



French *société anonyme* with a Board of Directors and share capital of €138,773.40

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

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Registration Document

31 December 2014

This document is an unofficial English-language translation of the document filed with the *Autorité des Marchés Financiers* (AMF) on 5 June 2015 under number D. 15-0574 in accordance with the General Regulation of the AMF, in particular Article 212-13.

This Registration Document includes by way of reference:

- 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.13-031.

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).

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 Leipzig, 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 Cristal Union, via its subsidiary Cristal Financière. The corporate purpose of IBN-One SA is the construction and operation of a plant dedicated to transforming renewable resources into isobutene, 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.

A glossary included at the end of the Registration Document defines certain technical terms referred to in the body of the Registration Document.

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1 PERSONS RESPONSIBLE

1.1 PERSON RESPONSIBLE FOR THE REGISTRATION DOCUMENT

Marc Delcourt, Chairman and 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 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, June 5th, 2015.

Marc Delcourt
Chairman and Chief Executive Officer

1.3 PERSON RESPONSIBLE FOR THE FINANCIAL INFORMATION

François-Henri Sahakian
Chief Financial Officer
Telephone: +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-Élysées, 91042 Évry
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 KEY FINANCIAL INFORMATION

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. These consolidated financial statements were audited by the Statutory Auditor. The key historical financial information set out below thus stems from the consolidated financial statements for the years ended 31 December 2014 and 31 December 2013 prepared in accordance with French accounting standards.

This key financial data must be read in combination with the information contained in Chapter 9 "Review of the financial situation and net profit (loss)", Chapter 10 "Cash and capital" and Chapter 20 "Financial information on the Group's assets, financial situation and results" of the Registration Document.

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

€ thousands	01/01/14 to 31/12/2014	01/01/13 to 31/12/2013
Operating income	3,166	1,179
Operating expenses	12,666	7,885
Operating profit (loss)	(9,500)	(6,706)
Financial income	129	105
Exceptional profit (loss)	(83)	(23)
Income tax	(1,876)	(1,413)
Net profit (loss)	(7,578)	(5,211)

Key figures of the Group's consolidated balance sheet:

Assets (€ thousands)	31/12/2014	31/12/2013	Liabilities (€ thousands)	31/12/2014	31/12/2013
Intangible assets	137	85	Capital	139	138
Assets	3,721	1,581	Share premium	36,009	34,945
Financial assets	110	91	Retained earnings	(12,087)	(6,877)
			Profit (loss)	(7,578)	(5,211)
NON-CURRENT ASSETS	3,968	1,757	EQUITY	16,483	22,996
			PROVISIONS	28	19
Inventories, receivables, prepaid expenses	4,922	2,021	Conditional advances and loans	4,162	2,456
Cash	15,658	23,696	Trade payables and related accounts	2,395	718
			Other debts	1,479	1,284
CURRENT ASSETS	20,579	25,716	PAYABLES	8,036	4,458
TOTAL ASSETS	24,547	27,473	TOTAL LIABILITIES	24,547	27,473

Key figures of the Group's consolidated cash-flow statement (French accounting standards):

GROUP CASH-FLOW (€thousands)	2014	2013
Operating cash-flow	(8,009)	(4,333)
Investing cash-flow	(2,798)	(785)
Financing cash-flow	2,720	22,523
Net cash-flow	(8,087)	17,404

Trend in Global Bioenergies share price since the IPO



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 light olefins, the fundamental molecules of petrochemistry, and on the Group's ability to industrialise its bioprocesses. The development and industrialisation of bioprocesses depend on engineering techniques which present technological risks.

The R&D programmes under way mainly focus on the following molecules:

- isobutene;
- butadiene;
- propylene.

These three programmes, for which the Group has successfully completed the research phase, are now in the development phase. The Group's most advanced programme concerns isobutene. The programmes focused on propylene and butadiene are at an earlier stage of this development phase.

While the results obtained so far are in line with the development schedule, the Group may be confronted with difficulties, may be unable to achieve the final enzyme activity objective, or may find that this objective requires more time and resources than initially expected.

In particular, while the significant progress already achieved by the Group in the Isobutene process on the metabolic engineering of production strains and the development of the fermentation process, raise hopes that the remaining stages will be achieved without any difficulties, this significant progress does not constitute any guarantee of such success. Unforeseen difficulties may still arise and hinder or delay the completion of these stages.

Moreover, the risks associated with the propylene and butadiene programmes remain higher than those associated with the Isobutene programme due to their earlier stage of development.

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. The Group is currently looking for a second appropriate site to store a duplicate of the strains.

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 (from sugarcane or sugar beet), for which the global production was a little over 184 million tonnes in the 2013/2014 season, reaching a new all-time record. For the 2014/2015 season, 184 million tonnes are once again expected¹. Global sugar production has been rising since the early 1990s at the average rate of 2.2% per year;
- 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 (excluding rice) reached 2,001 million tonnes² in 2013/2014, and the production of manioc totalled 277 million tonnes in 2013³. In both cases, as for sugar, these production levels are all-time highs.

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 jeopardize the profitability of the bioprocess concerned. Such a change could result in the suspension or definitive stoppage of the project development or its 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

¹ Czarnikow, 18 December 2014.

² International Grains Council, 26/03/15.

