led to a change in the type of deposits worked. Gas and oil is increasingly coming from unconventional deposits (bituminous sands, shale hydrocarbons, extra heavy oils, etc.) or offshore wells, sometimes in very deep water. In the future, we will see an increasing share of hydrocarbons coming from this type of deposits, as well as some combining their unconventional nature with location in deep water, as currently envisaged in the Gulf of Mexico. This change has been brought about by the need to produce greater volumes, but also to replace the production of historical wells that are drying up.

Historical deposits (Texas, Arabian Peninsula, North Sea), located in shallow waters, in porous rock from which extraction was simple and easily accessible, all led to low production costs (under $40/barrel). In contrast, new resources are either unconventional or difficult to access (very deep waters, Arctic, etc.). They are generally associated with much higher production costs.

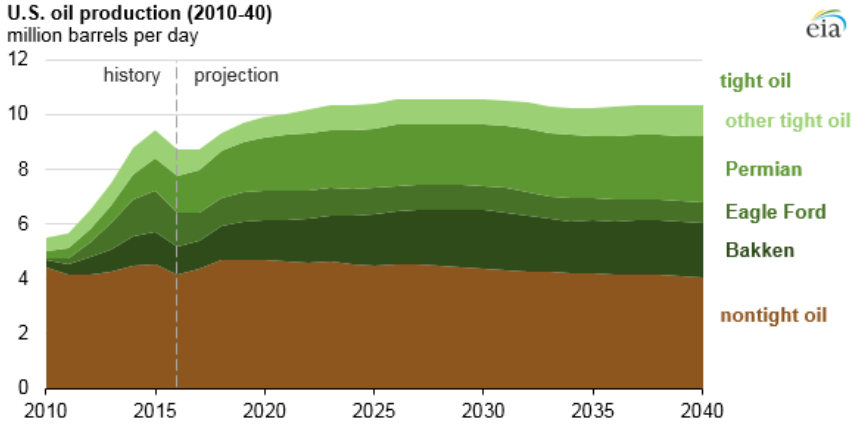


*The break-even price is the Brent oil price at which NPV equals zero using a real discount rate of 7.5%. Resources are split into two life cycle categories: producing and non-producing (under development and discoveries). The latter is further split into several supply segment groups. The curve is made up of more than 20,000 unique assets based on each asset's break-even price and remaining liquids resources in 2015.
Source: Rystad Energy UCube September 2015

Graph of resources and associated profitability thresholds
(NAM: *North American*)

The price per barrel observed until August 2014 was dictated by the highest production costs of the barrels extracted. The shale oil boom in the United States created excess supply, stock saturation and a temporary fall in the price of oil, which hit a low of $28/barrel in January 2016, before rising again to $70/barrel in early 2018.

Shale oil production in the United States fell significantly in 2016 then, in response to gradual rises in the per-barrel price, began to increase once again. According to the US Energy Information Administration (EIA), shale oil production will continue to increase for several decades, but at a much slower pace than in 2010-2015.



US oil production evolution and projection (Source: EIA)

This rise is not expected to be sufficient to meet rising global oil demand, and other deposits must be discovered to meet this new demand. Further, *major* oil producers are investing less and less in exploration and production, in response to the recent slump in oil prices. Therefore, it is possible that, in a few years' time, there will be an oil shortage, as new demand will not be met by either conventional fossil resources, due to chronic under-investment, or by unconventional resources, which will have reached saturation point.

6.2.2 Renewable resources used in industrial biology

6.2.2.1 Introduction

Feedstock used in the area of industrial biology is generally grouped into three "generations":

- the first generation covers traditional agricultural products such as sugar and starch. The very first plants using Global Bioenergies' Isobutene process will use this type of resource;

- the second generation uses agricultural (wheat and corn straw) or forestry (short rotation coppice, saw-mill) waste from which fermentable sugars can be extracted. The first plants using these resources (principally to produce ethanol) are in start-up phase and it will soon be possible to measure their economic footing. The Group has already proven that its Isobutene process is compatible with this type of resources, which could be key to rolling out its procedures;

- the third generation directly uses the carbon already present in the atmosphere as CO_2 or which is about to be discharged into the atmosphere by industrial plants. CO_2 is a source of carbon, but contains no intrinsic energy. An energy source needs to be added, such as hydrogen. This approach, which is not based on the use of biomass, will ultimately be the cheapest and most environmentally-friendly.

All of these resources could be converted into isobutene using the process developed by the Group.

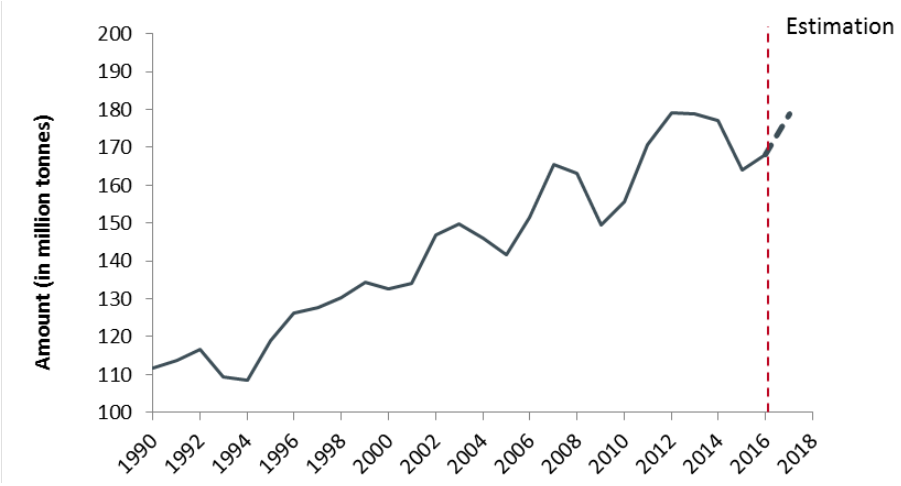
6.2.2.2 First generation

Current fermentation processes use so-called first-generation feedstocks. These are produced using feedstock from traditional agricultural channels: sugar (cane or beet) and glucose from cereals (principally corn or wheat).

Sugar

Global sugar production (cane and beet combined) has been growing since the start of the 1990s at an average rate of 2.2% per year. In 2014/2015, production once again hit the record levels of previous years at over 177 million tonnes, resulting in a surplus of around 7 million tonnes. The 2015/2016 and 2016/2017 harvests were relatively poor, following a particularly intense El Niño phenomenon. 75% of sugar produced globally each year comes from cane and the remaining 25% comes from beet. The principal sugar-producing countries (or zones) are Brazil (22% of global production), India (15%), the European Union (9%) and China (8%[21]).

[21] FAO statistics 2013



Sources: historical values: FAO statistics; 2017-2018 estimate: European Commission: February 2018[22]

Global sugar production (1990-2015)

The end of the sugar quotas in Europe is now the main influence on the market. 2017/2018 production is estimated to surge to 179 million tonnes, generating a surplus of 5.2 million tonnes due to the strong increase in land area dedicated to growing grow sugar beet. This new context has been dragging prices down since early 2018 and the sugar price is falling, reaching $275/t (around 12.5 cents/pound), a value only rarely reached in the past.

Source: Nasdaq.com

Change in industrial sugar prices 2009-2018, in US cents/pound

The above diagram represents the price of raw granulated sugar, i.e., before refining into white sugar. The prices of low quality sugar used in fermentation (beet juice or molasses) and of industrial glucose (obtained by dry grinding or wet milling of wheat or corn) are not as easily accessible, however they can be calculated from agricultural commodity prices or from their derivatives and, in particular, ethanol.

[22] https://ec.europa.eu/agriculture/sites/agriculture/files/dashboards/sugar-dashboard_en.pdf

Starch

Starch is the main constituent of cereals (principally corn and wheat) and tubers (cassava and potatoes). It is one of the principal agricultural products worldwide and one of the key resources of the fermenting industry. Starch is easily extracted and converted into glucose by hydrolysis. It is this glucose that is consumed by micro-organisms during fermentation, to be converted into various products.

Global cereal production amounts to around 2,600 million tonnes per year, making up over half of global agricultural output, across all commodities. The production level, which is sustained and greater than demand for several years, encourages high global inventories which stand - with yearly increases of 4.6% - at around 753 million tonnes, a record level[23].

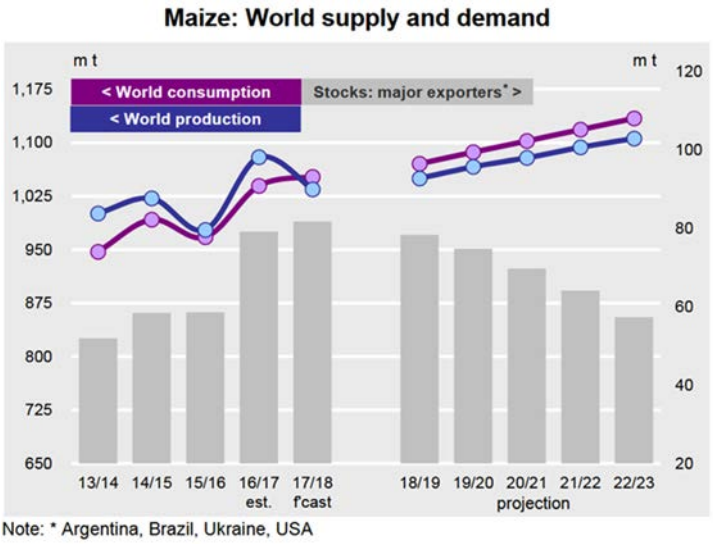
Also according to the publications of the International Grains Council, cereal use breaks down as follows in 2017/2018:

- 44% of production is used for cattle fodder. Between 2017 and 2021, this use is expected to grow by around 1.8% per year, underlined by the economic development of non-OECD countries, particularly China;

- 33% is used directly for human foodstuffs. This use will have the weakest growth, at 1.2% per year;

- Industrial uses currently represent 17% of demand. This use is forecast to grow at a rate of 1.1% per year until 2021.

Corn remains the principal cereal used in industrial applications. Of the 2017/2018 harvest, 58% is expected to be used for cattle fodder, 27% for industrial applications (around half of this for ethanol) and 11% directly for human foodstuffs. Finally, the remaining 4% will be made up of seeds and waste. Demand for corn is expected to grow at an annual rate of 1.5% and be offset by an increase in yields and land cultivated, which could reach 6t/ha and 186 million ha in 2022/2023 respectively. In its annual report published in December 2017, the International Grains Council forecasts that supplies will be sufficient to meet market demand for corn over the next five years.



Historical and forecast production, consumption and global corn inventories (Source: International Grains Council)

[23] FAO - http://www.fao.org/worldfoodsituation/csdb/en/

Cereal prices (particularly corn) have been falling since January 2011. Since mid-2014, corn prices have remained at the levels seen prior to the financial crisis, i.e. between $160/t and $180/t.

Production of cassava, the second most important agricultural commodity after corn for the production of starch, has risen by 60% since 2000, reaching 277 million tonnes in 2013, a level where it has remained ever since[24]. Cassava, which is still primarily cultivated in a decentralised manner in Africa, is a crop with high potential. The FAO estimates that an increase in yields of around 400% will be possible in the coming years thanks to recent research efforts, and that this commodity could become one of the key crops of the 21st century in terms of both food security and as a resource for industrial applications.

A study published in 2013 by the University of Wageningen supports the vision of harmonious development of biofuels and biomaterials alongside agricultural production for food[25]. The study systematically describes changes in the way land is allocated between 2000 and 2010 in 34 farming countries: although biofuel production has required 25 million additional hectares, 11 million of these hectares have also generated by-products used in animal feed. Over the same period, improved agricultural techniques and, in particular, increases in the number of annual harvests per hectare, have enabled the equivalent of 42 million additional hectares of crops to be produced. The study concludes that production of biofuels and biomaterials from cereals thereby has not had any impact on the production of food for human and animal consumption between 2000 and 2010.

6.2.2.3 Second generation

Agricultural (wheat and corn straw) or forestry (short rotation coppice, saw-mill) waste could be added to the traditional crops described above and transformed into fermentable sugars. The aim is to be able to decouple industrial biology and food agriculture and to make an extensive supply of resources available.

Global production of biomass is estimated at 220 billion tonnes[26]. If 5% of this were captured and transformed into glucose syrup, this would create 3 billion tonnes of additional glucose production, i.e., significantly more than the current global production from cereals. Industrialisation of this sector could supply resources which could then be used in bulk in the Group's processes.

The prospect of using sugars from biomass waste is dependent on certain technological developments in progress. These technologies could enable the cost of feedstock for use in industrial biological processes to be reduced. Their commercialisation now looks realistic in the relatively short term. A first plant for the extraction of sugars from lignocellulosic feedstock (notably, straw) and their conversion into ethanol has been operating in Italy since late 2012 (the BioChemtex "Beta Renewables" plant in Crescentino, Italy). BioChemtex has since announced the sale of a licence for its technology to be used in China for the construction of what is expected to become the largest second-generation ethanol plant in the world. In 2016, the United States had 15 demonstration or commercial plant projects at different stages of development totalling cumulative production capacity of 100 million gallons per year, i.e. 300 thousand tonnes.

2014 and 2015 were key years for the development of the agricultural and forestry waste recovery industry. The performance of these first plants will be keenly awaited in 2016 and 2017. Initially, this technology will not provide cheaper feedstock than first-generation techniques. The economic and environmental benefits of this second-generation approach will be seen in the long term, and it is envisaged that these second-generation processes will gradually spread upstream of the fermentation process.

[24] FAO food outlook November 2017

[25] http://www.biomassresearch.eu/Biomass Research 1301_Analysing the effect of biofuel expansion on land use.pdf

[26] http://www.biocore-europe.org/page.php?optim=what-is-lignocellulosic-biomass--

The development of second-generation technologies has been ongoing for many years. These technologies are already technically viable; however their optimisation for profitable operation is taking longer than expected. The construction and launch, in recent years, of a number of plants, suggests that this approach will soon be rolled out on a large scale.

These different approaches are compatible with the Company's processes. Global Bioenergies has entered into partnerships with several second-generation leaders, and has already been able to demonstrate that isobutene can be produced using waste biomass. In 2017, the Group was granted €4.4 million of financing over a period of four years by the European Union[27] to develop a value chain from wheat straw to several IBN derivatives for chemical applications. The Group is working on these developments in partnership with chemical companies Clariant and INEOS, among others. Some other partnerships have also been intensified in recent years, such as the one with the Swedish leader in the field, Sekab, to develop processes based on forestry waste.

6.2.2.4 Third generation

The industry is already preparing for the future by working on a third generation of feedstock that will no longer be linked to the use of biomass. The third generation is still in the early stages of development. It involves the industrial production of fuels and other products from inorganic carbon. Two approaches are being developed for these third-generation processes.

The first approach involves the direct use of photosynthetic micro-organisms to produce the sought-after compound from carbon dioxide (CO_2). Cyanobacteria or microalgae, often described as "phytoplankton", are now being very closely studied as part of a CO_2 approach. However, there are a number of obstacles yet to be overcome by players in this area before industrial-scale production can be rolled out. It is generally accepted that industrialisation of these processes will require many more years of research and development.

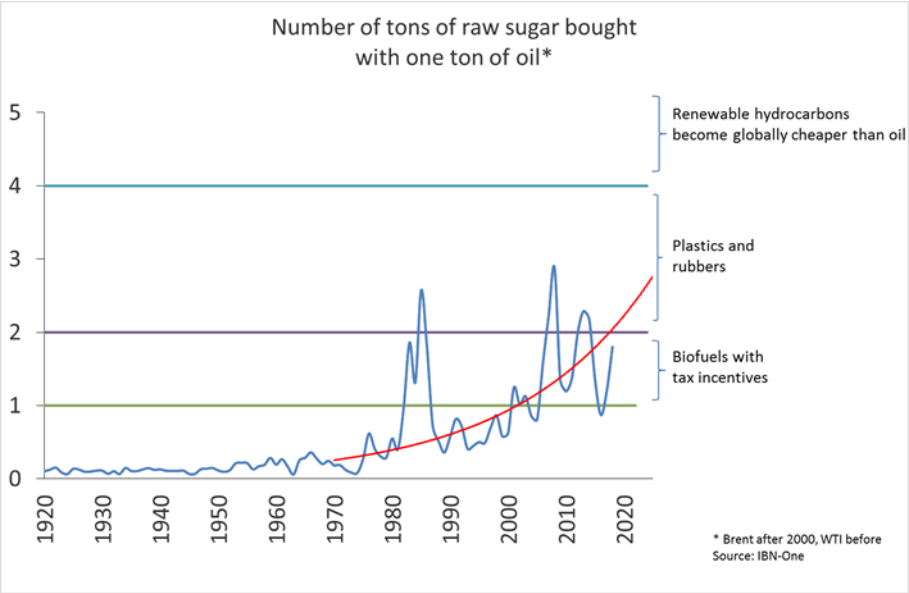
The second approach involves the use of non-photosynthetic micro-organisms to convert either CO2, or syngas, industrial waste gas made up of CO, CO_2 and H_2 produced in some heavy industries such as steelworks. CO_2, which lacks intrinsic energy, must be partnered with an energy source instead of the sun to enable photosynthesis. Dihydrogen can play this role. The syngas produced by the steelworks contains the CO_2 and enough dihydrogen to enable the development of micro-organisms as well as sustained production of the sought-after compound. The Company acquired a Dutch start-up, Syngip, which specialises in this field, to structure its work in this area.

The industrialisation of these approaches would enable the Company to produce fuels and essential materials for our civilisation with increased profitability, along with an improved environmental footprint.

6.2.3 Market trends and outlook for hydrocarbons and biomass resources

A number of players in the field believe that industrial biology cannot compete with fossil fuels due to the cost of the resources. It is true that the ratio between the price of biomass feedstock and the price of oil does not yet make it competitive with petroleum-based fuels. Nevertheless, for several decades, the price of oil has been increasing faster than the price of biomass resources. The following chart shows the underlying trend. Fifteen years ago, a tonne of oil bought less than a tonne of brown sugar. 1.5 can be bought today

[27] http://optisochem.eu/



The underlying trend for the ratio of oil/industrial sugar prices has been rising for several decades

The large-scale emergence of industrial biology will partly depend on the continuity of this trend, which began in the 1980s: if the ratio between the price of oil and that of renewable materials continues to rise, it will soon be more profitable to produce biofuel than to extract the most expensive oil (deep off-shore, bituminous sands, etc.).

The Group believes that biofuels are not one of many options, but absolutely essential. There is currently no way to replace fossil fuels, and even if it seems likely that electric vehicles will assume a significant place in transportation over the coming decades, the production of liquid fuels using renewable resources would seem to be a necessity. In fact, although electric cars seem to have a promising future in urban settings, the investments required to roll out a network with enough charging points will take a long time, and the use of electric cars over long distances will be limited on such a network. Moreover, the financial and environmental impact of producing batteries and processing them at the end of their useful lives limits the potential of this technology.

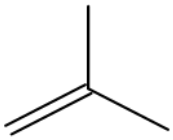
In conclusion, the Company believes that the market will gradually adapt so that the underlying economics increasingly favour the use of biofuels.

6.3 ISOBUTENE PROGRAMME

The Group's most advanced programme concerns isobutene. The Group has developed a process for converting biomass feedstock into this molecule and is now progressing with the industrialisation of this process. A joint venture with Cristal Union, called IBN-One, is working on the setting up of a first large-scale production unit in France.

6.3.1 Introduction

Isobutene, also known as isobutylene (or 2-methylpropene by its IUPAC name), belongs to the family of gaseous olefins, a family of oil-based hydrocarbons with at least one double bond. Isobutene has four carbon atoms and is present as a colourless, flammable gas at normal temperature and pressure conditions.



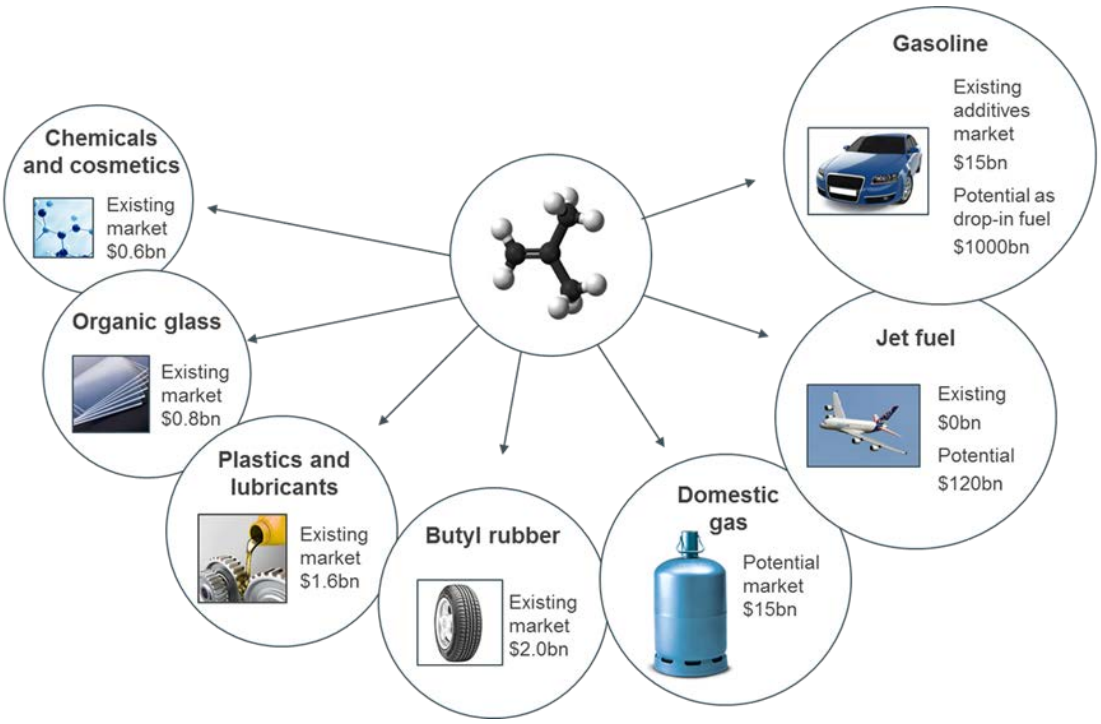
Chemical formula of isobutene

Isobutene is used in the manufacture of various plastics, organic glass (Plexiglas®), synthetic rubbers, lubricants and gasoline additives. Around 15 million tonnes of isobutene are produced each year from oil[28].

Isobutene differs from other olefins because a large proportion of it is used as a gasoline additive. It could also be used for the large-scale manufacture of bio-kerosene, a highly sought-after product because the exacting constraints in the field of aviation fuel mean that few alternatives exist.

[28] SRI 2008.

Existing and potential uses, as well as the corresponding markets, are indicated in the following diagram:

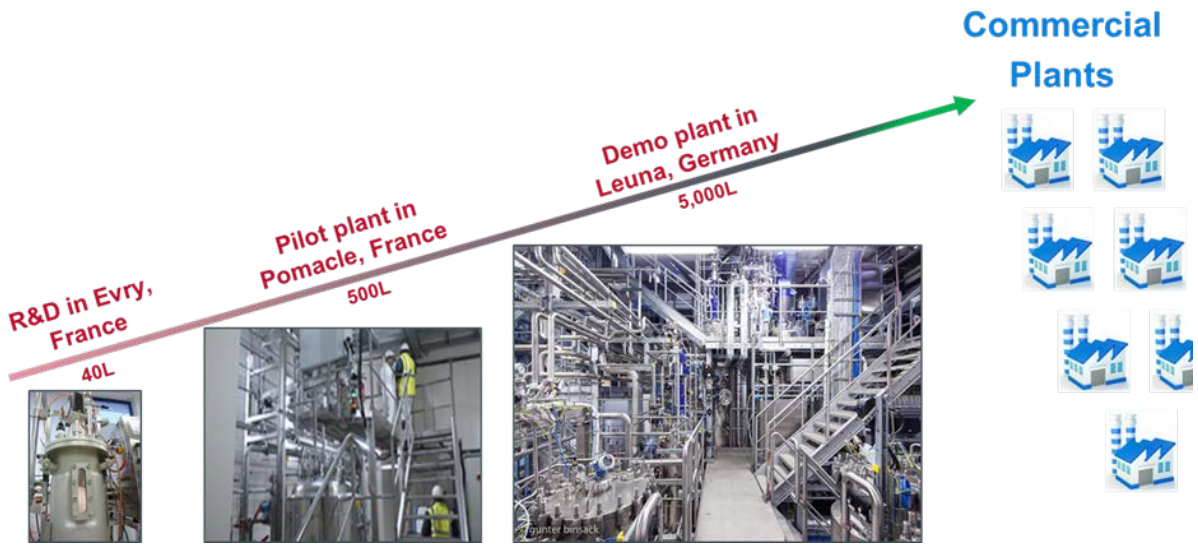


Isobutene product tree

The process developed by Global Bioenergies enables isobutene to be made in an alternative way, using biomass. This process creates a bridge between sustainable biomass resources and the huge fuel and materials markets.

6.3.2 Technological development

The Group has been committed to the Isobutene programme since early 2009. Several stages were conducted, from exploratory research to laboratory development and finally, scaling up. The first agreements were signed with industrial companies such as Arkema, Audi, L'Oréal or Butagaz. These various phases are illustrated in the diagram and sections below.



Development stages for the isobutene programme

In May 2015, a new phase began with the signature of a first joint venture with Cristal Union, called IBN-One, which aims to finance, build and operate the first isobutene plant in France (for further information on IBN-One, see section 7.2 of the Registration Document). The demo plant in Leuna, which began operations in 2017, is a first step towards the commercial use of the process, as commercial development partnerships and activities (tests, third-party validation, etc.) are in place for the isobutene batches produced there. The large scale commercialisation of the process will then truly begin with the plant developed by IBN-One.

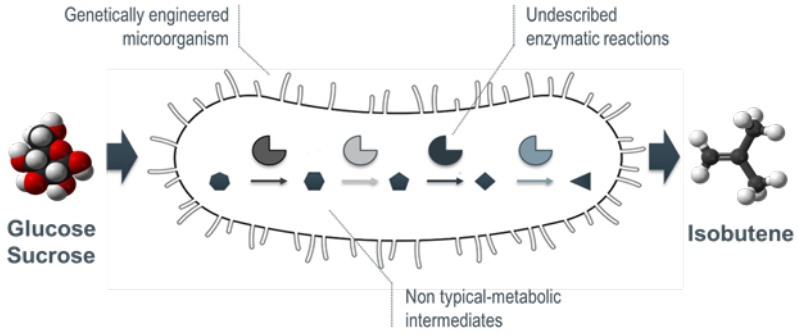
6.3.2.1 First phase: exploratory research

The initial phase of the Isobutene programme, financed by a capital investment of €3.2 million – subscribed by Seventure, one of France's largest venture capital companies –was carried out between early 2009 and mid-2011: this enabled the discovery of the first family of enzymes constituting isobutene's biosynthetic pathway, each catalysing a reaction which had never previously been described. The genes coding for these enzymes were integrated into a micro-organism, thus constituting an initial prototype production strain. This demonstrated that the integration of an artificial pathway in a micro-organism was able to result in the direct production of isobutene by fermentation. A small quantity of isobutene was in this way detected as output from a fermentation unit, a world first.

Biological production of isobutene by direct fermentation was not considered an option a few years ago because the micro-organisms do not naturally produce these compounds, even in small quantities. No natural metabolic pathway is therefore available for use as a base. To produce them, it was necessary to piece together new metabolic pathways, a task which had never previously been accomplished.

The necessary breakthrough innovation was successfully achieved by Global Bioenergies. The Group is the first in the world to have created such an artificial metabolic pathway and thereby access a compound that does not exist in nature.

This approach, invented by Philippe Marlière, co-founder of Global Bioenergies, is based on integrating into a micro-organism a series of enzymes whose natural function has been modified and which are capable of catalysing new enzymatic reactions. Building a chain of these enzymatic reactions constitutes the so-called artificial metabolic pathway.



Diagrammatic representation of an artificial metabolic pathway introduced into a micro-organism and enabling glucose to be converted into isobutene

Imagining such artificial metabolic pathways requires a "biological retrosynthesis" approach, namely, identification of the best access pathways to a compound, respecting the constraints posed by chemistry and enzymology.

Intellectual property in this area was almost non-existent when the Group started its activity. A large portfolio of intellectual property, to which Global Bioenergies holds exclusive rights, has been built up since 2008, and places the Group in a strong position today (see Chapter 11).

The situation when the Company was founded can be summarised as follows: there was a very significant technological barrier to overcome in order to produce gaseous olefins biologically and thereby access the central petrochemicals markets.

The Group believes that the creation of artificial metabolic pathways represents a major milestone in the evolution of industrial biology, since it opens up the field of opportunities radically, until then strictly limited to evolutionary paths forged by nature.

6.3.2.2 Second phase: pre-industrialisation in a laboratory

The second phase started with the Global Bioenergies' IPO in June 2011. The funds raised were used to improve the process's performance and, in particular, its yield and productivity. Improvements were achieved by acting simultaneously on several parameters: increasing the activity of the enzymes constituting the artificial metabolic pathway, adjusting the fermentation conditions, etc.

The process's target parameters were set as follows:

- target yield for the process of 260 grams of isobutene produced per kilogram of sugar. Put another way, target yield of 3.8 kilograms of sugar per kilogram of isobutene produced. Yield is the most important parameter because around 80% of the Group's process costs come from feedstock;

- target productivity was set at 2.9 grams per litre per hour (2.9 $g.h^{-1}.L^{-1}$), in line with basic industry data. A reactor of 450 m^3 will therefore produce around 7,200 tonnes per year. This data allows the size of the plant, and therefore the investment required, to be calculated.

The Group's R&D is organised into three departments, dedicated to:

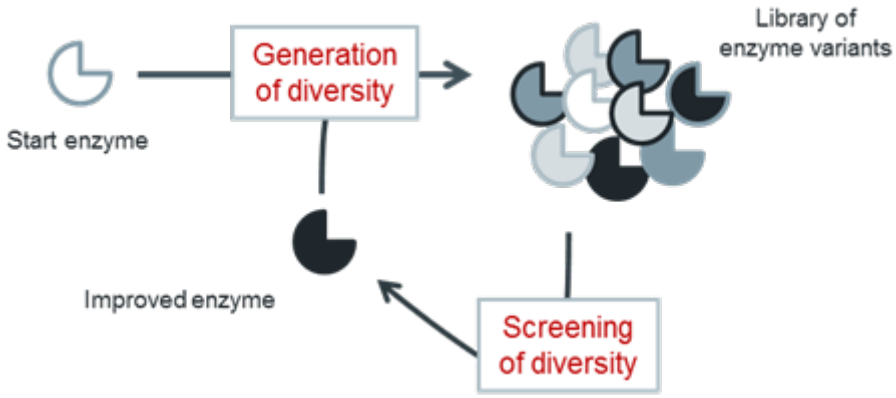
(i) enzymology (identification of new activities and their optimisation);
(ii) construction of strains; and
(iii) development of the fermentation process.

Discovery of enzymatic activity and its improvement is the basis of all the processes developed by the Group. The success of these discovery activities requires in-depth understanding of the enzymatic mechanisms, scientific creativity to develop a large number of hypotheses, and the ability to test these hypotheses using platforms combining genetic manipulation and precise enzymology.

Numerous previously undescribed enzymatic activities have been identified by the Group. Access to other enzymatic activities, discovered by third parties, has been made possible through a licence agreement. In general, the activity level of natural enzymes is, initially, extremely low. Significant optimisation work is therefore necessary.

Improving the efficiency of enzymes is now a proven field in the scientific and industrial community. A large number of enzymatic variants (or mutants) are generated, each one presenting one or more modifications to the original sequence. Each of these variants is then tested using the high-throughput screening platform. Variants presenting increased activity are used as the point of departure for a new improvement cycle.

To some extent this process mimes the natural evolution of enzymes. It is accelerated here, in the laboratory, by the use of modern enzyme engineering tools.



Enzyme engineering: a process with a number of cycles, each one comprising two stages (mutant generation and screening)

The Group has created a complete enzyme engineering platform, specially adapted to the high-throughput characterisation of gas samples. This platform currently comprises a team of dedicated employees who monitor an array of robotic equipment enabling them to test more than 20,000 samples per day.

Some of the equipment on the high speed gas sample screening platform.

Once enhanced, the genes coding for these enzymes are implanted into the microbial strains. Various genetic manipulation technologies are used.

The relative quantity of each enzyme in the metabolic pathway must be very precisely balanced in order to avoid the occurrence of constriction that may lead to the toxic accumulation of metabolic intermediates.

The metabolic framework must also be optimised in order to channel the flow of carbon towards the implanted metabolic pathway.

This aspect of the programme dedicated to improving the yield and productivity of the strains is still underway and there remains a significant technical risk. The programme could be delayed and the targets revised if major difficulties are encountered in this area.

The strains produced must then be tested using fermentation units on a laboratory scale. The Group has developed a fermentation platform which currently includes 30 1-litre glass fermenters and five steel fermenters (four with a 10-litre capacity and one of 42-litres).

The fermenters are connected to measuring equipment (chromatography and spectrometry equipment) for precise, real-time analysis of the gases produced during fermentation.

Some of the equipment on the fermentation platform.

Adjustments are made on the smallest scales using different generations of strains. New strains are produced and tested each week on this platform under a wide range of operating conditions: nature of the medium, agitation level, pH, temperature, pressure, etc. These tests allow the fermentation conditions to be gradually refined.

Work improving the process on the laboratory fermentation platform is expected to continue for a number of years. The results obtained have already enabled the share of risk associated with the development of the process to be largely reduced. **Until target performances enabling commercialisation under good conditions have been achieved, there remains a technological risk associated with these developments.**

Performances achieved in 2013 were sufficient to launch the industrialisation phase of the process with confidence, and since then, they have continued to improve year after year.

6.3.2.3 Third phase: industrialisation

Preparatory industrialisation work began in early 2012, headed by Dr Richard Bockrath, former Technical Director of the American chemical group, DuPont, and now VP Chemical Engineering at Global Bioenergies.

The third phase of the Isobutene programme effectively started in mid-2013 with the raising of €23 million in capital, of which a large part will be devoted to work towards industrialisation. Major public financing in France and Germany has also been granted to Global Bioenergies to support this industrialisation phase, which was planned to be structured in two stages: an industrial pilot plant in France (at the Pomacle-Bazancourt site), and a demo plant in Germany (at the Leuna refinery).

6.3.2.3.1 Pilot plant at Pomacle-Bazancourt

The Group has chosen to install its pilot on the BioDémo platform on the Pomacle-Bazancourt site, which brings together a number of leading agro-industrial players, such as Cristal Union and Vivescia. BioDémo is run by *Agro-Industrie Recherche et Développement* (ARD), a joint subsidiary of Vivescia and Cristal Union, and specialised in the industrialisation of fermentation processes.

Global Bioenergies' pilot plant comprises a fermentation unit of 500 litres, providing a maximum annual production capacity of 10 tonnes. This project has been supported by the French government: its *Investissements d'Avenir* (Investments for the Future) programme granted a consortium comprising Global Bioenergies, Arkema and the CNRS (French Centre for Scientific Research), financing totalling €5.2 million, including €4 million directly allocated to Global Bioenergies

The pilot site was launched in early 2014 and the first batch was delivered in May 2015. Arkema was able to confirm that the same yield and selectivity performances were obtained with Global Bioenergies' bio-isobutene as with its petrochemical counterpart in one specific application.

Pressurised containers of liquefied bio-sourced isobutene

Other batches have been used to produce isooctane, one of the best fuels for gasoline engines. The first samples of liquid fuels derived from isobutene were available in May 2015 and were delivered to Audi under a partnership agreement set up in late 2011.

Vial containing isooctane derived from bio-sourced isobutene

The successful start-up of the pilot plant and the production of batches demonstrate Global Bioenergies's ability to move out of its original sphere of competences, microbiology. The Group has managed to develop in-depth knowledge of chemical engineering in order to industrialise its processes.

The pilot plant is now operating by "campaigns", during which different types of feedstock are tested (first- and second-generation), as well as various strains and protocols that may result in improved performance.

6.3.2.3.2 Leuna demo plant

The demo plant is the final stage in scaling up the fermentation process prior to large-scale commercialisation.

The Leuna refinery is one of the principal refineries in Germany. This site brings together a large number of players in the petrochemicals industry (Total, Linde, Thyssen-Krupp, etc.), as well as a Fraunhofer Institute specialised in industrial biotechnology processes. Global Bioenergies's demo plant has been installed on this Fraunhofer CBP platform.

Construction began in April 2015, and was completed in December 2016. The demo plant has thus begun operation: the Company announced that since April 2017, the demo plant had replicated the fermentation performance obtained in the laboratory. The demo plant also has a purification unit which imitates that of the future first commercial plant, IBN-One.

Further improvements still need to be made to the performance of the process to bring it closer to target before it can be deployed at commercial scale. The demo plant has enabled the production of isobutene at tonne scale. The batches produced are necessary so that industrial clients can validate the specifications for isobutene resulting from the process, and consider purchasing large quantities of isobutene from the first plant.

The €11 million financing required to design and build the demo plant has been partially funded by two financings totalling €6.1 million granted to the Group by the German Federal Ministry of Education and Research (BMBF). The rest has been financed through a €4.4 million loan from a consortium of four French banks (BNP-Paribas, Société Générale, CIC and Bpifrance) backed by the Ile-de-France region guarantee fund.

Design and construction of the Global Bioenergies demo plant in Leuna

The demo plant combines a 5,000-litre fermenter and a complete purification unit. Its nominal production capacity is 100 tonnes of isobutene per year.

The demo plant is operated by Global Bioenergies GmbH, a wholly-owned subsidiary of Global Bioenergies, in partnership with the Fraunhofer CBP. 15 operators will rotate in a 5/8 shift pattern to run the demo plant.

The diagram of the process shows a simple purification system based on an absorbing-desorbing method. This involves using proven petrochemical technologies and re-working them to suit the specific context of a fermentation process. This simple design provides a high level of performance and robustness. These performances should also be replicated in the first commercial plant, IBN-One, which is expected to be built in the next few years in France.

The main purpose of this demo plant is a technical one: to enable validation of the operation of the process on a larger scale and with high-purity targets. Demo plant tests will lead to the creation of a full process book specifying the operating conditions in an industrial environment. The risks relating to the industrialisation of the process, already significantly reduced, will be lowered even further.

A factor of around 50 will still exist between the fermenter of the demo plant and those of the first plant. This scale up factor of 50 is low, and other manufacturers in the field have scaled up to a much greater degree. This poses a low technological risk, which is generally accepted in the industry.

The unit will also be used to simulate industrial operation: validation of the process within its configuration limits, simulation of incidents, etc. It will also serve as a training centre for teams subsequently deployed at the plants using this process.

This work at the demo plant will also allow us to reduce the margin of uncertainty surrounding operating costs and the capital expenditure necessary for the process to be put into operation.

The large-scale production of isobutene batches has enabled fuel to be produced under an agreement with the car manufacturer Audi, which was signed in January 2014. Engine tests could therefore be carried out, the results of which were announced in April 2018. These engine tests tend to show that isobutene-derived fuels perform very well, and that they may result in fewer fine particle emissions compared with standard, commercially-available fuels. If this is proven, an impact on human health would be associated with Global Bioenergies' biofuel, representing very significant additional value. Road tests still need to be conducted to validate these preliminary results.

The ability to supply batches of isobutene will support the Group's commercial approach, which is to issue licenses for its process. Fuel for motor racing could be produced, as well as for cosmetics or even PIBs, one of the plastics families used in chewing gum. Revenue will be generated through the contribution to R&D costs.

6.3.3 Value proposition

There are four separate benefits to the gaseous fermentation of isobutene:

- lower production costs;
- improved environmental footprint;
- marketing advantage;
- suitability for existing infrastructures.

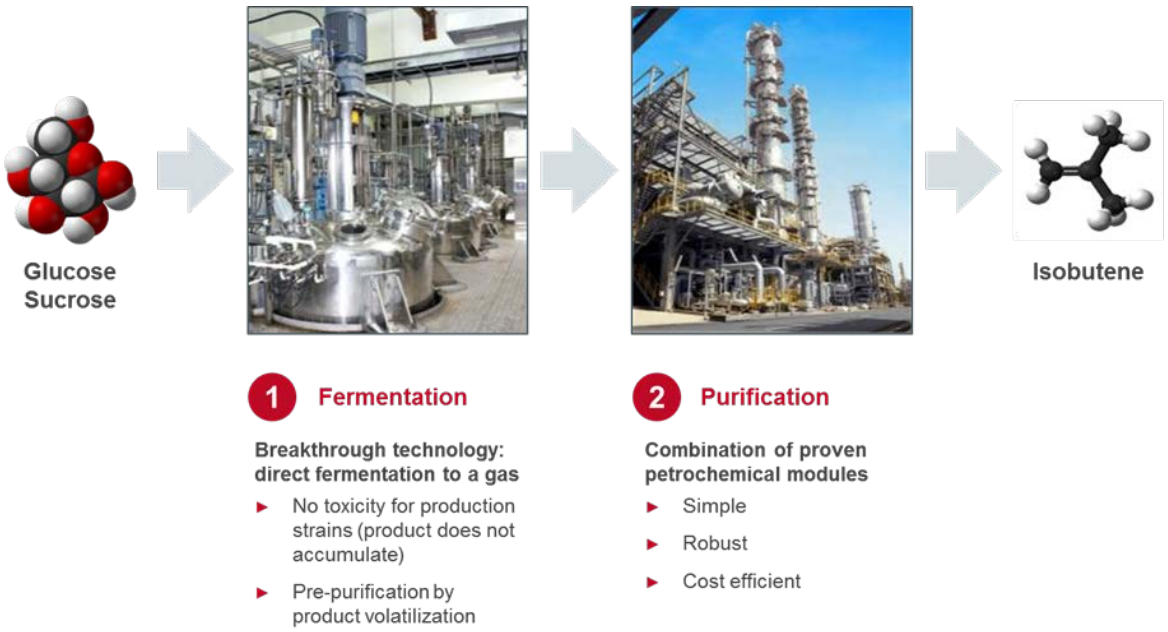
These aspects are each presented below:

6.3.3.1 Production costs

Production of a gas by fermentation has two major benefits compared to fermentation of a liquid product:

- firstly, it avoids the issue of product toxicity, since the gaseous product does not accumulate in the reaction medium. The toxicity of the final product is one of the principal constraints to the development of bio processes resulting in a liquid product. This absence of toxicity in the fermentation of gaseous isobutene opens the way to a continuous process, which is less costly to operate;
- secondly, downstream purification work is radically reduced. This point is very important for the production of liquid compounds which accumulate in the reaction medium and are often difficult to purify from a complex culture medium which varies from batch to batch.