³ FAO statistics.

had managed to produce isobutene from plant waste, with performance levels comparable to those observed when using glucose derived from wheat. 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 work is being conducted in collaboration with New Zealand-based company LanzaTech, which develops fermentation processes based on specific microorganisms 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.

4.1.3.2 Drop in oil prices

The Group aims to develop processes for the bioproduction of light olefins such as isobutene, which 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 and delay the growth of biofuels. Such an event effectively took place in the recent past: the oil counter-shock of 1979 thus ended the wave of enthusiasm which soared in the 1970s concerning biofuels.

A drop in oil prices has been observed since June 2014. It 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. Oil prices seem to have reached a low in January 2015, after more than six months of continuous drop. The upswing has been perceptible since that low point was reached.

Changes in oil price affects 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, corresponding to several full-size plants, when oil prices are at \$50 or more 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 jeopardize 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 pathways 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 (see Sections 6.3.6, 6.4.1.3 and 6.4.2.3 of the Registration Document).

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.

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 hitherto unknown 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 biofuel industry as a whole, since biofuel is one of the applications of isobutene.

Concerning the butadiene programme, competition is stiffer 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 bio-sourced 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, Global Bioenergies was granted a US patent covering a key stage of its bio-sourced 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, grounding 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 certification was obtained on 4 April 2011 for a period of five years, i.e. until 4 April 2016. The Group must request additional certifications for each new R&D programme.

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 recorded a net loss of €7.6 million for the year ended 31 December 2014. The 2013 financial statements reported a loss of €5.2 million.

The increase in losses is due to the Group's major expansion in 2014. The amount of expenses dedicated to studies for the industrialisation of the processes more than doubled between 2012 and 2013. Staff costs increased 66% over the same period and continue to represent, along with R&D and industrialisation costs – the latter being fully recognised as expenses in the profit & loss account – the Group's principal expenses.

As the Group is currently in its process development phase, the income recognised in the Profit & Loss account mainly stems from partnerships developed with industrial actors. The loss recorded for the year ended 31 December 2014 was limited by payments from Synthos and Audi totalling €1.79 million.

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 2014, the gross financial resources injected into the Group since its incorporation can be summarised as follows:

<i>In thousands of euros</i>	Capital increase	Subsidies	Repayable advances	Innovation loans	Bank loans	Total
From 10/17/08 to 6/30/09	637	0	0			637
From 7/01/09 to 6/30/10	600	20	330			950
From 7/01/10 to 6/30/11	8,589	40	0			8,629
From 07/01/11 to 6/30/12	1,403	75	332			1,810
From 7/01/12 to 12/31/12	3,038	59	193			3,290
From 01/01/13 to 12/31/13	23,000	20	0	740		23,760
From 01/01/14 to 12/31/14	1,148	1,372	398		1,018	3,936
TOTAL	38,415	1,586	1,253	740	1,018	43,012

As at 31 December 2014, the Group's cash amounted to €5.6 million, against payables totalling €4.2 million (comprising bank loans of €1,018,000, repayable advances of €785,000, an interest-free loan of €740,000 and the restated value of leased assets amounting to €1,618,000).

On 4 June 2013, the Group was granted total funding of €4 million by the French government. The first instalment of €0.6 million was received in March 2014 while the second instalment of €1.7 million was received in March 2015 under the Investissements d'Avenir programme managed by ADEME. This programme supports the construction and operation of the pilot plant of Pomacle-Bazancourt for the development of the Isobutene process. This programme is described in Section 6.3 of the Registration Document.

Moreover, in November 2013, the Federal Ministry of Education and Research (Germany) decided to support the construction of the Group's demo plant to be built in Leuna, near Leipzig (Germany), by granting a subsidy of €5.7 million to the Group's German subsidiary Global Bioenergies GmbH. In 2014, the latter received €0.6 million under this grant.

Furthermore, on 31 March 2015, the Group announced that it had obtained a loan of €4.4 million from a consortium of four French banks for the full financing of the Leuna demo plant.

In addition, at the beginning of 2015, the Group obtained an interest-free loan of €1.4 million from BPIFrance.

To date, the Group has only generated negative net operating flows and the industrialisation of its processes will still require major expenses. The Group deems that, other than its available cash as at 31 December 2014 and the above-mentioned public funding already awarded, its only sources of income over the next few years will be the following:

- 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 put in place business development resources which will contribute to the set-up of new contracts to generate short-term lump-sum income for the Group and licence fees over the medium and long terms;
- public subsidies and research tax credits (CIR);
- 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 abandon some of its research and development programmes, or reduce its workforce; the Group may then be unable to continue the development of the processes;
- 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 than 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 Group fail to comply with the terms and conditions of the agreement entered into with BPI France (formerly OSEO) for a total repayable advance of €98,000 to date (of which €338,000 remains to be repaid as at 31 December 2014), the agreement signed with ADEME under which refundable advances of €1,538,000 have been received to date, or the interest-free loan of €740,000 granted by OSEO in March 2013 and made available in May 2013, it could be forced to repay such amounts earlier than anticipated. 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.

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:
 - o natural persons, or
 - o a company meeting the same conditions of which at least 50% of the capital is owned by natural persons, or
 - o 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 will definitively lose this preferential status on 31 December 2015, as it will have been in existence for more than eight years.

For 2014, the JEI status has saved the Group around €188,000 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, Chairman & CEO, and Philippe Marlière, Director and Chairman of the Scientific Board which 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 rests on teams comprising some 50 scientists.

Moreover, Philippe Marlière chairs the Scientific Board, which is composed of nine other renowned scientists able to provide their advice in this development phase.

A "Key Person" insurance policy (covering permanent disability and death) was taken out on 15 June 2011 with ACE Europe to cover Marc Delcourt, Chairman & CEO, 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 Collectis. Frédéric Pâques is the Chief Operating Officer at Global Bioenergies. In September 2013, Denis Thibaut, formerly head of the fermentation development department at Sanofi Chimie, joined the Group as head of the Fermentation department.

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.

Moreover, the Group will need to strengthen its team by recruiting qualified scientific and technical staff to carry out its developments and industrialise its processes.

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 will need to recruit staff and extend its operational activities. 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 patent applications (patents pending) relating to processes for the biological production of light olefins from renewable resources. These patent applications are the Group's core business. Thus, 26 families of patent applications have been filed to date, 17 of which have been published. To date, 10 patents have been granted, as detailed in Chapter 11 of the Registration Document.

Out of the 26 patents pending: (i) 8 are held by Scientist of Fortune, (ii) 16 are jointly held by Scientist of Fortune and the Company, and (iii) 2 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 dispute could give rise to considerable expenses (especially since, under the licence agreement concluded between Scientist of Fortune and the Group, the Group bears the costs incurred to that effect, except if Scientist of Fortune was to take legal action on its own against a third party), reduce any profits that could be made by the Group and deprive it of 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 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 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 patent applications, but holds some of them under exclusive licence or co-ownership, does not prevent it from fully exploiting said 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 derive a minimum revenue from the exploitation of these patents.

Thus, every year starting on the first full year (i.e. from 13 February 2010), 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 €500,000⁴. If this condition is not met, Scientist of Fortune 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. The expenses incurred in the fiscal year ended 31 December 2014 were substantially above the minimum of €500,000.

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 €500,000⁵. 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 interpretation and/or dispute that may arise concerning the licence agreements, the early termination of such agreements by SOF could have a significant negative impact on the Group's business, financial position and outlook. The early termination of these licence agreements would mean that the Group would no longer be able

⁴ Minimum amount calculated at the end of a 12-month period, on the contract anniversary date, i.e. on 13 February of each year.

⁵ 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.

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

The patent applications exploited by the Group give rise to chains of contracts allocating their property/exploitation to various entities: Scientist of Fortune (owner or co-owner), Global Bioenergies SA (licensee, owner or co-owner), and various sub-licensees.

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.

Risk associated with the contract signed between the Group and Synthos on 18 July 2011

This contract lays down the terms of a strategic partnership for the Group.

It includes the possibility for Synthos to terminate the contract at any stage of the project covered by the contract (with all amounts due at that stage remaining payable). If Synthos were to exercise that option, the Group would have to seek out other partners able to meet its needs.

On 6 December 2012, the Group announced that it had completed one of the stages of the project, i.e. the development of the artificial metabolic pathway leading to butadiene. Synthos and the Group then jointly announced their ongoing partnership.

The risk that Synthos may terminate the partnership at a later date remains present for the upcoming stages.

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, 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 property 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 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

To date, the Group's business does not depend on any technology held by third parties. The Group solely exploits the inventions and know-how developed by Philippe Marlière, either on his own or in collaboration with the Group within the framework of licence agreements.

However, the Group has entered into a certain number of research agreements under which the technology held by the co-contractor is used for the development of a given project. Consequently, the Group's business may progressively need to partly rely (at a secondary level) on technologies which are totally or partly owned by third parties.

To date, the only agreements concerned are those signed with LanzaTech, Synthos and the University of Iowa.

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 but growing part of the Group's expenses are 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 2014, the Group's available cash and marketable securities totalled €15.6 million. On the same date, the Group's commitments under various repayable advances and borrowings totalled €2.5 million. The significant cash surplus is mainly attributable to the capital increase of €3 million carried out in July 2013. 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, for which the repayment schedule is set out in Section 10.3.1, bears fixed-rate interest;
- the €800,000 loan taken out to finance various pieces of equipment and tooling, in particular for the Pomacle site on which the Group's pilot plant is built, also bears fixed-rate interest.

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 2014, the cash and marketable securities held by the Group totalled €15.6 million and mainly consist of low-risk easily liquidatable instruments. It should be noted that, as at 31 December 2014, shares in money-market funds amounting to €45,000 were pledged to banks as collateral for the funding granted to the Group under finance leases.