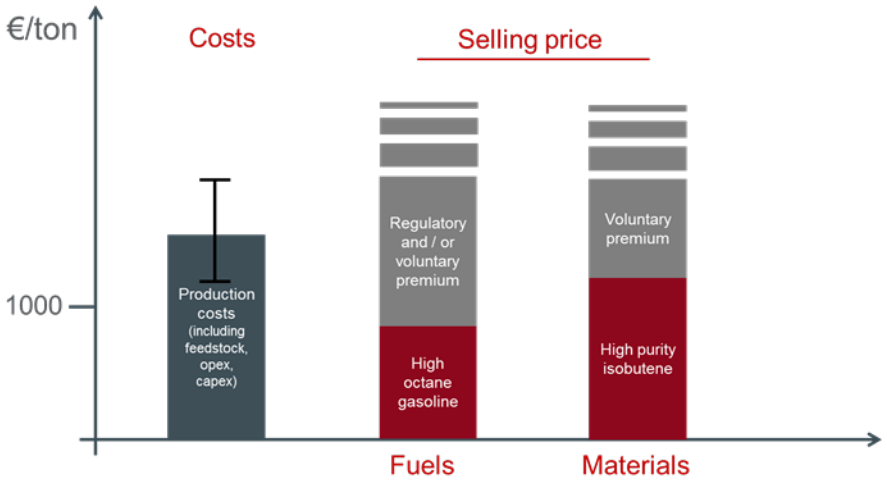
The industrial process has a simple two-stage design, each stage presenting economic advantages over liquid fermentation.



The absence of toxicity and spontaneous volatilisation of the product will enable a low cost and an excellent environmental footprint.

(The facilities shown in the photographs are examples and not the Group's own facilities)

Given the current market conditions (March 2018), the production cost for bio-isobutene would be slightly higher than the price of high-purity petrochemical isobutene. The Group believes that from $80 a barrel, the process could be profitable on this market. In biogasoline applications, tax incentives would be sufficient to make the process profitable from $50-$60 a barrel. In chemical applications, a voluntary premium (justified by marketing advantages for example) would be necessary to make the process profitable



Forecast economic balance

The analysis also indicates that the most significant item of expense will be feedstock, i.e., sugars, regardless of origin (first- or second-generation).

6.3.3.2 Reduced environmental impact

Oil consumption has a heavy environmental impact: each kilogramme of oil used results in 3.1 kg of CO_2 being discharged into the atmosphere. The gradual increase in atmospheric CO_2 levels is associated with global warming, and is one of humanity's main challenges in the 21st century. If nothing is done, the Earth's temperature could rise by several degrees Celsius, and the consequences for the world's population would be severe.

The production and use of organic hydrocarbons will help reduce greenhouse gas emissions. While fossil-based hydrocarbons follow a linear trajectory, from underground (in the form of oil) to the atmosphere (as CO_2) via refineries then engines, the trajectory of hydrocarbons produced using the Group's processes should be viewed as a cycle: CO_2 is absorbed by plants to make sugars, which are converted into hydrocarbons by fermentation, then burned in engines, releasing CO_2, which is then re-absorbed by plants.

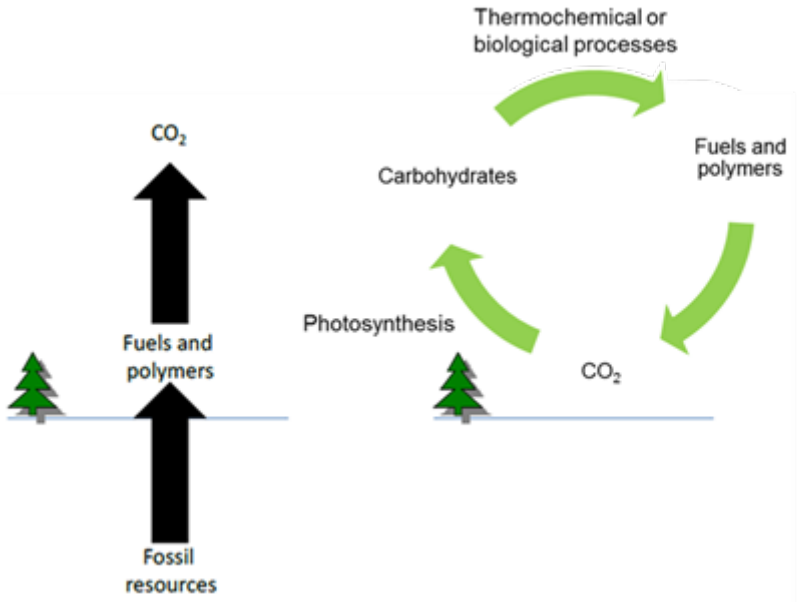


Diagram of the linear route of fossil carbon and the cycle route observed in biofuels

If this cycle was perfect, greenhouse gas savings would be 100%. However, this cycle is, of course, imperfect, due to the fuel consumption of tractors, and the use of fertilisers, etc. Generally speaking, 50 to 80% less greenhouse gas is released compared to using oil (depending on the biomass resource used); the savings are calculated using a universal method known as "life cycle analysis". The best greenhouse gas savings are made using sugar cane in Brazil. Real CO_2 savings must be determined on a plant-by-plant basis, because the feedstock used and local energy sources both have a significant impact. For example, is the electricity thermal, nuclear or hydraulic? And is heat produced using natural gas or wood?

As part of the project for the first IBN-One plant site, an initial site-specific study, for which the results were announced on 15 January 2018, found that the ETBE produced would be associated with a 69% reduction in CO_2 equivalent emissions compared with gasoline fossil fuels. These results must be confirmed by an on-site audit and a third-party examination of the life cycle analysis.

6.3.3.3 Marketing advantage

Final products incorporating so-called 'green' compounds will be an advantage to the brand image of mainstream industrial companies. It will then be able to sell the product at a higher price and/or increase market share: the end consumers of products such as plastic water bottles, tyres, plastic bags, nappies, etc. are increasingly aware of environmental issues because they do not want to behave environmentally irresponsibly.

For example, ethylene produced by Braskem from ethanol has been marketed with a premium. This high price is accepted in niche markets with high added value, where a direct contact with the consumer is established, such as packaging of cosmetics or food products with high added value (nutraceuticals). Some industrial companies in the food (Coca-Cola, Danone, Nestlé) and cosmetics (Chanel, Procter and Gamble, Johnson and Johnson) sectors now use Braskem products for their packaging. It is expected that Coca-Cola, which has marketed a bottle that has been manufactured 30% from renewable raw materials, will win market shares everywhere these “green” bottles will be sold.

According to the Group, the premium on the sale price of bio-sourced isobutene could represent a factor of up to 2 in certain applications.

6.3.3.4 Suitability for existing infrastructures

Products derived from the bio-isobutene produced by Global Bioenergies are identical to those produced from petroleum-derived isobutene.

In the automotive fuels sector this concerns isooctane in particular, which is miscible in fossil gasoline in unlimited proportions, and so would allow the ethanol blend wall to be crossed. This property, is known as "drop-in" in the United States reflecting the idea of the ability to blend a high proportion of the biofuel, has value in itself.

This gasoline, similar to fossil-sourced gasoline, has the advantage of not requiring the duplication of storage and distribution facilities. As the properties are similar, it would not even be obligatory to indicate its presence to consumers through specific labelling (as is the case for ethanol, - stamped "E10" -), and the current infrastructures (pipelines, service station pumps) may be used.

Another derivative, ETBE, present in large quantities in gasoline in Europe, is traditionally produced from fossil isobutene and renewable ethanol. When produced in this way, ETBE only contains 30% renewable energy. Produced using biological isobutene, it contains 100% renewable energy and will result, when used instead of traditional ETBE, in a significantly higher quantity of renewable energy in the end fuel without changing its composition. This will greatly facilitate its distribution, making this derivative of particular interest to the Company and its future clients.

By using both derivatives of bio-sourced isobutene simultaneously, i.e. both isooctane and ETBE, Global Bioenergies has been able to produce a batch of gasoline containing 34% biofuel, which complied with the European gasoline standard EN228. This batch of gasoline has been used to power a car for the first time, a standard-model Audi A4, on the Montlhéry circuit near Paris. This was the first time that a gasoline containing more than 15% biofuel was used in compliance with standards. This gasoline from 34% renewable sources could be used tomorrow in any kind of gasoline car.

The application of the Isobutene process for producing jet fuel is also being considered, and it has similar advantages; an initial regulatory analysis has been launched on a batch of bio-jet fuel prepared by Global Bioenergies.

For plastics and rubbers, we find this same point for complete compatibility, which will make it possible to avoid investing in new production infrastructures.

Producing a compound identical to that already used by many industrial companies also facilitates commercialisation efforts: it is not necessary to create the market, as is the case for many bio-industrial processes which produce compounds very little used in the chemical industry simply because they are difficult to produce from oil. Many industrial companies are receptive to the idea of an alternative source for a product already heavily used, and for which there is a huge market.

6.3.4 Business strategy

Global Bioenergies has already signed several industrial agreements relating to the Isobutene process.

The commercial phase itself, which involves issuing non-exclusive licences for the operation of each plant, began with the creation of IBN-One, a joint venture between Global Bioenergies and Cristal Union. A non-exclusive licence has been signed between Global Bioenergies and IBN-One. This phase will be fully active when the process is fully developed, i.e. when it will work in the demo plant with near optimum performances. Several discussions are underway with leading industrial groups.

6.3.4.1 Current industrial agreements

As a result of the entry of Cristal Union, via its subsidiary, Cristal Financière, into the capital of IBN-One, a cooperation agreement was entered into on 18 May 2015 between the Company, IBN-One and Cristal Union, setting out the terms and conditions of their partnership to devise a process for the construction of the IBN-One plant and to conduct studies.

In June 2016, Global Bioenergies and IBN-One were awarded €9 million under the *Investissements d'Avenir* (Investments for the Future) Programme. This programme also involves Cristal Union and L'Oréal. This financing should support the completion of the Global Bioenergies Isobutene process by and enable the Company to conduct the initial engineering phases of the plant for IBN-One so that operations can begin in 2021.

In January 2014, Global Bioenergies announced the start of a collaboration with the German car manufacturer Audi to produce isooctane, a high performance fuel for gasoline engines. The objective is to produce isooctane in batches of increasing sizes whose properties will then be tested by Audi. A first batch of isooctane was delivered in May 2015 in accordance with the initial timetable. In January 2016, the two companies announced that they would be strengthening their cooperation, signing a new partnership agreement to widen the scope of feedstock compatible with the Isobutene process. A milestone was achieved in early 2018 with the delivery of a batch of gasoline, which on 5 April 2018 was used for the first time to power a car around a circuit.

A consortium agreement was signed with Arkema as part of the funding awarded by the French government on 4 June 2013 (Investments for the Future programme) for the construction of the pilot plant to develop the Isobutene process. This partnership resulted in technological success, which was announced in January 2017.

Nine agreements were signed with companies developing processes for producing second generation sugars, i.e. from agricultural or forestry waste. For Global Bioenergies, this meant receiving batches of second-generation sugars and using them in the Isobutene process developed by the Group. No payment is provided for in the contracts. The idea of producing isobutene from waste reflects the Group's increasing involvement in the use of resources that do not compete with food agriculture An initial production of isobutene from straw was obtained in March 2015 in the laboratory, then in August of the same year, the Company announced that it had produced isobutene using xylose, a sugar derived from wood.

These agreements resulted in the OPTISOCHEM consortium being set up, which combines technology from Clariant, INEOS and the Group to produce isobutene derivatives for chemical/material applications using wheat straw. Clariant and INEOS are among Europe's leading chemicals companies. This consortium was granted €9.8 million in financing, including €4.4 million granted to the Group under the European Horizon 2020 programme.

Agreements have been signed with Aspen (subsidiary of the Swedish farming conglomerate Lantmännen) and Butagaz; both of these agreements covered access to isobutene batches produced by the Leuna demo plant, and an intention to purchase isobutene from the first plant, IBN-One. The contract with Butagaz reached a critical stage in early 2018, with the production of the first bottles of domestic gas containing a renewable product. Bottles containing 15% bio-sourced isobutene have been produced, and distributed in a promotional event at one Intermarché retail outlet.

Finally, agreements for tests on batches of isobutene have been signed with industrial leaders Clariant and Arlanxeo.

Further information on current industrial agreements is available in section 22 of the Registration Document.

These upstream industrial agreements have contributed to establishing Global Bioenergies' industrial credibility.

6.3.4.2 Business model

The Group's primary objective is not to operate itself on a commercial scale the processes it develops. The business model targeted in the first instance in fact consists of marketing its processes in the form of licences, to industrial companies from different fields. It is planned that the licences will be granted on a plant by plant basis, in return for a two-part payment:

- a fixed payment equal to €1 million per 10 thousand tonnes capacity on construction of the plant, or €10 million for a 100 thousand tonnes plant; and

- licence fees on operation, equal to 5% of revenue.

This licensing model allows complete decorrelation between income and costs, and so, for the Group, significant profitability to be expected.

A plant with a production capacity of 100,000 tonnes of isobutene per year has been modelled. This plant would require an investment of around $206 million for the construction, and would then have an operational cost of about $23.7 million. It would allow the conversion of 384 thousand tonnes of feedstock into 100 thousand tonnes of products with a value of around $200 million.

Modelling a plant type in the field of chemistry

Two economic models are being considered and differ by their method of accessing feedstock. A "non-integrated" model that plans the purchase of sugars on the market and an "integrated" model which plans for a plant to be linked to a sugar production unit. In this second scenario, the licensee would be a player in agricultural processing, and the price of the feedstock would represent an internal transfer cost, lower than the market price.

The non-integrated model is based on a market price of $350/t of sugar and would generate a raw margin of 14%. Based on market prices of agricultural resources, sugar and ethanol, the cost of sugar production is estimated at about $310/t. This scenario is has been chosen as the internal transfer cost in the integrated model. Taking these two scenarios into account, the IRR (internal rate of return) and the NPV (net present value) of such a plant project have been calculated and are shown in the table below.

	Non-integrated	Integrated
IRR*	20%	26%
NPV *	$202 million	$341 million

Economic indicators of a plant type project in the field of chemistry.
*Assumptions: calculations on EBITDA; isobutene sales price of $2,000/t, non-integrated sugar sale price: $350/t; integrated sugar sale price: $310/t; Duration: 30 years; Inflation 2%; Discount rate 10%

These values are only an estimate for a generic plant, and should be further developed through the results of tests on the pilot plants. They may then rise or fall depending on the conditions at the various sites on which the technology is ultimately applied.

It should be noted that the NPV of a plant is between $202 million and $341 million. The IRR linked to a plant project, including the construction phase, is much higher than the 8% value usually considered as the limit below which an industrial project is no longer worth being pursued.

It can be estimated that an advance payment of €10 million ($13 million) for a plant of this size would not be disproportionate with regard to the $206 million investment.

The licence fees of 5% of revenue would generate an annual income of around $10 million for the Group.

If we do this same financial calculation on the licence fees alone, we end up with an NPV of about €40 million for each license associated with a plant.

The choice of the economic model depends in a large part on the size of the target markets. Most of the processes developed by other industrial biology companies target small markets, which means that a licensing model cannot be used. The processes developed by the Group target very large markets (millions of tonnes and tens of billions of dollars) and can therefore offset the sharing of the value with the licensees with the number of licences to be granted. This model, without being the most widespread in the sector, has already been successfully selected and implemented by others. For example, in mid-2013 one saw Genomatica sign a licence agreement with BASF for operating its process leading to butanediol.

Global Bioenergies will also offer engineering services to its licensees. To do this, it will use the know-how accumulated during the construction of the pilot and the demo plant. This activity will be controlled by Global Bioenergies GmbH, a subsidiary based in Leipzig.

Two types of engineering work are associated with the various phases of setting up a plant. The Group plans to be able to make a service adapted to each of the phases available to its licensees:

- for studies associated with the "conceptual" phase: these will be produced by Global Bioenergies' teams;
- for more detailed engineering studies: Global Bioenergies will act as project manager and coordinate the subcontracted studies.

This additional activity will allow Global Bioenergies to strengthen its expertise in the commercial implementation of its process and generate a revenue during the upstream phases of each plant project that can be added to the upfront licence fee.

6.3.4.3 IBN-One: towards the first commercial plant

An Isobutene process operating licence was granted by Global Bioenergies to IBN-One (currently 50-50 owned by Global Bioenergies and Cristal Union), against milestone payments and licence fees. This agreement provides for IBN-One to operate a plant in France with maximum capacity of 50,000 tonnes with applications both in the commodity chemicals and bio-sourced fuel markets. This diversity of markets will provide a flexibility and will allow fine trade-offs depending on changes in the market.

Global Bioenergies will be paid by milestone payments and then licence fees on operation. Advance payments will be made at the time of the financing rounds conducted by IBN-One. Licence fees will come from isobutene sales and derivatives produced by IBN-One. This agreement is the first license agreement concerning the industrial operation of the process.

Global Bioenergies and Cristal Union have been working on the IBN-One project since early 2015. The studies were entrusted to a consortium combining IPSB, a sugar and biotechnology engineering company and TechnipFMC, one of the global leaders in energy, petrochemistry and chemistry engineering. The initial results of this phase identified ways in which the process could be improved which are currently being assessed. The results of the Front End Engineering Design will form the basis for the detailed engineering and the construction of the plant, on which work is now scheduled to begin in 2021 subject to process performances being first demonstrated in the Leuna demopalnt.

At this stage of the project's development, it is expected that the budget required to build the plant will be €115 million.

The project in general will require major capital investment. Global Bioenergies plans to take a low level part in the corresponding capital increases, and does not intend to defend its capital position. It expected that current and future industrial and financial partners will be providing the major part of these investments. The presence of Global Bioenergies in IBN-One's capital, even a minority interest, will be maintained for:

- providing confidence to new partners wishing to enter the project company;
- keeping one or more administrative posts, in order to contribute to the management of the project-company over the long term. The presence of Global Bioenergies in the long term will probably be a success factor;
- acquiring the expertise associated with the construction and operation of this plant.

The agreements signed between IBN-One, Cristal Union and the Group cover process improvements management and the generation of know-how which Global Bioenergies will be able to use to set up other sites.

6.3.4.4 Commercial pipeline

At the same time as carrying out the project for the first plant, Global Bioenergies will continue its Business Development activities in order to complete the projects of the following plants.

The Group is currently leading discussions with around a hundred industrial groups, among the world leaders in their field. These players can be classified into four groups:

- **the agro-industries**, which process the agricultural feedstock and more particularly, the industrial producers of sugar and starch;

- the **chemical industries**, which have unparalleled knowledge of the development of processes and the production of a wide range of organic compounds;

- the **fuel producers and distributors** (oil and retail companies) which are showing a growing interest in the development of bioprocesses for the purpose of growing and maintaining their core activity of liquid fuel distribution;

- the **consumer product manufacturers**, which are processing the feedstock supplied by the chemical industry in consumer products in the automotive field (plastics), plastic packaging (bottles), household products, paints, etc.

Global Bioenergies is also considering the possibility of replicating the strategy used by IBN-One elsewhere. This will again be a question of taking an active part in starting up the project so as to then leave a growing and majority share to industrial and financial partners. Three new plants could thereby be sub-licensed in the next three years.

A second project company, known as IBN-Two, was thus created in Germany in May 2015. It is currently 100% owned by Global Bioenergies. The intention is to unite German industrial companies and financial institutions around this structure, which will lead the project for the second plant based on the Group's technology.

In this way, an international group structure would be gradually drawn up. In this group, Global Bioenergies S.A. will act as a licensor and organiser of the project companies and Global Bioenergies GmbH will act as a provider of engineering services.

Global Bioenergies expects its share in the capital during the start-up phases to be €500 thousand per plant and may, on a very minority basis, be involved in financing the construction of the plants. Most of the financing for the plants should come from industrial players, infrastructure funds and banks.

6.3.4.5 Business Development activities

The activity of business development aims at making the generated value tangible by developing and industrialising its processes.

A part of business development activities is now to be carried out within the project companies. In fact, each of these companies - IBN-One initially - will have to find its own customers, in the early stages of the project if possible so as to provide the necessary confidence in fundraising. The parent company Global Bioenergies S.A. will provide commercial support when it comes to marketing products made using its processes.

6.3.5 Market research

The major components that make up the isobutene market have been outlined in the introduction. An annual production of 15 million tonnes is divided between fuels and materials applications.

The price of isobutene is difficult to define because there are many levels of purity, and the market is only partially open (a significant number of isobutene producers have the capabilities to convert it to a final, liquid or solid product and therefore easier to transport). It is generally accepted that the price of low purity isobutene can be deconvoluted from the price of MTBE, one of its main derivatives, manufactured by the condensation of isobutene and methanol. From MTBE ($527[29]/t) and methanol ($249/t), we get a price of $640/t for low purity isobutene as used in fuel applications.

Chemical applications such as the production of synthetic rubber require the use of high purity isobutene whose average price up until august 2014 was around $2,000/t[30]. Since then, the drop in oil prices has impacted the price of high purity isobutene, which sank to a low of $900/t in January 2016 before bouncing back. In January 2018, it was $1,343/t[31].

The combination of volumes and prices in the low and high purity segments resulted in a global isobutene market of around $24 billion whilst oil was at $100 a barrel.

6.3.5.1.1 Market in the field of the commodity chemicals

About 3 million tonnes of isobutene are used in the field of commodity[32] chemicals (butyl rubber, Plexiglas®, lubricants, sealants, etc.). The main applications respectively use the following quantities of isobutene:

- nearly 1 million tonnes of high purity isobutene are used each year for the manufacture of butyl rubber. It is the only gas-tight rubber and all the tires' inner tubes, and the inside of balls, are made from this material. Butyl rubber is made up of 98% of isobutene, and 2% isoprene. Seven players control this market at a global level. Various recent investments (Sinopec, Reliance and Kemya) should result in an additional 215,000 tonnes in capacity. This supports the theory of a growing market;

- 460,000 tonnes of isobutene are converted into MMA, the basic component of organic glass (Plexiglas®). This market, which industry agrees on growing by 4-5% in the medium term, is a special opportunity for isobutene. Since the 1990s, and driven by several Japanese industry leaders, several independent processes for producing organic glass by oxidation of isobutene have in fact been set up and are taking a growing share of this market. Approximately 30% of organic glass is now made from high purity isobutene.

  The oxidation of isobutylene also leads to methacrylic acid, a compound used in paints and varnishes, as well for synthesising a multitude of speciality products. The global market for methacrylic acid is estimated at a few hundreds of thousands of tonnes. Its price is approximately $2.5/kg. This application is the purpose of the consortium bringing Arkema and the CNRS together around the Pomacle-Bazancourt pilot plant, and partly funded by the Investissements d'Avenir programme;

- 800,000 tonnes of isobutene are used each year for the production of poly-isobutenes (PIB). These products are obtained by polymerisation of isobutene and are used as lubricants, thermomolded plastics and adhesives depending on the length of the resulting polymer;

[29] Source Company July 2016
[30] Historical prices Argus Dewitt.
[31] Argus DeWitt January 2018
[32] SRI 2008.

- a part of isoprene, used to make rubber, is produced from isobutene. This application represents some tens of thousands of tonnes of isobutene per year;

- niche markets, smaller and associated with high prices, exist in the field of plasticisers or texture agents derived from isobutene: isovaleraldehyde, isononanol, etc.

Generally, the production costs associated with a new process are high at first, then gradually become lower as a result of economies of scale and improvements. This also applies to the Group's processes: initially, the drop-in biofuels niche market, associated with a significant tax benefit, will enable a few plants to be set up when the price of oil is $50-60/barrel. The polymer commodities market, with or without a price increase, will then become accessible when oil exceeds $80/barrel. The fuel market, the largest in size but the lowest in terms of price per kilogram, will be the last to be really competitive in the absence of tax incentives or subsidies, and will only really achieve good conditions with an oil price of over $120-$130/barrel.

6.3.5.1.2 Existing and potential market in fuels

Approximately 12 million tonnes of isobutene are used in the production of additives for fuels[33]. Three additives are derived from isobutene:

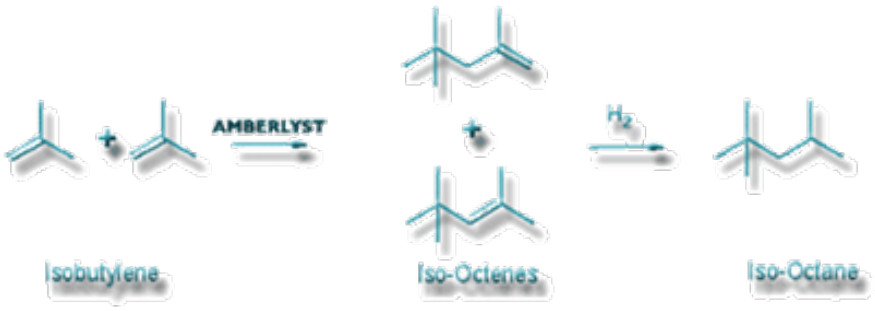
- MTBE, obtained by reacting isobutylene with methanol;
- ETBE, obtained by reacting isobutylene with ethanol;
- Isooctane, obtained by dimerising isobutene, followed by a hydrogenation step.

9 and 1.5 million tonnes of isobutene are converted to MTBE and ETBE respectively each year. These fuel additives provide fuels with an oxygenation level providing optimum combustion. MTBE was banned in North America for specific environmental reasons linked to the absence of a collecting tank under petrol stations. It remains massively used in Europe and Asia.

About 1.5 million tonnes of isobutene is converted into isooctene or isooctane.

The dimerisation of isobutene gives a molecule with eight carbons, isooctene, that can then be easily hydrogenated into isooctane. Isooctane is the reference-standard fuel for gasoline engines: so, by definition, pure isooctane is "unleaded 100". It is used today as an additive to improve the performance of gasoline.

Isooctane is of particular interest for Global Bioenergies and is the subject of the partnership with the car-maker Audi (see Section 6.3.4.1).



Source: http://www.amberlyst.com/isooctane.htm

Conversion of isobutene to isooctane by the Amberlyst process

[33] SRI 2008.

It is important to note that isooctane is compatible with oil facilities and current engines and can be blended with gasoline with no proportion limit. This is not the case of ethanol, which is only miscible with gasoline in small proportions (up to the 10% "blend wall" detailed below).

If isobutene should be produced competitively with oil in large quantities, isooctane production could take a central place in the fuel industry for gasoline engines, representing several hundred billions of dollars.

The condensation of three molecules of isobutene to form a 12-carbon compound is also possible. Subject to technical and regulatory validation, this compound could be used as an additive to kerosene.

To see the prospects for isobutene in the field of biofuels, we should not limit ourselves to existing applications of isobutene on this market, but look at the market for fuels and biofuels in a more comprehensive manner.

In 2015, biofuels represented 75 million tonnes of oil equivalent, a rise of 0.9% compared with 2014. The production of ethanol grew 4.1%, while biodiesel production fell 4.9%. Biofuels today represent 1.72% of the 4,331 million tonnes of oil consumed the same year[34]. The growth margin is therefore considerable, and global production of biofuels has already multiplied by 3.8 in 10 years.

In Brazil, ethanol represents about half of the fuel consumed. Engines have been adapted so that they can accept either gasoline, ethanol, or a mix of both of these products in any proportion. This adaptation is based on the addition of a “flex-fuel" module that allows the measurement of the content of ethanol in the fuel and the adjustment of the combustion parameters. The strengthening of many engine components is also required to address the corrosive properties of ethanol. No other country has so far invested significantly in the development of flex-fuel vehicles, even if trials have been carried out here or there, and especially in France. The number of E85 fuel distribution points is currently very inadequate for enabling the deployment of this fuel on a large scale. The main trend in Europe and the United States of America is the use of a low level of ethanol, but which increases over time. It is currently about 10% in volume, or 7% in energy content. The maximum acceptable level of ethanol for current engines is 10% in volume. In the United States, a fuel containing 15% ethanol is authorised, but to date its commercial success has been very limited. Beyond these values, 10 or 15%, engines need to be adapted. Official statistics state that the effective incorporation rate of ethanol is approximately 6% and therefore lower than the regulatory target.

In France, this difference results in a penalty which gasoline producers and distributors must pay: the TGAP (general tax on polluting activities). This penalty which is estimated at €1,700 per missing tonne of biofuel applies to about 70 thousand tonnes of product in France and therefore represents approximately €100 million per year paid by the industry. Other countries in Europe have similar systems.

A non-corrosive biofuel, such as isooctane from isobutene, could be used in substitution for, or in addition to, ethanol, so as to achieve a higher biofuel incorporation rate and to meet regulatory requirements. Biological isooctane, added to gasoline already containing a maximum concentration of ethanol, could allow the blend wall to be crossed. This capability could be associated with a significant price premium that would allow Global Bioenergies’ Isobutene process to be competitive in these applications in current market conditions.

Generally, Global Bioenergies promotes the development of a “drop-in” biofuel value chain, characterized by high energy density and high blending potential in current petroleum fuels to avoid the need for new storage, transport and distribution infrastructures. This would allow the industry to go beyond the ethanol blend wall in gasoline.

[34] British Petroleum - Statistical review of the World Energy 2014.

An initial fuel composition, named "G-612" by the Company, was unveiled on 5 April 2018. This fuel, which contains bio-sourced isooctane and ETBE, has a renewables content of 34% by volume and 27% by energy quantity. It is by far a record for a fuel which meets the European standard EN228 on gasoline. This fuel has been used to power a car for the first time, on the Montlhéry circuit near Paris. This car, a standard-series Audi A4 supplied by Audi under a partnership between the two companies, is a "normal" car, i.e. it has not undergone any modifications to the engine or any other part. The preliminary results from the engine tests have identified that the performance of G-612 fuel could be very high, and that it may produce much fewer particle emissions than a standard fossil fuel. This fuel will be road tested in 2018 and 2019.

Jet fuel is another market in which Global Bioenergies intends to grow. Biofuels currently used in aeronautics represent a very small amount. For example, since 2013 KLM has operated several commercial lines using biokerosene derived from used cooking oils provided by the company SkyNRG. A few other examples could be mentioned, but they remain isolated to date.

Biokerosene is a hot topic because the aeronautics specifications are very strict and prohibit the use of oxygenated molecules such as ethanol. Only hydrocarbons, such as oligomers of isobutene, could be used in aeronautics. So Global Bioenergies has one of very few options to produce biokerosene in the future.

Considering all fuels (land, maritime and aeronautics), it can be seen that it is a subject with strong growth and holds significant economic and environmental prospects. According to the American Renewable Fuels Association, 50 billion litres of bioethanol produced in 2013 would have avoided emissions of 37.9 million tonnes of CO_2 and supported 86,500 direct jobs and 300,000 indirect jobs in the industry[35]. The "Biobased Economy" is expected to create 800,000 jobs in the United States of America by 2020[36], and one million in the EU-27 over the same period according to another study[37], which also forecasts €31 billion in new revenues per year and the construction of about a thousand second-generation biorefineries for an investment of €88 billion. For France: 135 biorefineries and 141,000 jobs created with €4.6 billion in revenues. To this, a major reduction of dependence on oil (more than 65%) can be added, and a decrease in the emission of greenhouse gases (approximately 50%).

However, we are only at the start of biofuels, which can only be produced today because of the tax benefits and subsidies which are associated with them. When biofuels' time has really come, which means when they become truly competitive with fossil fuels, the Group's isobutene process will undoubtedly be among the best options to enable the large-scale deployment of this industry

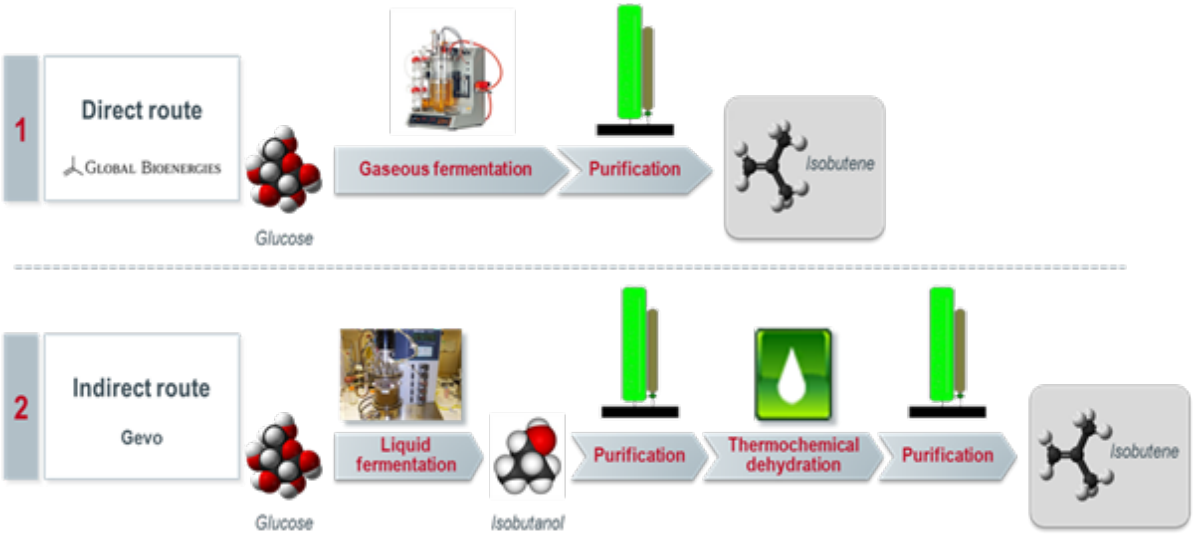
6.3.6 Competition

Until recently, no rival direct method for fermenting isobutene had been protected by third parties. A patent application for the biological production of isobutene was made by the American company Invista at the end of 2012, and was published in June 2014. According to Global Bioenergies, this patent application does not call into question the freedom to operate the Global Bioenergies Isobutene process, and equally is not, in itself, a credible alternative for the biological production of isobutene.

[35] Renewable Fuel Association 2014 ethanol industry outlook.
[36] World Economic Forum.
[37] Bloomberg New Energy Finance.

6.3.6.1 Competition on biological isobutene

Isobutene can be obtained by thermo-chemical dehydration of isobutanol, an industrial solvent that can also be used as biofuel blended with gasoline. Two players, Gevo and Butamax, have positioned themselves on this activity for the biological production of isobutanol. Producing isobutanol by fermentation, purifying it, and then dehydrating it by heating at high temperature is a very indirect way, and requires additional purification steps to obtain a high-purity product. Production costs are also higher than those of the Group's process, because it is known that each step is related to costs and to the loss of product.



Comparison of direct and indirect methods for producing biological isobutene

Global Bioenergies' direct process, and Gevo's indirect process are the only two methods developed to an advanced stage of maturity that are likely to be able to produce biological isobutene. Gevo announced that it has produced isobutene derivatives, such as isooctane and an aviation fuel. Gevo does not appear to be targeting high purity isobutene. Some other entities mention targeting the production of biological isobutene, but none of them appear to have gone beyond the exploratory research phase.

It was mentioned above that the Invista company filed a patent application relating to the direct production of isobutene. To the Group's knowledge, this publication was not accompanied by signals indicating that Invista is working actively on the development of such a process.

6.3.6.2 Competition on biofuels in general

If we look more generally the field of "drop-in" biofuels, we can see four major rival approaches. The first is the continuation of the thermochemical processes developed in the 1920s and therefore relies on the use of high temperature. The following three are bioprocesses.

6.3.6.2.1 The thermochemical route

Historically, the Fischer-Tropsch process was developed to allow the conversion of coal into liquid hydrocarbons. This method vaporises coal by heating it at very high temperatures (900°C), under pressure. This process, first developed in Germany, was taken up in South Africa by SASOL, which is now the main operator. The historical process is based on the use of fossil resources (coal). Its environmental performance is deplorable and the process is both intensive in OPEX and CAPEX, but it does not have any particular technical difficulties.

Its adaptation to the use of biomass seems possible but currently remains an industrial challenge due to the variability and the high water and oxygen content of this resource. The significant production of ash was also cited as an obstacle to large-scale exploitation. Choren, which developed a Fischer-Tropsch process adapted to biomass in Germany filed for bankruptcy in 2011. In France, the Syndièse project led by the CEA aims to develop a unit of 23,000 tonnes per year initially based on the Choren process.

Various initiatives taken mainly be Ineos and KioR in the United States were unsuccessful[38].

Similar methods are being developed by Virent (Wisconsin, USA, which has now been acquired by the Tesoro oil group), Fulcrum, Ensyn and Anellotech.

6.3.6.2.2 Long-chain alcohols

Long-chain alcohols have intermediate properties between those of gasoline and those of ethanol. For various technical reasons, isobutanol has been selected as the best candidate. Compared to ethanol, isobutanol is miscible in greater proportion in gasoline (16% compared with 10%). Isobutanol is also associated with a higher energy density than ethanol.

Gevo (Colorado, USA) and Butamax (USA and United Kingdom; a joint venture between DuPont and BP), are setting up bioprocesses for the production of isobutanol from sugars. Gevo converted a former ethanol production plant to an isobutanol production plant; it now produces ethanol and isobutanol at the same time. As far as the Company is aware, the plant is not currently profitable.

The processes developed by Gevo and Butamax are similar. Following an intellectual property dispute, a cross-licensing and market distribution agreement was agreed[39].

Isobutanol is still an imperfect solution: its energy density is 20% lower than gasoline, in which it is only partially miscible. Furthermore, the extraction of isobutanol from the reactive medium is complex, which results in production costs. In 2010, the Environment Protection Agency (EPA) in the United States added bio-isobutanol to the list of the gasoline additives authorised on the American territory.

In the United Kingdom, Green Biologics is developing a similar process towards linear butanol. A production unit is operational in the United States, but the market appears to be focused on the chemical applications of this molecule.

6.3.6.2.3 Terpenes

Terpenes are a family of molecules to which cholesterol and vitamin A, or carotene, belong. The base unit for these molecules is a five-carbon hydrocarbon. Amyris (California, USA) is developing a process based on this five-carbon brick, and has derived a 15-carbon molecule from it, farnesene, which can be used in diesel engines. Amyris has certainly had some commercial success: a partnership with Total, listing on the Nasdaq stock exchange in July 2010. Amyris had announced delays in the production of these biofuels, as well as a change to the business model[40]. The Company now produces biodiesel for the São Paulo bus fleet and a biokerosene which is being tested by Air France. Speciality products with a higher value than fuels but associated with small volumes, such as patchouli for the perfume industry and squalane for the cosmetics industry seem to be taking a growing place in Amyris' activities.

[38] INEOS Bio, 15 September 2014.
[39] Gevo – 8 September 2015
[40] http://www.technologyreview.com/blog/energy/27570/

6.3.6.2.4 The fatty acids method

LS9 (California, USA) is developing microorganisms that overproduce some fatty acids, secondarily converted into liquid hydrocarbons. The process reached the pilot plant stage, before being purchased by Renewable Energy Group, a biodiesel manufacturer based in Ames, Iowa, in January 2014. The technology is still included on the company's website, but does not appear to be commercially exploited.

Solazyme (California, USA) was developing a method using heterotrophic algae to convert agricultural resources (sugar, cereals, and agricultural and forestry waste eventually) to oils which can then be chemically converted to biodiesel. Solazyme had started commercial production in 2014 in a unit with a capacity of 20,000 tonnes in Clinton, Iowa, and then in May it launched the operation of a plant with a capacity of 100,000 tonnes in Moema in Brazil. In response to financial difficulties, the company refocused its efforts on producing food supplements, before permanently ceasing activities in 2017.

The French company Fermentalg is promoting the production of fatty acids from microalgae, for human and animal food in particular.

The Neste fuel company is using palm oil to operate the NEXBTL process to manufacture biodiesel, which also results in a small amount of renewable gasoline being produced, which is known as bio-naphtha. This process is now used on a large scale in several plants worldwide, producing millions of tonnes per year. A plant is also in the pipeline for France: Total wishes to convert its La Mède refinery into a plant to transform palm oil into biodiesel and co-products. The use of palm oil, which is very directly associated with the destruction of primary forest in Malaysia and Indonesia, is rejected by many NGOs, and acts as a brake on this technology.

6.4 R&D PIPELINE

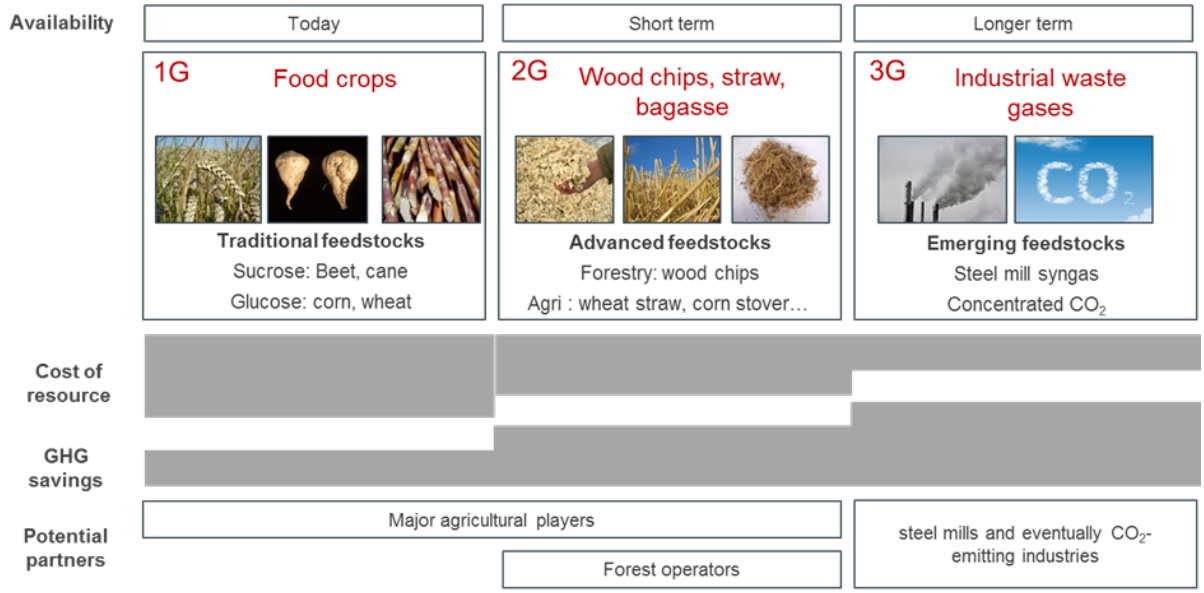
As the Isobutene process enters its final phase of development and the Company prepares for its commercial launch, research teams and operations are diversifying into two areas. The first involves broadening the range of feedstock which can be used in the Isobutene process. The second relates to the successes of the Isobutene programme, which have encouraged the Group to embark upon new programmes relating to the production of other chemical compounds by fermentation.

6.4.1 First area: diversification of feedstock

The large-scale deployment of the Company's processes depends on their compatibility with as broad a range of resources as possible. This diversity will enable the processes to be used by industrial operators of different kinds in different geographical locations: the Company's processes could be of interest to a range of operators, such as European sugar beet companies, North American starch producers, Scandinavian forestry operators and sugar cane producers in Latin America and Asia.