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 per claim	Term
<p><u>Civil liability during operation and/or construction</u> All bodily injury, material and intangible damage suffered by third parties during operations, limited as follows: - gross negligence for all claims in the same year of insurance - consequential material and intangible damage - theft by personnel - damage to entrusted goods - non-consequential intangible damage - damage resulting from accidental environmental harm</p> <p><u>Legal defence</u></p>	COVEA RISKS	€8,000,000 -€1,000,000 per year of insurance -€2,000,000 -€50,000 -€100,000 -€160,000 -€1,500,000 per year of insurance €1,000	Renewable automatically on 1 May
<p><u>Professional multi-risk coverage</u></p> <p>Theft Glass breakage Fire and related risks</p> <p>Equipment, furniture (at replacement value) and supplies</p> <p>Information materials</p> <p>Losses, including substantiated indirect losses</p> <p>Claims by neighbours and third parties</p>	AXA	€1,054 €25,000 €207,033 €17,307 €2,813 €2,070,339	Renewable automatically on 1 May
<p><u>Machine breakage cover</u></p>	COVEA RISKS	€3,222,597	Renewable automatically on 1 May
<p><u>Coverage for US offices</u> All bodily injury, material and intangible damage</p> <p>- Of which limit per claim</p> <p>Additional insurance, to cover amounts in excess of the main limit of \$2,000,000</p>	Allied Insurance	\$2,000,000 \$1,000,000 \$1,000,000	Renewable automatically on 12 June

Type of policy / Risks covered	Insurer	Limit per claim	Term
<u>Coverage for the offices in Munich (Germany)</u>			
<u>Civil liability coverage for operations</u>			
Cover for business premises and business activities	VOLKSWOHL BUND		Renewable automatically on 10 January
- bodily injury		€2,000,000	
- material damage		€1,000,000	
- property damage		€100,000	
- material and property damage as tenant		€1,000,000	
- material and property damage for electronic data exchange and the use of the internet		€100,000	
- material and property damage in the event of loss of keys/badge		€50,000	
- material and property damage in the event of processing damage		€50,000	
- material and property damage to visitor and employee property		€10,000	
- environmental damage		€1,000,000	
- environmental damage cover for new risks		€100,000	
- environmental damage cover for compensatory repair cost		€500,000	
- environmental damage cover for preliminary fees		€100,000	
The annual amount paid will in all cases be limited to double the amounts insured.			

A "key person" insurance policy covering the Company's Chairman & CEO Marc Delcourt for an amount of €1 million was contracted on 15 June 2011 with ACE Europe.

The overall amount of insurance premiums recognised by the Group for the year ended 31 December 2014 for all insurance policies contracted totals €44,000.

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 must request additional certifications for each new R&D programme.

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:
 - o agreement for OSEO AIR grant (Aid for Responsible Innovation) of a maximum estimated amount of €100,000;
 - o 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:
 - o Synthos acquired a stake in Global Bioenergies via a capital increase of €1.4 million,
 - o 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:
 - o 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),
 - o 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 (of which €600,000 had been obtained on 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 a second plant, 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:
 - o contract signed between Global Bioenergies and the Fraunhofer Center for Chemical - Biotechnological Processes for the commissioning and operation of Global Bioenergies' second pilot plant, to be built on the site of the Leuna refinery,
 - o Global Bioenergies announced the acceptance testing of the fermentation unit and its satellites on the Pomacle site. This unit is set to undergo the mechanical and functional qualification tests by the end of September, followed by the first fermentation test in the autumn;
- November 2014:
 - o successful start-up of Global Bioenergies' first pilot plant on the Pomacle-Bazancourt site,
 - o first production of biosourced butadiene by direct fermentation;
- December 2014:
 - o 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:
 - o first isobutene production from waste biomass,
 - o completion of the basic engineering phase of the Leuna demo plant,
 - o start of construction of the demo plant in Germany Additional financing of €4.4 million obtained;
- May 2015:
 - o first batch of biosourced isobutene delivered to Arkema,
 - o first production of liquid hydrocarbons from plant feedstock using the Isobutene process,
 - o delivery to Audi of the first batch of renewable gasoline produced on the Pomacle site,
 - o joint venture created by Cristal Union and Global Bioenergies to build and operate, in France, the first biosourced isobutene plant.

5.2 INVESTMENTS

5.2.1 Main investments made during the past year

The table below shows the investments made, in euros, as set out in the Group's financial statements drawn up in accordance with French accounting standards:

<i>Audited data in thousands of euros</i>	31 December 2014
Acquisition of intangible assets	77
Acquisition of tangible assets	2,702
Acquisition of financial assets	21
Total	2,801

Intangible assets: + €77,000

In 2014, the Group continued the deployment of its Laboratory Information Management System (LIMS) for the automatic management of the data stemming 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 assets: + €2,702,000

In the Evry laboratory

The fermentation platform considerably increased its capacities: composed of 13 fermenters in 2013, it had 35 fermenters of various sizes at the end of 2014. These recent acquisitions have given the platform a prominent world-class dimension.

The robotic equipment of the screening platform has been supplemented with a robotic pipette system, further increasing analysis throughput. The strain construction platform acquired a mass spectrometer at the end of the year to be able to identify and quantify the intracellular metabolites involved in the processes. These mass spectrometry metabolomic studies make it possible to analyse complex biological matrices in a much more detailed way.

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 intended for various industrial players, most prominently including Arkema and Audi.

The facility is mainly composed of a 500-litre fermenter and a purification and bottling unit, interconnected by an automated module.

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

The investments to be made in 2015 mainly concern the construction of the Leuna demo plant, which should start in mid-2015 and cost €9 million. A first batch of isobutene is expected in the second quarter of 2016. This investment will be financed through the Group's own funds, as well as public funds from the German government and bank loans already granted.

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.