Production strains were initially developed to use glucose, a sugar with six carbon atoms, which traditionally comes from cereals such as corn. On this basis, new strains have been developed to make the process compatible with sucrose, a sugar with 12 carbon atoms, which comes from sugar beet or sugar cane. These strains will for example form the basis for the process implemented by IBN-One in the first plant using the Isobutene process on a commercial scale. Other work has resulted in proof of concept being obtained for isobutene production using xylose, a sugar with five carbon atoms, a major constituent of some woods.

In March 2015, the Company announced that it had forged links with nine agricultural waste companies, enabling Global Bioenergies to work in parallel with sugars from various processes associated with a range of primary resources. One of these partnerships has also resulted in the OPTISOCHEM consortium being established, as described in section 6.3.4.1.



Diversification of feedstock: technology deployment and economic and environmental (GHG: greenhouse gas) potential enhancement tool

Other partnerships with second-generation sugar players are intensifying, particularly using wood as a resource. New industrial links have been forged, such as with the Swedish company SEKAB to plan this waste biomass recovery activity from the large-scale industrial exploitation perspective.

These efforts are expected to be further intensified to obtain production strains whose performance is compatible with the commercial exploitation of these different sugars. These resources usually contain combinations of sugars with 5 or 6 carbon atoms, which are not naturally used in production strains, as well as a large number of contaminants which could have a negative impact on process performance. In order for these alternatives to be commercially exploited, work needs to be done either to improve the resistance of strains to these contaminants or on the process to make it less sensitive to contaminants.

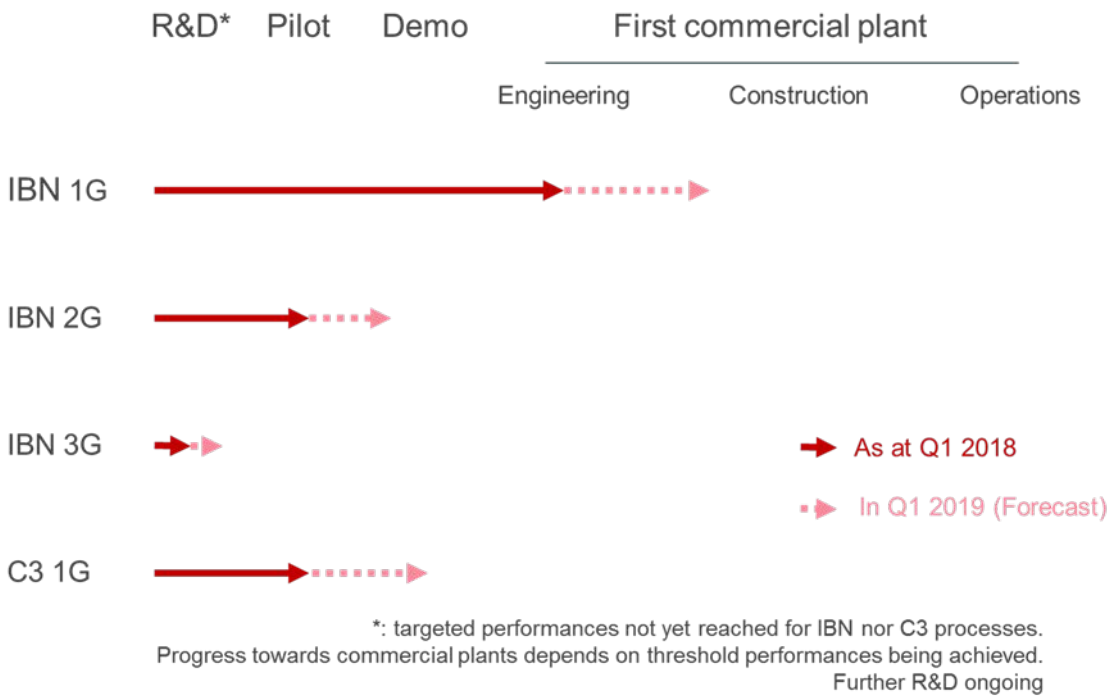
The economic and environmental potential of the approaches which capture and recycle CO_2 before this greenhouse gas dissipates into the atmosphere appears to be one of the long-term aims of industrial biology. The Group has structured its activity in the field by acquiring Syngip, a specialist company in this area.

These developments will enable the Company to continue deploying its technologies over the long term by favouring more environmentally-friendly resources.

6.4.2 Second area: diversification of products

The Company's resources are largely focused on scaling up the IBN process during the build-up phase of the Leuna demo plant and the commercial launch of the IBN process. However, the Group is actively developing a parallel process: the C3 process, so named because it aims to biologically produce acetone, isopropanol and propylene (compounds with three carbons).

The progress of the Isobutene process variants and the C3 process is specified in the following diagram:



Progress of the Group's three projects

Details concerning the C3 process are found in the following paragraphs.

6.4.3 C3 programme

6.4.3.1 Market

This process aims to produce three molecules which can be converted between themselves via simple chemical reactions, but which are of interest to different markets: acetone, isopropanol and propylene:

- acetone is a key intermediary in petrochemistry, and enjoys a 7 million tonnes market. It is used mainly as a solvent (33%), to produce organic glass (28%) and in the plastic industry (25%). A small part of this market may value a renewable origin;
- isopropanol has a smaller market (2 million tonnes) with applications in solvents, cosmetics, pharmaceuticals and agrochemicals. The nature of the markets makes it a choice target for the Group's C3 process, as its renewable nature may be of high value there;
- propylene is the second simplest hydrocarbon of the alkenes class, after ethylene. According to Platts and Nexant, demand for propylene in 2012 was 88 million tonnes. This represents a market of around $100 billion. The propylene market is expected to grow by 3.7% per year. Of this huge volume, a small proportion, representing a still-significant volume in millions of tonnes, is likely to come with a high price premium. The propylene market is so central to petrochemistry that it is worth detailing it in the following paragraphs.

63% of the propylene is used to produce polypropylene, a key plastic used in furniture and other consumer products as well as in the automotive industry (bumpers, dashboards, passenger compartment housing). It now represents about 7% of the weight of cars, increasing. The motor industry is indeed using more and more plastic to make vehicles lighter. Polypropylene has unique properties (strength, density, etc.) that make it indispensable in many other applications, such as packaging. Propylene oxide and acrylonitrile are the two most important applications behind polypropylene (7% demand for each i.e. around 6 million tonnes of propylene). Other major applications include cumene (6%) and acrylic acid (4%), followed by a range of niche products which together make up 11% of the propylene market.

Over the last five years the price of propylene has been marked by high volatility. Globally, it has increased from about $1,000/t in mid-2009 to about $1,500/t in 2013/2014. The price was around $800/t in January 2018 [41].

The competitiveness of the Group’s process faced with fossil propylene will be difficult to establish. However, some propylene applications seem suited to a premium related to the product’s bio-sourced origin, and major propylene users have announced in recent years the strategic importance that renewable polypropylene represents for them. They appear to be willing to pay a significant premium which will make the process profitable. The Group sees the production of acetone and isopropanol, which will also have price premiums, as a major complement for the commercialisation of its C3 process.

6.4.3.2 Results and objectives

The C3 process is undergoing rapid technological development and at the end of 2017, the Company announced the launch of its industrial scaling up. A successful initial fermentation at the pilot plant took place at ARD, the Group's long-standing subcontractor. Scaling up of the demo plant may also take place quickly.

[41] Argus DeWitt

Unlike isobutene, which required dedicated units to be built, the C3 process may be used in more conventional fermenters.

The C3 process relies on the use of high-carbon yield strains made by the Company. Using bacteria with reprogrammed central metabolism, the Company has been able to exceed in the lab the fermentation yield achievable via glycolysis in natural bacteria, while maintaining significant carbon flow to the products. These high-yield bacteria will be a key part of the competitiveness of the Group's C3 process and may also in future be used to produce many other chemical products.

6.4.3.3 Competition

In 2010, Braskem announced that it wanted to build a unit for the production of biological propylene from bioethanol with a capacity of 30 thousand tonnes. The construction of this unit had been pushed back for economic reasons in 2012 and then cancelled in 2013.

At conferences, some other industrial players have shown an interest in some molecules of the C3 process. Few results have been published to date.

Green Biologics is developing a process to produce acetone (amongst other products). This process, which is at the first plant stage, is probably the Company's main competitor for this C3 process. It is expected that the use of high-yield strains will be a major asset for the Company.

The positions of intellectual property from the various stakeholders in this area are not yet well known because not all the founding patents have yet been published. Several months or years will be needed to clarify this situation.

6.4.3.4 Partnerships

The very large size of the markets for C3, particularly propylene, brings together a large number of players with whom the Group can partner. Discussions are underway with some of them in the various application domains. Agreements will be signed under better conditions when the programme is more advanced. No partnership has therefore been signed to date for the C3 programme.

6.5 CONCLUSION AND OUTLOOK

In less than 10 years of existence, Global Bioenergies has managed to transform a theoretical vision into a proof of concept, then into a laboratory scale process before starting to scale it up to industrial scale. The ongoing operation of the demo plant is the final validation stage of the first biological process enabling the direct conversion of renewable resources into isobutene. This demo plant, now in full operation, produces at tonne scale, and enabled the validation of certain market applications (renewable LPG with Butagaz; first circuit car with Audi, etc.). The Company is gradually moving towards the commercialisation of the process.

While pursuing technical developments in its laboratories, Global Bioenergies has surrounded itself with an ecosystem of an ever growing number of industrial players who have shown an interest in these technologies. With them, the Group is now looking to the next phase of its development, which will focus on the large-scale commercialisation of its technologies. Global Bioenergies is currently working on the first commercial plant with the French sugar company Cristal Union, with which a joint venture has been set up. The engineering is ongoing, is being handled by Technip-FMC and IPSB, and the plant is now expected to go into operation in 2021. The financing of this first plant could be split into thirds: the first third financed by Cristal Union, the second third by infrastructure funds and the last third by bank loans. New discussions are underway in other European countries regarding other plant projects which could emerge alongside IBN-One.

The breakthrough innovation developed by Global Bioenergies allows the Group to be the sole player producing isobutene by direct fermentation, a field associated with a high entry barrier. It is likely that the number of players able to access this field will remain extremely limited over the long-term due to the scientific complexity and the extensive intellectual property portfolio which the Group already controls.

In the long term, the Group is aiming for the huge fuels market, which would be fully accessible when the price of a barrel of oil exceeds $120-$130. In the short term, the materials market, and in particular that of rubbers and plastics, should be accessible starting at $80 per barrel. Finally, with the regulatory obligations related to biofuels, - in particular the TGAP in France-, some plants could already be built and operated profitably on the basis of a barrel at $50-$60.

It seems imperative to us to ensure the sustainability of liquid fuels production. They are essential to our civilisation. As fossil resources are limited, the development of alternative processes towards them is key to a sustainable development, both environmentally friendly and less CO_2 intensive. This is not a question of selecting one option over another; it is an absolute necessity. In this context, adapting ultimately the Isobutene process to use industrial CO_2 as a feedstock could play a major role. This is one of the aims of the joint project the Company works on together with Audi.

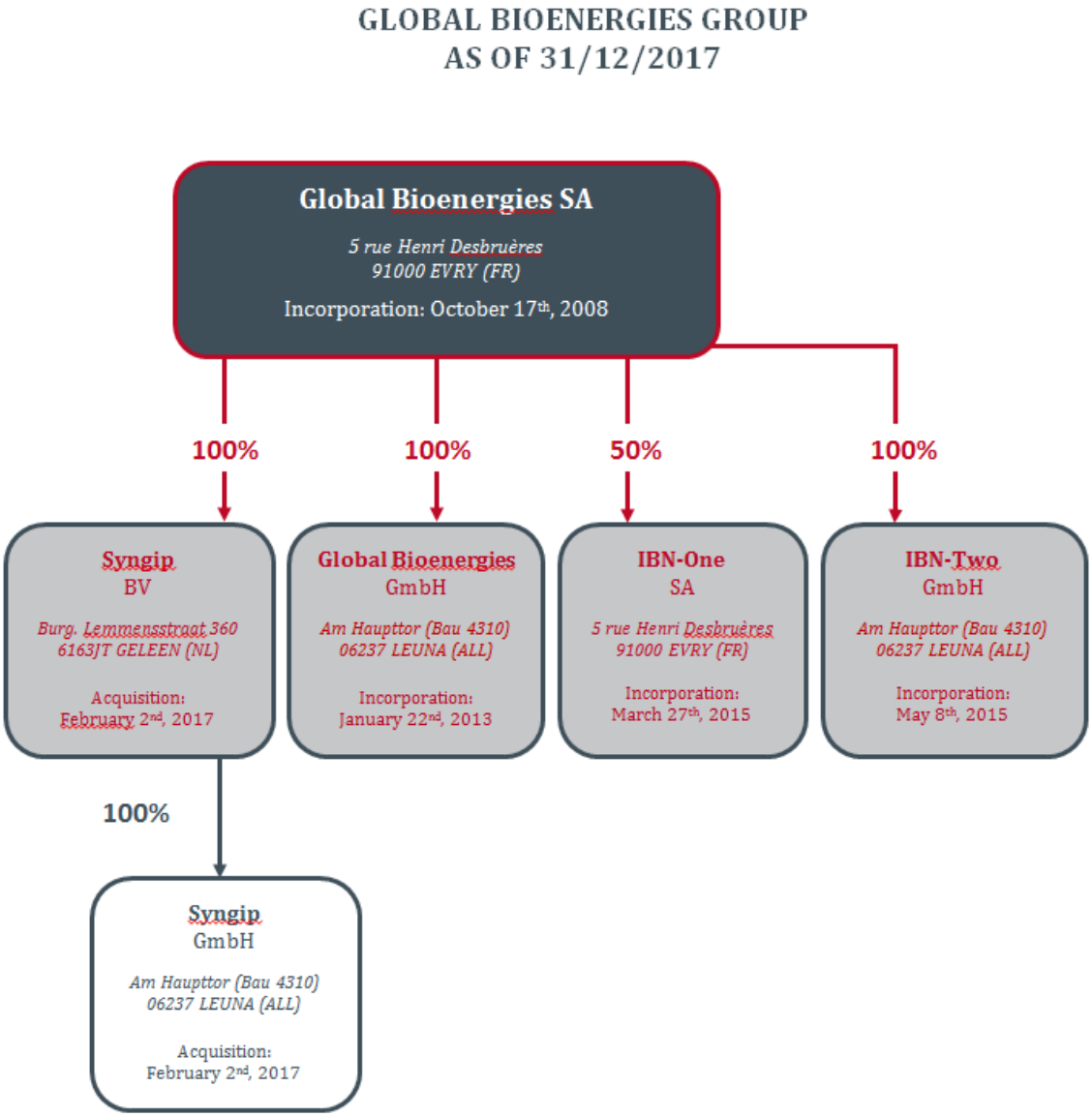
Unlike ethanol, a true gasoline produced from biomass or CO_2 will not require any investment in specific infrastructure for its commercialisation. Preliminary results show that the renewable gasoline produced by Global Bioenergies performs very well, and that it produces far fewer fine particles (which are harmful to health), compared with standard commercial gasoline. Once these results are confirmed, the Isobutene process will find itself at the heart of the energy transition. Hundreds or even thousands of plants could be set up eventually.

The plants will be commercialised by granting licences. The Group will generate revenues from the sale of engineering services, milestone payments and license fees. The concession of three plants would be enough to make the Group profitable. If success were measured in hundreds of licences granted, the Company would become the most profitable of all those involved in the energy and environmental transition.

7 ORGANISATIONAL STRUCTURE

7.1 LEGAL ORGANISATIONAL STRUCTURE

As at 31 December 2017, the Group's legal organisational structure was the following:



7.2 GROUP COMPANIES

Global Bioenergies SA based in Evry (91000), France, set up on 6 October 2008.

Global Bioenergies GmbH based in Leuna, Germany, a wholly-owned subsidiary of the Company. Founded on 22 January 2013, it had six employees on 31 December 2017. This subsidiary houses the Group's demo plant on the Leuna site. It is headed by Ales Bulc. The construction of the Leuna demo plant, costing a total of €11.5 million, was completed in the autumn of 2016 and depreciation began on 1 April 2017, for a period of 48 months. It should be noted that Global Bioenergies GmbH invoices Global Bioenergies SA for the depreciation of that demo plant (€2.16 million invoiced in 2017) since it is not the German subsidiary's business to sell the operating licenses for the technologies developed by the Group. In addition to the operation of the demo plant, Global Bioenergies GmbH aims to offer engineering services to companies to build and operate plants that implement the Group's processes.

Overview of the Global Bioenergies GmbH balance sheet as at 31 December 2017

Assets (€ thousands)	*31/12/2017*	*31/12/2016*
Assets	9,429	4
Assets under construction	16	10,384
NON-CURRENT ASSETS	**9,445**	**10,388**
Receivables and inventories	3,998	1,479
Cash	506	1,990
Prepaid expenses	8	9
CURRENT ASSETS	**4,512**	**3,477**
TOTAL ASSETS	**13,957**	**13,866**

Liabilities (€ thousands)	*31/12/2017*	*31/12/2016*
Capital	25	25
Retained earnings	(303)	(1,215)
Profit (loss)	(660)	912
EQUITY	**(938)**	**(278)**
Current account advances	11,839	11,096
Trade accounts payable	3,036	3,007
Other payables	20	41
PAYABLES	**14,895**	**14,144**
TOTAL LIABILITIES	**13,957**	**13,866**

Total current account advances granted by Global Bioenergies SA to Global Bioenergies GmbH stood at €11.8 million as at 31 December 2017. Trade accounts payable included, in particular, unpaid invoices relating to the services provided in the last quarter of each financial year by the Fraunhofer Institute, which is in charge of operating the Leuna demo plant.

Conversely, the receivables represented the recognition of provisions related to the receipt of the grant from the German Ministry of Education and Research and to the invoicing of Global Bioenergies SA for the depreciation charges of the demo plant. The beginning of the depreciation of the demo plant resulted in a reduction in fixed assets.

Overview of the Global Bioenergies GmbH profit and loss statement as at 31 December 2017

€ thousands	from 01/01/17 as at 31/12/17	from 01/01/16 as at 31/12/16
Operating income	**5,671**	**3,806**
Revenue	*3,623*	*950*
Services provided to the SA	*1,460*	*950*
Inv. Global Bioenergies SA demo plant depr.	*2,163*	*-*
Operating subsidies	*2,041*	*2,856*
Other income	*6*	*-*
Operating expenses	**6,129**	**2,706**
Staff costs	*681*	*580*
Industrialisation expenses	*3,126*	*1,987*
Amortisation	*2,168*	*4*
Other	*154*	*136*
Operating profit (loss)	**(459)**	**1,100**
Financial profit (loss)	**(201)**	**(188)**
Net profit (loss)	**(660)**	**912**

Revenue corresponds to the invoicing for R&D services performed by the subsidiary for the parent company and, starting in 2017, to the invoicing for the depreciation costs of the demo plant. In addition to staff costs, operating expenses are spent mainly on subcontracting expenses related to the ramp-up of various projects related to the Leuna demo plant, in particular its commissioning during the year. The depreciation of the demo plant, which began on 1 April 2017, represented €2.16 million in operating expenses.

IBN-One SA

based in Evry (91000), France, IBN-One SA was set up on 27 March 2015 for the construction and operation of a plant dedicated to transforming renewable resources into valuable molecules, in particular isobutene, as well as the marketing of this product. It recognised a loss of €1.14 million at the end of its first financial' year', which ran from 27 March 2015 to 31 December 2016. In fiscal year 2017, the net loss amounted to €578,000. On 18 May 2015, a historical partner and shareholder of the Company, Cristal Union, subscribed for shares as part of a capital increase of IBN-One SA, which is now 50% owned by Cristal Union, via its subsidiary Cristal Financière, and 50% by the Company. On Cristal Union's acquisition of a stake in IBN-One SA, a shareholders' agreement was signed between the Company and Cristal Financière, in order to define the governance of IBN-One SA, as well as said company's share transfer terms. The shareholders' agreement provides that the Board of Directors shall be composed of a maximum of four members, with each party choosing two members. As at 31 December 2017, the Board of Directors of IBN-One SA was composed of (w) Bernard

Chaud, Chairman of the Board of Directors and CEO, chosen by the Company, (x) Global Bioenergies SA whose permanent representative is Marc Delcourt, (y) Cristal Financière whose permanent representative is Jérôme Bignon and (z) Xavier Astolfi, chosen by Cristal Financière. The shareholders' agreement provides that a certain number of governance decisions shall be adopted unanimously by the directors chosen from among the candidates proposed by Cristal Union and the Company prior to their adoption by the Chairman, the Deputy CEO or the company's general meeting. This particularly concerns the decisions relative to the adoption and modification of the annual budget, any loans, borrowings, investments or divestments exceeding the company's annual budget by more than 20%, the signing of regulated agreements, the appointment or dismissal of the CEO or Deputy CEO or the modification of their remuneration, any external growth operation, and any change in the company's business.

Under the terms of the partnership described above, the Company granted IBN-One a licence for the exploitation of its Isobutene process, for the construction and operation of a plant in France with a production capacity of 50,000 tonnes per year. An agreement was signed on 18 May 2015 between the Company, Cristal Union and IBN-One, in the aim of laying down the terms and conditions of their collaboration, initially focusing on defining the key stages of the process targeting the construction of the IBN-One plant. The second stage will focus on the conduct of additional studies to be identified during the first stage.

Overview of the IBN-One SA balance sheet as at 31 December 2017 ***(2016 fiscal year from March 2015 to December 2016)***

Assets (€ thousands)	*31/12/2017*	*31/12/2016*
Assets	-	-
Assets under construction	-	-
NON-CURRENT ASSETS	**-**	**-**
Receivables and inventories	129	270
Cash	265	844
Prepaid expenses	-	-
CURRENT ASSETS	**394**	**1,114**
TOTAL ASSETS	**394**	**1,114**

Liabilities (€ thousands)	*31/12/2017*	*31/12/2016*
Capital	1,000	1,000
Retained earnings	(1,137)	-
Profit (loss)	(578)	(1,137)
EQUITY	**(715)**	**(137)**
Conditional advances	501	501
Current account advances	507	503
Trade accounts payable	76	236
Other payables	1	10
PAYABLES	**1,109**	**1,251**
TOTAL LIABILITIES	**394**	**1,114**

The IBN-One SA balance sheet shows the financing received to start the plant's initial pre-engineering works. In addition to the original capital, IBN-One received current account advances from its two shareholders of €500,000 and a conditional advance of €501,000, paid by ADEME in the context of the ISOPROD project (ultimately, IBN-One could receive up to €3.3 million through this project).

Overview of the IBN-One SA profit and loss statement as at 31 December 2017

€ thousands	from 01/01/17 as at 31/12/17	from 27/3/15 as at 31/12/16
Operating income	**-**	**60**
Revenue	-	*60*
Operating expenses	**545**	**1,196**
Operating profit (loss)	**(545)**	**(1,136)**
Financial profit (loss)	**(33)**	**(1)**
Net profit (loss)	**(578)**	**(1,137)**

The expenses recognised by IBN-One are part of the pre-engineering works. Note that IBN-One does not have any employees or equipment and leases the office occupied to Global Bioenergies SA. Expenses also include management fees invoiced by Global Bioenergies SA.

Income recognised in the profit and loss statement for the first fiscal year corresponds to revenue from the partners Aspen and Butagaz, which contribute financially to research efforts to secure access to future production from the Leuna demo plant and the IBN-One plant.

IBN-Two GmbH

A Company's wholly-owned subsidiary based in Munich, Germany. This subsidiary was set up on 8 May 2015 for the construction and operation of a plant to transform renewable resources into hydrocarbons in Germany. The Company is contemplating partnerships with investors on a similar model as that used with IBN-One. It has no employees.

Syngip BV

A wholly owned third-generation industrial biology start-up, Syngip BV was founded in 2014 in the Netherlands. It is developing a process for converting gaseous carbon resources, such as CO2, CO, or industrial wastes such as syngas into chemical compounds of industrial value. Its main targets are light olefins and large petrochemical molecules, including isobutene. It was acquired by Global Bioenergies SA on 2 February 2017. It had five employees as at 31/12/2017.

Overview of Syngip BV profit and loss statement at 31 December 2017 (11 months)

€ thousands	from 01/02/17 at 31/12/17
Operating income	**537**
Revenue	*503*
Subsidies	*34*
Operating expenses	**774**
Staff costs	*276*
Industrialisation expenses	*35*
Laboratory costs	*306*
Hire and maintenance	*37*
Amortisation	*24*
Other	*97*
Operating profit (loss)	**(238)**
Financial profit (loss)	**(15)**
Exceptional profit (loss)	**-**
Net profit (loss)	**(253)**

Note that in the revenue, €0.5 million is re-invoiced to Global Bioenergies SA for research activities, the results of which will be commercially exploited by Global Bioenergies SA, not by Syngip BV. The cost structure is similar to the observable cost structure of Global Bioenergies SA in its first years of existence: Syngip BV can be considered as an upstream "offshoot" of the Evry laboratory, tasked with all research related to so-called third-generation substrates.

Overview of Syngip BV balance sheet as at 31 December 2017 (11 months only)

Assets (€ thousands)	*31/12/2017*
Assets	13
Assets under construction	138
NON-CURRENT ASSETS	**151**
Receivables and inventories	734
Cash	48
Prepaid expenses	-
CURRENT ASSETS	**783**
TOTAL ASSETS	**934**

Liabilities (€ thousands)	*31/12/2017*
Capital	0.1
Retained earnings	(318)
Profit (loss)	(253)
EQUITY	**(570)**
Conditional advances	-
Current account advances	1,285
Trade accounts payable	87
Other payables	132
PAYABLES	**1,504**
TOTAL LIABILITIES	**934**

Receivables included in particular the invoicing of Global Bioenergies SA for research services for €0.5 million. Current account advances stood at nearly €1.3 million.

Syngip GmbH

Syngip GmbH is a Frankfurt-based German company wholly-owned by Syngip BV. It was founded in November 2015 and created to facilitate the financing of Syngip BV by German investors. It has no employees.

7.3 MAIN INTRA-COMPANY FLOWS

A cash management agreement was signed between the Company and its subsidiary Global Bioenergies GmbH. From the creation of Global Bioenergies GmbH until 31 December 2017, the Company granted a total of €11.74 million in current account advances at the maximum tax-deductible rate of interest of the associates' current accounts[42].

Global Bioenergies GmbH also carries out various R&D services on behalf of the Company, for which the Company is invoiced. These services were represented by total invoices of €980,000 in 2015, €945,000 in 2016 and €1,451,000 in 2017. Since 2017, Global Bioenergies GmbH has re-invoiced Global Bioenergies SA for the depreciation costs of the demo plant (€11.5 million over 48 months from 1 April 2017, i.e. €2.16 million invoiced in 2017), whose primary use is to demonstrate that the technology developed by the Evry laboratory can be replicated on an industrial scale. This will ultimately enable Global Bioenergies SA to sell licences to exploit its technology.

A cash management agreement has also been established between the IBN-One subsidiary and the Company, which granted €250,000 in current account advances to IBN-One in September 2016, also at the maximum tax-deductible rate of interest of the associates' current accounts. Rent and management fees are invoiced to IBN-One by the Company. The total amount invoiced since the creation of IBN-One in 2015 is €288k.

Finally, a third cash management agreement has been established between Syngip BV and the Company, which granted €1.28 million in current account advances also at the maximum tax-deductible rate of interest of the associates' current accounts. Management fees and molecular biology services are invoiced to Syngip BV by the Company. The total invoiced in 2017 for those various items is €111,000. Conversely, Syngip BV invoices Global Bioenergies for the research it conducts (€503,000 in 2017) because the results obtained would be commercially marketed by Global Bioenergies SA, not Syngip BV

[42] Articles 39 and 212 of the French General Tax Code

8 PROPERTY, PLANT AND EQUIPMENT

The Group leases the sites on which it operates. The buildings leased as at 31 December 2017 are described in the table below:

Address	Surface area	Rent	Lessor/Main tenant	Start of lease	Lease expiry date
5, rue Henri Desbruères 91000 EVRY	Offices and labs 2,315 sq. m.	€155,000 excl. tax per quarter (including charges)	SEM Genopole	15 March 2010 and 1 January 2015	14 March 2019 and 31 December 2029
Am Haupptor Leuna Germany	Offices and technical facilities	-	-	-	-
Burg. Lemmensstraat 360 6163JT Geleen Netherlands	Offices and labs 100 sq.m.	€9,000 excl. tax per quarter (including charges)	Chemelot Campus Vastgoed CV/ DBSL BV	1 September 2015	-

9 REVIEW OF THE FINANCIAL SITUATION AND RESULTS

The information which follows relates to the Group's financial situation and operating income, and must be read and studied against all the information in the Registration Document, particularly the Group's audited consolidated financial statements, which can be found in Chapter 20 of the Registration Document, entitled "Financial Information about the Group's assets, financial situation and results".

9.1 MAIN FACTORS INFLUENCING THE GROUP'S RESULTS

The Group specialises in industrial biology and its main activity is research into and development of innovative bio-processes to convert renewable resources into gaseous olefins, hydrocarbons which currently result from the petrochemical industry.

Given the progress of its programmes, the Group is currently in a research, development and industrialisation phase, which requires appropriate human and material investments, particularly through the use of highly-qualified research and development teams, and scientific equipment specific to its activity. It also devotes a significant part of its resources to protecting its intellectual property base by filing international patent applications (see Chapter 11 of the Registration Document).

After successfully completing the first discovery phase of the Isobutene bio-process, the Group is focusing mainly on developing and industrialising its technologies, then licensing them to industrial partners who will exploit them on a large scale. The Group will then generate the first operating income from its business model, which consists of royalties related to licensing agreements. The objective is for exclusive licence agreements to be drawn up on a per-application basis, according to different markets and geographic areas.

Since it was established, the Group has been making significant losses. These losses are related mainly to the research and development expenses required to make progress on the programmes conducted by the Group. The Group has opted to record its research and development costs under operating expenses. For this reason, they do not appear as assets in the balance sheet.

For eight years, the parent company, Global Bioenergies SA has benefited from Young Innovative Company (JEI) status, which enables it to reduce social security contributions for employees involved in research and development activities. This scheme cannot be extended beyond eight years of existence. The fiscal year ended 31 December 2015 was therefore the last year that the Company could benefit from this status.

Due to the Company’s significant research and development expenditures and the nature of its operations, Global Bioenergies SA is also eligible for Research Tax Credit (CIR), a refundable tax credit. The methods used to calculate the CIR are based on the Company's scientific and/or technological expenses: these mainly include personnel costs for researchers and technicians involved, related operational expenses, expenditure on research and development outsourced to public or approved bodies, universities or public interest foundations, technology surveillance expenses up to €60,000, as well as patent protection costs. The Research Tax Credit is granted as a reduction in corporation tax equal to 30% of total eligible expenses. When the company has a tax deficit, the CIR is reimbursed the following financial year.

In 2017, Company expenditures covered by the Research Tax Credit amounted to €6,664,000 after deduction of received subsidies.

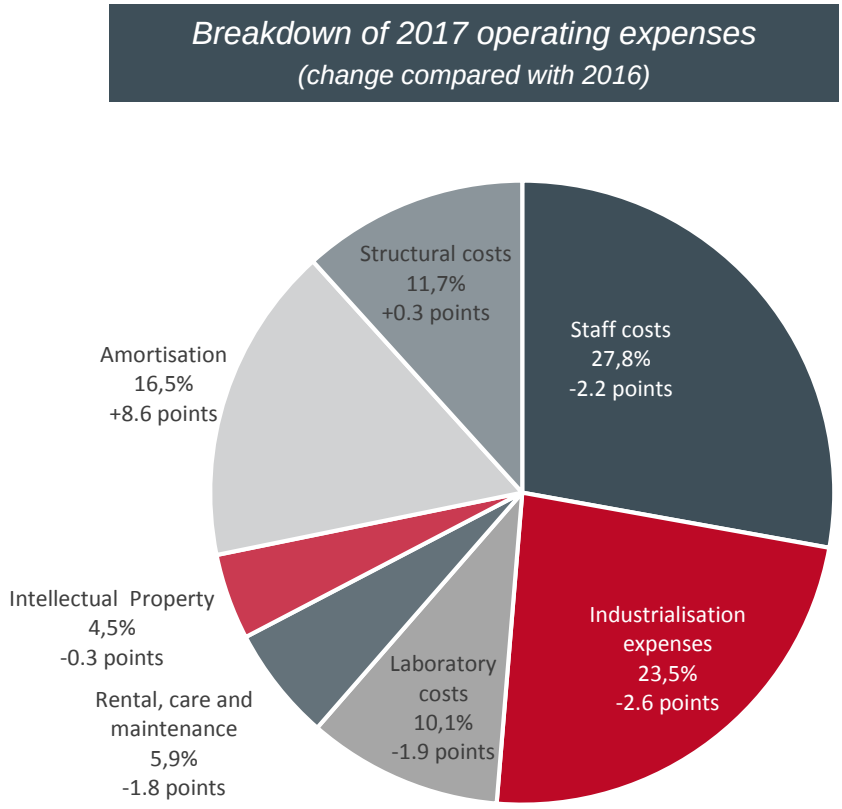
To meet the financing needs of its research and development work, the Group also received funding packages and innovation support from the French and German governments or European funds. All of the assistance granted to the Group is outlined in Chapter 10.1.3 of the Registration Document.

9.2 GENERAL INTRODUCTION TO THE DIFFERENT ITEMS IN THE GROUP'S PROFIT AND LOSS ACCOUNT

9.2.1.1 Operating income

Operating income recorded in the profit and loss account is made up of two components: income from agreements entered into with its industrial partners and subsidies received by the Group to finance its research and development projects.

9.2.1.2 Operating expenses



Staff costs constituted the Group's largest expense item. Eight out of ten employees are directly involved in R&D work. The average number of employees was 66 at Group level in 2017 and 61 in 2016.

The second-largest expense item was **industrialisation expenses**.

The Group subcontracted to ARD (a subsidiary of the Cristal Union sugar group) the operation of the pilot plant at Pomacle-Bazancourt and a series of fermentation runs have been conducted since the first runs carried out in late 2014. The results from these runs are used to continue the work to select the best possible strains and protocols.

In Germany, due to the construction of the demo plant, expenses in 2015 and 2016 were mainly recognised on the balance sheet (increase in Global Bioenergies GmbH non-current assets: +€4.3 million in 2015, +€6.2 million in 2016, +€1.2 million in 2017). The charges included in the Global Bioenergies GmbH profit and loss account correspond mainly to the services provided by the Fraunhofer Institute, which operates the demo plant. These services include engineering and the training and provision of about fifteen employees from the Institute to operate the demo plant.

The subsidiary IBN-One, which is carrying out the project to build the first plant to operate the processes developed by the Group, has recognised industrialisation expenses related to preliminary engineering work.

Lastly, several chemical engineering companies with which Global Bioenergies has been working since 2013 continue to assist in optimising process operating protocols on an industrial scale.

The third largest expense is represented this year by **amortisation**. This item is up sharply because depreciation of the Leuna demo plant began on 1 April 2017. This item also includes depreciation allowances for Evry and Syngip laboratory equipment and equipment for the Pomacle pilot plant. It also includes an allowance calculated for leased equipment, as part of the restatements made due to the consolidation of the Group's financial statements.

Laboratory costs consist mainly of purchases of consumables necessary for research and development work such as: chemical products, disposable materials and high-value consumables to be installed on equipment. These products are purchased from specialised suppliers. Certain specific products are custom made by specialist chemical or genomics subcontractors. As a result, different subcontractors produce the chemical compounds specific to the metabolic pathways studied by the Group (synthesis chemistry), or perform analyses of the samples produced by using them (analytical chemistry). Several companies also specialise in the manufacture of custom oligonucleotides (DNA fragments useful for genetic manipulation) or in gene sequencing.

Intellectual property expenses correspond to the fees of the German firm Vossius, one of the largest intellectual property law firms in Europe, and to the royalties paid by the Group to SCIENTIST OF FORTUNE SA under two licensing agreements with Philippe Marlière, who controls the company (see Section 11.2 for more details). The significance accorded to this expense item reflects the crucial importance for the Group of protecting its intellectual property rights to continue its business development.

Rental, care and maintenance expenses are related to rents on the premises occupied by the Group to conduct its activities and the rental and lease of laboratory equipment in Evry, as well as its care and maintenance.

Finally, **structural costs** include other expenses categories that include:

- consultancy: the Group subcontracts business development support, financing application design and specialist scientific work to different companies;
- IT services: the Group subcontracts the management of its computer network;
- fees paid to lawyers, the Statutory Auditors, the accounting consultancy firm and public relations companies;
- expenses for documentation, technology surveillance and seminars and conferences attended by the Group's key members;
- assignment and travel expenses;
- miscellaneous costs, including a certain number of administrative and general costs required for the Group's operation (insurance premiums, financial fees, office expenses, etc.);
- various taxes such as the apprenticeship tax, continued training tax, business tax, registration fees and stamp duty.

9.2.1.3 Financial earnings

The Group's financial income come from:

- remuneration from the Group's cash investments and their sale. The Group manages its liquid assets carefully; it only uses limited-risk money market funds (SICAVs) and term accounts;
- exchange rate gains, for small amounts.

9.2.1.4 Financial expenses

The Group's financial expenses come from:

- interest recognised on loans with lending institutions;
- interest recognised on repayable advances received;
- exchange rate losses, for small amounts.

9.2.1.5 Exceptional income and expenses

Exceptional profit (loss) is mainly made up of the balance of treasury-share buyback transactions.

9.2.1.6 Income tax

Since its creation, the Group has recorded losses.

The income tax calculation includes the deduction of the Research Tax Credit (CIR), considered as income, for which the Company has been eligible since its creation. The methods for calculating the CIR are described above in Section 9.1 "Main factors influencing the Group's results" in the Registration Document.

9.3 REVIEW OF THE FINANCIAL SITUATION AND RESULTS OF THE CONSOLIDATED FINANCIAL STATEMENTS AS AT 31 DECEMBER 2016 AND 31 DECEMBER 2017

The details of the Global Bioenergies SA statutory financial statements are given in Chapter 20.2, and an overview showing the main aggregates of the profit and loss statement appears below:

€ thousands GLOBAL BIOENERGIES SA	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
Operating income	738	933
Operating expenses	15,222	13,041
Operating profit (loss)	(14,484)	(12,108)
Financial profit (loss)	(379)	(249)
Exceptional profit (loss)	(38)	(50)
Income tax	(1,999)	(1,896)
Net profit (loss)	**(12,902)**	**(10,511)**

Proposed allocation and distribution of Global Bioenergies SA profit and loss:

The Global Bioenergies SA 2017 annual financial statements report a loss of €12,902,497. Shareholders are asked to allocate the entire loss to retained earnings, which would then amount to -€51,848,053. In accordance with Article 243 bis of the French General Tax Code, no dividend was paid for the previous three fiscal years. In accordance with Articles 223 quater and 223 quinquies of the French General Tax Code, the financial statements for the past fiscal year do not include any expenses that are not tax-deductible.

The table below summarises the main aggregates of the consolidated profit and loss account[43]:

€ thousands GLOBAL BIOENERGIES GROUP	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
Operating income	2,369	3,292
Operating expenses	18,002	15,216
Operating profit (loss)	(15,634)	(11,924)
Financial profit (loss)	(708)	(530)
Exceptional profit (loss)	89	(50)
Income tax	(1,999)	(1,896)
Net profit (loss)	**(14,253)**	**(10,607)**

[43] The costs of the capital increases were charged to the related issue premiums through a transfer of expenses. In the tables below, these expenses were deducted from operating expenses and the transferred expenses were correspondingly deducted from operating income.

9.3.1 Formation of consolidated operating result

9.3.1.1 *Revenue and operating income*

€ thousands	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
OPERATING INCOME	2,369	3,292
REVENUE	306	536
OPERATING SUBSIDIES	2,053	2,750
OTHER INCOME	10	6

Revenue: €306,000 in 2017

Revenue for 2017 was generated through partnerships established with Audi and Clariant, respectively. It should be noted that this revenue is not representative of the business model pursued by the Group. In fact, this revenue corresponds to remuneration for studies and research to make advances in the processes developed.

Subsidies: €2,053,000 in 2017

In 2017, Global Bioenergies recognised the first subsidies paid by the European Commission as part of the project supported by the BBI-JU (OPTISOCHEM), for a total of €266,000. Most of the grants recognised in the profit and loss account come from the two grants awarded by the German Ministry of Research for the operation of the Leuna demo plant and for the identification of market opportunities for the production of fuel additives from biosourced isobutene (€2,041,000 in total, including €289,000 in the balance sheet as equipment subsidies). Lastly, the Syngip subsidiary received a subsidy of €37,000 during the year.

9.3.1.2 Operating expenses

The Group has opted to record its research and development costs under expenses. Therefore, these research and development costs are not recorded on the assets side of the balance sheet.

€ thousands	from 01/01/17 as at 31/12/17 (12m)	from 01/01/16 as at 31/12/16 (12m)
OPERATING EXPENSES	18,002	15,216
STAFF COSTS	**5,010**	**4,570**
Average number of employees (No.)	*65*	*61*
INDUSTRIALISATION STUDIES	**4,227**	**3,972**
LABORATORY COSTS	**1,819**	**1,831**
laboratory consumables	*33%*	*54%*
laboratory subcontracting	*67%*	*46%*
HIRE AND MAINTENANCE	**1,067**	**1,174**
INTELLECTUAL PROPERTY	**802**	**729**
licence fees	*32%*	*29%*
legal fees in relation to IP	*68%*	*71%*
AMORTISATION	**2,970**	**1,201**
STRUCTURAL COSTS (1)	**2,107**	**1,739**

(1) Restated for transfers of expenses related to capital increase expenses charged to equity

Staff costs: €5,010,000 in 2017

As at 31 December 2016, the Group employed a total of 60 employees, including six employed by the German subsidiary Global Bioenergies GmbH. One year later, the Group had 69 employees, including six employed by Global Bioenergies GmbH and five employed by Syngip BV.

The increase in staff costs between 2016 and 2017 is explained in particular by the increase in employee numbers. As a reminder, the Company lost its JEI status in 2016.

Industrialisation studies: €4,227,000 in 2017

This item includes expenditures related to the scaling up of processes from the laboratory. This scaling up includes three consecutive steps: the Pomacle-Bazancourt pilot plant, the Leuna demo plant; and finally the adaptation of the processes to the specifications of full-scale plants. Changes in this item between 2016 and 2017 (+€255,000) are mainly the result of the progress made in the construction of the Leuna demo plant and its commissioning. This increase is also driven by the development of the IBN-One project. The use of the Pomacle-Bazancourt pilot plant has remained stable from one year to the next.

Laboratory costs: €1,819,000 in 2017

The expenses for this item are driven by the laboratories at Evry and Geleen, in the Netherlands (Syngip BV subsidiary). These expenses are traditionally strongly correlated with the number of employees working in the laboratory.

Rental, care and maintenance expenses: €1,067,000 in 2017

The decrease in expenses is due in particular to the expiry of several leasing agreements and thus the end of the associated fees.