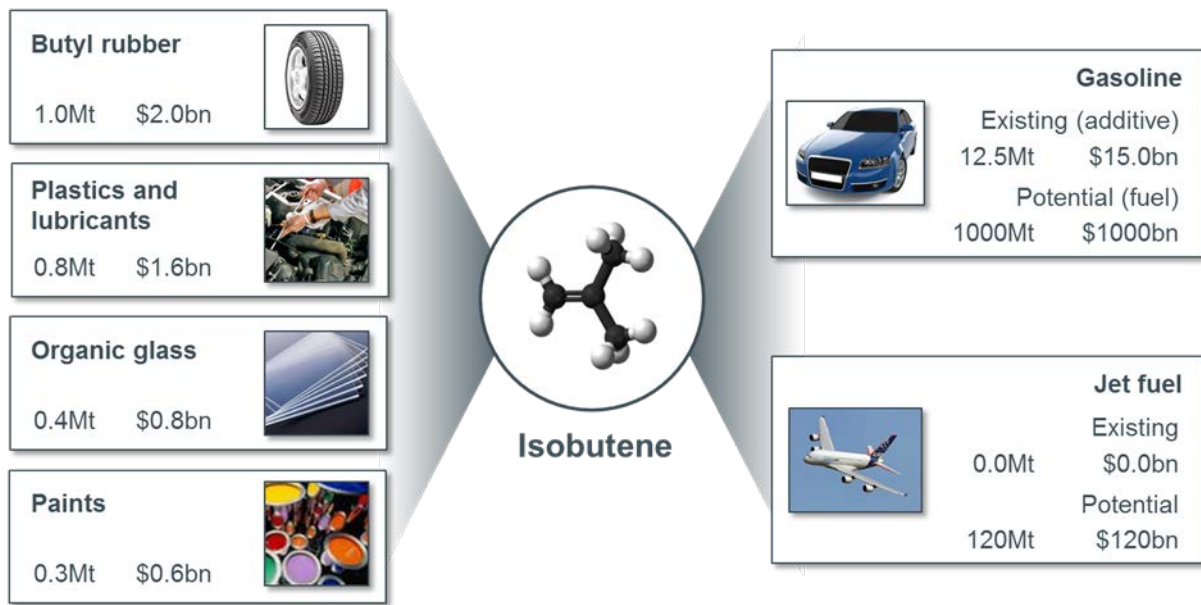
On the site of the Pomacle-Bazancourt pilot plant, adjustments could be necessary to adapt the equipment to the specificities of the butadiene and propylene processes. The facility, which is fully operational for the Isobutene process, could thus benefit from additional modules in 2016-2017 to make it adaptable to the other processes. On the longer term, similar adjustments could be considered for the Leuna demo plant in Germany.

6 OVERVIEW OF ACTIVITIES

6.1 SUMMARY

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 \$25 billion (15 million tonnes).

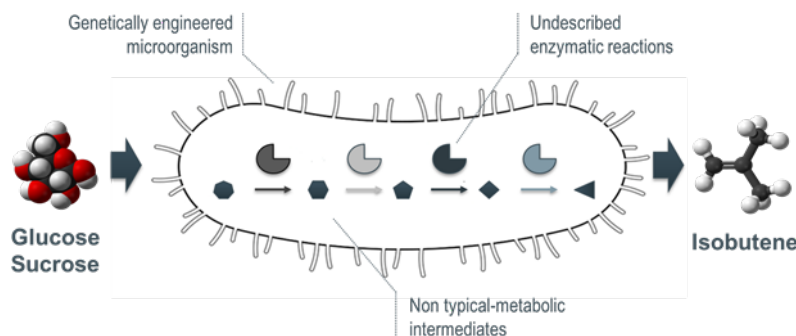
This isobutene is then converted into rubbers, plastics, lubricants and fuels.



By substituting biomass feedstock for oil, 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 CO₂, the main cause of climate change, according to the IPCC.

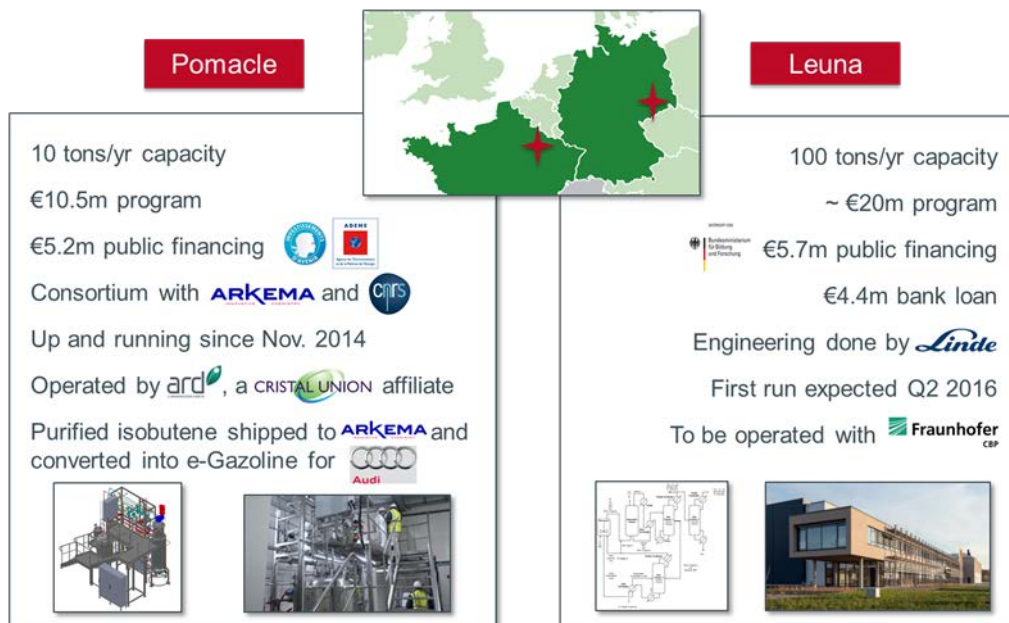
Micro-organisms do not naturally produce isobutene. Forcing micro-organisms to produce isobutene was a very significant technological barrier. The innovative synthetic biology approach selected by the Group is based on the design of artificial metabolic pathways.



Firstly, Global Bioenergies proved the validity of this concept by "recoding the software of the 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 (wheat or corn glucose) and second-generation sugars (from straw or wood chips). R&D work is still ongoing and the performance of the Isobutene process is constantly being improved. Global Bioenergies is developing processes leading to two analogous molecules, butadiene and propylene, whose development is two and three years respectively behind the Isobutene process.

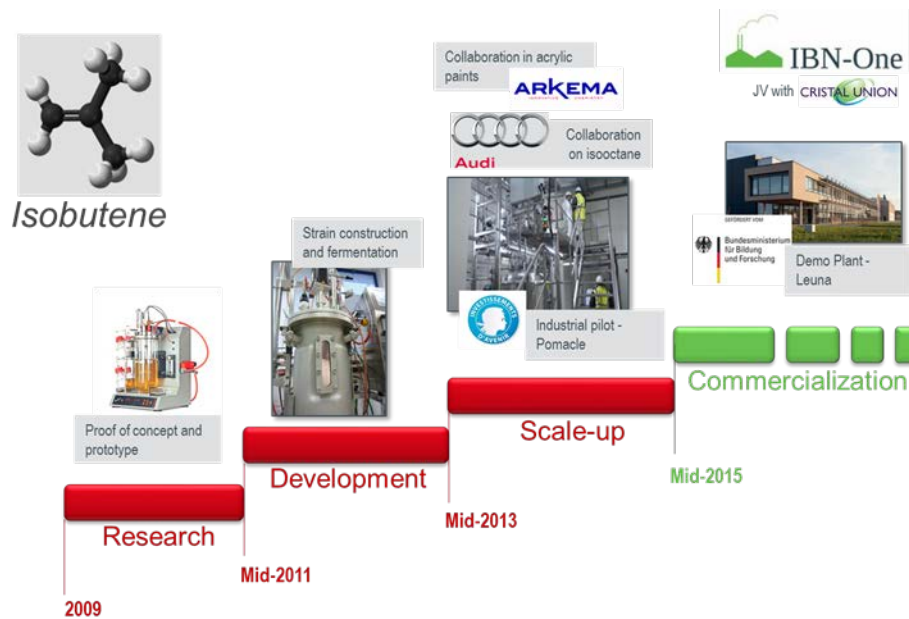
The third phase, industrialisation of the Isobutene process, started in mid-2013 and comprises two stages: the construction of a pilot in France, and of a demo plant in Germany.



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. Isobutene batches have been produced, purified and packaged there and then sent to Arkema, with whom a cooperation agreement has been signed. Moreover, a first batch of liquid isooctane (a hydrocarbon that can be mixed with gasoline without any blending ratio restrictions) was produced from isobutene and delivered to Audi, with whom a partnership has been in place for a number of years.



The demo plant, whose capacity is 100 tonnes per year, is under construction on the Leuna refinery site in Germany. Batches of high-purity isobutene, which can be used to manufacture plastics and rubbers, will be produced there from 2016.



The commercial phase has recently started. Global Bioenergies and Cristal Union created a joint venture in May 2015, 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 for the financing, construction and operation of the first biological isobutene plant in France.

The financing needs of IBN-One are estimated as follows:

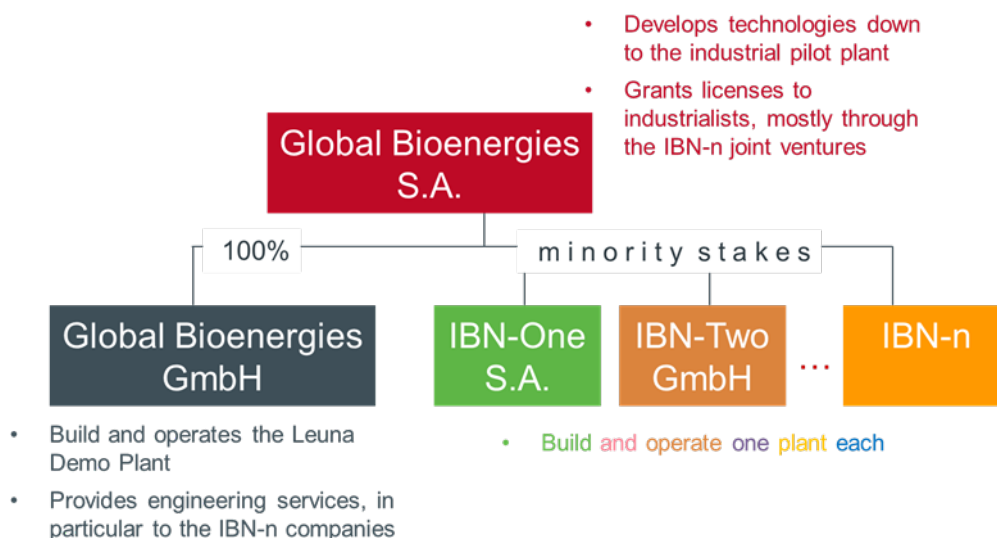
- around €15 million in 2016 to finance the plant's engineering studies; and
- around €100 million in 2017 to finance the plant's construction and commissioning.