Patent and intellectual property fees: €802,000 in 2017

This item was given special monitoring. Global Bioenergies holds exclusive rights to a portfolio of approximately 30 internationally extended patent families.

Amortisation: €2,970,000 in 2017

The increase in amortisation is related mainly to the start of depreciation of the Leuna demo plant, recognised in the financial statements for a value of €11.5 million and amortised over four years. Depreciation of that plant began on 1 April 2017.

Structural costs: €2,107,000 in 2017

The structural costs and operating expenses were limited to 11.7% of total operating expenses, compared to 11.4% in 2015 and 13.1% in 2015.

9.3.2 Formation of the operating profit (loss) before tax

9.3.2.1 Financial profit (loss)

€ thousands	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
FINANCIAL PROFIT (LOSS)	(708)	(530)
FINANCIAL INCOME	21	50
FINANCIAL EXPENSES	729	579

The decline in the Group's financial income resulted from the decrease in amounts placed in term accounts and the related rates of remuneration and the use of bank loans and repayable advances to finance various Group activities.

9.3.2.2 Operating profit (loss) before tax

The current operating loss before tax was -€16.3 million as at 31 December 2017; it was -€12.4 million as at 31 December 2016.

9.3.3 Net profit (loss)

9.3.3.1 *Exceptional profit (loss)*

€ thousands	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
EXCEPTIONAL PROFIT (LOSS)	89	(50)
EXCEPTIONAL INCOME	155	36
EXCEPTIONAL EXPENSES	65	85

Exceptional profit (loss) is mainly made up of the balance of the treasury share buyback transactions, as well as the reincorporation, in the profit and loss account and at the pace of the depreciation of the demo plant, of equipment subsidies paid by the German government and therefore recognised in the balance sheet.

9.3.3.2 *Net profit (loss) for the year*

€ thousands	from 01/01/17 as at 31/12/17 12 months	from 01/01/16 as at 31/12/16 12 months
Operating profit (loss)	(15,634)	(11,924)
Financial profit (loss)	(708)	(530)
Operating profit (loss) before tax	(16,342)	(12,453)
Exceptional profit (loss)	89	(50)
Income tax (CIR)	(1,999)	(1,896)
Net profit (loss)	**(14,253)**	**(10,607)**

9.3.4 Consolidated balance sheet

Assets (€ thousands)	31/12/2017	31/12/2016	31/12/2015
Intangible assets	1,267	69	106
Assets	11,075	12,182	7,230
Financial assets	365	146	142
NON-CURRENT ASSETS	**12,707**	**12,397**	**7,478**
Inventories - Receivables - Prepaid Expenses	4,504	5,074	4,313
Cash and equivalents	13,639	8,066	10,418
CURRENT ASSETS	**18,143**	**13,140**	**14,731**
TOTAL ASSETS	**30,850**	**25,537**	**22,209**

Liabilities (€ thousands)	31/12/2017	31/12/2016	31/12/2015
Capital	224	168	142
Share premium	67,867	49,409	37,817
Retained earnings	(40,673)	(30,066)	(19,665)
Profit (loss)	(14,253)	(10,607)	(10,395)
Equipment subsidies	553	391	0
EQUITY	**13,718**	**9,295**	**7,899**
PROVISIONS	**57**	**42**	**30**
Conditional advances and loans	10,213	11,482	10,440
Trade payables and related accounts	4,622	4,120	3,181
Other debts	2,240	597	660
PAYABLES	**17,075**	**16,200**	**14,281**
TOTAL LIABILITIES	**30,850**	**25,537**	**22,209**

9.3.4.1 Fixed assets

Changes in this item reflect the end of construction on the Leuna demo plant and the beginning of its depreciation. The method of consolidation used recognises as non-current assets the finance-leased items. The restated net amount stood at €0.34 million, corresponding to a gross amount of €2.4 million from which €2.06 million of depreciation already charged was deducted.

Schedule of financial lease fees as at 31/12/2017

2017	2018	2019	2020	2021	Total
€456,000	€157,000	-	-	-	**€612,000**

9.3.4.2 Current assets

Receivables remain high mainly because of significant provisions for Global Bioenergies GmbH regarding the receipt of the two BMBF subsidies. The Group's gross cash position amounted to €13.6 million as at 31 December 2017; it was €8.0 million a year earlier.

9.3.4.3 Equity

On 29 June 2017, the Board of Directors decided to increase capital through a private investment issuance of 640,000 new shares at a unit price of €16.00, issue premium included. The gross amount of the subscription was therefore nearly €10.25 million. Various OCA conversions under the Bracknor contract (€6.9 million cash received) also occurred. The industrial partner Audi also exercised the BSA it held for €750,000. The costs related to these various transactions were charged to the issue premium for an amount of €737,000.

9.3.4.4 Payables

In 2014, the Group contracted its first bank loan, obtaining €800,000 from BNP-Paribas to finance the 500 litre fermenter at the Pomacle-Bazancourt pilot plant as well as part of new acquisitions at the Evry laboratory. A second loan of €218,000 was also contracted in 2014 with Société Générale, to finance more laboratory equipment and site works. The repayment of these two loans continued during the 2017 fiscal year (-€257,000).

In 2015, the Group obtained a new €4.4 million loan from a consortium of four French banks (BNP-Paribas, Société Générale, CIC and Bpifrance) to supplement the financing of the Leuna demo plant. It also obtained an interest-free innovation loan (PTZI) from Bpifrance amounting to €1.4 million. The amortisation of these two loans continued during the 2017 fiscal year (-€882,000).

Since 2014, Global Bioenergies received several payments from ADEME as repayable advances related to the BioMA+ project and received the balance of that grant in late 2016 following the success of the programme. The Group also received the first payment for the ISOPROD project from ADEME. Accrued interest not yet due increased (+€539,000) due to the deferred reimbursement granted by ADEME.

The Group also began in 2016 and continued in 2017 to repay Bpifrance for an interest-free innovation loan issued in 2013 to support the Isobutene programme (-€148,000).

The remainder of the change corresponds to the recognition in borrowings of the net value of the equipment acquired through leasing and capitalised as a result of the consolidation of the financial statements (-€361,000) and to the valuation of the balance outstanding of convertible bonds from the Bracknor contract unconverted as at 31 December 2017 (+€300,000).

CONDITIONAL ADVANCES AND LOANS [44]	31/12/2016	Increase	Decrease	31/12/2017
BPIFRANCE	€2.600m	-	-€0.249m	€2.351m
BNP	€1.483m	-	-€0.500m	€0.983m
SOCIETE GENERALE	€1.145m	-	-€0.354m	€0.792m
CIC	€0.558m	-	-€0.158m	€0.400m
ADEME	€4.385m	+€0.539m	-	€4.924m
RECOGNITION OF FINANCE-LEASED ASSETS UNDER FIXED ASSETS	€0.698m	-	-€0.361m	€0.337m
ASSOCIATES' CURRENT ACCOUNTS	€0.126m	-	-	€0.127m
OCA BRACKNOR II BALANCE	€0.488m	+€0.300m	-€0.487m	€0.300m
Total	**€11,482,000**	**+€840,000**	**-€2,108,000**	**€10,213,000**

[44] Includes accrued interest

The change in trade accounts payable and the amounts provisioned for outstanding invoices is explained mainly by the fact that Global Bioenergies, as coordinator of the Optisochem project, received all of the grant awarded for all partners. It was then responsible for redistributing the grant according to the rules established by the consortium. As at 31 Dec 2017, part of the grant received had yet to be distributed and therefore appears in the Company's debts.

Company trade accounts payable of the at the end of the year

	Not yet due	1 to 30 days	31 to 45 days	46 to 90 days	**Total**
2014	€1,185,000	€438,000	€71,000	€124,000	**€1,818,000**
2015	€981,000	€31,000	€4,000	€36,000	**€1,024,000**
2016	€653,000	€75,000	€49,000	€34,000	**€811,000**
2017	€927,000	€485,000	€9,000	€3,000	**€1,423,000**

10 CASH AND CAPITAL

10.1 THE GROUP'S SHORT- AND MEDIUM-TERM CAPITAL

Information on the Company's and the Group's equity can be found in Section 20 *"Financial information on the Group's assets, financial situation and results"* in the Registration Document.

As at 31 December 2017, the Group's cash position amounted to €13.6m, compared with €8.1m as at 31 December 2016. The Group's cash, marketable securities and liquid instruments only include limited-risk money market funds (SICAVs), term deposits or accounts and current accounts. This cash and these marketable securities serve to finance the Group's activities, particularly its research, development and industrialisation costs.

Since its creation in 2008, the Group has been financed as follows:

In thousands of euros	Capital increase[45]	Subsidies	Repayable advances	Innovation loans	Bank loans[46]	Total
From 17/10/08 to 30/06/09	637	0	0	0	0	**637**
From 01/07/09 to 30/06/10	600	20	330	0	0	**950**
From 01/07/10 to 30/06/11	8,589	40	0	0	0	**8,629**
From 01/07/11 to 30/06/12	1,403	75	332	0	0	**1,810**
From 7/1/12 to 31/12/12	3,038	59	193	0	0	**3,290**
From 1/1/13 to 31/12/13	23,000	20	143	740	0	**23,903**
From 01/01/14 to 31/12/14	1,148	1,372(1)	398	0	1,018	**3,936**
From 1/1/15 to 31/12/15	1,882	859	1,726	1,400	4,400	**10,267**
From 1/1/16 to 31/12/16	12,526	3,141(2)	1,109	0	0	**16,776**
From 1/1/17 to 31/12/17	17,890	2,214(3)	0	0	0	**20,104**
Total	**70,713**	**7,800**	**4,231**	**2,140**	**5,418**	**90,302**

(1) of which €564,000 deposited in early 2015
(2) of which €391,000 in equipment subsidies recorded in the balance sheet
(3) of which €289,000 in equipment subsidies recorded in the balance sheet – €127,000 in subsidy amortisation

10.1.1 Capital finance

Since its creation, the Group has received a total gross amount of €70,9 million through several capital increase transactions. The table below summarises the capital increases, in value, which have taken place in the last two years.

Date	Amount raised (1)	Transaction	Investors
June to December 2014	€614,000	Capital increase by exercise of warrants for the issue of shares	YA Global Master SPV LTD
June and October 2014	€14,000	Capital increase via the exercising of founders' warrants (BSPCE) and equity warrants (BSA)	Employees/consultants
January and July 2014	€21,000	Issue of equity warrants (BSAs)	Employees/Members of Scientific Board
January 2014	€500,000	Issue of equity warrants (BSAs)	Audi
January to June 2015	€128,000	Capital increase via the exercise of founders' warrants (BSPCE) and issuance of equity warrants (BSA)	Employees

[45] The capital increases were taken at their gross amount
[46] Excluding restatements resulting due to the consolidation of the financial statements concerning in particular the fixed assets and depreciation of assets acquired through leasing

July to September 2015	€788,000	Capital increase by exercise of warrants for the issue of shares	YA Global Master SPV LTD
October to December 2015	€962,000	Capital increase via the exercise of equity warrants (BSA)	Société Générale (Paceo®)
January 2016	€6,516,000	Capital increase via private placement	Institutionals
January 2016	€250,000	Issue of equity warrants (BSAs)	Audi
January to August 2016	€2,310,000	Capital increase via the exercise of equity warrants (BSA)	Société Générale (Paceo®)
September to December 2016	€3,750,000	Capital increase via conversion of OCAs(2)	Bracknor
January to December 2017	€6,900,000	Capital increase via conversion of OCAs(3)	Bracknor
April 2017	€750,000	Capital increase via the exercise of equity warrants (BSAs)	Audi
June 2017	€10,240,000	Capital increase via private placement	Institutionals

(1) before recording the costs of the issue.
(2) 5 tranches issued at €750,000
(3) 6 tranches issued at €750,000 + 2 tranches issued at €1,200,000

10.1.2 Finance through loans

In 2014, the Group used a bank loan for the first time (excluding financial leasing, which the Company has been using since its creation). Two loans were taken out with banking institutions, totalling €1,018,000 to finance the fermenter at Pomacle and some of the acquisitions of the laboratory in Evry. In 2015, the Group obtained an additional loan from four French banks for a total of €4.4 million as additional financing of the Leuna demo plant.

The Group also used financial leasing to finance some of its materials acquisitions. When preparing the consolidated financial statements, the assets financed via leasing contracts were restated, and presented as amortisable fixed assets under assets, and debts from credit institutions under liabilities. Fees were split between amortisation of fixed assets and financial liabilities. The share of financial debts represented by leases stood at €337,000 as at 31 December 2017.

Banking institution	Capital borrowed	Rate (fixed)	Capital already repaid[47]	Capital remaining due as at 31/12/2017[48]			
				Up to 1 year	1 to 5 years	over 5 years	Total
BNP(2014)	€800,000	2.5%	€592,000	€208,000	-	-	€208,000
SG(2014)	€218,000	1.15%	€163,000	€55,000	-	-	€55,000
BNP(2015)	€1,500,000	2.45%	€729,000	€303,000	€468,000	-	€771,000
SG(2015)	€1,500,000	1.15%	€764,000	€302,000	€434,000	-	€736,000
CIC (2015)	€800,000	2.65%	€400,000	€162,000	€238,000	-	€400,000
BPI (2015)	€600,000	5.23%	€60,000	€120,000	€420,000	-	€540,000
Total	**€5,418,000**		**€2,708,000**	**€1,150,000**	**€1,560,000**	**-€ thousands**	**€2,710,000**

[47] as at 31/12/2017
[48] excluding accrued interest

10.1.3 Finance from government grants

Since its creation, the Group has benefited from several government grants, in the form of repayable advances, loans and subsidies.

Repayable advances and loans as at 31 December 2017

Government grants	Periodicity of due dates	Date	Term	Value as at 31/12/2017 (€ thousand)			Amount outstanding as at 31/12/2017 (excluding accrued interest, € thousand)			
				Granted	Received	Yet to be received	Up to 1 year	1 to 5 years	over 5 years	Total
Repayable adv. Bpifrance (1)	Quarterly	02/2010	06/2015	660	523	-	-	-	-	-
Repayable adv. Bpifrance (2)	Quarterly	09/2011	12/2015	475	475	-	-	-	-	-
Interest-free loan from Bpifrance(3)	Quarterly	03/2013	12/2020	740	740	-	148	296	-	444
ADEME BioMA+ (4)	Yearly	11/2013	12/2020	2,655	2,655	-	398	2,256	-	2,655
Interest-free loan from Bpifance(5)	Quarterly	01/2015	09/2022	1,400	1,400	-	280	1,050	-	1,330
ADEME ISOPROD (6)	Yearly	06/2016	2029	7,400	1,109	6,291	-	22	66	88
Total				**13,330**	**6,902**	**6,291**	**826**	**3,624**	**66**	**4,516**

(1) Programme for the development of a new metabolic pathway towards isobutene to build an industrial production strain
(2) Programme for laboratory-scale pre-industrial development of a bacterial strain for isobutene production
(3) Programme for development grant to improve the efficiency of a laboratory pilot for glucose-to-isobutene fermentation
(4) Investment for the Future (Investissements d'Avenir) programme (BioMA+), construction of a pilot plant to develop the Isobutene process. Repayable in four instalments. First repayment due on 20/12/2017.
(5) Programme for the development of an alternative route of isobutene production by direct fermentation
(6) Investment for the Future programme (ISOPROD: Renewable isobutene and derivatives, first commercial scale production unit). Total granted: €9 million, including €5.7 million to Global Bioenergies SA and €3.3 million to IBN-One, 50% owned as at 31/12/2016, hence an amount of €7.4 million "granted" to the Group. In addition, only the amounts for which repayment is guaranteed, according to known terms as at 31/12/2016, are reported.

Subsidies as at 30 June 2017

Body	Programme	Date	Amount granted (€ thousands)	Total recognised by the Company as at 31/12/2017	Including amounts recognised in the years ending:		
					12/2015	12/2016	12/2017
Bpifrance	*Subsidy for the development of a new metabolic pathway towards isobutene to build an industrial production strain*	02/2010	100	79	-	-	-
Ile-de-France region - Grant for responsible innovation	*Identification of a biological means of producing propylene using renewable natural resources.*	11/2010	100	85	-	-	-
Bpifrance	*Maturation assistance for the strategic positioning and creation of a collaborative project leading to the development of a biological process to synthesise ethylene*	03/2012	20	20	-	-	-
Ile-de-France	*Assistance for the partnership to develop*	04/2012	22	22	-	-	-

region	*methacrylic acid by fermentation processes*						
ADEME	*Investment for the Future (Investissements d'Avenir) programme (BioMA+), construction of a pilot plant to develop the Isobutene process.*	11/2013	1,328	1,328	299	266	-
BMBF (1)	*Construction and operation of an Isobutene process demo plant*	11/2013	5,707	5,706	560	2,693 (2)	1,851 (3)
BMBF (1)	*Identification of market opportunities for the production of fuel additives from biosourced isobutene*	07/2016	395	353	-	162	191
EC – BBI-JU	*Optisochem*	05/2017	4,406	266	-	-	266
Total subsidies			**12,078**	**7,859**	**859**	**3,121**	**2,308**

(1) German Federal Ministry of Education and Research
(2) Of which €391,000 of equipment subsidy
(3) Of which €289,000 of equipment subsidy

10.1.4 Off-balance-sheet commitments

The commitments received at 31 December 2017 totalled €1,550,000. The commitments given at 31 December 2017 amounted to €4,428,000 including:

- Pledge on material: €849,000
- Pledge on receivables: €575,000
- Pledge on securities: €247,000
- Pledge on goodwill: €2,600,000
- Lease commitments: €157,000

10.2 SOURCE AND AMOUNT OF THE GROUP'S CASH-FLOW

The table below summarises the Group's cash-flow at 31 December 2016 and 31 December 2017:

Data in thousands of euros	31/12/2017 12 months	31/12/2016 12 months
Net cash generated by operations	(9,066)	(9,279)
Cash-flow from investments	(2,022)	(6,120)
Net cash from finance operations	+16,143	+12,676
Change in cash position	**+5,055**	**(2,722)**
Cash at start of year	7,431	10,153
Cash at year-end (1)	12,486	7,431

(1) By convention, accrued interest not yet due is not included in the change in working capital requirement but is restated in cash flow

10.2.1 Cash-flow from operations

Audited data in thousands of euros	31/12/2017 12 months	31/12/2016 12 months
Net profit (loss)	(14,253)	(10,607)
Amortisation (+)	2,857	1,213
Gain on asset disposal (-)	-	-
Cash flow	**(11,396)**	**(9,394)**
Change in working capital requirement	2,330	115
Net cash generated by operations	**(9,066)**	**(9,279)**

Moreover, the change in working capital requirement breaks down as follows:

Audited data in thousands of euros	31/12/2017 12 months	31/12/2016 12 months
Change in inventory	55	26
Change in trade receivables	(144)	(167)
Change in operating liabilities	(502)	(939)
Change in other operational receivables	(480)	903
Change in other operational liabilities	(1,259)	63
= Change in working capital requirement	**(2,330)**	**(115)**

The working capital requirement improved significantly in 2017, due in particular to the receipt of the Optisochem grant for the entire consortium, with Global Bioenergies as project coordinator.

10.2.2 Cash-flow from investments

Audited data in thousands of euros	31/12/2017 12 months	31/12/2016 12 months
Acquisition of fixed assets (-)	2,024	6,125
Sale of fixed assets (+)	2	6
Cash-flow from investments	**(2,022)**	**(6,120)**

Investments are, for the most part, related to the construction of the Leuna demo plant.

10.2.3 Cash-flow from finance operations

Audited data in thousands of euros	31/12/2017 12 months	31/12/2016 12 months
Capital increase in cash (+)	17,890	12,527
Capital-increase costs charged to share premium (-)	736	908
Other changes	-	(6)
Equipment subsidies (+)	289	391
Repayable advances received (+)	-	1,109
Loans contracted (+)	300	1,018
Repayable advances repaid (-)	-	-
Loans repaid (-)	1,612	1,581
Contributions from associates' current accounts (+)	12	126
Cash-flow from finance operations	**16,143**	**12,676**

In June 2017, Global Bioenergies completed a capital increase via private placement totalling nearly €10.25 million. The equity financing agreement established with Bracknor generated €6.9 million in fiscal year 2017. In addition, Audi exercised equity warrants for a total of €0.75 million. The €300,000 in loans contracted corresponded to the balance of the Bracknor OCAs not converted at 31/12/2017 (5 OCAs at €60,000 each).

10.3 GROUP LOAN CONDITIONS AND FINANCING STRUCTURE

10.3.1 Bank debts

See Chapter 10.1.2 of this Registration Document.

10.3.2 Lease debts

See Chapter 10.1.2 of this Registration Document.

10.3.3 Bank overdrafts

None.

10.3.4 Bond debts

None.

10.3.5 Repayable advances

See Chapter 10.1.3 of this Registration Document.

10.4 RESTRICTION ON THE USE OF CAPITAL

None.

10.5 SOURCES OF FINANCE EXPECTED TO BE NECESSARY TO HONOUR THE MAIN ANTICIPATED FUTURE INVESTMENTS AND ASSET ACQUISITIONS

In addition to cash and current financial instruments which stood at €13.6 million at 31 December 2017, the Group relies on public financing obtained but not yet deposited for a part of its future cash. Thus, as at 31 December 2017, €0.4 million remained to be collected from the €5.7 million subsidy granted in 2013 by the German Federal Ministry of Education and Research (BMBF) for the construction of the demo plant in Leuna, and €0.1 million for the second subsidy granted by the BMBF in June 2016 for the identification of opportunities for the production of biosourced isobutene-based fuel additives. In addition, €6.3 million[49] was yet to be received by the Group for the ISOPROD project financed by the French government. Finally, for the Optisochem project, Global Bioenergies has already received €1.1 million (including €0.27 million able to be recognised as a subsidy for 2017 and the rest included in deferred income); therefore, €3.3 million remains to be received over the next few fiscal years.

The Company also believes that it should be able to continue to benefit from the Research Tax Credit scheme for a significant amount, based on the conclusions of the tax audit undertaken in 2015 and the related expert report on research tax credits for fiscal years 2012, 2013 and 2014. The summary of this expert report presented describes "a very comprehensive project not only from a technical/scientific point of view but also in terms of the financial data and supporting documents, allowing a thorough analysis of the projects and the work carried out. These can unequivocally be called R&D work, combining applied research and experimental development."

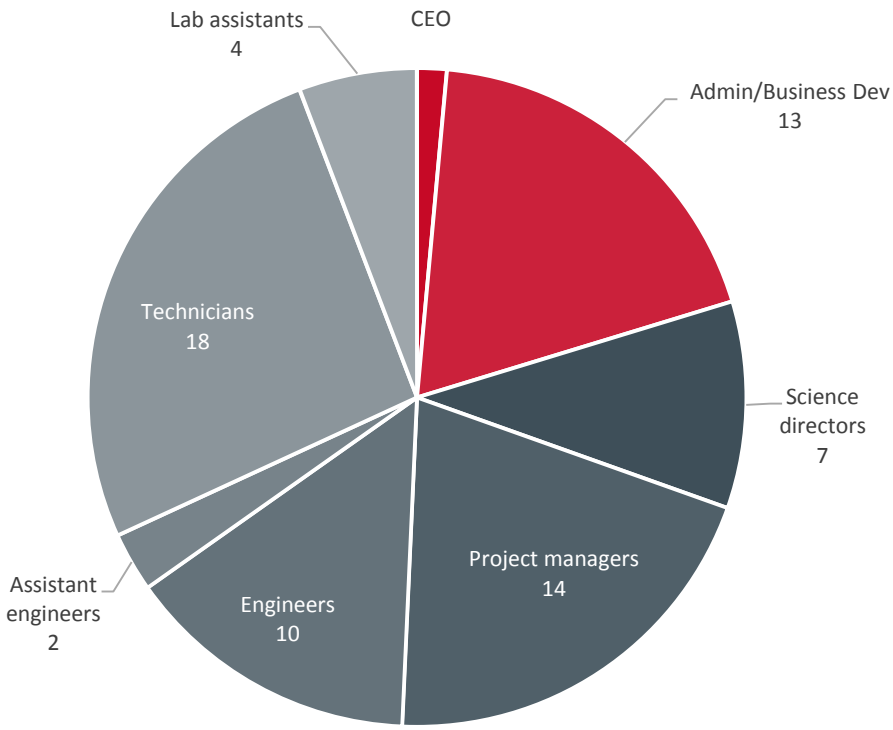
[49] Including €4.9 million for Global Bioenergies SA and €1.4 million for its subsidiary IBN-One (€2.8 million at 50%)

11 RESEARCH AND DEVELOPMENT, PATENTS AND LICENCES

11.1 RESEARCH AND DEVELOPMENT

A description of the Group's research and development activities can be found in Chapter 6 of the Registration Document.

The Group's workforce shows that 80% of the Group's 69 employees as at 31/12/2017 were directly involved in R&D activities.



80% of staff work in R&D

For fiscal year 2017, the expenses included as expenditures eligible for the Research Tax Credit amounted to €7.8 million, compared to €12.6 million in operating expenses recognised for Global Bioenergies SA. It should be noted that the expenses eligible for the Research Tax Credit do not include all expenses under research and development activities. The latter may include expenses for outsourcing to non-approved entities. Thus, expenses for non-European service providers cannot be used; in 2017, expenses for US service providers working on chemical engineering, scaling up and process engineering represented €0.7 million at the Global Bioenergies SA level.

At the Group level, approximately €1 million in staff costs and €3.8 million in engineering expenses from the Global Bioenergies GmbH and Syngip subsidiaries should be added to the above-mentioned expenses.

11.2 INDUSTRIAL PROPERTY

See Section 4.3.1 of the Registration Document for a description of the risks linked to the industrial property rights exploited by the Company.

11.2.1 Patent applications and Patents

The Group exploits a portfolio of 34 patent families and patent applications for processes relating to the biological production of molecules of interest, such as light olefins from renewable resources (hereafter, the "Patent applications").

The 34 patent family applications pending, which were filed in recent years, are now at different stages of progress. To date, 31 patent applications have been published and, of these, 57 patents have been granted.

The Group adds to this portfolio by regularly filing new patent applications to protect the results of its R&D programmes or its progress in terms of industrialisation and commercialisation. Accordingly, the latest applications that were filed concerned the fuel compound specially developed by Global Bioenergies.

When the Company identifies patents held by third parties that may have a positive impact on its business, it will whenever possible seek to enter into a licensing agreement. An initial example occurred in 2016, when the Company identified a patent protecting an enzymatic activity potentially useful for the production of light olefins and the production of isobutene in particular. The Company managed to enter into a licensing agreement with the large industrial group that held the patent. This exclusive licensing agreement, which was obtained in exchange for future royalties but in the absence of fixed payments, secures the Company's access to this enzymatic activity and prohibits access to any other third party.

11.2.2 Licensing agreements

The intellectual property for which Patent applications have been filed is owned:

- exclusively by SCIENTIST OF FORTUNE SA; this applies to inventions developed by Philippe Marlière alone, who controlled the company within the meaning of Article L. 233-3 of the French Commercial Code (eight Patent applications);

- jointly by SCIENTIST OF FORTUNE SA and the Company; this applies to inventions developed by employees of the Company and Marc Delcourt, corporate officer, in partnership with SCIENTIST OF FORTUNE SA (19 Patent applications);

- exclusively by the Company (6 Patent applications).

It should be noted that:

- Marc Delcourt has passed on his contribution to said inventions to the Company pursuant to a contract which was concluded on 28 April 2011;

- in accordance with Article L. 611-7 of the French Intellectual Property Code, inventions by Company staff employed in inventive roles are credited to the Company, subject to an additional payment being made;

- all contracts the Company enters into with outside consultants contain a clause for the transfer to the Company of all intellectual property rights over the work done as part of the performance of the contracts. Thus, inventions for which Richard Bockrath is solely responsible were transferred to the Company under a consultancy contract entered into on 20 December 2011 with Mr Bockrath and a specific contract relating to two Patent applications filed by the Company in December 2012.

In any case, the Patent applications held by SCIENTIST OF FORTUNE SA and the share of the Patent applications co-held by SCIENTIST OF FORTUNE SA are covered by an exclusive licence granted to the Company pursuant to two separate licensing agreements (hereafter "Licence 1" and "Licence 2").

Licence 1:

Licence 1 relates to Isobutene processes and, more generally, the biological production of light olefins, as well as other molecules of interest. It may cover other patent applications in the course of the performance of the contract (hereafter collectively referred to as the "**L1 Patent applications**"). Licence 1 was initially concluded by Philippe Marlière and the Company on 13 February 2009. The first three riders were then entered into on 16 October 2009, 10 December 2009 and 15 January 2010. In accordance with a contract entered into on 19 September 2011, Philippe Marlière transferred to SCIENTIST OF FORTUNE SA all of his ownership or co-ownership rights over the Patent applications, which resulted, on 20 September 2011, in additional rider no. 4, which introduced SCIENTIST OF FORTUNE SA in replacement of all of Philippe Marlière's Licence 1 rights and obligations. Four additional riders were subsequently concluded between the Company and SCIENTIST OF FORTUNE SA. Further details on these additional riders are provided below.

Licence 1 confers broad rights upon the Company, enabling it to exploit the L1 Patent applications:

- the licence is granted on an exclusive basis for exploitation of the L1 Patents for the biological production of hydrocarbons, their precursors and derivatives, on a worldwide basis, and shall remain in force until either of the following dates, whichever is the latest: (i) expiry or cancellation of the last L1 Patent application, or, (ii) 20 years from the first time a product made using the licensed intellectual property is sold on the market or the provision of an initial service by the Company in the predefined territory;
- the licence is for L1 Patent applications, but also for improvements to L1 Patent applications, technical knowledge useful for the exploitation of inventions for which L1 Patent applications have been filed, the results, experimental data and tangible and intangible achievements obtained by the Company under the licence, and biological material;
- the Company is authorised to freely grant exclusive and non-exclusive sub-licences;
- the licence is granted against a payment by the company of the following:
    - a fixed quarterly fee as long as the parties jointly perform development work on the L1 Patent applications,
    - a semi-annual direct and indirect exploitation fee for L1 Patent applications;
- improvements by SCIENTIST OF FORTUNE SA as well as those developed in conjunction with the Company which fall under the scope of the licence;
- in the event of infringements of L1 Patent applications by a third party, the parties agree to come together to decide on a strategy;
- should SCIENTIST OF FORTUNE SA wish to assign one or more L1 Patent applications to a third party, the Company has a right of first refusal over such L1 Patent applications and the share of the L1 Patent applications held by SCIENTIST OF FORTUNE SA;
- the Company has a right of priority over any exploitation of L1 Patent applications outside the biological production of hydrocarbons, their precursors and derivatives.

In exchange for this licence, the Company must meet the following main obligations:

- the Company must develop and exploit the L1 Patent applications in an effective, serious, fair and continuous manner for the entire duration of the licensing agreement;
- the Company must manage L1 Patent applications and pay the related costs.

Licence 1 also stipulates that the parties must work together to develop and exploit the L1 Patent applications.

SCIENTIST OF FORTUNE SA has the option of converting the aforementioned licence into a non-exclusive licence by simply notifying the Company, if the cumulative annual amounts invested in the development of L1 Patent applications and the revenue from exploiting these L1 Patent applications falls below €500,000.

Failure by one of the parties to meet its obligations shall constitute a cause for terminating the licensing agreement, resulting in stoppage of fee payments if the party at fault is SCIENTIST OF FORTUNE SA, or a ban on continuing the development and exploitation of the L1 Patent applications if the party at fault is the Company.

Rider no. 1 of 16 October 2009 provides for the allocation of a fixed additional fee subject to the achievement of the objectives set and widens the scope of the licence to include three new patent applications.

Rider no. 2 of 10 December 2009 provides clarification on the situation of a Patent application initially filed in France then "converted" into an international Patent application with France as the designated country.

Rider no. 3 of 15 January 2010 (i) extends the object of Licence 1 to include new Patent applications, (ii) broadens the field of exploitation of a Patent application and (iii) describes a related experimental study project entrusted to the Company, the latter benefiting from exclusive exploitation rights over the results obtained, in the area of exploitation outlined in the licensing agreement.

Amendment No. 4 of 20 September 2011 acknowledges the transfer to SCIENTIST OF FORTUNE SA of the rights and obligations of Philippe Marlière.

The purpose of Riders No. 5 of 12 September 2012 and No. 6 of 30 October 2012 is to include new inventions and patent applications made by Philippe Marlière jointly with Company employees within the scope of Licence 1. The main terms of Licence 1 remain unchanged. These riders require the Company to make minimum investments in the development of inventions and Patent applications to which rider no. 5 and no. 6 refer.

Rider no. 7 of 7 May 2013 broadens the field of exploitation of the invention referred to in rider no. 3, while the financial conditions associated with such exploitation remain unchanged.

Rider no. 8 of 18 June 2014 brings other Patent applications which have already been filed by the parties within the scope of the licence.

In accordance with a contract dated 25 March 2015, SCIENTIST OF FORTUNE SA agreed to extend the area of exploitation of the invention referred to in rider no. 3 and no. 7. The exploitation of the latter is no longer limited to the area initially agreed in Licence 1. In exchange, the Company agreed to engage the services of the company Isthmus to carry out research work on behalf of the Company relating to the development of the L1 Patent applications. In exchange for the payment of a fixed sum every six months, the Company owns all of the results obtained by Isthmus.

In addition, the Company granted IBN-One a license to exploit its Isobutene process using certain L1 Patent Applications for the construction and operation of a plant in France with a production capacity of 50,000 tonnes of isobutene annually and the marketing and distribution of the isobutene produced by that plant throughout the world. Under this sub-licence contract, IBN-One pays a one-off total of several million euros to the Company, as well as licence fees on IBN-One's revenue.

Licence 2:

Licence 2, concluded on 8 July 2011 with SCIENTIST OF FORTUNE SA, applies to inventions relating to the biological production of butadiene, which are protected by one or more patent applications filed by the Company in its name and/or in the name of SCIENTIST OF FORTUNE SA (hereafter collectively referred to as the "**L2 Patent applications**").

Like Licence 1, Licence 2 confers broad rights upon the Company, enabling it to exploit the L2 Patent applications:

- the licence is granted on an exclusive basis worldwide, for the lifetime of the L2 Patent applications - at least 20 years;
- the Company is authorised to grant exclusive and non-exclusive sub-licences;
- the licence is granted subject to the Company paying either an annual lump sum or a licence fee for the direct and indirect exploitation of L2 Patent applications; only the highest of these two amounts will be paid to SCIENTIST OF FORTUNE SA;
- at the Company's request, SCIENTIST OF FORTUNE SA agrees to transfer to it all of the technology, Patents and L2 Patent applications at a pre-determined price, on the understanding that, if the Company were to engage in a fund-raising operation beyond a certain threshold and sign a contract for the exploitation of L2 Patent applications with a third party, SCIENTIST OF FORTUNE SA may demand completion of the transfer;
- improvements developed by SCIENTIST OF FORTUNE SA and/or the Company fall within the scope of the licence;
- the intellectual property rights developed jointly by the Company and SCIENTIST OF FORTUNE SA are co-owned by the parties and also fall within the scope of the licence;
- the Company agrees to manage the L2 Patent applications, after consultation and in cooperation with SCIENTIST OF FORTUNE SA;
- the Company is responsible for defending L2 Patent applications, after consultation and in cooperation with SCIENTIST OF FORTUNE SA.

The Company may bring Licence 2 to an end at any time. However, SCIENTIST OF FORTUNE SA may only bring an end to the contract under limited circumstances, notably if the Company fails in its obligations and does not remedy the failings despite notification being sent to it. However, the parties may jointly agree to terminate License 2.

SCIENTIST OF FORTUNE SA has the option to convert the aforementioned licence into -a non-exclusive licence by simply notifying the Company, if the latter has invested less than €450,000 in developing the L2 Patent applications and its revenue from the exploitation of these Patent applications is less than €500,000.

The Company reserves the right to enter into other sub-licences with third parties in other fields of butadiene application (particularly nylon, plastics and latex).

11.2.3 Know-how

A significant part of the Group's value comes from its know-how.

Part of this know-how, necessary for the exploitation and development of Patent applications, is granted by SCIENTIST OF FORTUNE SA to the Company under Licences 1 and 2, in the same way as the aforementioned Patent applications.

The other part of the know-how developed by the Group relates to the engineering of fermentation, purification and packaging units necessary to convert renewable resources by fermentation, and to the implementation of the fermentation processes.

11.2.4 Trademarks

The Company owns the following trademarks:

(i) French trademarks

Trademark	Owner	Filed by	Status	Filing date	Filing number	Renewal date	Class
AGROLEFINS	Global Bioenergies	Global Bioenergies	Registered	16/11/2010	3,782,567	30/11/2020	01, 04, 42
GLOBAL BIOENERGIES	Global Bioenergies	Global Bioenergies	Registered	19/10/2009	3,684,715	31/10/2019	01, 04, 42
GLOBAL BIOENERGIES	Global Bioenergies	Global Bioenergies	Registered	13/03/2009	3,636,506	31/03/2019	01, 04, 42

International trademark designating France

Trademark	Country	Owner	Filed by	Status	Priority	Filing date	Filing number	Renewal date	Class
GLOBAL BIOENERGIES	European Union	Global Bioenergies	Global Bioenergies	Registered	FR 19/10/2009 93,684,715	13/04/2010	1,045,283	13/04/2020	01, 04, 42

12 TRENDS

Press releases published by the Group are available on the Global Bioenergies website:

http://www.global-bioenergies.com/categorie/presse/communiques/

13 PROFIT FORECASTS OR ESTIMATES

The Group does not intend to make any profit forecasts or estimates.

14 ADMINISTRATIVE, MANAGEMENT, AND SUPERVISORY BODIES AND GENERAL MANAGEMENT

14.1 GENERAL INFORMATION ABOUT THE FOUNDERS, OFFICERS AND DIRECTORS

The Company's officers and members of the Board of Directors are as follows:

Full name, Age	Business address	Mandate and functions	Duration of the mandate	Mandates and functions outside the Company	Other mandates held in the last five years, but not currently held
John Pierce	5, rue Henri Desbruères 91000 EVRY	Chairman of the Board of Directors and director	First appointment: 28 August 2015 Term expiry date: General Meeting to approve the financial statements for the year ending 31 December 2020	- Chairman of Devenir Consulting LLC - Member of the CTC Brazil Scientific Committee - Member of the Sofinnova Investments Strategic Committee	
Marc Delcourt	5, rue Henri Desbruères 91000 EVRY	Director Chief Executive Officer	First appointment: 13 February 2009 Term expiry date: General Meeting to approve the financial statements for the year ending 31 December 2019	- Chairman of Schmilblick Ventures SAS - Director of IBN-One SA	- Director of Heurisko

Philippe Marlière	5, rue Henri Desbruères 91000 EVRY	Director	First appointment: 13 February 2009 Term expiry date: General Meeting to approve the financial statements for the year ending 31 December 2019	- Chairman, Heurisko USA Inc - Director, SCIENTIST OF FORTUNE SA - Director, Enuma Holding	- Manager, Marlière Technologies société civile - Manager, Isthmus EURL - Director, Dendrics SAS - Director, Alderys SAS
Seventure Partners, represented by Sébastien Groyer	5 - 7 rue de Monttessuy 75007 PARIS	Director	First appointment: 23 October 2012* Term expiry date: General Meeting to approve the financial statements for the year ending 31 December 2019	- Director Balyo - Director, Domain Therapeutics - Director, Eligo Biosciences - Director, Skinjay	- Director Holding ISF Masseran Technologie - Director Proviciel - Director, Lucane Pharma
CM-CIC Innovation, represented by Karine Lignel	28, avenue de l'Opéra 75002 PARIS	Director	First appointment: General Meeting of 6 November 2013 Term expiry date: General Meeting to approve the financial statements for the year ending 31 December 2018	- Member of the Antidot Strategic Committee - Director of Oncodesign - Member of the Coldway Supervisory Board - Director of Gecko Biomedical - Director, Maat Pharma - Director, Krono-Safe - Director, Silios - Member of the Medincell Supervisory Board - Member of the Forcity Strategic Committee - Member of the Endodiag Strategic Committee	- Member of the Nanobiotix Supervisory Board - Director of Ariana - Member of the Rhônes Alpes Création Supervisory Board - Director of ImmuniD - Director of EyeBrain - Director of Polyplus - Director of Endocontrol

John Pierce – Chairman of the Board of Directors: John Pierce has devoted his career to integrating biology with chemistry, engineering and materials science to create biotechnology

applications for agrochemistry, plant genetics and industrial biology. He holds a PhD from MSU in carbohydrate chemistry and enzymology. After a long time at DuPont, during which he oversaw the successful commercial development of many biotechnology applications, he was until recently Chief Bioscientist at BP plc.

Marc Delcourt – Director, Chief Executive Officer: co-founder of Global Bioenergies, Marc Delcourt is a graduate of the Ecole Normale Supérieure, biology section. After completing his thesis in North America, he became involved in research activities in the area of bioprocesses and in 1997 set up his first industrial biology company, which he left in 2008 to found Global Bioenergies.

Philippe Marlière – Director: co-founder of Global Bioenergies. A graduate of the Ecole Normale Supérieure, he devoted his time at university to launching synthetic biology. He then continued his scientific activities by founding biotechnology companies.

Sébastien Groyer – Permanent representative of Seventure Partners: Sébastien Groyer is Partner at Seventure, a subsidiary of Natixis, BPCE Group. Active since 1997, Seventure Partners has already made a number of investments in numerous technological domains. Sébastien Groyer, holds an Engineering degree in Biotechnologies from the Université Technologique de Compiègne and a Masters (DEA) in Politic and Economic Philosophy from Université Paris 1 Panthéon Sorbonne. He has participated in the investment in, the administration, the IPO or sale of about 20 innovative companies, mostly in the domain of life sciences.

Karine Lignel – Permanent representative of CM-CIC Innovation: Karine Lignel is a director at CM-CIC Innovation, a subsidiary of CM-CIC Investissement, Crédit Mutuel Group. CM-CIC Investissement targets its investments particularly on entrepreneurial companies, and has invested €2.6 billion in a portfolio of 620 companies. Karine Lignel has seven years of experience in the food industry, mainly in technical functions. A trained engineer (ENSIA – École Nationale Supérieure des Industries Agricoles et Alimentaires), Karine Lignel also has a Master's Degree in Finance (IGIA, ESSEC). She joined venture capital in 2000 and invested mainly in Life Sciences. Since 2000, she has held numerous positions in the Boards of Directors and Supervisory Boards.

On the date of the Registration Document, and as far as the Company is aware:

- none of the directors have been convicted of fraud in the last five years;
- none of the directors have been associated with a bankruptcy, sequestration or judicial liquidation in the last five years;
- none of the directors have been accused of a criminal offence or subject to an official public sanction pronounced by the statutory or regulatory authorities (including the designated professional bodies) in the last five years;
- none of the directors have been prevented by a court from being members of administration, management or supervisory bodies of an issuer or from being involved in the management or conduct of an issuer's affairs in the last five years.

There are no family ties between the members of the Company's Board of Directors.

14.2 CONFLICTS OF INTEREST WITHIN THE GENERAL ADMINISTRATIVE AND MANAGEMENT BODIES

As far as the Company is aware, there is nothing likely to generate a potential conflict of interest between the duties to the Company of any of the corporate officers and their private interests or duties.

As far as the Company is aware, there is no agreement in place between the Company's main shareholders under which a corporate officer would be selected as a member of an administrative or management body or as a member of general management.

15 REMUNERATION AND BENEFITS

Of the members of the Board of Directors, only Marc Delcourt has a role within the Company, as Chief Executive Officer.

15.1 TOTAL REMUNERATION AND BENEFITS IN KIND ALLOCATED TO MEMBERS OF THE BOARD OF DIRECTORS AND OFFICERS.

Summary table showing gross remuneration and options and shares allocated to each corporate officer

John Pierce Chairman of the Board of Directors	**31/12/2015** (12 months)	**31/12/2016** (12 months)	**31/12/2017** (12 months)
Remuneration due for the year	USD 4,400*	USD 13,200**	USD 13,200***
Value of multi-year variable remuneration allocated over the year	NA	NA	NA
Value of options allocated during the fiscal year	NA	NA	NA
Value of restricted stock	NA	NA	NA
Total	**USD 4,400***	**USD 13,200****	**USD 13,200*****

** the euro equivalent recorded in the financial statements is €4,129*
*** the euro equivalent recorded in the financial statements is €11,915*
**** the euro equivalent recorded in the financial statements is €11,697*

Marc Delcourt Chief Executive Officer	**31/12/2015** (12 months)	**31/12/2016** (12 months)	**31/12/2017** (12 months)
Remuneration due for the year	€172,500*	€170,000**	€170,000***
Value of multi-year variable remuneration allocated over the year	NA	NA	NA
Value of options allocated during the fiscal year	NA	NA	NA
Value of restricted stock	NA	NA	NA
Total	**€172,500**	**€170,000**	**€170,000**

**including a €37,500 variable component*
***including a €35,000 variable component*
****including a €35,000 variable component*

Summary table of the remuneration paid to each corporate officer

John PIERCE Chairman of the Board of Directors	**31/12/2015 (12 months)**		**31/12/2016 (12 months)**		**31/12/2017 (12 months)**	
	Amounts due	**Amount paid**	**Amounts due**	**Amount paid**	**Amounts due**	**Amount paid**
Fixed remuneration	USD 4,400	USD 3,300	USD 13,200	USD 13,200	USD 13,200	USD 13,200
Multi-yr. var. remuneration	NA	NA	NA	NA	NA	NA
Multi-yr. var. remuneration	NA	NA	NA	NA	NA	NA
Excep. remuneration	NA	NA	NA	NA	NA	NA
Attendance fees	NA	NA	NA	NA	NA	NA
Benefits in kind	NA	NA	NA	NA	NA	NA
Total	**USD 4,400**	**USD 3,300**	**USD 13,200**	**USD 13,200**	**USD 13,200**	**USD 13,200**

Marc Delcourt Chief Executive Officer	**31/12/2015 (12 months)**		**31/12/2016 (12 months)**		**31/12/2017 (12 months)**	
	Amounts due	**Amount paid**	**Amounts due**	**Amount paid**	**Amounts due**	**Amount paid**
Fixed remuneration	€135,000	€135,000	€135,000	€135,000	€135,000	€135,000
Multi-yr. var. remuneration	€37,500	€0*	€35,000	€77,500*	€35,000	€35,000**
Multi-yr. var. remuneration	NA	NA	NA	NA	NA	NA
Excep. remuneration	NA	NA	NA	NA	NA	NA
Attendance fees	NA	NA	NA	NA	NA	NA
Benefits in kind	NA	NA	NA	NA	NA	NA
Total	**€172,500**	**€135,000**	**€170,000**	**€212,500**	**€170,000**	**€170,000**

** Variable remuneration for 2014 (€40,000) and 2015 (€37,500) approved in principle but whose payment depends on the improvement of the Company's financial visibility; the payment was made in February 2016*
***Variable remuneration for fiscal year 2017 paid in March 2018*

The remuneration paid to Marc Delcourt as Chief Executive Officer was determined at the Board of Directors meeting of 15 January 2015. Marc Delcourt's annual gross fixed remuneration was set at €135,000 as of 1 January 2015. At their 16 February 2016 and 22 February 2017 meetings, the Board of Directors maintained this fixed remuneration for the 2016 and 2017 fiscal years respectively.

In addition, the meetings of the Board of Directors of the Company held on 15 January 2015, 16 February 2016 and 22 February 2017 respectively agreed to allocate a variable component to Marc Delcourt, in addition to his fixed remuneration for each financial year. This variable component is to be determined by the Board of Directors based on the Company's business, financial, R&D and human resources objectives.

Table of attendance fees and other remuneration received by non-director corporate officers

Non-director corporate officers	31/12/2015 (12 months) Amounts paid	31/12/2016 (12 months) Amounts paid	31/12/2017 (12 months) Amounts paid
Philippe Marlière			
Attendance fees	-	-	-
Other remuneration	-	-	-
Seventure Partners, represented by Sébastien Groyer			
Attendance fees	-	-	-
Other remuneration	-	-	-
CM-CIC Innovation, represented by Karine Lignel			
Attendance fees	-	-	-
Other remuneration	-	-	-
			-
Total	**€0**	**€0**	**€0**

At the date of this Registration Document, John Pierce, Chairman of the Board of Directors, is the only member of the Board of Directors or corporate officer of the Company to have benefited from allocations of Company equity securities, debt securities or options.

On 16 February 2016, the Board of Directors decided to issue founders' warrants (BSPCEs) to John Pierce in his capacity as Chairman of the Board of Directors with the following characteristics:

Total number of BSPCEs issued: 30,000
Total number of shares that can be subscribed following the exercise of all the BSPCEs: 30,000
Exercise conditions of the BSPCEs: the option to subscribe for shares after the exercise of the warrants is subject to the presence of John Pierce as a corporate officer of the Company on the first day of each of the three exercise periods defined below. It is understood that in the event of a departure from the Company prior to the first day of one of the three exercise periods, John Pierce may not exercise all of the BSPCEs allocated to him and may not exercise any at all in the event of a departure before the first day of the first exercise period.
Exercise periods: the BSPCEs will be exercisable in three tranches of one third of the total BSPCEs allocated (10,000 BSPCEs per tranche) after a period of one year from the allocation date, i.e. starting 16 February 2017, the date marking the beginning of the first exercise period. The second exercise period will begin on 16 February 2018 and the third exercise period will begin on 16 February 2019. Each of the three exercise periods will end on 15 February 2026.
Subscription price: the BSPCEs were allocated at no cost, and the subscription price of a share resulting from the exercise of a BSPCE was set at €23.70; this price corresponds to the price of the shares issued as part of the capital increase carried out on 21 January 2016, in accordance with the 13th resolution of the General Meeting of 3 June 2015.

At the date of this Registration Document, no shares have been subscribed. In addition, no BSPCEs have been cancelled or have lapsed.

As this allocation is the only one that concerned a corporate officer, Tables 6, 7, 8 and 10 of Appendix 2 of AMF Position/Recommendation No. 2014-14 are not applicable.

Allocation of securities giving access to capital to employees who are not corporate officers

At the date of this Registration Document, several Group employees who are not corporate officers have received securities giving access to capital.

The total number of shares issued to non-corporate officer employees is 175,090, of which 8,450 are equity warrants (BSAs) issued to employees of Global Bioenergies GmbH, 32,857 are BSAs issued to employees of Syngip BV and 133,783 are founders' warrants (BSPCEs) issued to employees of Global Bioenergies SA.

Of the 133,783 BSPCEs issued to Company employees, 4,407 have been exercised to date (400 in 2014 and 4,007 in 2015) and 18,762 BSPCEs were cancelled due to the departure of employees. 19,152 BSPCEs also lapsed at the end of their exercise period. Therefore 91,462 BSPCEs issued to non-corporate officer employees remain outstanding (see Chapter 21.1.4.2 of this Registration Document). In addition, of the 41,307 BSAs issued to Global Bioenergies GmbH and Syngip BV to date, none has been exercised. 30,607 BSAs have lapsed due to the departure of employees.

SHARE SUBSCRIPTION OR PURCHASE OPTIONS AWARDED TO THE FIRST TEN NON-CORPORATE OFFICER EMPLOYEES IN 2017	Number	Number per plan	Exercise price per warrant
Options awarded, during the year ended 31 December 2017, by the issuer and any company included in the scope of the options plan, to the 10 employees of the issuer and of any company within this scope awarded the highest number of options (overall information)	44,857	32,857 BSA 02-2017 10,000 BSPCE 09-2017 2,000 BSA 09-2017	€24.87 €25.00 €25.00
Options held in the issuer and the companies referred to previously, that were exercised during the year ending 31 December 2017 by the 10 employees of the issuer and of these companies holding the highest number of options purchased or subscribed (overall information)	-	-	-

Furthermore, some non-corporate officer employees were also awarded restricted stock. These awards were made in 2009, 2010 and 2011. At the date of this Registration Document, there were no further shares to be issued under these awards.

Table 11 of Appendix 2 of AMF Position/Recommendation No. 2014-14 is not applicable since no corporate officers have an employment contract with the Company or a supplementary pension plan. In addition, no remuneration is provided for any executive officer in the event of termination or change of duties. Lastly, no indemnity relating to a non-competition clause is provided for any corporate officer.

15.2 AMOUNTS PROVISIONED OR RECORDED BY THE COMPANY TO PAY PENSIONS, RETIREMENT BENEFITS OR OTHER BENEFITS TO DIRECTORS AND OFFICERS

The Company has not provisioned amounts to pay pensions, retirement benefits or other benefits to directors and officers.

The Company has not granted any arrival or departure bonuses to these individuals.

15.3 REMUNERATION AND BENEFIT COMPONENTS OWED OR LIKELY TO BE OWED DUE TO, OR FOLLOWING, THE CESSATION OF FUNCTIONS OF COMPANY OFFICERS

None.

15.4 LOANS AND GUARANTEES GRANTED TO OFFICERS

On the date of the Registration Document, no loans or guarantees had been granted to the Company's corporate officers.

16 BOARD AND MANAGEMENT PRACTICES

16.1 BOARD OF DIRECTORS

See Section 14.1 of the Registration Document for the composition of the Company's Board of Directors and information concerning the current mandates of the corporate officers and members of the Board of Directors.

16.1.1 Composition of the Board of Directors (Article 14 of the Bylaws)

The Company is governed by a Board of Directors comprising three to eighteen members, subject to the exemptions provided by law in the case of a merger.

The directors' term of office is a maximum of six (6) years. The General Meeting may decide to appoint directors for shorter periods.

Directors may be dismissed by the Ordinary General Meeting at any time.

A director's duties end at the close of the General Meeting having ruled on the financial statements of the past fiscal year and held during the year in which the mandate of said director expires.

Should one or more directors' seats become vacant due to death or resignation, the Board may, between two General Meetings, make temporary appointments in the conditions laid down by law.

However, if the number of directors in office falls below the minimum legal requirement, the remaining directors, or failing that, the Statutory Auditors, shall immediately convene an Ordinary General Meeting to make up the required number.

Temporary appointments made by the Board of Directors are subject to approval at the next General Meeting.

Should certain temporary appointments fail to be approved by the General Meeting, the decisions made and actions accomplished by the temporarily appointed directors or performed with their assistance, shall nevertheless remain valid.

A director appointed to replace another shall only remain in office for the remaining duration of his predecessor's term of office.

All members reaching the end of their terms of office may be re-elected. Notwithstanding the preceding provision, the number of directors, either natural persons or permanent representatives of legal entities, over the age of 70 may not, at the end of each Ordinary General Meeting convened to approve the Company's financial statements, exceed one third (rounded up, if required, to the nearest integer) of the directors in office. If this limit is reached, the oldest director or permanent representative shall be considered to have resigned automatically at the end of that meeting.

16.1.2 Powers of the Board of Directors (Article 16 of the Bylaws)

The Board of Directors determines the Company's business strategy and monitors its implementation. Subject to the powers expressly assigned to shareholder meetings and within the limit of the corporate purpose, it deals with all issues affecting the proper functioning of the Company and settles all matters concerning the Company through its decisions.

In its relationships with third parties, the Company is bound by the actions of the Board of Directors, even if they are not within the scope of the corporate purpose, unless the Company can prove that the third party was aware that the action was outside the remit of the corporate purpose or that it could not have been unaware of this fact in the circumstances, with the understanding that the mere publication of the Bylaws does not constitute a proof to that effect.

The Board of Directors performs the checks and verifications it deems appropriate. Each director receives all the information required for the accomplishment of his duties and may obtain any documents he considers useful.

The Board of Directors may adopt internal rules of procedure.

The Board of Directors may decide to create committees tasked with examining issues submitted by the Board or its Chairman and issuing an opinion on such issues. It sets the composition, duties and responsibilities of the committees which carry out their activities under its responsibility.

The Board of Directors may also, if it deems it useful, appoint from among its members a Vice-Chairman tasked with chairing the Board meetings in the Chairman's absence. Should the Vice-Chairman also be absent, the most senior director shall chair the meeting.

16.1.3 Deliberations of the Board of Directors (Article 15 of the Bylaws)

The directors are convened to the Board meetings by the Chairman by any means, even verbally.

The meetings may be held at the registered office or any other place stated on the notice of meeting. Decisions are taken subject to the conditions of quorum and majority provided for by law.

In the event of a tie, the meeting Chairman has the casting vote. Except for Board meetings held to examine the Company's accounts, annual financial statements, Registration Document or annual report, the Board's internal rules of procedure may provide for the inclusion, for quorum and majority calculation purposes, of directors attending the meeting via videoconferencing or any other means of telecommunication allowing their identification and ensuring their effective participation, in the conditions laid down by applicable laws and regulations.

16.2 GENERAL MANAGEMENT

The Company's general management is assumed, under the Board's responsibility, by the Chairman of the Board of Directors, or by another natural person appointed by the Board of Directors, bearing the title of Chief Executive Officer (CEO).

The Board of Directors chooses one of these general management options in accordance with the following conditions:

- the option is chosen by the Board of Directors acting by a majority of its members;

- the chosen option may only be reviewed upon the renewal or replacement of the Chairman of the Board of Directors or upon expiry of the CEO's term of office.

Shareholders and third parties are informed of the choice made by the Board in the conditions laid down by applicable laws and regulations.

Where the Company's general management is assumed by the Chairman of the Board of Directors, the provisions relating to the CEO apply to the Chairman.

At the date of the Registration Document, the Company's general management is assumed by Marc Delcourt.

16.2.1 Chairman of the Board of Directors (Article 17 of the Bylaws)

The Board of Directors elects from among its members, a Chairman who is a natural person. It determines the Chairman's remuneration and the duration of his term of office.

The Board of Directors may dismiss the Chairman at any time.

The Chairman is appointed for a period which may not exceed that of his term of office as director. The Chairman may be re-elected.

The age limit for the office of Chairman of the Board of Directors is set at 75. If the Chairman reaches that age during his term of office, he shall be deemed to have automatically resigned. However, his mandate shall continue until the Board meeting appointing his successor, with the understanding that a Board meeting to that effect shall take place as soon as possible following the date on which the Chairman has reached the age limit and, at any rate, within seventy (70) days following that date.

The Chairman of the Board of Directors organises and directs the Board's work, on which it reports to the General Meeting. He sees to the proper functioning of the Company's administrative bodies and ensures, in particular, that the directors are fit to perform their duties.

At the date of the Registration Document, the Company's chairman is John Pierce.

16.2.2 Chief Executive Officer (CEO) and Deputy CEOs (Article 18.2 of the Bylaws)

The Company's general management is assumed by the CEO. On the CEO's proposal, the Board of Directors may appoint one or more natural persons tasked with assisting the CEO and bearing the title of Deputy CEO. The number of Deputy CEOs may not exceed five.

The age limit for the office of CEO and Deputy CEO is set at 65. Upon reaching that age limit, the CEO or Deputy CEO is deemed to have automatically resigned. However, their mandates shall continue until the Board meeting appointing their successors, with the understanding that a Board meeting to that effect shall take place as soon as possible following the date on which the CEO or Deputy CEO has reached the age limit and, at any rate, within seventy (70) days following that date.

The CEO may be dismissed at any time by the Board of Directors. The same applies to the Deputy CEOs, on the CEO's proposal. If the dismissal is decided without just cause, it may give rise to the award of damages, except if the CEO is also Chairman of the Board of Directors.

Where the CEO ceases to carry out his duties or is prevented from doing so, the Deputy CEOs shall, unless otherwise decided by the Board, continue to perform their duties until the appointment of a new CEO.

The Board of Directors determines the remuneration of the CEO and Deputy CEOs.

The CEO is vested with the broadest powers to act on behalf of the Company in all circumstances. The CEO exercises his powers within the limit of the corporate purpose, subject to the powers expressly assigned by law to shareholder meetings and to the Board of Directors.

The CEO represents the Company in its relationships with third parties. The Company is bound by the actions of the CEO, even if they are not within the scope of the corporate purpose, unless the Company can prove that the third party was aware that the action was outside the remit of the corporate purpose or that it could not have been unaware of this fact in the circumstances, with the understanding that the mere publication of the Bylaws does not constitute a proof to that effect.

Decisions of the Board of Directors limiting the powers of the CEO are unenforceable against third parties.

In agreement with the CEO, the Board of Directors determines the extent and duration of the powers conferred on the Deputy CEOs. With respect to third parties, Deputy CEOs have the same powers as the CEO.

The CEO and Deputy CEOs may, within applicable legal limits, delegate to any proxy the powers they deem appropriate, for one or more specific purposes. Such proxies may include third parties, which may be individuals or grouped together within committees or commissions. These powers may be permanent or temporary, and may or may not include the possibility of substitution. Such delegations of power shall remain in force despite the expiration of the delegator's term of office.

16.3 INFORMATION ON SERVICE AGREEMENTS BETWEEN THE MEMBERS OF THE BOARD OF DIRECTORS AND THE COMPANY OR ONE OF ITS SUBSIDIARIES

On 1 September 2015, the Company entered into a services agreement to set the conditions under which Devenir Consulting Services LLC, which is headed and controlled by John Pierce, Chairman of the Board of Directors, undertakes to exclusively provide the Company with services for business development, searches for potential partnerships, implementation of occasional strategic market studies and representation of the Company in its relationships with potential investors.

To the Company's knowledge, there are no other service agreements between the members of the Board of Directors and the Company or any of its subsidiaries providing for benefits upon the termination of such an agreement.

Agreements coming under Article L. 225-38 of the French Commercial Code are covered in Chapter 19 of the Registration Document.

16.4 STATEMENT REGARDING CORPORATE GOVERNANCE

The Company has initiated an overall assessment of its corporate governance practices, in particular in the prospect of a change in its shareholding structure and free float.

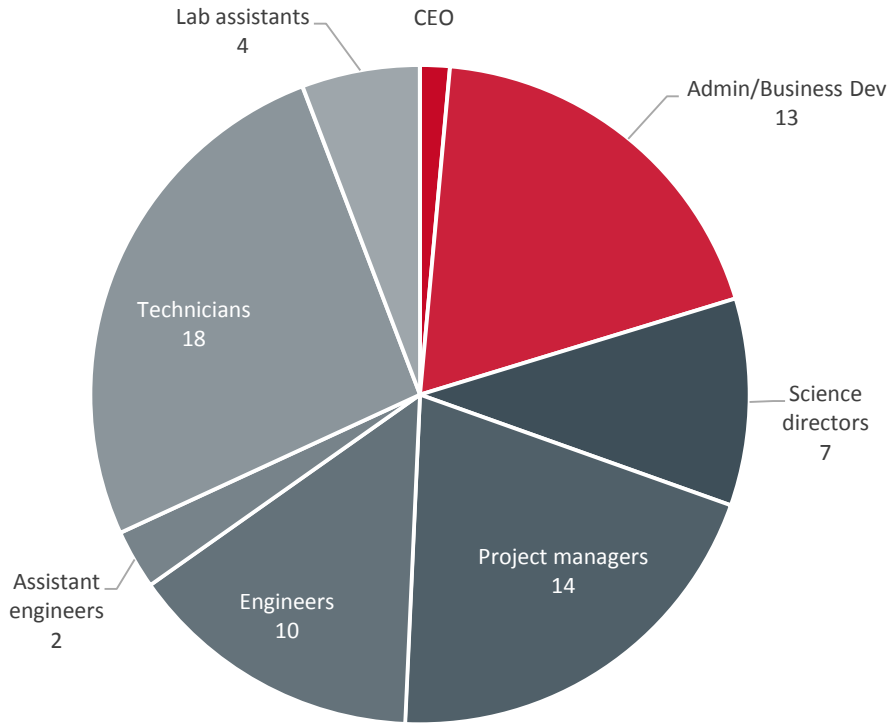
In this regard, the Company intends to refer to the MiddleNext Code of Corporate Governance for small and mid caps, insofar as its principles are compatible with and relevant to the Company's organisation, size, resources and shareholding structure. In particular, in August 2015, the Company separated the functions of Chairman and Chief Executive Officer. On 31 August 2015, John Pierce, an independent director, was appointed Chairman of the Board of Directors; Marc Delcourt continued to serve as Chief Executive Officer of the Company.

Even though the Company is not currently in compliance with all of the recommendations set out by this Code, the Company intends to promote the implementation of good governance practices, in addition to those that currently exist, that will be consistent with its development ambitions.

17 EMPLOYEES

17.1 NUMBER OF EMPLOYEES AND BREAKDOWN BY ROLE

As at 31 December 2017, the Group had 69 employees and the average number of employees was 66 during the year.



The tables below show the structure and changes in headcount within the Group.

Headcount by role	**31/12/2017**	**31/12/2016**	**31/12/2015**
Global Bioenergies SA	58	54	55
Global Bioenergies GmbH	6	6	5
Syngip BV	5	-	-
Chief Executive Officer	1	1	1
Admin. /*business dev.*	13	12	11
Scientific personnel			
Department heads	7	6	6
Project managers	14	12	12
Engineers	10	10	9
Assistant engineers	2	2	1
Technicians	18	14	17
Lab assistants	4	3	3
Total	**69**	**61**	**60**
Average number of employees	**66**	**61**	**64**

At 31 December 2017, the Group employed 84% of its staff on permanent contracts. At this same date, salaried executives amounted to 59% of the headcount, and 57% of employees were women. The average age is 36.7 as at 31 December 2017 and the average seniority of the employees present as at 31 December 2017 is 3 years and 9 months.

The table below shows the breakdown of the workforce as at 31 December 2017 by age group:

	under 21 years old	**21 to 30 years old**	**31 to 40 years old**	**41 to 50 years old**	**over 51 years old**
as at 31 December 2017	-	20	29	12	8
as % of total headcount	-	*29%*	*42%*	*17%*	*12%*

The Company is not obliged to produce a human resources report, which is required only for companies with at least 300 employees.

Organisational structure of the Company

The Company is structured around a team of experienced professionals with a high level of training, led by Marc Delcourt.

Name	**Year of joining the Company**	**Operational roles**	**Training/Experience**
Marc Delcourt	2008	Co-founder Director and Chief Executive Officer	Molecular Biologist, Ecole Normale Supérieure. Has been leading industrial biology companies for over 10 years.
Macha Anissimova	2009	Chief Scientific Officer	Doctor of Enzyme Engineering at the Université de Technologie de Compiègne. Has 10 years' experience at the French atomic energy commission (CEA) and the natural product chemistry institute (ICSN).
Jean-Baptiste Barbaroux	2011	Head of Corporate Development	Completed his doctoral thesis in Biology at Imperial College London. Former researcher at King’s College London.
Bernard Chaud	2015	Director of Industrial Strategy	A career to date split between the chemicals industry (plant manager), the sugar industry (director of biofuels) and the French civil service (ministry of agriculture)
Samuel Dubruque	2014	Chief Financial Officer	Education in management control (Montpellier Business School) and international trade (Monterrey, Mexico). Former management controller and financial analyst in the Suez and Total industrial groups.
Luc Mathis	2017	Head of Business Development	Scientific training (Institut Pasteur, CalTech). Former head of commercial agro-chemical development at Cellectis then Chief Executive Officer of Calyxt.

Frédéric Pâques	2013	Chief Operations Officer	Doctor of Molecular Genetics. Former researcher at the French centre for scientific research (CNRS) then Scientific Director at Cellectis.
Charles E. Nakamura	2012	Vice President, Metabolic Engineering	Former head of research at DuPont. Awarded the "Heroes in Chemistry" prize in 2007 by the American Chemical Society.
Richard E. Bockrath	2012	Vice President, Chemical Engineering	Doctor of Chemical Engineering. Former technical director at DuPont.
Claudia Erning	2014	Vice President *Investor Relations*	15 years of experience in investment bank and corporate finance.

17.2 MANAGEMENT HOLDINGS AND STOCK OPTIONS

On the date of the Registration Document, the officers and directors owned the following stakes in the Company's* share capital:

	Number of shares held	**% of the share capital**
John Pierce, Chairman of the Board of Directors:	-	-
Marc Delcourt, Director and Chief Executive Officer:	358.860	7.9%
Philippe Marlière, Director	358.635	7.9%
Various funds managed by Seventure Partners, represented by Sébastien Groyer, director	670.296	14.8%
Various funds managed by CM-CIC Innovation, represented by Karine Lignel, director	422.304	9.3%
Total	**1.810.095**	**40.1%**

* Capital at the date of this Registration Document: 4,518,761 shares

17.3 EMPLOYEE HOLDINGS IN THE COMPANY'S SHARE CAPITAL

The Company issued 133,783 founders' warrants to employees of the Company, 4,407 of which have been exercised. 18,762 shares lapsed due to the departure of employees and 19,152 lapsed because they had not been exercised before the end of their exercise period. The Company also issued 8,450 equity warrants (BSAs) to employees of the German subsidiary Global Bioenergies GmbH. In addition, the Company issued 32,857 BSAs to employees of Syngip BV. Of these 32,857 BSAs, 30,607 lapsed due to the departure of employees.

Lastly, the Company awarded a total of 37,740 restricted shares to several of its employees. There are no further restricted shares to be allocated (see paragraph 21.1.4.5 of the Registration Document).

Furthermore, in accordance with Article L.225-102 of the French Commercial Code, at the end of the financial year, no shares of the Company were held in a management company by Company employees.

17.4 INCENTIVE PLANS AND PROFIT SHARING

As the Company has over fifty employees, it is required to implement a profit-sharing agreement. It has not implemented any incentive plans.

18 PRINCIPAL SHAREHOLDERS

18.1 BREAKDOWN OF CAPITAL AND VOTING RIGHTS

The Company's capital and voting rights break down as follows:

Shareholders	31/12/2017		31/12/2016		31/12/2015	
	Number of shares	% capital and voting rights	Number of shares	% capital and voting rights	Number of shares	% capital and voting rights
Marc Delcourt[50]	358,860	8.0%	358,860	10.7%	358,860	12.7%
Philippe Marlière[51]	358,635	8.0%	358,635	10.7%	358,635	12.7%
Funds managed by Seventure Partners	670,296	14.9%	815,546	24.3%	742,994	26.3%
Funds managed by CM-CIC Innovation	422,304	9.4%	363,129	10.8%	322,578	11.4%
Cristal Union	164,861	3.7%	164,861	4.9%	164,861	5.8%
Public float	2,512,545	56.0%	1,292,596	38.5%	882,269	31.2%
Total	**4,487,501**	**100.0%**	**3,353,627**	**100.0%**	**2,830,197**	**100.0%**

To the Company's knowledge, on the filing date of the Registration Document no other shareholder holds more than 5% of the Company's capital or voting rights.

In June 2017, Global Bioenergies completed a capital increase via private placement. On that occasion, 640,000 new shares were issued for a price of €16.00 per share, for a total amount of €10.24 million.

The 2017 launch of the equity financing agreements signed with the Bracknor Investment Fund raised €6.9 million for a total of 407,409 new shares issued during the fiscal year.

As part of the acquisition of the Dutch company Syngip BV in February 2017, 37,240 new shares were created. Finally, in April 2017, the automotive manufacturer Audi exercised 49,225 BSAs, which generated the same number of new additional shares.

18.2 VOTING RIGHTS OF PRINCIPAL SHAREHOLDERS

Except in cases where the law provides otherwise, each shareholder is entitled to as many votes as he or she owns fully paid-up shares.

18.3 CONTROL OF THE COMPANY

On the writing date of this document, no shareholder directly or indirectly controls the Company within the meaning of Article L. 233-3 of the French Commercial Code Furthermore, no shareholder has a blocking minority at the Company's General Meetings.

The shareholders have not informed the Company of any intention to enter into a shareholders' agreement, and to the Company's knowledge, there is no concerted action among shareholders.

In August 2015, the Company separated the functions of Chairman and Chief Executive Officer. On August 31, 2015 John Pierce, an independent director, was appointed Chairman of the Board of

[50] Shares directly and indirectly held by Schmilblick Ventures, of which it is the sole shareholder
[51] Shares directly and indirectly held by Enuma, of which it is the sole shareholder

Directors and Marc Delcourt continued to serve as Chief Executive Officer of the Company. This measure, strengthened by the choice of an independent director to chair the Board of Directors, makes it possible to prevent any risk of abusive control.

18.4 AGREEMENTS THAT MAY RESULT IN A CHANGE OF CONTROL

To the Company's knowledge, there is no agreement whose implementation could, at a date following the filing of the Registration Document, result in a change of control.

18.5 PLEDGE OF THE COMPANY'S SHARES

To the Company's knowledge, on the filing date of the Registration Document, no shares of the Company have been pledged or used as a guarantee or surety.

19 RELATED-PARTY TRANSACTIONS

19.1 SIGNIFICANT AGREEMENTS WITH RELATED PARTIES

Licence 1 and Licence 2, as detailed in Chapter 11.2.2 above, are agreements signed between the Company and SCIENTIST OF FORTUNE SA, a company controlled by Philippe Marlière. They thus come under Article L. 225-38 of the French Commercial Code. In fiscal year 2017, the expenses recognised under agreements with SCIENTIST OF FORTUNE SA amounted to €253,000.

On 8 December 2014, the Company signed a "GM3" machines rental and technical assistance contract with Heurisko GmbH, a company controlled by Philippe Marlière. Three riders to this contract were concluded respectively on 25 November 2015, 24 May 2016 and 21 November 2016, to extend the term of the contract. In fiscal year 2017, expenses recognised under the contract with Heurisko GmbH amounted to €46,000.

The tripartite agreement between the Company, SCIENTIST OF FORTUNE SA and Isthmus, both controlled by Philippe Marlière, signed on 25 March 2015, is detailed in Chapter 11.2.2. Expenses recognised in the Company's accounts for the services performed by Isthmus amounted to €200,000 for 2017.

As part of the financing of the Leuna demo plant, the Company entered into a loan agreement with *Crédit Industriel et Commercia*l on 30 April 2015 jointly with CM-CIC Innovation. During fiscal year 2017, the expenses recognised for that loan agreement amounted to €171,000 (€158,000 of capital repaid and €13,000 of interest).

As part of the joint venture with Cristal Union, which led to the creation of IBN-One SA, on May 18, 2015, the Company entered into a licensing agreement with IBN-One SA and a collaboration agreement with IBN-One SA and Cristal Union to ensure the development and operation by IBN-One SA of the first isobutene bioproduction plant that implements the processes developed by the Group. No amount was paid or received by the Company in fiscal year 2017 under the licensing agreement and the collaboration agreement.

On 1 September 2015, the Company entered into a services agreement to set the conditions under which Devenir Consulting Services LLC, which is headed and controlled by John Pierce, undertakes to exclusively provide the Company with services for business development, searches for potential partnerships, implementation of occasional strategic market studies and representation of the Company in its relationships with potential investors. The expenses recorded for this in 2017 amounted to €150,000.

Lastly, the Company entered into a services agreement with IBN-One on 25 November 2015, under which the Company provides IBN-One with legal, administrative, accounting and financial services. The amounts received by the Company for this purpose in 2017 amounted to €120,000.

19.2 SPECIAL STATUTORY AUDITORS' REPORT ON REGULATED AGREEMENTS FOR THE YEAR ENDED 31/12/2017

GLOBAL BIOENERGIES

Société Anonyme

5 rue Henri Desbruères
91000 EVRY

Special Statutory Auditors' report
on regulated agreements
Fiscal year ended 31/12/2017

FRANCE AUDIT CONSULTANTS INTERNATIONAL
10, allée des Champs-Elysées
91042 Evry

GLOBAL BIOENERGIES

Société Anonyme

5 rue Henri Desbruères
91000 EVRY

Special Statutory Auditors' report on regulated agreements

Fiscal year ended 31/12/2017

Dear GLOBAL BIOENERGIE shareholders,

In our capacity as Statutory Auditors of your Company, we hereby present our report on regulated agreements and commitments.

It is our responsibility to inform you, based on the information given to us, of the main characteristics and provisions of, and the reasons for the interest of the Company in, the agreements and commitments of which we have been informed or that we have discovered during our mission, without having to express an opinion on their usefulness or appropriateness or seek the existence of other agreements and commitments. It is up to you, under the terms of Article L. 225-31 of the French Commercial Code, to assess the benefits resulting from these agreements and commitments for their approval.

In addition, it is our responsibility, where necessary, to provide you with the information referred to in Article R.225-31 of the French Commercial Code relating to the performance, during the past fiscal year, of the agreements and commitments already approved by the General Meeting.

We have performed the due diligence that we have deemed necessary in light of the professional standards of the French National Institute of Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this mission. These procedures consisted of verifying the consistency of the information given to us with the basic documents from which it came.

1. AGREEMENTS SUBJECT TO APPROVAL BY THE GENERAL MEETING

New agreements:

We inform you that we have not been given notice of any new agreement entered into during the past fiscal year to be submitted for the approval of the General Meeting, pursuant to Article L. 225-38 of the French Commercial Code.

2. AGREEMENTS ALREADY APPROVED BY THE DELIBERATIVE BODY

Agreements approved in prior years which remained in force during the year:

Moreover, pursuant to Article R. 225-30 of the French Commercial Code, we were informed that the following agreements, approved by the General Meeting in prior years, remained in force during the year just ended.

- ***Licence 1 agreement with Scientist of Fortune S.A.***

  - Purpose of the agreement: Operation and development of research work targeting the bioproduction of isobutene and other molecules.

  - Licence Agreement No. 1 was amended by eight riders signed on 16 October 2009, 10 December 2009, 15 January 2010, 19 September 2011, 10 September 2012, 30 October 2012, 7 May 2013 and 18 June 2014.

    The duration of this agreement corresponds to the following dates, whichever is the latest:

    - the expiry of the most recent patent; or
    - 20 years after the initial marketing of a product or the first performance of a service;

    with the following financial conditions:

    - fixed quarterly fee of €25,000 excluding taxes, revised annually on the basis of the inflation index as published by the INSEE, i.e. a fixed quarterly fee of €26,741 excluding taxes;
    - and variable revenue-based fees of 1% for direct use and 5% for indirect use.

    Licence Agreement No. 1 was authorised by the Board of Directors on 13 February 2009 and approved by the Ordinary General Meeting of 16 December 2010.

Riders 1 to 3 were authorised by the Board of Directors on 4 November 2010. Rider 4 was authorised by the Board of Directors on 20 October 2011. Riders 5 and 6 were authorised by the Board of Directors on 30 October 2012. Rider 7 was authorised by the Board of Directors on 29 April 2013. These riders were ratified by the Ordinary General Meeting. Rider 8 was authorised by the Board of Directors on 14 May 2014 and ratified by the Annual Ordinary General Meeting of 3 June 2015.

- Director concerned: Philippe Marlière

- On 31 December 2017, the Company recognised an expense of €107,668 excluding taxes for the fixed fee and €25,000 excluding taxes for the proportional fee for this agreement.

This licence agreement is important to the company because the processes that it develops are derived from the inventions covered by the licence agreement.

- ***Licence 2 agreement with Scientist of Fortune S.A.***

- Purpose of the agreement: Operation and development of research work on biological butadiene

  The duration of this agreement corresponds to the following dates, whichever is the latest:

  - the expiry of the most recent patent; or
  - 7 July 2031;

  with the following financial conditions:
  - fixed quarterly fee of €120,000 excluding taxes;
  - and variable revenue-based fees of 2% for direct use and 10% for indirect use.

  Licence Agreement No. 2 was authorised by the Board of Directors on 8 July 2011 and ratified by the Annual Ordinary General Meeting of 6 December 2012.

- Director concerned: Philippe Marlière

- On 31 December 2017, the Company recognised an expense of €120,000 excluding taxes for this agreement.

This licence agreement is important to the company because the processes that it develops are derived from the inventions covered by the licence agreement.

- ***Equipment leasing and technical assistance agreement with Heurisko GmbH dated 8 December 2014, as amended by three riders dated 25 November 2015, 24 May 2016 and 21 November 2016***

- Purpose of the agreement: Rental of two "GM3" machines, assistance for the installation and use of said machines, and maintenance services.

The duration of this agreement is six months from the installation of each machine, which may be extended by six months in the event of a delay in the installation, under the following financial conditions:

- Initial payment of €140,000.00 excluding taxes to Heurisko GmbH;

Riders 2 and 3 extended the rental period by six months each, which resulted in additional invoicing.

- Director concerned: Philippe Marlière

- On 31 December 2017, the Company recognised an expense of €45,900 excluding taxes for this agreement.

This equipment lease enabled the company to accelerate its strain selection processes for the company's development objectives.

- ***Scientist of Fortune and Isthmus concession and research agreement of 25 March 2015***

  - Purpose of the agreement: Extension, for a period of three years, by Scientist of Fortune, of the exclusive usage rights of one of the inventions in Licence No. 1 by the Company in all fields and performance by Isthmus of related research to perfect said invention.

    The term of the agreement is three years starting 1 March 2015 with tacit renewal on a semi-annual basis.

    This agreement was authorised by the Board of Directors on 10 February 2015.
  - Director concerned: Philippe Marlière

  - On 31 December 2017, the Company recognised an expense of €200,000 excluding taxes for the research conducted by Isthmus.

This usage rights concession and research agreement represents an interest for the company since it allows it to outsource its R&D activities, diversify its portfolio of programmes developed in-house and, potentially, enter into new R&D agreements with third parties.

- ***Loan agreement with Crédit Industriel et Commercial of 30 April 2015***

  - Purpose of the agreement: Loan of €800,000 for the construction of an industrial demo plant in Leuna (Germany) for a period of 60 months at a fixed rate of 2.65%, a processing fee of €2,750 and guarantee costs of €12,864.56.

    This agreement was authorised by the Board of Directors on 8 April 2015.

- Director concerned: CM-CIC Innovation

- In 2017, the Company recognised an interest expense on the loan of €12,876 and repaid capital of €158,134.

This loan agreement is of interest to the company as it made it enabled the construction of the Leuna demo plant to be financed, which is necessary for the industrial and commercial development of the company.

- ***Cooperation agreement with Cristal Union and IBN-One of 18 May 2015, as amended by a rider dated 26 November 2015***

- Purpose of the agreement: Completion of the front-end engineering design for the construction of an isobutene bioproduction plant by IBN-One.

  This one-year agreement is renewable tacitly and contains the following financial conditions:

  - Payment of a maximum amount of €400,000 by IBN-One to Cristal Union or the Company based on the work that will be entrusted to them as part of the collaboration;

  This agreement and its rider were authorised by the Board of Directors on 11 May 2015 and 24 November 2015

- Director concerned: Marc Delcourt

- This agreement did not result in the recognition of any accounting entries for the year ended 31 December 2017.

This cooperation agreement is of interest to the company because it advances the industrial scaling-up of the commercialisation of the processes and know-how that it develops.

- ***Licence Agreement with IBN-One of 18 May 2015***

- Purpose of the agreement: licence to use the technology and know-how developed by the Company for the organic production of isobutene for the purpose of constructing and operating a plant in France with an annual production capacity of 50,000 tonnes and the global marketing and distribution of the isobutene produced
- Duration: until all of the licensed technology is in the public domain
- Financial conditions:
  - lump sum of €5,000,000 excluding taxes paid in three instalments: 10% and 2% during the fundraising for the construction of the plant and the balance at the start of the production under condition of technological results achieved;

- and up to 5% of the net sales made by IBN One. For the variable portion, a new agreement will be signed.

This agreement was authorised by the Board of Directors on 11 May 2015.

- Director concerned: Marc Delcourt

- This agreement did not result in the recognition of any accounting entries for the year ended 31 December 2017.

This licence agreement is of interest to the company because for the first time, it will allow the technology developed by the company on an industrial scale to be implemented.

- ***Consulting agreement with Devenir Consulting Services of 1 September 2015***

- Purpose of the agreement: Provision of exclusive services for business development, searches for potential partnerships, implementation of occasional strategic market studies and representation of the Company in its relationships with potential investors and industrial partners.

  This agreement was signed for an indefinite period with the option of unilateral termination at any time, with the following financial conditions:
  - US$4,450 per month for exclusivity commitments;
  - US$2,560 per working day;
  - And reimbursement of travel expenses to Devenir Consulting Services.

  This agreement was authorised by the Board of Directors on 31 August 2015.
- Director concerned: John PIERCE

- On 31 December 2017, the Company recognised an expense of €149,869.

This service provision agreement is of interest to the company as it ensures better visibility for the company with investors and stakeholders in the industrial biology sector, especially in the North American market.

- ***Service provision agreement with IBN-One of 25 November 2015***

- Purpose of the agreement: Provision by the Company to IBN-One of legal, administrative, accounting and financial services for a period of one year renewable by tacit agreement.

  This agreement was signed with the following financial conditions:

- Payment of a maximum amount of €11,000 excluding taxes per month to the Company.

This agreement was authorised by the Board of Directors on 24 November 2015.

- Director concerned: Marc Delcourt

- On 31 December 2017, the Company recognised income of €120,000.

This service provision agreement is of interest to the company as it enables it to cover all costs incurred in the administration of its subsidiary IBN-ONE.

Such are the agreements which took place in the year ended 31 December 2017 and which come under Articles L. 225-38 et seq. of the French Commercial Code.

Evry, le 27 avril 2018
Le Commissaire aux Comptes
France Audit Consultants International

Max PEUVRIER

20 FINANCIAL INFORMATION ON THE GROUP'S AND THE COMPANY'S ASSETS, FINANCIAL SITUATION AND RESULTS

As at 31 December 2014, Global Bioenergies produced its first consolidated financial statements under French standards on a voluntary basis as the Group did not reach the legal thresholds for the presentation of consolidated financial statements. The financial statements presented below were prepared by In Extenso, a subsidiary of Deloitte.