Global Bioenergies is only planning to invest a few million euros in IBN-One and will become a very minor shareholder in IBN-One.

In the short term, IBN-One will undertake a Detailed Pre-Project, following the Elementary Pre-Project run jointly by Global Bioenergies and Cristal Union in early 2015.

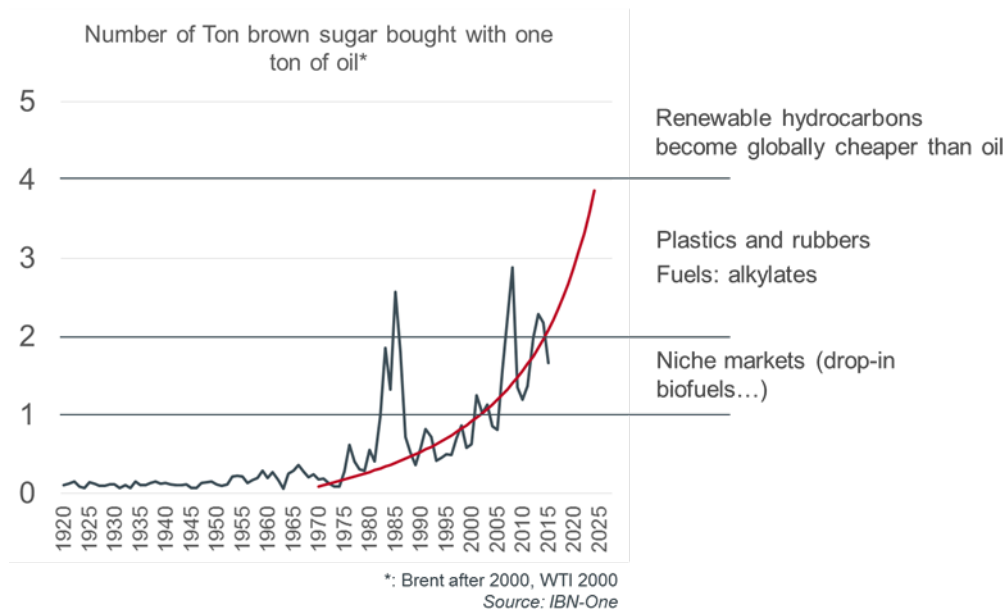
Global Bioenergies granted IBN-One a licence for a 50,000 tonnes isobutene plant in France. Global Bioenergies will receive milestone payments at the funding points and operating royalties.

Global Bioenergies expects to replicate this model and conclude further joint ventures with other industrial groups and in different countries. Around 100 discussions are currently ongoing.



This licensing business model, backed by the creation 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 a barrel, associated with attractive tax incentives. The first plants could be installed in the near future. At \$85 a barrel (\$/bbl), the materials market (\$5bn). 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 \$150 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

Global Bioenergies develops processes for converting biomass resources into gaseous olefins such as isobutene, butadiene and propylene. These molecules are hydrocarbons that are currently produced from fossil reserves extracted from underground deposits. The processes developed by the Group therefore bridge a gap between two worlds that rarely speak to one another: that of hydrocarbons (oil, gas, coal) and that of 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 (gaseous) 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 in recent years, 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 poor 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 Use in energy generation

Energy generation is the principal use for hydrocarbons. Around 70% of energy requirements are covered by hydrocarbon production. Even though their share is predicted to fall slightly, as a result of the emergence of new energy sources, hydrocarbons are still be expected to represent 57% of additional primary energy to be generated each year in 2035⁶.

According to British Petroleum (BP), coal is currently the leading resource in this sector, followed by gas, oil and nuclear. Renewable resources (hydroelectric, wind turbine, solar, etc.) will gain market share to move from 5% of demand today to 13% by 2035.

Energy consumption in emerging countries will have a major impact on the development of resources and hydrocarbon prices. In particular, today, half of the worldwide annual coal production is consumed by China. For environmental reasons, China could move partially away from coal⁷ and compensate this drop in consumption by increasing the use of gas and oil, with a potential impact on the markets for these resources.

6.2.1.3 Use in transportation

The 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 8 carbon atoms ("octane");
- kerosene (molecules typically having 12 carbon atoms); and
- diesel (typically 16 carbon atoms).

Since they do not contain any oxygen, which is dead weight in terms of energy, fossil fuels have a high energy density. They comprise hydrocarbons, that is, molecules composed of carbon and hydrogen atoms. This high energy density was one of the main vectors in the development of motorised

⁶ BP Energy Outlook 2035

⁷ http://french.xinhuanet.com/economie/2014-09/20/c_133658940.htm
<http://french.peopledaily.com.cn/n/2014/0807/c96851-8766344.html>

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 87 million barrels per day (Mb/d). The transportation sector represents more than 60% 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 increase in production will come from the exploitation of unconventional fossil resources (shale oil 53%, bituminous sands 30%) and the production of biofuels (17%)⁸. The growing share of unconventional deposits in the production of liquid fuels is expected to support a high price per barrel.