20.1 CONSOLIDATED FINANCIAL STATEMENTS OF GLOBAL BIOENERGIES

CONSOLIDATED BALANCE SHEET

BALANCE SHEET - ASSETS	31/12/2017	31/12/2016	31/12/2015
Software	74,348	69,164	106,397
Initial consolidation difference	1,192,445	-	-
Buildings	147,527	166,414	392,046
Technical facilities	10,690,915	1,866,756	2,598,048
Other tangible assets	220,495	179,309	217,269
Assets under construction	16,406	9,969,069	4,022,254
Financial assets	365,223	146,252	142,215
NON-CURRENT ASSETS	**12,707,359**	**12,396,964**	**7,478,229**
Inventories	381,111	326,163	300,307
Trade receivables and related accounts	24,543	168,151	335,111
Supplier receivables	-	6,430	45,042
Personnel costs	-	1,000	1,000
Income tax	2,080,910	1,971,676	2,067,618
VAT	628,611	825,567	834,105
Other receivables	976,219	1,344,675	7,278
Advances and down payments given	-	-	18,323
Marketable securities	307,272	870,269	1,072,906
Cash	13,331,360	7,195,528	9,345,594
Prepaid expenses	412,522	430,383	703,933
CURRENT ASSETS	**18,142,548**	**13,139,842**	**14,731,217**
Translation gains (losses)			
ACCRUALS			
TOTAL ASSETS	**30,849,907**	**25,536,806**	**22,209,446**

BALANCE SHEET - LIABILITIES	31/12/2017	31/12/2016	31/12/2015
Share capital	224,375	167,681	141,510
Share premium and additional paid-in capital	67,866,703	49,409,197	37,816,723
Retained earnings	(40,672,651)	(30,065,547)	(19,665,111)
Group profit (loss)	(14,253,207)	(10,607,102)	(10,394,518)
Investment subsidies	552,500	391,000	-
NET TOTAL	**13,717,720**	**9,295,229**	**7,898,604**
Minority interest	-	-	-
TOTAL EQUITY	**13,717,720**	**9,295,229**	**7,898,604**
Conditional advances	1,109,004	1,109,004	0
TOTAL OTHER CAPITAL	**1,109,004**	**1,109,004**	**0**
Provisions for pensions	56,894	42,041	29,846
PROVISIONS	**56,894**	**42,041**	**29,846**
Convertible bonds	300,000	487,500	-
Loans from credit institutions	2,511,617	3,884,160	5,318,851
Miscellaneous financial debts	6,154,198	5,875,453	5,121,233
Associates' current accounts	138,117	125,801	-
Trade payables and related accounts	4,622,089	4,120,134	3,180,952
Advances received from customers	-	-	-
Tax and social security liabilities	720,697	597,484	659,959
Other operating liabilities	683,052	-	-
Non-operating liabilities	-	-	-
Deferred income	836,519	-	-
PAYABLES	**15,966,289**	**15,090,532**	**14,280,995**
TOTAL LIABILITIES	**30,849,907**	**25,536,806**	**22,209,446**

Profit & loss account

GROUP PROFIT & LOSS	31/12/2017 12 months	31/12/2016 12 months	31/12/2015 12 months
Revenue	306,304	536,304	1,363,441
Operating subsidies	2,052,498	2,749,864	858,883
Reversals of provisions and depreciation, transfers of expenses	793,560	914,410	76,378
Other operating income	-	-	-
OPERATING INCOME	**3,152,362**	**4,200,578**	**2,298,702**
Raw materials purchases	1,366,871	1,089,679	1,178,238
Change in inventory	(54,834)	(25,856)	(14,560)
External expenses	9,177,326	8,960,861	7,759,027
Duties and taxes	71,342	95,620	67,377
Staff costs	4,978,806	4,556,088	4,070,423
Depreciation, amortisation and provisions	2,984,788	1,212,922	978,935
Other operating expenses	261,709	234,853	271,888
OPERATING EXPENSES	**18,786,007**	**16,124,169**	**14,311,328**
OPERATING PROFIT (LOSS)	**(15,633,646)**	**(11,923,591)**	**(12,012,626)**
Interest and other income	21,181	46,137	128,237
Foreign exchange gains	-	3,465	4,839
Income from sales of marketable securities	-	-	3
FINANCIAL INCOME	**21,181**	**49,602**	**133,079**
Interest and financial expenses	729,166	561,179	376,964
Foreign exchange losses	-	18,130	13,861
FINANCIAL EXPENSES	**729,166**	**579,309**	**390,825**
FINANCIAL PROFIT (LOSS)	**(707,985)**	**(529,707)**	**(257,746)**
Asset management income	-	-	-
Disposal price of fixed assets	-	2,132	-
Other income	27,110	33,651	36,608
Reversal of depreciation, amortisation & provisions	127,500	-	-
EXCEPTIONAL INCOME	**154,610**	**35,783**	**36,608**
Asset management expenses	65,353	83,089	145,736
NBV fixed assets sold	-	2,270	76
Other exceptional expenses	-	-	-
EXCEPTIONAL EXPENSES	**65,353**	**85,359**	**145,812**
EXCEPTIONAL PROFIT (LOSS)	**89,257**	**(49,576)**	**(109,204)**
Income tax	1,999,166	1,895,769	1,985,059
NET PROFIT (LOSS) ATTRIBUTABLE TO THE GROUP	**(14,253,207)**	**(10,607,104)**	**(10,394,518)**
Basic profit (loss) per share	-€3.18	-€3.16	-€3.67

Operating cash flow and **Statement of cash flows**

OPERATING CASH FLOW	31/12/2017 12 months	31/12/2016 12 months	31/12/2015 12 months
Net profit (loss)	(14,253,207)	(10,607,102)	(10,394,518)
Depreciation and provisions on operations	2,984,788	1,212,922	978,935
Financial provisions	-	-	-
Exceptional provisions	-	-	-
Reversal of depreciation and provisions on operations	-	-	-
Reversal of depreciation, amortisation & financial provisions	-	-	-
Reversal of depreciation, amortisation & exceptional provisions	-	-	-
Deferred tax	-	-	-
Book value of assets sold	-	2,270	76
Income from asset disposals	-	2,132	-
Subsidies transferred to profit (loss)	127,500	-	-
OPERATING CASH FLOW	**(11,140,919)**	**(9,389,778)**	**(9,415,507)**

CASH FLOW	31/12/2017 12 months	31/12/2016 12 months	31/12/2015 12 months
Net profit (loss)	(14,253,206)	(10,607,102)	(10,394,518)
Amortisation	2,857,288	1,212,922	978,935
Capital gains on asset disposals	-	138	76
Cash-flow	**(11,395,918)**	**(9,394,042)**	**(9,415,507)**
Change in working capital requirement	2,330,338	115,380	575,874
CASH GENERATED BY OPERATIONS	**(9,065,580)**	**(9,278,662)**	**(8,839,633)**
Acquisition of fixed assets	2,023,892	6,125,213	4,489,034
Sale of fixed assets	1,917	5,613	1,090
CASH FLOW FROM INVESTMENTS	**(2,021,975)**	**(6,119,600)**	**(4,487,944)**
Capital increase in cash	17,890,390	12,526,807	1,881,660
Capital increase costs charged to issue premium	736,804	908,162	71,193
Other changes	(416)	(5,919)	0
Investment subsidies	289,000	391,000	0
Repayable advances received	0	1,109,004	1,725,911
Loans arranged	300,000	1,018,550	5,800,000
Loans repaid	1,611,803	1,580,921	1,125,462
Contributions from associates' current accounts	12,316	125,801	0
Repayable advances repaid	0	0	337,800
CASH FLOW FROM FINANCING	**16,142,683**	**12,550,359**	**7,873,116**
Cash at start of year	7,431,224	10,153,326	15,607,789
Cash at year-end	12,486,352	7,431,225	10,153,326
CHANGE IN CASH POSITION	**5,055,128**	**2,847,904**	**(5,454,461)**

Consolidation principles and evaluation methods

General

They have been prepared on a voluntary basis as the Group has not yet reached the legal thresholds for mandatory presentation of consolidated financial statements.

The consolidated financial statements of the Global Bioenergies Group were prepared in accordance with the principles and methods set out in the Order of 22/06/1999 ratifying CRC Regulation No. 99-02.

The financial statements are presented in euros, unless otherwise stated.

Consolidation principles

Global Bioenergies is defined as the Group's parent company.

Subsidiaries that are more than 50% owned by the Group are fully consolidated. These subsidiaries are:

- ✓ **GLOBAL BIOENERGIES GmbH**
- ✓ **IBN-Two GmbH**
- ✓ **Syngip BV**
- ✓ **Syngip GmbH**

Subsidiaries less than 50% owned by the Group are proportionally consolidated. This subsidiary is:

- ✓ **IBN-One SA**

Reciprocal transactions and accounts

Reciprocal transactions and accounts between Group companies have been eliminated.

Goodwill

As the shares in the subsidiaries were originally subscribed by Global Bioenergies SA, no goodwill was recognised.
For Syngip BV, goodwill of €1,192,568 has been recognised, corresponding to the difference between the acquisition cost (€875,000) and the equity value of Syngip BV at the time of acquisition (-€317,568).

Fixed assets

These are valued at their acquisition cost or at their production cost.

Tangible assets are depreciated on a straight-line or declining-balance basis, depending on the expected useful life of each asset.

The provisions of CRC 04-16 on assets and CRC 02-10 on asset depreciation and amortisation have been implemented since 2005.

The assets acquired under finance leasing contracts have been restated and presented as amortisable assets and debts to financial institutions. Fees were split between amortisation of fixed assets and financial liabilities.

R&D costs

The Global Bioenergies Group has chosen to expense its R&D costs rather than capitalise them.

Inventories

Inventories are valued according to the first-in first-out method.
The gross value of goods and supplies includes their purchase price and ancillary costs.
A provision for impairment is booked when the inventory value is lower than the book value.

Founders' warrants (BSPCEs) and stock options

The BSPCEs and stock options awarded have not been restated in the consolidated financial statements. Consequently, they have no impact on shareholder’s equity.

Deferred tax

The deferred tax has not been restated in the consolidated financial statements.

Retirement commitments

Commitments concerning retirement benefits are valued at the year-end according to the prospective method recommended by the Conseil National de la Comptabilité. This method consists in prorating the rights that will be earned at the end of the employees' careers according to the length of service recorded on the valuation date for all employees present. Their salaries are projected to the end of their careers, under the assumption of 1.5% increase per year.

The other calculation assumptions used are the following:

- ✓ discount rate: 2.03% (including inflation);
- ✓ salary growth rate: 2%;
- ✓ retirement age: 62;
- ✓ life expectancy table: INSEE TV 88-90;
- ✓ turnover rate:
  - executives: 2%,
  - non-executives: 2%.

The actuarial debt measures the likely commitment discounted to 31 December 2017 in respect of the rights accumulated on that date. It stood at €56,894 and was recognised in the consolidated financial statements.

Additional information

Equity interests – consolidated companies:

Name and legal form	Registered office and SIREN No.	% control	Method of consolidation	Business sector
GLOBAL BIOENERGIES SA	91000 ÉVRY 508,596,012	**Consolidating company**		R&D
GLOBAL BIOENERGIES GmbH	LEUNA (Germany)	100%	Full consolidation	R&D
IBN-One SA	91000 ÉVRY 810,716,704	50%	Proportional consolidation	R&D
IBN-Two GmbH	LEUNA (Germany)	100%	Full consolidation	R&D
Syngip BV	GELEEN (Netherlands)	100%	Full consolidation	R&D
Syngip GmbH	LEUNA (Germany)	100%	Full consolidation	R&D

Fixed assets (€) as at 31/12/2017

NON-CURRENT ASSETS	Balance at start of year	Changes in scope	Inputs	Outputs	Balance at end of year
Software	237,555		30,752		268,307
Other intangible assets		14,807	290		15,097
INTANGIBLE ASSETS	**237,555**		**31,042**		**283,404**
Buildings	461,884				461,884
Technical facilities	4,623,275	56,225	11,643,030		16,322,530
Other tangible assets	364,575		81,595		446,170
Assets under construction	9,969,069		16,406	9,969,069	16,406
TANGIBLE ASSETS	**15,418,803**	**56,225**	**11,741,031**	**9,969,069**	**17,246,990**
FINANCIAL ASSETS	**146,253**	**-**	**220,888**	**1,917**	**365,224**
Total	**15,802,611**	**-**	**11,992,961**	**9,970,986**	**17,895,618**

Depreciation, amortisation and provisions (€) as at 31/12/2017

DEPRECIATION/AMORTISATION	Value at start of year	Changes in scope	Expenses	Reversals	Balance at end of year
Software	168,390		39,182		207,572
Other intangible assets		790	694		1,484
INTANGIBLE ASSETS	**168,390**		**39,876**		**209,056**
Buildings	295,471		18,887		314,358
Technical facilities	2,756,519	4,332	2,870,763		5,631,614
Other tangible assets	185,264		40,410		225,674
TANGIBLE ASSETS	**3,237,254**	**4,332**	**2,930,060**	**0**	**6,171,646**
TOTAL DEPRECIATION/AMORTISATION	**3,405,644**	**-**	**2,969,936**	**0**	**6,380,702**

PROVISIONS	Value at start of year	Changes in scope	Expenses	Reversals	Balance at end of year
Inventories					
Trade receivables					
Other receivables					
Marketable securities					
TOTAL PROVISIONS	**-**	**-**	**-**	**-**	**-**

Maturities of receivables and debts (€) as at 31/12/2017

RECEIVABLES	Less than one year	1 to 5 years old	More than 5 years old	Total
Other financial assets				0
Fixed asset receivables				**0**
Trade receivables and related accounts	24,543			24,543
Other operating receivables	3,685,740			3,685,740
Receivables, current assets	**3,710,283**			**3,710,283**
Prepaid expenses	**412,522**			**412,522**
Deferred tax assets				**0**
Total	**4,122,805**	**0**	**0**	**4,122,805**

PAYABLES	Less than one year	1 to 5 years old	More than 5 years old	Total
Convertible bonds	300,000			
Bank overdrafts and accrued interest	1,152,280			1,152,280
Borrowings and debts with credit institutions	1,268,234	1,238,753		2,506,987
Miscellaneous financial debts	548,000	4,458,248		5,006,248
Trade payables and related accounts	4,622,089			4,622,089
Tax and social security liabilities	720,697			720,697
Advances received from customers				0
Miscellaneous payables	683,052			683,052
Deferred income	**836,519**			**836,519**
Total	**9,830,871**	**5,697,001**	**0**	**15,527,872**

Revenue (€) as at 31/12/2017

REVENUE	31/12/2017
Production sold	306,304
Total	**306,304**

Change in net consolidated position (in €) as at 31/12/2017

CHANGE IN NET POSITION	Capital	Premiums and warrants	Reserves	Net profit (loss)	Equity
Opening date	167,681	49,409,197	(30,065,547)	(10,607,102)	8,904,229
Capital increase	56,694	18,457,506			18,514,200
Net profit (loss) for the year				(14,253,207)	(14,253,207)
Allocation of previous year's profit (loss)			(10,607,102)	10,607,102	
Dividends paid					
Investment subsidies					552,500
Other changes					
Total	**224,375**	**67,866,703**	**(40,672,649)**	**(14,253,207)**	**13,717,722**

Corporate officers

This information would result in the disclosure of confidential items.

Workforce

As at 31 December 2017, the workforce of the six companies consists of 69 people.

Share capital

As at 31 December 2017, it consists of 4,487,501 shares of €0.05 each, i.e. €224,375.05.

Events after the reporting date

None.

Profit & loss accounts as at 31 December 2017 and 31 December 2016, under French standards

GROUP PROFIT & LOSS	31/12/2017 12 months	31/12/2016 12 months
Revenue	306,304	536,304
Operating subsidies	2,052,498	2,749,864
Other operating income	9,717	6,248
OPERATING INCOME	**2,368,519**	**3,292,416**
Consumables and change in inventories	1,312,038	1,063,823
External expenses	8,393,483	8,052,699
Duties and taxes	71,342	95,620
Staff costs	4,978,806	4,556,088
Fees	253,023	227,668
Depreciation, amortisation and provisions	2,984,788	1,212,922
Other operating expenses	8,686	7,185
OPERATING EXPENSES	**18,002,166**	**15,216,005**
OPERATING PROFIT (LOSS)	**(15,633,647)**	**(11,923,589)**
Financial income	21,181	49,602
Financial expenses	729,166	579,309
FINANCIAL PROFIT (LOSS)	**(707,985)**	**(529,707)**
Exceptional income	154,610	35,783
Exceptional expenses	65,353	85,359
EXCEPTIONAL PROFIT (LOSS)	**89,257**	**(49,576)**
Income tax	1,999,166	1,895,769
NET PROFIT (LOSS) ATTRIBUTABLE TO THE GROUP	**(14,253,208)**	**(10,607,103)**

NB: the expenses relating to the capital increases carried out in 2017 and 2016 have been recognised as transfers of expenses. However, in the above table, they were deducted from external expenses, as in previous years.

Exceptional profit (loss) as at 31/12/2017

EXCEPTIONAL PROFIT (LOSS)	Expenses	Income
Items from prior years	0	9,336
Asset disposals	0	0
Share buyback	65,353	17,775
Fines and penalties	0	
Share of subsidy transferred to profit (loss)		127,500
Miscellaneous exceptional expenses	0	
Total	**65,352**	**154,611**

Off-balance-sheet commitments as at 31/12/2017

OFF-BALANCE-SHEET COMMITMENTS	Amount
Commitments given	4,427,343
Pledge on goodwill	2,600,000
Pledge on material	848,610
Pledge on receivables	575,000
Pledge on securities	247,000
Finance lease commitments	156,733
Commitments received	1,550,000
BPI intervention	1,550,000

20.2 CORPORATE FINANCIAL STATEMENTS OF GLOBAL BIOENERGIES SA

Balance sheet

BALANCE SHEET - ASSETS	Gross	Depreciation/Amortisation Impairment	Net as at 31/12/2017	Net as at 31/12/2016
UNPAID SUBSCRIBED CAPITAL				
Intangible assets				
R&D costs	-	-	-	-
Concessions, patents and similar rights	268,307	207,572	60,735	69,164
Other intangible assets	-	-	-	-
Tangible assets				
Buildings	461,884	314,357	147,527	166,414
Technical facilities, equipment and tooling	2,692,797	1,471,828	1,220,969	1,168,913
Other tangible assets	377,847	211,338	166,509	175,255
Financial assets				
Equity investments and related receivables	14,444,116	-	14,444,116	11,540,000
Loans	-	-	-	1,917
Other financial assets	365,223	-	365,223	144,335
NON-CURRENT ASSETS	**18,610,174**	**2,205,095**	**16,405,079**	**13,265,998**
Inventories	370,111	-	370,111	315,277
Receivables				
Trade receivables and related accounts	251,457	-	251,457	196,302
Supplier receivables	-	-	-	-
Personnel costs	-	-	-	1,000
Income tax	2,080,910	-	2,080,910	1,971,676
Tax on revenue	306,918	-	306,918	305,183
Other receivables	261,408	-	261,408	503,031
Miscellaneous				
Advances and down payments given	-	-	-	-
Marketable securities	307,272	-	307,272	870,269
Cash	12,626,436	-	12,626,436	4,761,133
Prepaid expenses	404,360	-	404,360	421,722
CURRENT ASSETS	**16,608,872**	**-**	**16,608,872**	**9,345,593**
Translation gains (losses)				
ACCRUALS				
TOTAL ASSETS	**35,219,046**	**2,205,095**	**33,013,950**	**22,611,591**

BALANCE SHEET - LIABILITIES	Net as at 31/12/2017	Net as at 31/12/2016
Share capital	224,375	167,681
Share premium and additional paid-in capital	67,866,703	49,409,197
Retained earnings	- 38,945,556	- 28,434,379
Net profit (loss) for the year	**- 12,902,497**	**- 10,511,177**
Investment subsidies	-	-
Regulated provisions	-	-
TOTAL EQUITY	**16,243,025**	**10,631,322**
Conditional advances	858,340	858,340
TOTAL OTHER CAPITAL	**858,340**	**858,340**
Provisions for risks	-	-
Provisions for expenses	-	-
TOTAL PROVISIONS FOR RISKS AND EXPENSES	**-**	**-**
Convertible bonds	300,000	487,500
Loans from credit institutions	2,174,413	3,186,317
Miscellaneous financial borrowings and debts	6,154,198	5,875,453
Trade payables and related accounts	5,196,497	1,048,327
Personnel costs	*234,660*	*215,556*
Social security contributions	*251,167*	*220,497*
Tax on revenue	*15,129*	*26,050*
Other tax and social security liabilities	*67,892*	*62,229*
Tax and social security liabilities	**568,848**	**524,332**
Other payables	682,112	-
Deferred income	836,519	-
PAYABLES - -	**15,912,587**	**11,121,929**
TOTAL LIABILITIES	**33,013,950**	**22,611,591**

Profit and Loss account

In Extenso

PROFIT & LOSS	from 01/01/17 as at 31/12/2017 12 months	from 01/01/16 at 31/12/2016 12 months	Absolute change (amount)	Absolute change (%)
INCOME				
Production sold	469,012	642,008	(172,996)	(26.95)%
Operating subsidies	266,158	284,960	(18,802)	(6.60)%
Other income	801,819	929,144	(127,325)	(13.70)%
Total	**1,536,989**	**1,856,112**	**(319,123)**	**(17.19)%**
CONSUMPTION OF GOODS & MATERIALS				
Raw materials purchases	919,128	987,413	(68,285)	(6.92)%
Change in inventory	(54,834)	(14,970)	(39,864)	266.29%
Other purchases & external expenses	10,300,930	7,962,490	2,338,440	29.37%
Total	**11,165,224**	**8,934,933**	**2,230,291**	**24.96%**
MARGIN ON GOODS & MATERIALS	**(9,628,235)**	**(7,078,821)**	**(2,549,414)**	**36.01%**
EXPENSES				
Duties, taxes and related expenses	71,106	65,652	5,454	8.31%
Salaries and emoluments	2,855,691	2,815,089	40,602	1.44%
Social security contributions	1,165,900	1,162,910	2,990	0.26%
Depreciation, amortisation & provisions	504,948	753,789	(248,841)	(33.01)%
Other expenses	258,180	231,984	26,196	11.29%
Total	**4,855,825**	**5,029,424**	**(173,599)**	**(3.45)%**
OPERATING PROFIT (LOSS)	**(14,484,060)**	**(12,108,245)**	**(2,375,815)**	**19.62%**
Financial earnings	239,582	236,820	2,762	1.17%
Financial expenses	618,943	485,945	132,998	27.37%
Financial profit (loss)	**(379,361)**	**(249,125)**	**(130,236)**	**52.28%**
Joint operations				
OPERATING PROFIT (LOSS)	**(14,863,421)**	**(12,357,370)**	**(2,506,051)**	**20.28%**
Exceptional income	27,110	35,783	(8,673)	(24.24)%
Exceptional expenses	65,352	85,359	(20,007)	(23.44)%
Exceptional profit (loss)	**(38,242)**	**(49,576)**	**11,334**	**(22.86)%**
Employee profit-sharing				
Income tax	(1,999,166)	(1,895,769)	(103,397)	5.45%
NET PROFIT (LOSS) FOR THE YEAR	**(12,902,497)**	**(10,511,177)**	**(2,391,320)**	**22.75%**

Balance sheet before distribution for the fiscal year ended 31 December 2017,

- of which the total is €33,013,950
- and notes to the profit & loss account, presented in list form, showing a loss of - €12,902,497.

The reporting period covers the 12 months from 1/1/2017 to 31/12/2017.

The notes and tables hereunder are an integral part of the financial statements for the fiscal year.

The financial statements for the fiscal year were prepared by the Board of Directors.

The financial statements for the fiscal year ended 31 December 2017 were prepared in accordance with the French general accounting plan approved by the Ministerial Order of 8 September 2014, law no. 83-353 of 30 April 1983 and Decree 83-1020 of 29 November 1983, and in compliance with the provisions of accounting regulations 2000-06 and 2003-07 on liabilities, regulation 2002-10 on asset depreciation, amortisation & impairment and regulation 2004-06 on the definition, accounting and valuation of assets.

The accounting rules were applied with due regard to the principle of prudence, in accordance with the following underlying assumptions:

- going concern;
- consistency of accounting methods from one fiscal year to another;
- independence of fiscal years,

and in accordance with the general rules for the preparation and presentation of annual financial statements.

All accounting entries have been valued using the historic cost method.

Tangible and intangible assets

Assets are valued at their acquisition cost (purchase price and related expenses).

Assets are depreciated using the straight-line or declining-balance method, depending on their expected useful life:

- software	1 to 5 years;
- construction on ground and other	1 and 10 years;
- research material	5 years;
- IT equipment	3 and 5 years;
- furniture	10 years;
- fixtures and fittings	10 years.

Inventories

Inventories are valued on the basis of the latest known purchase price.
An impairment provision, equal to the difference between the gross value determined as set out above and the day's price or realisable value, is recognised when the gross value is higher than the other stated value.

Receivables

Receivables are recognised at their nominal value. An impairment provision is recognised when the inventory value is lower than the book value.

Marketable securities

Marketable securities are valued using the first-in, first-out method. An impairment provision is recognised when the inventory value is lower than the book value.

Foreign currency transactions

When an asset is purchased in a foreign currency, the exchange rate used is that applicable on the acquisition date or, where relevant, the hedging rate if a hedging contract was set up before the transaction. The expenses incurred in relation to the hedging are included in the acquisition cost.
All foreign currency payables, receivables and cash are recognised in the balance sheet at their year-end counter-values. The difference resulting from the recognition of foreign currency payables and receivables at the year-end rate is booked under unrealised foreign exchange gains (losses).
Non-compensated unrealised foreign exchange losses are fully covered by a provision for risks, in accordance with applicable regulations.

R&D costs
Global Bioenergies SA has chosen to expense its R&D costs rather than capitalise them.

Subsidiaries

Name and legal form	Registered office and SIREN No.	% control	Method of consolidation	Business sector
GLOBAL BIOENERGIES SA	91000 ÉVRY 508 596 012	**Consolidating company**		R&D
GLOBAL BIOENERGIES GmbH	LEUNA (Germany)	100%	Full consolidation	R&D
IBN-One SA	91000 ÉVRY 810 716 704	50%	Proportional consolidation	R&D
IBN-Two GmbH	LEUNA (Germany)	100%	Full consolidation	R&D
Syngip BV	GELEEN (Netherlands)	100%	Full consolidation	R&D
Syngip GmbH	LEUNA (Germany)	100%	Full consolidation	R&D

On 22 January 2013, Global Bioenergies SA set up a wholly-owned German subsidiary, **Global Bioenergies GmbH**, with capital of €25,000.

As at 31 December 2017, revenue of €3,623,000 and a subsidy of €2,058,000 were recognised, along with expenses of €6,341,000.

Remuneration of €202,635 was paid on this advance during the year ended 31 December 2017.

The shares and receivables that Global Bioenergies SA holds in its subsidiary were not impaired for the following reasons:

- Global Bioenergies GmbH obtained a subsidy of €5.7 million at the end of 2013 and €0.4 million during 2016 from the German Federal Ministry of Education and Research, part of which has yet to be received (€0.4 million). In addition, as part of the Optisochem European subsidy granted in 2017, part of the declared costs relate to the completion of fermentation runs for the Leuna demo plant. The German subsidiary will therefore receive a portion of the €4.4 million European subsidy for Global Bioenergies;
- Global Bioenergies GmbH carries out R&D services for the parent company, for which it is invoiced. In addition, since 2017 and the start of the demo plant's operation, it has been invoiced for depreciation costs (€11.5 million depreciated over 48 months);
- the Leuna demo plant may be useful beyond its depreciation period (similar to the Pomacle pilot plant, already depreciated but still in service), which has been defined over the estimated period between now and the commissioning of the first plant. More specifically, it may be used to work on other molecules or other substrates;
- these different flows should enable Global Bioenergies GmbH to return to profitability in 2018 and in subsequent years.

On 27 March 2015, Global Bioenergies SA created IBN-One SA, a French subsidiary with capital of €37,000, in which it held 99.982% of the shares.
On 13 May 2015, IBN-One SA carried out a capital increase to bring it to €1,000,000.

In January 2016, Global Bioenergies SA purchased six shares.

Following these transactions, Global Bioenergies SA owned 50% of the share capital of IBN-One SA. As at 31 December 2017, IBN-One SA did not generate any revenue and its expenses amounted to €578,000.

Global Bioenergies SA granted the subsidiary a current account advance of €255,000 as at 31 December 2017.

Remuneration of €5,840 was paid on this advance during the year ended 31 December 2017.

The shares that Global Bioenergies SA holds in its subsidiary were not impaired for the following reasons:

- it is IBN One SA's second fiscal year;
- in 2016, IBN One SA received approval for a repayable advance of €3.3 million granted by ADEME as part of the Investissements d'Avenir programme for the Demo Plants for the Ecological and Energy Transition.

On 8 May 2015, Global Bioenergies SA set up a wholly-owned German subsidiary, **IBN-Two GmbH,** with capital of €25,000.

As at 31 December 2017, IBN-Two SA did not generate any revenue and its expenses amounted to €4,000.

In February 2017, Global Bioenergies SA received a contribution of all of the shares of **Syngip BV** (see chapter on capital increase by contribution of securities).

As at 31 December 2017, Syngip BV made revenue of €503,000 consisting of the re-invoicing of Global Bioenergies SA for its research services, and its expenses amounted to €813,000.

Global Bioenergies SA granted the subsidiary a current account advance of €1,279,000 as at 31 December 2017.

Remuneration of €14,732 was paid on ths advance during the year ended 31 December 2017.

The shares that Global Bioenergies SA holds were not impaired for the following reasons:

- in 2018, Syngip BV obtained a financing agreement approval for part of its research expenses as part of a European project;
- it also invoices Global Bioenergies SA for its research services, which will be used commercially by the parent company, not by Syngip BV.

Capital increase through the exercise of equity warrants (BSAs)

On 24 April 2017, the Chief Executive Officer received a request from Audi Business Innovation to exercise all 49,225 BSAs issued to it.

The Chief Executive Officer having acknowledged the payment of €750,005.04 to the company's bank account, a capital increase totalling €2,461.25 with an issue premium of €747,543.79 was completed.

Issue of bonds convertible into equity warrants (OCABSAs)

During 2016, Global Bioenergies SA carried out a private issuance of OCABSAs.

The OCABSAs were issued in various tranches, on the exercise of warrants issued free of charge, which then oblige their holder over 24 months to subscribe to an OCABSA tranche, subject to meeting certain conditions.

The issuance of the first tranche of 20 OCABSAs representing a nominal bond issue amount of €750,000 was carried out on 22 September 2016 on the basis of the 8th resolution of the Combined General Meeting of 3 June 2015.

The General Meeting of 28 October 2016 approved the 14 other OCABSA tranches, each in an amount of €750,000.

It was provided that the drawdown of each tranche would be made automatically at the end of a 20 trading day period from the drawdown of the previous tranche.

It was moreover agreed that in respect of the payment of a fixed-rate commitment fee, Global Bioenergies SA will issue an OCA with a par value of €37 (without attached BSAs) to the Investor when each tranche is drawn down.

The bonds convertible into shares (OCAs) were issued at par (€37,500), will not bear interest and will have a maturity of 12 months from their issue. When they reach maturity, OCAs still outstanding must be converted into shares. However, should a default pursuant to the contract occur, any outstanding OCAs at that date must be repaid by the Company at par value by Global Bioenergies SA.

The number of equity warrants (BSA) to be issued on the issue of each OCABSA tranche was such that, multiplied by the exercise price of the BSAs, the amount thus obtained was equal to 60% of the nominal amount of the tranche.

The BSAs will be immediately detached from the OCAs starting from their issuance.

Each BSA will give its bearer the right, during its exercise period, to subscribe for one new share of the Company.

The transaction could result in a contribution of €18,000,000: €11,250,000 corresponding to the subscription of all OCAs and €6,750,000 corresponding to the exercise of all BSAs.

During the fiscal year ended 31 December 2016, five OCABSA tranches of 21 OCABSAs each were issued, representing an amount of €3,937,500 of OCAs. 92 OCA were converted, representing a capital increase of €7,674.95, with an issue premium of €3,442,257.03.

During the fiscal year ended 31 December 2017, six OCABSA tranches of 21 OCABSAs each were issued, representing an amount of €4,725,000 of OCAs. 139 OCAs were converted, 13 of which correspond to an OCABSA tranche issued in 2016, representing a capital increase of €12,873.20, with an issue premium of €5,199,084.03.

As at 31 December 2017, all OCABSAs previously issued had been converted.

During the year ended 31 December 2017, Global Bioenergies SA privately issued a second tranche of OCABSAs.

The new agreement states that the OCABSAs will be issued in 20 tranches (the "Warrants"), each in an amount of €1,188,000, without preferential subscription rights for Bracknor Investment (the "Investor"). Each Warrant, allocated free of charge to the Investor, will oblige the Investor, subject to compliance with certain conditions, to subscribe to a tranche of 20 OCABSAs.

The drawdown of each Warrant is to be exercised automatically at the end of a period of 20 trading days from the exercise of the previous Warrant. It is also provided for the Company to suspend (and resume) the drawdowns at any time.

In addition, it is agreed that as a partial payment of a fixed-rate commitment fee, the Company will issue the Investor an additional OCA with a par value of €60,000 (without BSAs attached), on the exercise of each Warrant.

As at 31 December 2017, only the first two tranches for an amount of €2,520,000 had been issued. 37 OCAs had been converted, representing a capital increase of €7,497.25, with an issue premium of €2,212,369.17.

As at 31 December 2017, an unconverted amount of €300,000 remains.

Following the issuance of the second tranche, Global Bioenergies SA decided to suspend the drawdowns.

Capital increase by contribution of securities

In February 2017, Global Bioenergies SA received a contribution of all of the shares of SYNGIP BV, a Dutch company. In exchange for this contribution, Global Bioenergies issued 37,240 new ordinary shares to Syngip BV's historical partners and 69,161 equity warrants (BAAs) granted free of charge that give rise to the allocation of a new share subject to the achievement by the Syngip BV teams of a technical milestone in the development of a process to convert gaseous carbon resources into isobutene.

This milestone must be reached no later than two years after the date of approval of this transaction by the general meeting of shareholders of Global Bioenergies, failing which the BAA would lapse. The 37,240 new ordinary shares represent a value of approximately €875,000, based on a share price of €23.4956. The BAAs will give rise to the allocation of 69,161 new ordinary shares, representing a value of approximately €1,625,000 at the reference price of €23.4956. The 37,240 new common shares will be subject to a lock-up period, which will end either on the achievement of the milestone mentioned above or, at the latest, two years after the date of the general meeting of shareholders of Global Bioenergies that approved the transaction.

Capital increase via private placement

On 29 June 2017, the Board of Directors decided on a capital increase via private placement pursuant to the eighth resolution of the Combined General Meeting of 26 June 2017, by issuing 640,000 new shares at a price of €16 per share, issue premium included, for a gross amount of €10,240,000.

On 4 July 2017, the Chief Executive Officer acknowledged the completion of the capital increase.

Capital increase costs

As in previous years, the capital increase costs were charged to the issue premium for an amount of €736,804.

In addition, the costs for the contribution of securities were charged to the contribution premium for an amount of €47,038.

Award of BSPCEs – BSAs – BEAs

Allocation plans	Number of warrants outstanding at 31/12/2017	Number of shares held	Target date for reporting
BSA 06-2009	12 000	12 000	30/11/2019
BSA 12-2011	2 477	2 477	19/12/2021
BSA 10-2012	9 900	9 900	29/10/2022
BSPCE 02-2013	19 152	19 152	06/02/2018
BSPCE A01-2014	12 417	12 417	07/01/2019
BSPCE B01-2014	11 880	11 880	07/01/2019
BSA A01-2014	8 000	8 000	07/01/2024
BSA B01-2014	0	0	30/04/2017
BSA 07-2014	3 000	3 000	02/07/2024
BSPCE A07-2014	6 200	6 200	02/07/2024
BSPCE B07-2014	1 500	1 500	02/07/2024
BSA A01-2015	6 000	6 000	12/01/2025
BSA B01-2015	750	750	12/01/2025
BSPCE A01-2015	6 991	6 991	12/01/2025
BSPCE B01-2015	14 819	14 819	12/01/2025
BSPCE A10-2015	7 500	7 500	13/10/2025
BSPCE B10-2015	5 355	5 355	13/10/2025
BSA A10-2015	400	400	13/10/2025
BSA B10-2015	1 000	1 000	13/10/2025
BSA 11-2015	0	0	30/04/2017
BSPCE A02-2016	30 000	30 000	15/02/2026
BSA PACEO II	125 000	125 000	15/09/2018
BSA BKN T1	14 851	14 851	21/09/2021
BSA A09-2016	1 300	1 300	21/09/2026
BSA B09-2016	3 500	3 500	21/09/2026
BSPCE 09-2016	15 200	15 200	21/09/2026
BSA BKN T2	15 126	15 126	30/10/2021
BSA BKN T3	14 506	14 506	07/11/2021
BSA BKN T4&5	34 258	34 258	04/12/2021
BSA BKN T6	14 975	14 975	16/01/2022
BAA Syngip	69 191	69 191	01/02/2019
BSA BKN T7	15 592	15 592	12/02/2022
BSA 02-2017	2 250	2 250	21/02/2027
BSA BKN T8	16 728	16 728	12/03/2022
BSA BKN T9	16 666	16 666	10/04/2022
BSA BKN T10	18 450	18 450	14/05/2022
BSA BKN T11	18 518	18 518	18/06/2022
BSA BKN2 T1	14 476	14 476	26/06/2022
BSA BKN2 T2	18 182	18 182	26/07/2022
BSPCE A09-2017	8 000	8 000	28/09/2027
BSPCE B09-2017	2 000	2 000	28/09/2027
BSA 09-2017	2 000	2 000	28/09/2027
TOTAL	600 110	600 110	

Change in share capital

The share capital of Global Bioenergies SA was as follows at the end of each fiscal year:

	30/06/2009	30/06/2010	30/06/2011	30/06/2012
Capital in euros	41.800	46.600	79.009	82.830
Nbr of existing ordinary shares	41.800	46.600	1.580.180	1.656.600
	31/12/2012	**31/12/2013**	**31/12/2014**	**31/12/2015**
Capital in euros	90.892.95	137.762.80	138.773.40	141.509.85
Nbr of existing ordinary shares	1.817.959	2.755.256	2.775.468	2.830.197
	31/12/2016	**31/12/2017**		
Capital in euros	167.681.35	224.375.05		
Nbr of existing ordinary shares	3.353.627	4.487.501		

Treasury shares

On 12 May 2011, the General Meeting authorised the Board of Directors to implement a share buyback programme. This authorization has been automatically renewed annually since 2012, with the last renewal having occurred on 26 June 2017. Such share purchases may be carried out to promote the liquidity of the Company's shares, within the limit of 10% of the Company's share capital on the purchase date.

As at 31/12/ember 2017, since the signing of the liquidity contract during the IPO, Global Bioenergies SA has paid out €425,000, breaking down as follows:

- 3,871 treasury shares representing 0.09% of the total number of outstanding shares, at the acquisition price of €58,771.68;
- Cash account in the amount of €53,318.32.

Licence agreement

On 13 February 2009, Global Bioenergies SA signed an exclusive licence agreement for a patent against the payment of quarterly fees.

This agreement also provides for the payment of additional fees for the direct and indirect use of patent applications, in the maximum amount of 5% of revenue.

For the year ended 31 December 2017, the quarterly fees amounted to €107,668. An additional fee of €25,000 has been paid.

On 8 July 2011, the Board of Directors authorised the signing of a new licence agreement, for which the fee is payable on an annual basis.

This agreement provides that the amount of the fee to be paid annually shall be the highest of the following sums: €120,000 or 10% of indirect revenue. In view of the revenue earned in respect of this licence agreement, the fee amounts to €120,000 for the year ended 31 December 2017.

Research tax credit

During the financial year ended 31 December 2017, Global Bioenergies SA incurred expenses net of subsidies received that fall within the scope of the Research Tax Credit of €6,664,000, generating a Research Tax Credit of €1,999,166.

Statutory Auditors' fees

The Statutory Auditor's fees recognised in the year's profit & loss account for the auditing of the financial statements amount to €15,829 excluding tax.

Revenue

For the year ended 31 December 2017, revenue consisted of:

- participation in research expenses;
- services performed under development contracts;
- re-invoicing of certain costs to subsidiaries.

The geographical breakdown is as follows:

In euros	France	Rest of the world	Total
Service provision	1,600	235,000	236,600
Subsidiary re-invoicing	121,008	111,404	232,412
Total	**122,608**	**346,404**	**469,012**

Innovation aid received in previous years

Under the French "Investing in the Future" programme, the French Environment and Energy Control Agency (ADEME), acting on behalf of the French government, signed a financing agreement with Global Bioenergies SA within the framework of the Bioma + project.

This project covers a total amount of eligible expenses to be incurred by Global Bioenergies SA of €7,306,341.14.

The maximum amount of aid awarded to Global Bioenergies SA is €3,982,872.38, breaking down as follows: a maximum of €1,327,624.13 in subsidies and €2,655,248.25 in repayable advances.

During the year ended 31 December 2014, Global Bioenergies SA received an advance of 15% of the maximum amount of the aid, breaking down as follows: a subsidy of €199,143.62 and a repayable advance of €398,287.24.

During the year ended 31 December 2015, Global Bioenergies SA received a total of €2,588,867.06, which broke down into €1,725,911.37 in repayable advances and €862,955.69 in subsidies.

During the year ended 31 December 2016, Global Bioenergies SA received a total of €796,574.46, which broke down into €531,049.64 in repayable advances and €265,524.82 in subsidies.

Global Bioenergies SA therefore received all of the sums awarded.

The repayable advance will have to be refunded to ADEME according to the progress of the operation and the achievement of technical objectives.

The French Environment and Energy Management Agency (ADEME) signed a financing agreement with Global Bioenergies SA in the context of the Investments for the Future programme for Demo Plants for the Ecological and Energy Transition.

This project covers a total amount of eligible expenses to be incurred by Global Bioenergies SA of €12,716,141.36

The maximum amount of aid awarded to Global Bioenergies SA is €5,722,263.61 and is entirely in repayable advances.

During 2016, Global Bioenergies SA received an advance of 15% of the maximum amount of the aid (€858,339.54).

Innovation aid received during the year

During the year ended 31 December 2017, a subsidy agreement was signed between Bio Based Industries Joint Undertaking, Global Bioenergies SA and five other partners in the context of a European subsidy project called "Optisochem".

Global Bioenergies SA is the coordinator of the Optisochem project. As such, it received €2,438,873 over the period, broken down as follows:

- guarantee fund: €487,775;
- PPCA contribution: €195,110;
- amount to be shared between the various partners, including Global Bioenergies: €1,755,988.

As at 31 December 2017, Global Bioenergies SA owed €682,112 for the amounts to be repaid to the partners, after deduction of the €195,110 PPCA contribution paid in September 2017. This has been recognised under "Other payables".

The share of subsidy attributable to Global Bioenergies SA was €1,101,688 over the period. The amount of expenses incurred as at 31 December 2017 is €530,337. Given a subsidy rate of 50%, deferred income of €836,519 was recognised.

Loans for innovation

During the year ended 31 December 2013, Global Bioenergies SA was granted an interest-free innovation loan of €740,000 by Bpifrance, with a term of 31 quarters including 12 quarters of deferred repayment. The loan will be repaid on a straight-line basis over 20 quarters.

The first repayment took place on 31 March 2016 and the last will take place on 31 December 2020.

As at 31 December 2017, the amount of €481,000 is payable as follows:

- under one year: €148,000;
- one to five years: €333,000.

During the year ended 31 December 2015, Global Bioenergies SA was granted an interest-free innovation loan of €1.400.000 by Bpifrance, with a term of 30 quarters including 10 quarters of deferred repayment. The loan will be repaid on a straight-line basis over 20 quarters.

The first repayment took place on 31 March 2017 and the last will take place on 30 September 2022.

As at 31 December 2017, the amount of €1,330,000 is payable as follows:

- under one year: €280,000;
- one to five years: €1,050,000.

During the year ended 31 December 2015, Global Bioenergies SA was granted an innovation loan of €600,000 by Bpifrance, with a term of 28 quarters including 8 quarters of deferred repayment. The loan will be repaid on a straight-line basis over 20 quarters.

The first repayment took place on 30 September 2017 and the last will take place on 30 June 2022.

As at 31 December 2017, the amount of €540,000 is payable as follows:

- under one year: €120,000
- one to five years: €420,000

This loan bears interest at the fixed annual rate of 5.23%.

Average number of employees

During the year ended 31 December 2017, the average number of employees at Global Bioenergies SA stood at 54, including 27 non-managers and 31 managers.

As at 31 December 2017, the Company had 58 employees (see Note 13).

Retirement commitments

As at 31 December 2017, the retirement commitments amounted to €56,894 and were not recognised in the financial statements.

The commitments were calculated for all personnel on the basis of the following parameters:

Annual salary increase: 2%
Expected retirement age: 62 years
Turnover rate: 1%
Mortality rate: TV88/90

Competitiveness-Employment tax credit (CICE)

The CICE on eligible wages paid in 2017 was recognised in account 444 – Income tax – in the amount of €80,543. In accordance with the French accounting authority's recommendation, the corresponding income was credited to account 649 - Staff costs - CICE.

Use of the CICE

During the year, the Company used this tax credit to finance its activities through new investments in research and development, and to hire new employees.

In the following tables, all amounts are expressed in thousands of euros unless otherwise stated.

Financial information

Balance sheets as at 31 December 2017 and 31 December 2016, under French standards

ASSETS	Note	31-12-17	31-12-16
Intangible assets	2	61	69
Assets	3	1,535	1,511
Financial assets	4	14,809	11,686
Fixed assets		**16,405**	**13,266**
Inventories	5	370	315
Trade receivables and related accounts		251	196
Other receivables and accruals	6	3,054	3,202
Short-term investments		6,686	3,822
Cash	7	6,248	1,810
Current assets		**16,609**	**9,345**
Total assets		**33,014**	**22,611**

LIABILITIES	Note	31-12-17	31-12-16
Capital		224	168
Share premium		67,867	49,409
Retained earnings		(38,946)	(28,434)
Profit (loss)		(12,902)	(10,511)
Equity	**1**	**16,243**	**10,632**
Conditional advances	8	858	858
Convertible bonds		300	487
Loans	9	8,329	9,062
Trade payables and related accounts	10	5,196	1,048
Other debts	10	2,088	524
Payables		**16,771**	**11,979**
Total liabilities		**33,014**	**22,611**

Profit & loss accounts as at 31 December 2017 and 31 December 2016, under French standards

	Note	31-12-17	31-12-16
Revenue		**469**	**642**
Subsidies		266	285
Other income		3	6
Total operating income		**738**	**933**
Consumables and change in inventories		864	972
External expenses		9,502	7,039
Duties and taxes		71	66
Staff costs	13	4,022	3,978
Fees		253	228
Amortisation		505	754
Other expenses		5	4
Total operating expenses		**15,222**	**13,041**
Operating profit (loss)		**(14,484)**	**(12,108)**
Financial earnings		240	237
Financial expenses		619	486
Financial profit (loss)	11	**(379)**	**(249)**
Exceptional income		27	36
Exceptional expenses		65	86
Exceptional profit (loss)	12	**(38)**	**(50)**
Research tax credit		**1,999**	**1,896**
NET PROFIT (LOSS)		**(12,902)**	**(10,511)**

Cash-flow		
	31-Dec-17	31-Dec-16
Net profit (loss)	**(12,902)**	**(10,511)**
Amortisation	505	754
Capital gains on asset transfers	0	0
Cash-flow	**(12,397)**	**(9,757)**
Change in working capital requirement	5,746	(89)
Net cash generated by operations	**(6,651)**	**(9,846)**
Acquisition of fixed assets	3,646	5,878
Sale of fixed assets	2	5
Cash-flow from investments	**(3,644)**	**(5,873)**
Capital increase in cash	18,816	12,527
Capital increase expenses charged to share premium	784	908
Repayable advances received	0	1,389
Loans arranged	300	488
Repayable advances repaid	0	0
Loans repaid	1,253	1,138
Net cash flow from financing activities	**17,079**	**12,358**
Change in cash position	**6,784**	**(3,361)**
Cash at start of year	4,997	8,358
Cash at year-end	11,781	4,997

Notes

Note 1: Change in Equity

Net amount as at 31 December 2016	**10,631**
Capital increase	57
Increase in share premium	18,456
BSA issued	1
Dividend distribution	0
Profit (loss)	(12,902)
Net amount as at 31 December 2017	**16,243**

Note 2: Intangible assets

Items	31-12-16	Increase	Decrease	31-12-17
Software and website	237	31		268
Intangible assets, gross	**237**	**31**	**0**	**268**
Depreciation/Amortisation	168	39		207
Impairment	0			0
Intangible assets, net	**69**	**(8)**	**0**	**61**

Note 3: Tangible assets

Items	31-12-16	Increase	Decrease	31-12-17
Buildings	462	0		462
Research material	2,229	464		2,693
Fixtures and fittings	207	7		214
IT equipment	130	16		146
Furniture	15	3		18
Intangible assets, gross	**3,043**	**490**	**0**	**3,533**
Depreciation/Amortisation	1,531	467	0	1,998
Impairment	0	0	0	0
Intangible assets, net	**1,512**	**23**	**0**	**1,535**

Note 4: Financial assets

Items	31-12-16	Increase	Decrease	31-12-17
Deposits and guarantees	144	221	0	365
Equity investments	550	875	0	1,425
Receivables from equity investments	10,990	2,029	0	13,019
Loans	2	0	2	0
Financial assets, gross	**11,686**	**3,125**	**2**	**14,809**
Impairment	0			0
Financial assets, net	**11,686**	**3,125**	**2**	**14,809**

Note 5: Inventories

Items	Gross, 31 December 2017	Impairment	Net, 31 December 2017
Consumable materials	370	0	370
Total	**370**	**0**	**370**

Note 6: Other Receivables and Accruals

Items	Gross, 31 December 2017	Provision	Net, 31 December 2017	Under 1 year	Under 5 years
Trade receivables	251	0	251	251	0
Other receivables	2,649	0	2,649	2,649	0
Prepaid expenses	404	0	404	404	0
Total	**3,304**	**0**	**3,304**	**3,304**	**0**

Other receivables mainly consist of various tax credits totalling €2,388,000 (CIR, CICE, VAT receivables and apprenticeship tax credit), advances to subsidiaries for €251,000 and accrued income for €10,000.

Note 7: Cash and cash equivalents and investments

As at 31 December 2017, cash and cash equivalents totalled €7.6 million, breaking down as follows:

- bank current accounts: €6.2 million;
- term accounts: €6 million;
- term deposits: €0.4 million.

Note 8: Conditional advances

Items	31-12-16	Increase	Decrease	31-12-17
ADEME-ISOPROD	858	0	0	858
Total	**858**	**0**	**0**	**858**

Note 9: Loans

Items	31-12-16	Increase	Decrease	31-12-17
OCA	487	300	487	300
Bpifrance	600	0	60	540
Bpifrance PTZ	1,992	0	181	1,811
BNP	1,477	0	499	978
SG	1,145	0	353	792
CIC	558	0	158	400
Ademe	2,655	0	0	2,655
Total	**8,914**	**300**	**1,738**	**7,476**

Note 10: Operating liabilities

Items	Gross amount	Under 1 year	Under 5 years
Trade accounts payable	5,196	5,196	0
Tax and social security liabilities	568	568	0
Other payables	682	682	0
Deferred income	837	837	0
Total	**7,283**	**7,283**	**0**

Note 11: Financial income (loss)

Items	31-12-17
Foreign exchange gains	4
Income from investments	236
Total income	**240**
Foreign exchange losses	6
Interest on loans	613
Total expenses	**619**
Financial profit (loss)	**(379)**

Note 12: Exceptional income (loss)

Items	31-12-17
Exceptional management income	9
Proceeds from asset disposal	0
Share buyback gain	18
Total income	**27**
Exceptional management expenses	0
Value of assets sold	0
Share buyback loss	65
Total expenses	**65**
Exceptional profit (loss)	**(38)**

Note 13: Staff costs

Staff at	31-12-17
Managers	31
Non-managers	27
Total	**58**

Staff costs	31-12-17
Salaries	2,856
Social security contributions	1,166
Total	**4,022**

Note 14: Off-balance-sheet commitments

Items	31-12-17
Pledge on receivables	575
Pledge on goodwill	2,600
Pledge on material	849
Pledge on securities	247
Finance lease commitment	157
Other commitments given	
Total commitments given	**4,428**

Deposits, sureties and other guarantees received	1,550
Finance lease commitment	
Other commitments received	
Total commitments received	**1,550**

OTHER INFORMATION
(€ thousands)

ACCRUED INCOME

Accrued income included in the following balance sheet items	31-12-17
Subsidy to be received	0
CFE rebate	4
Interest on current accounts	0
Interest on term accounts	2
Total	**6**

ACCRUED LIABILITIES

Accrued liabilities included in the following balance sheet items	31-12-17
Trade payables and related accounts	1,108
Tax and social security liabilities	336
Total	**1,444**

PREPAID EXPENSES

Prepaid expenses	31-12-17
Operating expenses Financial expenses Exceptional expenses	404
Total	**404**

FINANCE LEASE

	Land	Buildings	Equipment & tooling	Other	Total
Initial value			**2,394,567**		**2,394,567**
Prior years' total			1,696,724		1,696,724
Provision for the year			360,680		360,680
Depreciation/Amortisation			**2,057,404**		**2,057,404**
Prior years' total			1,550,621		1,550,621
Fiscal year			427,475		427,475
Fees paid			**1,978,096**		**1,978,096**
Up to one year			156,733		156,733
Over one year and up to five years			0		0
Fees remaining to be paid			**156,733**		**156,733**
Up to one year			83,068		83,068
Over one year and up to five years			0		0
Residual value			**83,068**		**83,068**
Amount for the year			**456,413**		**456,413**

20.3 VERIFICATION OF HISTORICAL FINANCIAL DATA

20.3.1 Statutory Auditor's general report on the consolidated financial statements as at 31 December 2017

GLOBAL BIOENERGIES

Société Anonyme

5 rue Henri Desbruères
91000 EVRY

Statutory Auditor's Report
for the consolidated financial statements

Fiscal year ended 31 December 2017

FRANCE AUDIT CONSULTANTS INTERNATIONAL
10, allée des Champs-Elysées
91042 Evry

GLOBAL BIOENERGIES

Société Anonyme
5 rue Henri Desbruères
91000 EVRY

Statutory Auditor's Report on the consolidated financial statements

Fiscal year ended 31 December 2017

To the shareholders,

Opinion

Pursuant to the mission entrusted to us by your General Meeting, we performed the audit of the GLOBAL BIOENERGIE consolidated financial statements for the fiscal year ended 31 December 2017, as appended to this report.

Since the Company was under no obligation to produce consolidated financial statements, these financial statements were drawn up on a voluntary basis and approved by your Board of Directors. Our role is to express an opinion on these financial statements, based on our audit.

We certify that the year's consolidated financial statements provide a true and fair view of the results of the transactions for the past fiscal year and of the financial situation and results of the consolidated group, at the end of the financial year, in accordance with the accounting rules and principles applicable in France.

Basis for our opinion

Audit framework

We conducted our audit in accordance with the professional standards applicable in France. We believe that the evidence we have collected forms an adequate, appropriate basis for our opinion.

Our responsibilities under these standards are set out in the "Statutory Auditor's responsibilities for the audit of the consolidated financial statements" section of this report.

Independence

We conducted our audit mission in accordance with the independence rules applicable to us for the period starting 1 January 2017 to the date of our report, and in particular, we did not provide services prohibited by the code of ethics of the auditing profession.

Substantiation of our assessments

Pursuant to the provisions of Articles L. 823-9 and R.823-7 of the French Commercial Code on the substantiation of our assessments, we would like to draw your attention to the following assessments that, in our professional judgement, were the most significant for the audit of the consolidated financial statements for the fiscal year.

These assessments are made within the context of the audit of the consolidated financial statements overall and the formation of our opinion expressed above. We express no opinion on any of the contents of the consolidated financial statements in isolation.

- The Leuna demo plant was commissioned on 1 April 2017, and its depreciation over a nine-month period represents a total of €2,168,186, which is a material amount in the year's financial statements.

Group-specific verifications and disclosures given in the management report

We also carried out, in accordance with the accounting rules and principles applicable in France, the special verifications required by law on the information given in the Group management report included in the Registration Document.

We have no comments to make as to the fair presentation of this information, or its consistency with the consolidated financial statements.

Responsibilities of management and the persons responsible for corporate governance with respect to the consolidated financial statements

It is the responsibility of management to prepare consolidated financial statements that present a true and fair view in accordance with French accounting rules and principles and implement the internal controls that it deems necessary for the preparation of consolidated financial statements that do not contain any material misstatements, whether they are due to fraud or result from errors.

When preparing the consolidated financial statements, it is the responsibility of management to assess the ability of the company to continue as a going concern, to present in those financial statements, where appropriate, the necessary information relating to continuity of operations and apply the going concern accounting policy unless plans have been made to liquidate the company or cease its operations.

continuity of operations and apply the going concern accounting policy unless plans have been made to liquidate the company or cease its operations.

The consolidated financial statements for the fiscal year were approved by the Board of Directors.

Responsibilities of the statutory auditor for the audit of the consolidated financial statements

It is our responsibility to prepare a report on the consolidated financial statements. Our objective is to obtain reasonable assurance that the consolidated financial statements for the fiscal year contain no material misstatements. Reasonable assurance corresponds to a high level of assurance, but does not guarantee that an audit performed in accordance with the standards of professional practice can systematically detect any material misstatements. Anomalies may arise from fraud or error and are considered significant where it can reasonably be expected that they, taken individually or cumulatively, may influence the economic decisions that users of the financial statements take based on them.

As stated in Article L.823-10-1 of the French Commercial Code, our mission to certify the financial statements is not a guarantee of the viability or the quality of the management of your company.

In the context of an audit conducted in accordance with the professional standards applicable in France, statutory auditors exercise their professional judgement throughout the audit.

In addition:

- they identify and assess the risks that the consolidated financial statements contain material misstatements whether due to fraud or error, define and implement audit procedures to address such risks and collect information that they consider sufficient and appropriate for their opinion. The risk that a material misstatement due to fraud is not detected is higher than for a material misstatement due to an error because the fraud may involve collusion, falsification, voluntary omissions, misrepresentation or circumventions of internal control;

- they review the internal control relevant to the audit to define appropriate audit procedures under the circumstances, not to express an opinion on the effectiveness of the internal control;

- they assess the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by management, as well as the information concerning them provided in the consolidated financial statements;

- they assess the appropriateness of management's application of the going concern accounting policy and, based on the information gathered, whether or not there exist material misstatements related to events or circumstances that may call into question the company's ability to continue as a going concern. This assessment is based on the information gathered up to the date of their report, but it should be noted that subsequent circumstances or events could jeopardise continuity of operations. If they conclude that there is significant uncertainty, they draw the attention of the readers of their report to the information provided in the consolidated financial statements about such uncertainty or, if such information is not provided or is not relevant, they give a qualified certification or a refusal to certify;

- they assess the overall presentation of the consolidated financial statements and assesses whether the consolidated financial statements reflect the underlying transactions and events such that the statements give a true and fair view.

Evry, le 27 avril 2018
Le Commissaire aux Comptes
France Audit Consultants International

Max PEUVRIER

20.3.2 Statutory Auditor's general report on the statutory financial statements as at 31 December 2017

GLOBAL BIOENERGIES

Société Anonyme

5 rue Henri Desbruères
91000 EVRY

Statutory Auditor's Report
on the financial statements

Fiscal year ended 31 December 2017

FRANCE AUDIT CONSULTANTS INTERNATIONAL
10, allée des Champs-Elysées
91042 Evry

GLOBAL BIOENERGIES

Société Anonyme

5 rue Henri Desbruères
91000 EVRY

Statutory Auditor's Report on the financial statements

Fiscal year ended 31 December 2017

To the shareholders,

Opinion

Pursuant to the mission entrusted to us by your General Meeting, we performed the audit of the GLOBAL BIOENERGIE annual financial statements for the fiscal year ended 31 December 2017, as appended to this report.

We certify that the financial statements for the fiscal year provide a true and fair view of the results of the Company's operations over the past fiscal year, its financial position and its assets, in accordance with the accounting rules and principles applicable in France.

Basis for our opinion

Audit framework

We conducted our audit in accordance with the professional standards applicable in France. We believe that the evidence we have collected forms an adequate, appropriate basis for our opinion.

Our responsibilities under these standards are set out in the "Statutory Auditor's responsibilities for the audit of the annual financial statements" section of this report.

Independence

We conducted our audit mission in accordance with the independence rules applicable to us, for the period starting 1 January 2017 to the date of our report, and in particular, we did not provide services prohibited by the code of ethics of the auditing profession.

Substantiation of our assessments

Pursuant to the provisions of Articles L. 823-9 and R.823-7 of the French Commercial Code on the substantiation of our assessments, we would like to draw your attention to the following assessments that, in our professional judgement, were the most significant for the audit of the annual financial statements for the fiscal year.

These assessments are made within the context of the audit of the annual financial statements overall and the formation of our opinion expressed above. We express no opinion on any of the contents of the annual financial statements in isolation.

- As stated in the notes to the financial statements, all research and development costs are recorded as expenses. We were assured that this accounting principle was respected.
- Shares and receivables held in subsidiaries are not provisioned as the two main shareholders, Global Bioenergies GmbH and SYNGIP, re-invoice Global Bioenergies for their depreciation, amortisation and research costs annually. We were able to verify the re-invoicing thus performed.

Verification of the management report and other documents addressed to shareholders

We also carried out, in accordance with the accounting rules and principles applicable in France, the special verifications required by law.

We have no comments to make as to the fair presentation and consistency with the financial statements for the fiscal year of the information given in the Board of Directors' management report included in the Registration Document and the documents sent to the shareholders on the Company's financial position and the financial statements for the fiscal year.

In accordance the law, we were assured that the various disclosures about the identity of those who hold the capital or voting rights were communicated to you in the management report.

Information regarding corporate governance:

We certify that the Board of Directors' management report contains the information on corporate governance required by Article L. 225-37-3 and L.225-37-4 of the French Commercial Code.

Responsibilities of management and the persons responsible for corporate governance with respect to the annual financial statements

It is the responsibility of management to prepare annual financial statements that present a true and fair view in accordance with French accounting rules and principles and implement the internal controls that it deems necessary for the preparation of annual financial statements that do not contain any material misstatements, whether they are due to fraud or result from errors.

When preparing the annual financial statements, it is the responsibility of management to assess the ability of the company to continue as a going concern, to present in these financial statements, where appropriate, the necessary information relating to continuity of operations and apply the going concern accounting policy unless plans have been made to liquidate the company or cease its operations.

The financial statements for the fiscal year were approved by the Board of Directors.

Responsibilities of the statutory auditor for the audit of the annual financial statements

It is our responsibility to prepare a report on the annual financial statements. Our objective is to obtain reasonable assurance that the financial statements for the fiscal year contain no material misstatements. Reasonable assurance corresponds to a high level of assurance, but does not guarantee that an audit performed in accordance with the standards of professional practice can systematically detect any material misstatements. Anomalies may arise from fraud or error and are considered significant where it can reasonably be expected that they, taken individually or cumulatively, may influence the economic decisions that users of the financial statements take based on them.

As stated in Article L.823-10-1 of the French Commercial Code, our mission to certify the financial statements is not a guarantee of the viability or the quality of the management of your company.

In the context of an audit conducted in accordance with the professional standards applicable in France, statutory auditors exercise their professional judgement throughout the audit.

In addition:

- they identify and assess the risks that the annual financial statements contain material misstatements whether due to fraud or error, define and implement audit procedures to address such risks and collect information that they consider sufficient and appropriate for their opinion. The risk that a material misstatement due to fraud is not detected is higher than for a material misstatement due to an error because the fraud may involve collusion, falsification, voluntary omissions, misrepresentation or circumventions of internal control;

- they review the internal control relevant to the audit to define appropriate audit procedures under the circumstances, not to express an opinion on the effectiveness of the internal control;

- they assess the appropriateness of the accounting policies used and the reasonableness of the accounting estimates made by management, as well as the information concerning them provided in the annual financial statements;

- they assess the appropriateness of management's application of the going concern accounting policy and, based on the information gathered, whether or not material misstatements exist related to events or circumstances that may call into question the company's ability to continue as a going concern. This assessment is based on the information gathered up to the date of their report, but it should be noted that subsequent circumstances or events could jeopardise continuity of operations. If they conclude that there is significant uncertainty, they draw the attention of the readers of their report to the information provided in the annual financial statements about such uncertainty or, if such information is not provided or is not relevant, they give a qualified certification or a refusal to certify;

- they assess the overall presentation of the annual financial statements and assess whether the annual financial statements reflect the underlying transactions and events such that the statements give a true and fair view.

Evry, le 27 avril 2018
Le Commissaire aux Comptes
France Audit Consultants International

Max PEUVRIER

20.4 TABLE FOR THE LAST FIVE CORPORATE FISCAL YEARS

	31/12/13	31/12/14	31/12/15	31/12/16	31/12/17
Capital at the end of the fiscal year					
Share capital	137 763	138 773	141 510	167 681	224 375
Number of ordinary shares	2 755 256	2 775 468	2 830 197	3 353 627	4 487 501
Number of preference shares without voting rights	0	0	0	0	0
Maximum number of future shares to be created:					
Through bond agreements	*0*	*0*	*0*	*0*	*0*
Through the exercise of subscription rights	*124 833*	*282 707*	*405 710*	*438 441*	*600 110*
Through awards of free shares	*3 162*	*0*	*0*	*0*	*0*
Operating results and net profit (loss) for the year (€)					
Revenue excluding taxes	1 157 666	1 792 743	1 363 441	642 008	469 012
Income before taxes, depreciation, amortisation & provisions	-6 433 443	-7 870 484	-11 657 032	-11 653 157	-14 396 715
Amortisation	-111 492	-262 044	-497 108	-753 789	-504 948
Income tax	-1 412 666	-1 876 159	-1 985 059	-1 895 769	-1 999 166
Income after taxes, depreciation, amortisation & provisions	-5 132 269	-6 256 369	-10 169 081	-10 511 177	-12 902 497
Distributed profits	0	0	0	0	0
Earnings per share (€)					
Income after taxes, but before depreciation, amortisation & provisions	-1,82	-2,16	-3,42	-2,91	-2,76
Income after taxes, depreciation, amortisation & provisions	-1,86	-2,25	-3,59	-3,13	-2,88
Dividend attributed to each share	0,00	0,00	0,00	0,00	0,00
Personnel costs					
Average number of employees during the year	38	58	59	55	54
Amount of payroll for the year (€)	1 833 803	2 836 719	2 800 162	2 815 089	2 855 691
Amount paid for social benefits (€)	512 402	881 489	894 294	1 162 910	1 165 900

20.5 DATE OF LATEST FINANCIAL INFORMATION

The financial statements as at 31 December 2017 are the latest financial statements audited by the Statutory Auditor.

20.6 INTERIM FINANCIAL INFORMATION

None.

20.7 PRO FORMA FINANCIAL INFORMATION

None.

20.8 DIVIDEND DISTRIBUTION POLICY

20.8.1 Distribution policy

It is not the Company's intention to pay dividends in the near or medium terms.

20.8.2 Dividends and reserves distributed by the Company over the past three years

From its date of incorporation to the filing date of the Registration Document, the Company has not distributed any dividends.

20.9 JUDICIAL AND ARBITRATION PROCEEDINGS

On the filing date of the Registration Document and to the Company's knowledge, there are no governmental, judicial or arbitration proceedings which may have, or have had over the past 12 months, a material adverse impact on the Company's financial situation.

20.10 SIGNIFICANT CHANGE IN THE COMPANY'S FINANCIAL OR COMMERCIAL SITUATION

None.

21 ADDITIONAL INFORMATION

21.1 SHARE CAPITAL

21.1.1 Amount of share capital

At the date of the Registration Document, the Company's share capital stood at €225,938.05 (divided into 4,518,761 shares with a par value of €0.05 each, fully paid up and of the same class).[52] As at 31 December 2017, the Company's share capital was €224,375.05 divided into 4,487,501 shares.

Share capital authorised but not issued

The table below shows authorisations outstanding at the date of this Registration Document, as granted by the Company's General Meetings of 16 June 2016, 28 October 2016, 2 February 2017 and 26 June 2017.

Purpose of resolution adopted by the General Meeting of Shareholders of 16 June 2016, 28 October 2016, 2 February 2017 and 26 June 2017.	Date the delegation expires (duration of the delegation)	Maximum amount authorised	Previous dele-gations used	Residual amount at the time this table was prepared (in €)
AGM of 26 June 2017 (6th resolution) *Issuance of common shares and/or securities immediately and/or eventually convertible into the Company's equity, with preferential subscription rights of shareholders (*)*	25/08/2019 (26 months)	€100,000 (€50,000,000 with respect to debt instruments) receivables)	-	€68,000
AGM of 26 June 2017 (7th resolution) *Issuance of common shares and/or securities immediately and/or eventually convertible into the Company's equity without preferential subscription rights of shareholders, and a public offering of financial securities (*)*	25/08/2019 (26 months)	€100,000 (€50,000,000 with respect to debt instruments) receivables)	-	€68,000

[52] For information purposes, the share capital stated on the first page of the Registration Document is the same as the one in the most recent statement to the Registrar dated 2 February 2017

AGM of 26 June 2017 (8th resolution) *Issuance of common shares and/or securities immediately and/or eventually convertible into the Company's equity, without preferential subscription rights of shareholders, as part of an offering primarily for qualified investors or a limited group of investors as contemplated in part II of Article L. 411-2 of the French Monetary and Financial Code(*)*	25/08/2019 (26 months)	€100,000 (€50,000,000 with respect to debt instruments) receivables)	€32,000 Board Meeting of 26 June 2017	€68,000
AGM of 26 June 2017 (9th and 10th resolution) *Issuance of common shares and/or securities immediately and/or eventually convertible into the Company's share capital or into its debt instruments, with preferential subscription rights of shareholders to a category of persons (*)*	25/12/2018 (18 months)	€100,000 (€50,000,000 with respect to debt instruments) receivables)	-	€68,000
AGM of 26 June 2017 (11th resolution) *Capital increase via the incorporation of premiums, reserves, earnings or other items (*)*	25/08/2019 (26 months)	€100,000	-	€68,000
AGM of 26 June 2017 (12th and 13th resolution) *Issuance of Company equity warrants (BSAs) without preferential subscription rights, for a category of persons* (**)	25/12/2018 (18 months)	€3,000	€100 Board Meeting of 29 September 2017	€2,400

AGM of 26 June 2017 (14th and 15th resolution) *Issuance and award of founders' warrants (BSPCEs), without preferential subscription rights, to a category of persons* (**)	25/12/2018 (18 months)	€3,000	€500 Board meeting of 29 September 2017	€2,400
AGM of 26 June 2017 (16th resolution) *Capital increases reserved for persons enrolled in a company savings plan pursuant to Articles L. 3332(1) et seq. of the French Labour Code, without preferential subscription rights of shareholders, in accordance with Article L. 225-129-6 par 1 of the Commercial Code (**)*	25/08/2019 (26 months)	€3,000	-	€2,400
AGM of 26 June 2017 (17th resolution) *Increase in the number of shares to be issued in the event of a capital increase with or without preferential subscription rights of shareholders*	25/08/2019 (26 months)	Ceiling of the resolution governing the initial issue	-	Ceiling of the resolution governing the initial issue
AGM of 26 June 2017 (19th resolution) *Issuance, at no cost, of bonds convertible into shares with attached share subscription warrants, without preferential*	25/12/2018 (18 months)	N/A	Issue of 20 BEOCABSA IIs giving access to 400 OCABSAs with a par value of €60,000 each and 20 OCAs of the same value as compensation with Bracknor Investment commitment fees	N/A

subscription rights for shareholders in favour of Bracknor Investment and its directors			Board Meeting of 26 June 2017	
AGM du 2 February 2017 (5th resolution) *Issuance and award of 69,161 BAAs that give the holder the right to an award, within the limit and subject to possible adjustments, of a maximum number of 69,161 new shares of the Company, as partial payment for the contributions in kind of the 100 Syngip shares, subject to the satisfaction of the conditions precedent stipulated in Article 9 of the Contribution Agreement; decision in principle to increase the capital of the Company within the limit, subject to possible adjustments, of a maximum amount of €3,458.05 through the issue of 69,161 new ordinary shares, with a par value of €0.05 each and an overall issue premium of €1,261,521.14 (a total amount (issue premium included) of €1,624,979.19)*	01/02/2019	N/A	-	N/A
AGM du 28 October 2016 (1st resolution) *Issuance, at no cost, of bonds convertible into shares with attached equity warrants, without preferential subscription rights for shareholders in favour of*	27/04/2018 (18 months)	N/A	Issuance of 14 BEOCABSAs giving access to 280 OCABSAs with a par value of €37,500 each and 14 OCAs of the same value as compensation with Bracknor Investment commitment fees Board meeting of 28 October 2016	N/A

Bracknor Investment and its directors				
AGM of 16 June 2016 (10th resolution) *Awards of restricted Company stock, in accordance with Articles L. 225-197-1 et seq. of the French Commercial Code* (**)	15/08/2019 (38 months)	€3,000 Total number of existing Number of shares or unissued shares of restricted stock, limited to 10% of capital as of the grant date	-	€2,400

(*) The Ordinary and Extraordinary General Shareholders Meeting of 26 June 2017 voted that the issues carried out pursuant to these resolutions would be subject to a shared ceiling of €100,000 with respect to equity securities and €50,000,000 with respect to debt instruments, with the ceiling as to debt instruments having no effect on the authorisation to increase capital through the incorporation of reserves, earnings or premiums.

(**) The Ordinary and Extraordinary General Shareholders Meeting of 26 June 2017 voted that the issues carried out pursuant to these resolutions are subject to a shared ceiling of €3,000.

21.1.2 Absence of non-equity shares

As of the date of the Registration Document, the Company has not issued any non-equity shares.

21.1.3 Treasury shares and acquisition of its own shares by the Company or its subsidiaries

As at 31 December 2017, the Company held 3,871 shares representing 0.1% of its capital, as part of a liquidity contract managed by Gilbert Dupont.

The General Meeting of 26 June 2017 authorised, for a period of eighteen months from the date of said meeting, the implementation by the Company of a share buyback programme, in accordance with Articles L.225-209 et seq. of the French Commercial Code, for one of the following purposes:

- the cancellation in whole or in part of the shares thus purchased, subject to the adoption of the seventeenth resolution of the same general meeting; or
- stimulation of the secondary market or the liquidity of the Company's share by a financial services intermediary pursuant to a liquidity agreement compliant with the Code of ethics approved by the Autorité des Marchés Financiers; or
- the allocation or transfer of shares to employees and/or corporate officers of the Company and/or companies related to it, in accordance with the laws and regulations in force or the implementation of any company savings plan or any employee share ownership plan under the terms and conditions set forth by law, in particular Articles L.3332-18 et seq. of the French Labour Code; or
- the delivery of shares for exchange, payment or otherwise in connection with any external growth, mergers, spin-offs or contributions; or
- the implementation of any of the Company's stock option plans under Articles L. 225-177 et seq. of the French Commercial Code; or
- the implementation of any of the Company's restricted stock plans under Articles L. 225-197-1 et seq. of the French Commercial Code; or
- the delivery of shares upon the exercise of any rights attached to securities giving immediate or future access to the capital of the Company.

This programme is also intended to permit any market practice found admissible by the Autorité des Marchés Financiers and, more broadly, the execution of any other transaction in compliance with regulations in force. In that case, the Company would so inform its shareholders through a release.

The maximum purchase price of the shares is two hundred euros (€200) per share, excluding costs.

The total amount allocated to the share buyback programme may not be greater than €70,042,220.

Repurchase of the Company shares may involve a number of shares such that:

- the number of shares that the Company buys during the buyback programme shall not exceed ten percent (10%) of the shares making up the Company's share capital, at any point in time, with this percentage applying to a total equity adjusted to reflect transactions that affect it subsequently to the General Meeting; i.e., by way of illustration, as at 31 December 2017 the total number of shares was 4,487,501, with the provision (i) that the total number of shares acquired for holding and subsequent tendering in a merger, spin-off or asset contribution cannot exceed 5% of its share capital, and (ii) that if the shares are bought back to promote liquidity in the manner provided by the General Regulation of the Autorité des Marchés Financiers, the number of shares entering into the 10% calculation given in the first paragraph shall equal the number of shares purchased, less the number resold during the authorisation period;
- the number of shares the Company may own at any time shall not exceed 10% of the shares making up the Company share capital at the date in question.

21.1.4 Convertible, exchangeable securities and securities with subscription warrants

On the date of the Registration Document, the instruments convertible into equity that were issued and not yet exercised are:

- 600 equity warrants (**BSAs 06-09)** entitling the purchase of 12,000 new shares in the Company;
- 2,477 equity warrants (**BSAs 2-2011)** entitling the purchase of 2,477 new shares in the Company;
- 9,900 equity warrants (**BSAs 2-2012)** entitling the purchase of 9,900 new shares in the Company;
- 12,417 founders' warrants (**BSPCEs A01-2014)** entitling the purchase of 12,417 new shares in the Company;
- 11,880 founders' warrants (**BSPCEs B01-2014)** entitling the purchase of 11,880 new shares in the Company;
- 8,000 equity warrants (**BSAs A01-2014)** entitling the purchase of 8,000 new shares in the Company;
- 3,000 equity warrants (**BSAs 2-2014)** entitling the purchase of 3,000 new shares in the Company;
- 6,200 founders' warrants (**BSPCEs A07-2014)** entitling the purchase of 6,200 new shares in the Company;
- 1,500 founders' warrants (**BSPCEs B07-2014**) entitling the purchase of 1,500 new shares in the Company;
- 6,000 equity warrants (**BSAs A01-2015**) entitling the purchase of 6,000 new shares in the Company;
- 750 equity warrants (**BSAs B01-2015**) entitling the purchase of 750 new shares in the Company;
- 6,991 founders' warrants (**BSPCEs A01-2015**) entitling the purchase of 6,991 new shares in the Company;
- 14,819 founders' warrants (**BSPCEs B01-2015**) entitling the purchase of 14,819 new shares in the Company;
- 7,500 founders' warrants (**BSPCEs A10-2015**) entitling the purchase of 7,500 new shares in the Company;

- 4,955 founders' warrants (**BSPCEs B10-2015**) entitling the purchase of 4.955 new shares in the Company;
- 400 equity warrants (**BSAs A10-2015)** entitling the purchase of 400 new shares in the Company;
- 1,000 equity warrants **(BSAs B10-2015**) entitling the purchase of 1,000 new shares in the Company;
- 30,000 founders' warrants (**BSPCEs A02-2016**) entitling the purchase of 30,000 new shares in the Company;
- 115,000 equity warrants (**PACEO BSAs**) entitling the purchase of 115,000 new shares in the Company;
- 14,851 equity warrants **BKN T1 BSAs**) entitling the purchase of 14,851 new shares in the Company;
- 1,300 equity warrants (**BSAs A09-2016**) entitling the purchase of 1,300 new shares in the Company;
- 3,000 equity warrants (**BSAs B09-2016**) entitling the purchase of 3,000 new shares in the Company;
- 15,200 founders' warrants (**BSPCEs 09-2016)** entitling the purchase of 15,200 new shares in the Company;
- 15,126 equity warrants (**BKN T2 BSAs**) entitling the purchase of 15,126 new shares in the Company;
- 14,506 equity warrants (**BKN T3 BSAs**) entitling the purchase of 14,506 new shares in the Company;
- 34,258 equity warrants (**BKN T4&5 BSAs**) entitling the purchase of 34,258 new shares in the Company;
- 14,975 equity warrants (**BKN T6 BSAs**) entitling the purchase of 14,975 new shares in the Company;
- 69,191 equity warrants (**BAAs Syngip**) entitling the purchase of 69,191 new shares in the Company;
- 15,592 equity warrants (**BKN T7 BSAs**) entitling the purchase of 15,592 new shares in the Company;
- 2,250 equity warrants (**BSAs 2-2017**) entitling the purchase of 2,250 new shares in the Company;
- 16,728 equity warrants (**BKN T8 BSAs**) entitling the purchase of 16,728 new shares in the Company;
- 16,666 equity warrants (**BKN T9 BSAs**) entitling the purchase of 16,666 new shares in the Company;
- 18,450 equity warrants (**BKN T10 BSAs**) entitling the purchase of 18,450 new shares in the Company;
- 18,518 equity warrants (**BKN T11 BSAs**) entitling the purchase of 18,518 new shares in the Company;
- 14,476 equity warrants (**BKN2 T1 BSAs**) entitling the purchase of 14,476 new shares in the Company;
- 18,182 equity warrants (**BKN2 T2 BSAs**) entitling the purchase of 18,182 new shares in the Company;
- 8,000 founders' warrants (**BSPCEs A09-2017**) entitling the purchase of 8,000 new shares in the Company;
- 2,000 founders' warrants (**BSPCEs B09-2017**) entitling the purchase of 2,000 new shares in the Company;
- 2,000 equity warrants (**BSAs 09-2017)**) entitling the purchase of 2,000 new shares in the Company;

A shareholder who at the date of the Registration Document held 1% of the Company's equity would see his or her interest in the Company's equity become 0.89% if all of these dilutive instruments were exercised[53].

The BSAs, BAAs and BSPCEs issued by the Company represent 11.20% of the share capital of the Company on a fully diluted basis, including 2.0% for Group employees and 6.4% for industrial or financial partners, 0.6% for Richard Bockrath and Charles Nakamura (Vice-Chairmen), 0.6% for John Pierce (Chairman of the Board of Directors), 0.2% for members of the Scientific Board and 1.4% for the partners of Syngip BV

21.1.4.1 Equity warrants (BSAs)

At the date of the Registration Document, 600 BSAs 06-09, 2,477 BSAs 12-2011, 9,900 BSAs 10-2012, 8,000 BSAs A01-2014, 3,000 BSAs 07-2014, 6,000 BSAs A01-2015, 750 BSAs B01-2015, 400 BSAs A10-2015, 1,000 BSAs B10-2015, 115,000 PACEO II BSAs, 14,851 BSAs BKN T1, 1,300 BSAs A09-2016, 3,000 BSAs B09-2016, 15,126 BKN T2 BSAs, 14,506 BKN T3 BSAs, 34,258 BKN T4&5 BSAs, 14,975 BKN T6 BSAs, 15,592 BKN T7 BSAs, 2,250 BSAs 02-2017, 16,728 BKN T8 BSAs, 16,666 BKN T9 BSAs, 18,450 BKN T10 BSAs, 18,518 BKN T11 BSAs, 14,476 BKN2 T1 BSAs, 18,182 BKN2 T2 BSAs and 2,000 BSAs 09-2017 have been granted and could be exercised by their beneficiaries, for a total of 368,005 BSAs, entitling the purchase of 379,405 new shares subject to compliance with the specific conditions of each BSA.

At the date of the Registration Document, 100 BSAs 10-2012, 105,000 PACEO BSAs and 30,000 PACEO II BSAs have been exercised. Moreover, 30,607 BSAs 02-2017 have lapsed due to the departure of employees.

The BSAs 06-09 were issued by the Company's Board of Directors meeting on 1 Decembe[r] 2009 for the benefit of certain members of the Company's Scientific Board, based on a delegation of authority voted by the Company's General Meeting of 24 June 2009, which delegation ended on 24 December 2010. Each BSA 06-09 issued at €10 entitles the purchase of 20 common shares in the Company of €0.05 par value each at a subscription price of €6.25 per share -including a new issue premium of €6.20, or 12,000 common shares should all of the BSA 06-09 warrants be exercised. The BSAs 06-09 have all been exercisable since 2 December 2010; the deadline for their exercise is set at 1 December 2019, by midnight.

In addition, on 20 December 2011, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 12 May 2011, issued BSAs 12-2011 to one member of the Scientific Board at a price of €1.211 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €16.15 per share (including an issue premium of €16.10). The BSAs 12-2011 have all been exercisable since 20 December 2012; the deadline for their exercise is set at 20 December 2021, by midnight.

Moreover, on 30 October 2012, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 12 May 2011, issued BSAs 10-2012 to two members of the Scientific Board at a price of €1.63 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €22.10 per share (including an issue premium of €22.05). The BSAs 10-2012 have all been exercisable since 30 October 2013; the deadline for their exercise is set at 29 October 2022, by midnight.

[53] Based on the capital of 4,518,761 shares as known at the date of the Registration Document

In addition, on 7 January 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 6 December 2012, issued BSAs A01-2014 to two members of the Scientific Board at a price of €2.06 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €28.18 per share (including an issue premium of €28.13). The BSAs A01-2014 are exercisable by tranche: the first third is exercisable starting 8 January 2015, the second third is exercisable starting 8 January 2016 and the third is exercisable starting 8 January 2017, the deadline for their exercise is set at 7 January 2024, by midnight.

In addition, on 15 January 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 6 December 2012, issued BSAs B01-2014 to an industrial partner at a price of €14.5999 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €14.5999 per share (including an issue premium of €14.5499). The BSAs B01-2014 have all been exercisable since they were issued; the deadline for their exercise is set at 30 April 2017, by midnight.

On 3 July 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 19 June 2014, issued BSAs 07-2014 to an employee of the subsidiary Global Bioenergies GmbH at a price of €0.80 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €40.61 per share (including an issue premium of €40.56). The BSAs 07-2014 are exercisable by tranche: the first third is exercisable starting 3 July 2015, the second third is exercisable starting 3 July 2016 and the third third is exercisable starting 3 July 2017, the deadline for their exercise is set at 2 July 2024, by midnight.

In addition, on 13 January 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 19 June 2014, issued BSAs A01-2015 to two members of the Scientific Board at a price of €2.20 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €28.52 per share (including an issue premium of €28.47). The BSAs A01-2015 are exercisable by tranche: the first third is exercisable starting 13 January 2016, the second third is exercisable starting 13 January 2017 and the third third is exercisable starting 13 January 2018, the deadline for their exercise is set at 12 January 2025, by midnight.

On 13 January 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 19 June 2014, issued BSAs B01-2015 to an employee of the subsidiary Global Bioenergies GmbH at a price of €0.57 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €28.52 per share (including an issue premium of €28.47). The BSAs B01-2015 are exercisable by tranche: the first third is exercisable starting 13 January 2016, the second third is exercisable starting 13 January 2017 and the third third is exercisable starting 13 January 2018, the deadline for their exercise is set at 12 January 2025, by midnight.

On 2 October 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, granted full powers to the Chief Executive Officer to decide the terms of the issue of BSAs in connection with the implementation of an optional equity financing line (PACEO) with Société Générale. Under the terms of that financing agreement with the Company, Société Générale agreed to subscribe, at its sole discretion, to a series of limited capital increases over a three-year period. On the same date, the Chief Executive Officer decided to issue 250,000 PACEO BSAs at the price of €0.0001 per PACEO BSA to Société Générale, thus giving the right to subscribe for 250,000 new ordinary shares of the Company with a par value of €0.05 each at a subscription price, issue premium included, corresponding to 95% of the Company's average share price weighted by the trading volumes on the Paris Euronext Growth market during the trading session preceding the exercise notice of the PACEO BSAs. On 23 May 2016, the Board of Directors decided to buy back and cancel the 145,000 PACEO BSAs that had not yet been exercised. On 16 June 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of the same

day, decided to issue 145,000 new PACEO BSAs pursuant to a resolution referring to the PACEO and approved by the General Meeting of Shareholders on the same day. The exercise terms for these new PACEO BSAs remained unchanged from the original BSAs, and their issue price was maintained at €0.0001 per warrant. These 145,000 new warrants still give the right to subscribe for 145,000 new ordinary shares of the Company with a par value of €0.05 each at a subscription price, issue premium included, corresponding to 95% of the Company's average share price weighted by the trading volumes on the Paris Euronext Growth market during the trading session preceding exercise notice of the warrants.

On 14 October 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, issued BSAs A10-2015 to an employee of the subsidiary Global Bioenergies GmbH at a price of €0.37 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €36.82 per share (including an issue premium of €36.77). The BSAs A10-2015 are exercisable by tranche: the first third is exercisable starting 14 October 2016, the second third is exercisable starting 14 October 2017 and the third third is exercisable starting 14 October 2018, the deadline for their exercise is set at 13 October 2025, by midnight.

In addition, on 14 October 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, issued BSAs B10-2015 to an employee of the subsidiary Global Bioenergies GmbH at a price of €0.37 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €36.82 per share (including an issue premium of €36.77). The BSAs B10-2015 will all be exercisable starting 14 October 2018; the deadline for their exercise is set at 13 October 2025, by midnight.

On 24 November 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 28 August 2015, issued BSAs 11-2015 to an industrial partner at a price of €16.6913 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €16.6913 per share (including an issue premium of €16.6413). The BSAs 11-2015 have all been exercisable since they were issued; the deadline for their exercise is set at 30 April 2017, by midnight.

On 22 September 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, issued a BEOCABSA (OCABSA warrant) to the Bracknor Investment fund in the context of an OCABSA programme (the "Contract"), which would be exercised simultaneously with the receipt by the Company of an initial transfer of €750,000 issued by Bracknor Investment corresponding to the first "tranche" of the Contract. The exercise of this warrant would make it possible to subscribe to OCAs as well as BSAs. The exercise price of the BSAs would be equal to 120% of the Company's lowest volume-weighted average share price over the five trading days preceding (i) the date of the signing of the letter of engagement for the Contract or (ii) the date of signature of the Contract. The number of BSAs issued for the first tranche of the Contract will be based on their exercise price, calculated as follows: (60% x €750,000)/exercise price. As part of the issuance of the first tranche of the Contract, 14,851 BKN T1 BSAs were issued as a result of an exercise price calculated at €30.30 per warrant, which would give the right to subscribe in total to 14,851 ordinary shares of the Company with a par value of €0.05 each. The BSAs of the first tranche are exercisable as soon as the tranche is issued and will remain so until 21 September 2021, by midnight.

On 28 October 2016, the Board of Directors, acting on other delegations of authority than the one mentioned in the previous paragraph, i.e., acting on the authority of the General Meetings of 28 October 2016 and 26 June 2017, issued, in accordance with the terms of the Contract, 34 BEOCABSAs in addition to the initial BEOCABSA described above. At the date of the Registration Document, 12 BEOCABSAs were exercised in addition to the initial BEOCABSA. The exercise of these 12 BEOCABSAs enabled the issuance of a total of 127,851 BSAs:

- 15,126 BKN T2 BSAs, exercise price per warrant of €29.75, exercisable from 31/10/16 to 30/10/21
- 14,506 BKN T3 BSAs, exercise price per warrant of €31.02, exercisable from 8/11/16 to 7/11/21
- 34,258 BKN T4&5 BSAs, exercise price per warrant of €26.27, exercisable from 5/12/16 to 4/12/21
- 14,975 BKN T6 BSAs, exercise price per warrant of €30.05, exercisable from 17/01/17 to 16/01/22
- 15,592 BKN T7 BSAs, exercise price per warrant of €28.86, exercisable from 13/02/17 to 12/02/22
- 16,728 BKN T8 BSAs, exercise price per warrant of €26.90, exercisable from 13/03/17 to 12/03/22
- 16,666 BKN T9 BSAs, exercise price per warrant of €27.00, exercisable from 11/04/17 to 10/04/22
- 18,450 BKN T10 BSAs, exercise price per warrant of €24.39, exercisable from 15/05/17 to 14/05/22
- 18,518 BKN T11 BSAs, exercise price per warrant of €24.30, exercisable from 19/06/17 to 18/06/22
- 14,476 BKN2 T1 BSAs, exercise price per warrant of €24.87, exercisable from 27/06/17 to 26/06/22
- 18,182 BKN2 T2 BSAs, exercise price per warrant of €19.80, exercisable from 27/07/17 to 26/07/22

Each BKN BSA gives the right to purchase one common share in the Company of €0.05 par value each.

Moreover, on 22 September 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 16 June 2016, issued 1,300 BSAs A09-2016 to employees of Global Bioenergies GmbH at a price of €0.30 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €29.62 per share (including an issue premium of €29.57). The BSAs A09-2016 will be exercisable starting 22 September 2019, and the deadline for their exercise is set at 21 September 2026 by midnight.

On 22 September 2016, the Board of Directors, acting once again on the delegation of authority of the General Meeting of Shareholders of 16 June 2016, also issued 3,000 BSAs B09-2016 to a Company consultant at a price of €2.20 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €29.62 per share (including an issue premium of €29.57). The BSAs B09-2016 will be exercisable starting 22 September 2019, and the deadline for their exercise is set at 21 September 2026 by midnight.

On 22 February 2017, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 16 June 2016, also issued 32,857 BSAs 02-2017 to employees of Syngip BV, at a price of €0.25 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €24.87 per share (including an issue premium of €24.82). The BSAs 02-2017 are exercisable by tranche: the first third is exercisable starting 22 February 2018, the second third is exercisable starting 22 February 2019 and the third third is exercisable starting 22 February 2020, the deadline for their exercise is set at 21 February 2027, by midnight.

Finally, on 29 September 2017, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 26 June 2017, issued 2,000 BSAs 09-2017 to employees of Global Bioenergies GmbH at a price of €0.30 per share, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €25.00 per share (including an issue premium of €24.95). The BSAs B09-2017 will be exercisable starting 29 September 2020, and the deadline for their exercise is set at 28 September 2027 by midnight.

A shareholder who at the date of the Registration Document held 1% of the Company's equity would see his or her interest in the Company's equity become 0.92% if all of the remaining equity warrants (BSAs) were exercised.

21.1.4.2 Founders' warrants (BSPCEs)

As at the date of the Registration Document, 12,417 BSPCEs A01-2014, 11,880 BSPCEs B01-2014, 6,200 BSPCEs A07-2014,- 1,500 BSPCEs B07-2014, 6,991 BSPCEs A01-2015, 14,819 BSPCEs B01-2015, 7,500 BSPCEs A10-2015, 4,955 BSPCEs B10-2015, 30,000 BSPCEs A02-2016, 15,200 BSPCEs 09-2016, 8,000 BSPCEs A09-2017 and 2,000 BSPCEs B09-201 were granted and were exercisable by their beneficiaries, for a total of 121,462 BSPCEs entitling the purchase the same number of new shares subject to compliance with the specific conditions of each BSPCE.

At the date of the Registration Document, 4,074 BSPCE 02-2013 and 333 BSPCE A01-2014 had been exercised. In addition, 3,983 BSPCEs 02-2013, 350 BSPCEs A01-2014, 5,920 BSPCEs B01-2014, 400 BSPCEs A07-2014 and 500 BSPCEs A01-2015 were cancelled when employees left the Company. Finally, 19,152 BSPCEs 02-2013 lapsed.

On 7 February 2013, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 6 December 2012, issued BSPCEs 02-2013 to 24 employees, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €29.89 per share (including an issue premium of €29.84). The BSPCEs 02-2013 are exercisable by tranche: the first third is exercisable starting 7 February 2015; the second third is exercisable starting 7 February 2016; and the third third is exercisable starting 7 February 2017, the deadline for their exercise is set at 6 February 2018, by midnight.

In addition, on 7 January 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 6 December 2012 and 14 June 2013, issued BSPCEs A01-2014 to 7 employees and BSPCEs B01-2014 to 24 employees, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €24.80 per share (including an issue premium of €24.75).

- the BSPCEs A01-2014 are exercisable by tranche: the first third is exercisable starting 8 January 2015, the second third is exercisable starting 8 January 2016 and the third third is exercisable starting 8 January 2017, the deadline for their exercise being is at 7 January 2019, by midnight;
- the BSPCEs B01-2014 are all exercisable from 8 January 2017 until 7 January 2019 by midnight.

In addition, on 3 July 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 19 June 2014, issued BSPCEs A07-2014 to 10 employees and BSPCEs B07-2014 to one employee, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €40.61 per share (including an issue premium of €40.56).

- The BSPCEs A07-2014) are exercisable by tranche: the first third is exercisable starting 3 July 2015, the second third is exercisable starting 3 July 2016 and the third third is exercisable starting 3 July 2017, the deadline for their exercise is set at 2 July 2024, by midnight.
- BSPCEs B07-2014 are all exercisable from 3 July 2017 until 2 July 2024, by midnight.

On 13 January 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 19 June 2014, issued BSPCEs A01-2015 to 8 employees and BSPCEs B01-2015 to 28 employees, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €28.52 per share (including an issue premium of €28.47).

- the BSPCEs A01-2015 are exercisable by tranche: the first third is exercisable starting 13 January 2016, the second third is exercisable starting 13 January 2017 and the third third is exercisable starting 13 January 2018, the deadline for their exercise is set at 12 January 2025, by midnight;
- the BSPCEs B01-2015 are all exercisable from 13 January 2018 until 12 January 2025, by midnight.

On 14 October 2015, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, issued BSPCEs A10-2015 to 9 employees and BSPCEs B01-2015 to 15 employees, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €36.82 per share (including an issue premium of €36.77).

- the BSPCEs A10-2015 are exercisable by tranche: the first third is exercisable starting 14 October 2016; the second third is exercisable starting 14 October 2017; and the third third is exercisable starting 14 October 2018, the deadline for their exercise is set at 13 October 2025, by midnight;

- the BSPCEs B10-2015 are all exercisable from 14 October 2018 until 13 October 2025, by midnight.

On February 16, 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 3 June 2015, issued BSPCEs A02-2016 to John Pierce, Chairman of the Board of Directors of the Company, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €23.70 per share (including an issue premium of €23.65). The BSPCEs A02-2016 are exercisable by tranche: the first third is exercisable starting 16 February 2017; the second third is exercisable starting 16 February 2018; and the third third is exercisable starting 16 February 2019, the deadline for their exercise is set at 15 February 2026, by midnight.

On 22 September 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 16 June 2016, issued BSPCEs 09-2016 to 6 employees, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €29.62 per share (including an issue premium of €29.57).

Finally, on 29 September 2016, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 26 June 2017, issued BSPCEs A09-2017 to one employee and BSPCEs B09-2017 to one employee, with each one giving the right to subscribe for one ordinary share of the Company with a par value of €0.05 each at a subscription price of €25.00 per share (including an issue premium of €24.95).

- the BSPCEs A09-2017 are exercisable by tranche: the first third is exercisable starting 29 September 2018; the second third is exercisable starting 29 September 2019; and the third third is exercisable starting 29 September 2020, the deadline for their exercise is set at 28 September 2027, by midnight;

- the BSPCEs B09-2017 are all exercisable from 29 September 2020 until 28 September 2027, by midnight.

A shareholder who at the date of the Registration Document held 1% of the Company's equity would see his or her interest in the Company's equity become 0.97% if all of the remaining BSPCEs were exercised.

21.1.4.3 Equity warrants (BEAs)

On 14 May 2014, the Board of Directors, acting on the delegation of authority of the General Meeting of Shareholders of 6 December 2012, granted all powers to the Chief Executive Officer to decide on the terms and conditions for the issuance of share warrants (BEAs) in connection with the establishment of an optional equity line of up to €3 million (the so-called equity line programme). On 16 May 2014 the Chief Executive Officer decided to issue 135,008 BEAs at €0.001 per BEA for the benefit of YA GLOBAL MASTER SPV LTD, entitling the purchase of 135,008 new common shares in the Company of €0.05 par value each at a subscription price, including issue costs, equal to 95% of the lowest weighted average share price of the five trading sessions prior to the Company's request for a drawdown. On 2 October 2015, the Board of Directors decided to terminate this financing agreement. As a result, the un-exercised BEAs issued in this context at 2 October 2015 (a total of 97,736) was cancelled.

21.1.4.4 Equity warrants (BAAs)

On 2 February 2017, the Extraordinary General Meeting of Shareholders of the Company approved all of the resolutions submitted for its approval in connection with the acquisition of the Dutch company Syngip BV, among which the issue and award of 69,191 equity warrants (BAA) to Syngip BV's partners, entitling each to the award of one new share of the Company with par value of €0.05, as partial remuneration for the contribution of shares of Syngip BV, subject to the achievement of a technical milestone in the development of a process to convert gaseous carbon resources into isobutene. This milestone must be reached no later than 2 February 2019, otherwise the BAAs would lapse.

21.1.4.5 Options for subscription or purchase of shares

As of the date of the Registration Document, the Company has not issued any options for the subscription or purchase of shares.

21.1.4.6 Awards of restricted stock

At the date of the Registration Document no shares remained unawarded in the various restricted stock plans undertaken by the Company in the past.

21.1.5 Information concerning the terms governing any right of acquisition and/or any obligation attached to the capital subscribed, but not paid-in, or any undertaking to increase the capital

See Sections 21.1.1 and 21.1.4 of the Registration Document.

21.1.6 Information about any group member's share capital which is subject to options or to a conditional or unconditional agreement to create options, and the specifics of these options (including the identity of the individuals to whom they relate)

None.

21.1.7 History of the share capital for the period covered by the historical financial data

The following table shows the changes over time in the Company's share capital since it was founded.

Date	Transaction	Number of shares issued	Par value per share (in euros)	Change in nominal value of the share capital (in euros)	Issue, contribution or merger premiums (in euros)	Aggregate share capital (in euros)	Aggregate number of shares
06/10/2008	Incorporation	37.000	1	37.000	0	37.000	37.000
13/02/2009	ABSAs issued	4.800	1	4.800	595.200	41.800	41.800
16/09/2009	ABSAs issued due to exercise of BSAs	4.800	1	4.800	595.200	46.600	46.600
09/07/2010	ABSAs issued due to exercise of BSAs	4.800	1	4.800	595.200	51.400	51.400
04/08/2010	ABSAs issued due to exercise of BSAs	2.000	1	2.000	998.000	53.400	53.400
15/11/2010	ABSAs issued due to exercise of BSAs	2.879	1	2.879	356.996	56.279	56.279
15/11/2010	ABSAs issued due to exercise of BSAs	6.046	1	6.046	0	62.325	62.325
12/05/2011	Split in the par value per share	1.246.500	0.05	0	0	62.325	1.246.500
14/06/2011	Shares issued	333.675	0.05	16.683.75	6.606.765	79.008.75	1.580.175
22/07/2011	Capital increase by incorporation of reserves for the issuance of restricted stock	16.800	0.05	840	0	79.848.75	1.596.975
06/09/2011	Shares issued	59.625	0.05	2.981.25	1.397.013.75	82.830	1.656.600
04/07/2012	Shares issued	153.459	0.05	7.672.95	3.030.815.25	90.502.95	1.810.059
24/10/2012	Capital increase by incorporation of reserves for the issuance of restricted stock	7.800	0.05	390	0	90.892.95	1.817.859
21/01/2013	Capital increase by incorporation of reserves for the issuance of restricted stock	2.400	0.05	120	0	91.012.95	1.820.259
16/07/2013	Capital increase by issuance of shares	927.419	0.05	46.370.95	22.953.620.25	137.383.90	2.747.678

25/10/2013	Capital increase by incorporation of reserves for the issuance of restricted stock	7.578	0.05	378.90	0	137.762.80	2.755.256
11/06/2014	Capital increase by issuance of shares	1.500	0.05	75	59.090.70	137.837.80	2.756.756
19/06/2014	Capital increase by issuance of shares	400	0.05	20	11.936.00	137.857.80	2.757.156
25/07/2014	Capital increase by incorporation of reserves for the issuance of restricted stock	1.600	0.05	80	0	137.937.80	2.758.756
27/08/2014	Capital increase by incorporation of reserves for the issuance of restricted stock	1.562	0.05	78.10	0	138.015.90	2.760.318
17/10/2014	Capital increase by issuance of shares	5.400	0.05	270	205.975.69	138.285.90	2.765.718
31/10/2014	Capital increase by issuance of shares	2.750	0.05	137.50	99.966.35	138.423.40	2.768.468
05/12/2014	Capital increase by issuance of shares	7.000	0.05	350	250.761.00	138.773.40	2.775.468
09/06/2015	Capital increase by issuance of shares	3.877	0.05	193.85	113.994.71	138.967.25	2.779.345
31/07/2015	Capital increase by issuance of shares	8.270	0.05	413.50	320.344.92	139.380.75	2.787.615
06/10/2015	Capital increase by issuance of shares	12.452	0.05	622.60	466.352.33	140.003.35	2.800.067
14/10/2015	Capital increase by issuance of shares	130	0.05	6.50	3.879.20	140.009.85	2.800.197
25/11/2015	Capital increase by issuance of shares	30.000	0.05	1.500.00	960.700.00	141.509.85	2.830.197
05/01/2016	Capital increase by issuance of shares	40.000	0.05	2.000.00	969.600.00	143.509.85	2.870.197
21/01/2016	Capital increase by issuance of shares	274.931	0.05	13.746.55	6.502.118.20	157.256.40	3.145.128
30/06/2016	Capital increase by issuance of shares	30.000	0.05	1.500.00	686.050.00	158.756.40	3.175.128
23/09/2016	Capital increase by issuance of shares	25.000	0.05	1.250.00	649.700.00	160.006.40	3.200.128
08/12/2016	Capital increase by issuance of shares	101.763	0.05	5.088.15	2.244.911.85	165.094.55	3.301.891
01/02/2017	Capital increase by issuance of shares	90.787	0.05	4.539.35	1.924.031.65	169.633.90	3.392.678

02/02/2017	Capital increase by issuance of shares	37.240	0.05	1.862.00	873.114.14[54]	171.495.90	3.429.918
19/05/2017	Capital increase by issuance of shares	185.271	0.05	9.263.55	3.402.967.64	180.759.45	3.615.189
05/07/2017	Capital increase by issuance of shares	695.878	0.05	34.793.90	10.777.769.92	215.553.35	4.311.067
24/01/2018	Capital increase by issuance of shares	197.694	0.05	9.884.70	3.850.401.20	225.438.05	4.508.761

To the Company's knowledge, none of its share capital has been pledged

[54] Contribution premium related to the acquisition of Syngip BV

21.2 BYLAWS

Summarised in this paragraph are the main provisions of the Company's bylaws.

21.2.1 Corporate purpose (Article 2 of the bylaws)

The Company is formed for the following purposes, both in France and abroad:

(i) research, development, production, operation and commercialisation in any form of all goods and services in biotechnology used for producing and saving energy (hereinafter the "Field");

(ii) consulting, help, assistance, engineering in the design and development of any sort of project or service in the Field;

(iii) consulting, studies, design, promotion and realisation of any and all projects and plans involving the organisation, operation, development, financing and restructuring of businesses in areas related to the Field;

(iv) any form of studies for, research in, filing, selling and exploiting patents, licenses, models, drawings and trademarks in areas related to the Field;

and more generally, all business operations of that type, especially including by asset contributions, the creation of new companies, the subscription or purchase of equity or rights in companies, merger, alliance or association as well as any other industrial, commercial or financial activities in real or business property that might serve the corporate purpose and aid in its development and expansion.

21.2.2 Members of governing, management or supervisory bodies

The main provisions of the bylaws dealing with the Board of Directors and general management are described in Chapter 16 ("Board and Management Practices") of the Registration Document.

21.2.3 Rights, privileges and restrictions attaching to shares

Rights and obligations attaching to the shares (Article 11 of the bylaws)

Each share gives the owner a claim to the profits, corporate assets or liquidation proceeds proportionately to the fraction of share capital that it represents.

The shareholders are liable up the amount of the par value of the shares they hold; any further call up of funds is prohibited.

The rights and obligations attaching to a share follow the ownership of the share.

Ownership of one share automatically requires adherence to the Company's bylaws and the decisions of the General Meetings.

Whenever it is necessary to hold several shares in order to exercise a right, in the event of an exchange, recombination or grant of shares, or in consequence of an increase or reduction of capital, merger or other company transaction, the holders of single shares or of any number of shares less than the number required may not exercise these rights unless the holders have the responsibility of assembling or possibly buying or selling the number of shares required.

Voting rights attaching to the shares (Article 11 of the bylaws)

Each share gives a right to vote and be represented in the General Meetings, as prescribed by law and the bylaws.

Voting rights of the owner if shares are stripped of voting rights (Article 12.2 of the bylaws)

Unless there is an agreement otherwise and the Company is notified of such agreement by registered letter with return receipt requested (since the Company is under no obligation to comply with such an irregular agreement unless it concerns a General Meeting held later than one month following the despatch of the registered letter, as shown on the postmark), the voting right belongs to the usufruct owner in Ordinary General Meetings and to the bare owner in Extraordinary General Meetings.

Indivisibility of shares (Article 12.1 of the bylaws)

Shares are indivisible from the Company's viewpoint. Those with undivided ownership of shares must be represented before the Company by only one owner, who is taken to be sole owner, or by a single proxy agent. In the event of disagreement, a single agent may be named by the court upon the request of whichever co-owner acts first.

Moreover, in accordance with Articles L. 225-115 to L. 225-117 of the French Commercial Code as they applied at the date of the Registration Document:

- every shareholder is entitled to receive, in the manner and timeframes called for by regulations:
    - the financial statements for the fiscal year and the list of the directors of the Board and, when appropriate, the consolidated financial statements,
    - the reports of the Board of Directors and the Statutory Auditors that will be submitted to the General Meeting,
    - if appropriate, the texts of, and reasons offered for, the proposed resolutions, along with information concerning the candidates to the Board of Directors,
    - the total amount, certified as accurate by the Statutory Auditors, of compensation paid to the five or ten highest paid individuals, depending whether or not the total workforce is greater than 200 employees,
    - the total amount, certified by the Statutory Auditors, of payments made pursuant to 1 and 4 of Article 23-b of the French General Tax Code, as well as the list of philanthropic and charitable contributions;
- every shareholder is entitled, before any General Meeting is held, to obtain in the manner and time frames prescribed by regulations, the list of shareholders; and
- every shareholder is entitled at all times to receive the documents referred to in Article L. 225-115 with regard to the past three reporting years as well as the minutes and attendance sheets of the General Meetings held during those past three years.

21.2.4 Amending Shareholder Rights

Shareholders' rights may be modified as allowed by the laws and regulations pertaining to French corporations.

21.2.5 General Meetings (Article 20 of the bylaws)

Notices and sessions of General Meetings (Article 20.1 of the bylaws)

General Meetings are convened and adopt decisions in the manner prescribed by law.

They are held at the Company’s registered office or at any other place that may be specified in the notice of meeting.

Agenda (Article 20.2 of the bylaws)

The agenda of a General Meeting is drawn up by the person calling the meeting.

However, one or more shareholders or the works council shall have the option, in manner prescribed by law and regulations, of requiring that proposed resolutions be placed on the agenda.

The General Meeting may not vote on a question that has not been placed on the agenda. It may, however, in all circumstances remove one or more Directors and undertake to replace them.

Admission to General Meetings - Proxies (Article 20.3 of the bylaws)

The General Meeting consists of all shareholders regardless of the number of shares they hold so long as these are fully paid-in. Any shareholder has the right to attend the General Meetings and to take part in the deliberations, in person or by proxy, regardless of the number of shares owned, merely by showing proof of their status.

If not personally present at the General Meeting, the shareholder can take one of the following three courses of action:

- have himself or herself represented by another shareholder or by his or her spouse, his or her partner in a civil union or by any individual or legal entity of his or her choice, as prescribed by law;

- vote as an absentee by using a paper or electronic form that may be obtained according to the conditions indicated by the meeting notice; paper absentee ballots will be counted only if they reach the Company at its registered office or place set in the notice of meeting no later than three (3) days before the date of the General Meeting; electronic absentee ballots or proxies may be received by the Company up to 3:00pm (Paris time) of the day before the General Meeting;

- give a proxy to the Company without specifying a representative; the Chairperson of the General Meeting, who will vote in favour the proposed resolutions presented by or approved the Board of Directors and vote not in favour of any other proposed resolutions; to cast any other vote, the shareholder must choose a representative who agrees to vote as instructed.

Shareholders have the right to participate in General Meetings if their shares have been recorded in the shareholder's name or that of a designated intermediary as provided by law by 0 o'clock (Paris time) of the third business day preceding the meeting, in either the Company's record of name shares or the authorised intermediary's record of bearer shares.

The authorised intermediary mentioned in Article L. 211-3 of the French Monetary and Financial Code may not give notice of a sale or transaction carried out after 0 o'clock (Paris time) of the third business day preceding the General Meeting; nor will the Company acknowledge same.

It should be noted that at the date of the Registration Document, a site exclusively for voting in General Meetings via electronic telecommunications as provided in Article R. 225-61 of the French Commercial Code has not been set up. Absentee voting or giving a proxy cannot be done unless a paper form is sent in.

Attendance sheet - Meeting officers - Minutes (Article 20.4 of the bylaws)

Every meeting shall maintain an attendance list in the legally prescribed form.

This attendance sheet must be signed by the shareholders present and the proxies. The attendance sheet must be certified true and complete by the Meeting officers. The proxy forms must be appended to the attendance sheet.

The attendance sheet and appended proxy forms must be kept at the registered office and sent to anyone requesting them in the manner prescribed by law and regulations.

The General Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice-Chairman, if there is one, or by the most senior member of the Board in attendance at the General Meeting. In the event the General Meeting was convened by the Statutory Auditors or by an appointee of the court, the General Meeting is chaired by one of those who called the meeting. Failing which, the General Meeting itself elects a chairman.

The vote tellers' functions are performed by two shareholders who are present and who agree to perform these duties, who have by themselves or as proxies the largest number of votes.

The Meeting officers so installed shall name a secretary, who does not have to be a shareholder.

The mission of the Meeting officers is to verify, certify and sign the attendance sheet, ensure the proper conduct of debates, settle any incidents occurring during the meeting, check the votes cast and ensure their legality and ensure that minutes of the meeting are drawn up.

The minutes shall be prepared and copies or excerpts of the deliberations shall be issued and certified in accordance with law and regulation.

General Meeting quorum and voting (Article 20.5 of the bylaws)

At General or Special Meetings decisions are passed in compliance with the quorum and majority requirements set in law.

Except in cases where the law provides otherwise, each shareholder is entitled to as many votes as he or she owns fully paid-up shares.

If the Board of Directors permits, shareholders participating at a General or Special Meeting in person or by proxy, by video conference or the use of telecommunications that allow them to be identified, such as the internet, and in the manner previously defined by the Board as provided by law and regulations, shall be deemed present for the purposes of calculation of a quorum and a majority. In that case, the notice of meeting published in the *Bulletin des Annonces Légales Obligatoires* shall mention this option and the address of the site set up for this purpose.

21.2.6 Provisions of the bylaws that might have an impact on the occurrence of a change in control

The bylaws contain no provisions that might defer or prevent a change in control

21.2.7 Identification of Shareholders (Article 13.1 of the bylaws)

In order to identify bearer shareholders, the Company may at any time and at its own expense make inquiry of the central custodian as to the name of an individual or a company, the nationality, the year of birth or of founding, the address, and the electronic address if any, of the holders of securities that provide present or future voting rights in its own shareholder meetings, as well as the number of shares owned by each and any restrictions there may be upon those securities.

This information is collected by the central custodian and then forwarded to the Company, in the manner prescribed by law and regulations in force.

Upon inspection of the list forwarded by the central custodian, the Company has the option of requesting, either by the interpolation of the central custodian or directly from the persons appearing on this list who in the opinion of the Company might be intermediaries acting on behalf of third parties, the information required in the first paragraph of Article 13.1 of the bylaws concerning the owners of such shares.

The Company may also at any time ask an intermediary that on behalf of a third party holds registered (name) securities immediately or eventually convertible into equity to disclose to the Company the identity of the owners of such securities, as we all as the quantity of such securities each such owner holds.

As long as the Company believes that certain identified shareholders are acting on behalf of third party owners of the shares, the Company will be entitled to request that such shareholders disclose the identity of the owners of the shares, and the number of shares owned by each of them.

The Company may ask any legal entity that owns its shares in an amount greater than one fortieth of the equity or voting rights in the Company to let it know the identity of the persons who directly or indirectly hold over one-third of the share capital in this legal entity or of the voting rights exercised at that entity's General Meetings.

In accordance with Article L. 228-3-3 of the French Commercial Code, if the party queried in the manner provided by this article does not meet the deadlines imposed by law and regulations or has furnished incomplete or erroneous information as to his status, as to the owners of the securities or as to the quantity of securities held by each of them, the shares or the securities immediately or eventually convertible to equity for which this person appears on the share register shall forfeiture voting rights at all shareholder meetings held until the identification has been corrected, and payment of dividends shall be suspended until such time. Moreover, should the person registered knowingly overlook these provisions, the court in whose jurisdiction the Company's registered office is located may, upon the application by the Company or shareholders holding at least 5% of the share capital, order complete or partial forfeiture of the votes attaching to the shares in respect of which the query was made for a term not exceeding five years, and possibly for the same period, order the suspension of dividend payments on the shares in question.

21.2.8 Identification of Shareholders (Article 13.2 of the bylaws)

Without prejudice to the duties to declare ownership interest provided by law, any individual or legal entity, acting alone or in concert, who should possess directly or indirectly a number of shares representing a fraction equal to or greater than zero point five percent (0.5%) of the share capital or voting rights of the Company must, when they cross this threshold or whenever they cross a new threshold of zero point five percent (0.5%) of the share capital or voting rights of the Company, so inform the Company by fax and by registered letter with return receipt requested addressed to the registered [office] within four trading days of crossing this threshold.

These thresholds are determined by using the number of shares held directly or indirectly and shares in the category of shares owned pursuant to Article L. 233-9 of the French Commercial Code.

The declaration referred to in the first paragraph to be acceptable shall contain:

- the acquisition date(s) of the securities or voting rights that cause one or more thresholds to be crossed;

- total number of shares or votes directly or indirectly held by this person and shares in the category of shares owned pursuant to Article L. 233-9 of the French Commercial Code;

- if applicable, the disclosures mentioned in (a), (b) and (c) of paragraph 3 of Article L. 233-7 I of the French Commercial Code.

In the event that the provisions of Article 13.2 of the bylaws is not complied with, upon request recorded in the minutes of the General Meeting by one or more shareholders jointly holding at least five percent of the Company's share capital or voting rights, any shareholder who has not made the aforementioned declaration in the prescribed time will be, as provided in Article L. 233-14 of the French Commercial Code, deprived of a vote in any shareholder meeting taking place during a two-year period following the date of a corrected declaration.

The duty to declare provided above applies in the same way to any crossing below a threshold of zero point five percent (0.5%) of the share capital or total voting rights of the Company.

21.2.9 Specific provisions governing variation of the share capital

The Company's share capital may be increased, amortised or reduced in the manner and by any means provided by law and regulations.

22 MAJOR CONTRACTS

Consortium agreement with Arkema, the CNRS, the Université des Sciences et Technologies de Lille and the Université Claude Bernard Lyon 1

As part of the financing agreement with the French Environment and Energy Management Agency (ADEME), in January 2014, the Company entered into a consortium agreement (the Project) with Arkema France, the French National Centre for Scientific Research (CNRS), the Université des Sciences et Technologies de Lille and the Université Claude Bernard Lyon 1, with an effective date of 15 November 2012 and a Project start date of 17 July 2013. The purpose of the Project is to lay down the terms and conditions concerning the parties' collaboration for setting up a process to transform plant feedstock into methacrylic acid, in particular through the use of the fermentation process developed by the Company to produce isobutene. This agreement stipulates that all results depending on a party's proprietary knowledge are the property of said party.

Cooperation agreement with Audi

On 16 January 2014 the Company signed a cooperation agreement with Audi AG for the development of know-how and to carry out the work needed to produce a study on the production and commercialisation of renewable fuel, through the conversion of the isobutene produced by the Company from renewable materials into isooctane. Under the terms of this agreement, Audi agreed to make payments to the Company upon the completion of certain key stages of the project, and the possible acquisition of Global Bioenergies shares through the issuance of BSAs.

This cooperation agreement was extended and new work batches were added through the signature of two riders in December 2015. Under these riders, Audi undertook to make additional payments to the Company based on the completion of certain key stages of the project, and on the possible acquisition of Global Bioenergies shares through the issuance of additional BSAs. It should be noted that the BSAs that were issued have all been exercised and therefore Audi has become a shareholder of Global Bioenergies SA.

Cooperation agreement with IBN-One, a subsidiary of Global Bioenergies SA, Global Bioenergies SA and Cristal Union

Within the scope of Cristal Union's acquisition of a stake in IBN One via its subsidiary Cristal -Financière, a cooperation agreement was signed on May 2015 between the Company, IBN-One and Cristal Union, in the aim of laying down the terms and conditions of their collaboration, initially focusing on defining the key stages of the process targeting the construction of the IBN-One plant. The second stage will focus on the conduct of additional studies to be identified during the first stage.

Partnership agreement with Aspen

The Company entered into a partnership agreement with IBN-One and Aspen in July 2016 to grant Aspen rights of access to the production of isooctane from the Leuna demo plant and the future IBN-One plant in exchange for Aspen's financial contribution to the Group's industrial development efforts.

Partnership agreement with Preem, Sekab and Sveaskog

In April 2016, Preem, Sekab and Sveaskog had announced their collaboration to develop a gasoline fuel based entirely on forest resources with support from the Swedish Energy Agency. In September 2016, the consortium selected the Company's Isobutene process to study the various plant location scenarios for cost-effective conversion of forest products and residues to bio-isooctane.

Partnership agreement with Butagaz

In January 2017, the Company announced the signing of a partnership agreement with IBN-One and Butagaz under which Butagaz contributes financially to the industrial development efforts of the Group, which will provide it with batches of isobutene, and rights of access to the production of isooctane from the future IBN-One plant are reserved for Butagaz.

23 INFORMATION FROM THIRD PARTIES, EXPERT DECLARATIONS AND DECLARATIONS OF INTEREST

None.

24 PUBLICLY ACCESSIBLE DOCUMENTS

Copies of the Registration Document are available free of charge from the Company and on the Company's website (www.global-bioenergies.com), as well as on the website of the Autorité des Marchés Financiers (www.amf-france.org).

All of the Company's legal and financial documents which need to be made available to shareholders pursuant to applicable regulations can be examined at the Company's registered office.

Other accessible documents:

- the Company's memorandum of incorporation and bylaws;
- all reports, letters and other documents, historical financial information, valuations and statements prepared by an expert at the Company’s request, any part of which is included or referred to in the Registration Document;
- the historical financial information of the Company for each of the three financial years preceding the publication of the Registration Document.

25 INFORMATION ON EQUITY HOLDINGS

Information relating to the companies in which Global Bioenergies holds a proportion of the capital likely to have a material impact on the assessment of its own assets, financial position or results is set out in Section 7 "Organisational structure" of the Registration Document.

GLOSSARY

Agrolefins: plant-derived olefins.

Terephthalic acid: one of the three positional isomers of phthalic acids, along with isophthalic acid and phthalic acid. It is mainly used as a feedstock in the polyester industry, in particular PET.

Olefins: Hydrocarbons with one or two double bonds.

Starch: Organic substance in the form of white grains, constituting the food store of numerous plants, in particular cereals. Starch is one of the two principal polymers which exclusively contain glucose, the other being cellulose. Starch is commonly converted into glucose syrup through enzymes (amylases).

Bioethanol: the main biofuel currently used in petrol engines.

Molecular biology: technique used for the analysis and modification of nucleic acids.

Synthetic biology: scientific field combining biology and engineering principles in the aim of designing and building (i.e. synthesising) new biological systems and functions.

Biomass: defines the whole of plant-based materials (including algae), animal and fungal materials that can become an energy source.

Bioprocess: process using microorganisms to convert plant-based resources into compounds of industrial value.

Butadiene: compound with four carbon atoms comprising two double bonds. It is mainly used in the production of synthetic rubber, varnish, nylon and latex paints.

Butyl rubber: special type of synthetic rubber, with the distinctive property of being gas-tight. It is used in the manufacturing of all inner tubes, balls and certain car parts. Butyl rubber consists of 98% isobutene.

Cellulose: a glucose polymer (between 200 and 14,000 monomers) and one of the main components of plants. Cellulose is a very hard polymer ("crystalline cellulose"), which can be broken down by enzymes. Several companies have industrialised pathways for the transformation of plant cellulose into glucose syrup.

Commodity product: commonly used chemical product such as plastics, elastomers, paint solvents, sold in large bulk quantities at low prices.

Dimerising: operation consisting in condensing two identical chemical molecules to obtain a single molecule, double the size.

Enzyme: protein-based catalyst produced by living organisms, able to catalyse a chemical reaction, i.e. transform a product into another.

Ethanol: alcohol naturally produced by yeasts and whose molecular formula is CH_3-CH_2OH.

Ethylene: unsaturated hydrocarbon whose molecular formula is C_2H_4. The smallest molecule in the olefin family.

Fermentation: Biological process performed by microorganisms, which may or may not use oxygen, resulting in the transformation of a source of carbon (such as glucose) into other compounds, such as ethanol (alcoholic fermentation) or lactic acid (lactic fermentation), etc.

Glucose: The most widespread naturally occurring sugar (dextrose) or a compound industrially produced through the enzymatic hydrolysis of starch.

Hydrocarbon: organic compound exclusively consisting of carbon (C) and hydrogen (H) atoms. Olefins are hydrocarbons, as well as the alkanes used as fuel.

Metabolic engineering: modification, through genetic engineering, of the natural metabolism of living organisms, with the general aim of making them produce specific chemical compounds with a yield allowing industrial exploitation.

Isobutanol: alcohol whose molecular formula is CH_3-CH_2(CH_2)-CH2OH, used today as a solvent, and usable as a fuel or additive for petrol engines. Isobutanol can be converted into isobutene through thermo-chemical dehydration.

Isobutene: four-carbon branched alkene occurring in the form of a colourless inflammable gas under normal temperature and pressure conditions. It is used in the manufacture of tyres, organic glass and certain plastics. It can also be dimerised into isooctene, then hydrogenated to form isooctane.

Isooctane: hydrocarbon in the alkane family with 8 carbons, used as a petrol additive due to its anti-explosive properties. Isooctane is used as a reference standard in the octane index (its octane index is 100).

Isoprene: one of the gaseous olefins used in the tyre and glue industries.

Monomer: organic molecule able to react with itself and thus form a polymer. Where two monomers constitute a polymer, the term co-monomers is used.

N-butene: one of the gaseous olefins, used in particular in the plastics industry.

Gaseous olefins: family of molecules including ethylene, propylene, n-butene, isobutene and butadiene.

Oligomer: polymer solely consisting of a few (2 to 50) monomers.

PMMA: acronym of Poly (methyl methacrylate). Plastic polymer with unique solidity and transparency properties, often referred to as "organic glass". Marketed under names such as Plexiglass® and Altuglas®. Approximately 30% of the world's PMMA is made with isobutene.

Polyester: polymer in which the monomers are linked through ester-type bonds.

Polyethylene: plastic polymer obtained through the polymerisation of ethylene, used in packaging in particular.

Polyisobutene: plastic polymers with distinctive deformability properties, sometimes called "viscous plastics", manufactured through the polymerisation of isobutene.

Polymer: substance composed of chains of repeated subunits of the same nature. In certain cases, the polymer is composed of a single subunit, i.e. it stems from a single monomer. In other cases, the polymer is composed of a sequence of two alternating monomers.

Polypropylene: plastic polymer obtained through the polymerisation of propylene, particularly used in the car industry.

Photosynthesis: natural process which enables plants and certain bacteria to synthesise organic matter through sunlight and atmospheric CO2.

Process Book: Collection of all the data required for a process, including manufacturing instructions, and the economic validation of said process. The Process Book provides the required details for the manufacturing of a given product, from raw materials to finished product specifications.

Productivity: a measurement unit which measures production in relation to time and volume. It is expressed as $g.L^{(1.)}h^{(1.)}$

Propylene: unsaturated hydrocarbon whose molecular formula is C_3H_6. The second smallest molecule in the olefin family, after ethylene.

Yield: In fermentation, this is the ratio between the amount of end product and the amount of feedstock used for its production.

Substrate: substance that will be transformed into a product by a microorganism or enzyme.

Thermochemistry: field of chemical reactions taking place at high temperatures, most often through the use of specific catalysts.

Trans esterification: standard technique for the production of biodiesel. It consists of a process whereby vegetable oils, animal fats or microalgae-based oils are cold-mixed with an alcohol (ethanol or methanol) in the presence of a catalyst (sodium hydroxide or potassium hydroxide).

Titre: production measurement unit, generally expressed in gram per litre ($g.L^{(1)}$)

Trimerisation: operation resulting in the transformation of three monomers into a trimmer.

Metabolic pathway: series of enzymatic reactions in living cells resulting in the synthesis of a product from a substrate, in several stages.