6.2.1.4 *Use in petrochemicals*


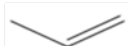
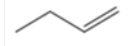
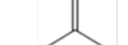


The petrochemicals industry is based on the large-scale use of building blocks derived from oil, gas or coal and their transformation into diverse synthetic compounds. It is estimated that around 11% of petroleum production is used in this industry⁹. Finished goods made from petrochemicals include synthetic 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 2 and 5 carbon atoms: the gaseous olefins. The family of gaseous olefins includes ethylene (2 carbon atoms), propylene (3 carbon atoms), isobutene, butadiene and n-butene (4 carbon atoms) and isoprene (5 carbon atoms).

Prior to the slump in oil prices in September 2014, these building blocks, from which the petrochemicals industry derives numerous products, together comprised a huge market of \$300 billion. The figures in the following table provide information on the markets for each of these molecules. More detailed presentations of these markets by olefin can be found in Sections 6.3 and 6.4 of this document.

⁸ BP Energy Outlook 2035.

⁹ OPEP World Oil Outlook 2012.

	Volume (Mt)	Price (\$/kg) ¹	Market (b\$)	Main applications
	115	1.5	173	Polyethylene (60%)
	83	1.5	129	Polypropylene (65%)
	5	1.9	10	Co-monomers in various plastics
	15	1.5 – 2	24	Tires, organic glass, PET, fuels
	10.6	1.5	16	Tires, Nylon, coating polymers
	1	2.5	2.5	Tires, adhesives
Total	230	1 – 2.5	355	6.4% of oil consumption ²

¹ Source : Company August 2014

² GBE calculations from BP statistics 2013

Main market indicators of gaseous olefins in 2013-2014

The prices of gaseous olefins are relatively volatile. The price of butadiene, in particular, has been subject to wide fluctuations for several years, on account of major changes in supply sources and significant fluctuations in the market, closely linked to the automotive market.

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 2015, then its gradual rise since February 2015, was reflected in the price of gaseous olefins.

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. Under this method, ethylene represents around 38% of the products obtained, propylene 20%, the "C4 fraction", comprising a mixture of all 4-carbon olefins, around 12%, and the remaining 30% contains the aromatic compounds known as "BTX" and gasoline^{10,11,12}. 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.

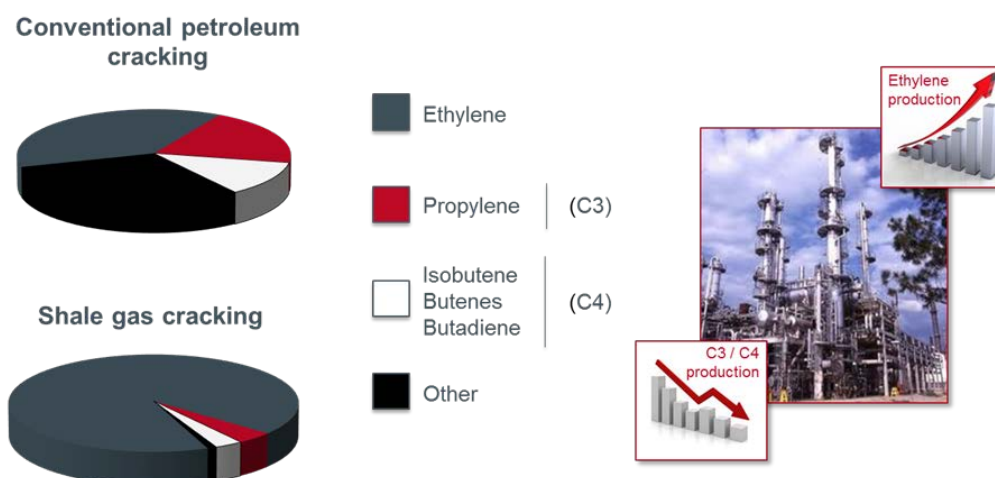
For several years, the olefins market has been heavily affected by changes in the feedstock used: the production of ethylene from gas (shale gas in the United States and, to a lesser extent, refinery gas in the Middle East) has been growing. These gases mainly contain methane (a single-carbon hydrocarbon) and a small percentage of ethane (2-carbon atoms). 3- and 4-carbon compounds are very few. Shale gas

¹⁰ Chemistry of Petrochemical Processes second edition 2001.

¹¹ Process Data Description for the Production of Synthetic Organic Materials - Joosten LAJ, Utrecht University 1998.

¹² <http://www.rbnenergy.com/lets-get-crackin-part5-natural-petrol>

cracking therefore results in the production of a vast majority of ethylene, without the usual by-products (3- and 4-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 4-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^{13,14}. Similarly, the price of purified butadiene went from \$1,500/t in early 2011 to more than \$4,000/t by summer 2011, before gradually falling to \$1,400/t in 2014¹⁵ as a result of the global slowdown in the automotive market, the market which generates demand for the tyres that comprise the main outlet for butadiene. For more information, see Section 6.4.1 of the Registration Document.

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

¹³ www.icispricing.com "Crude C4 Europe" May 2012.

¹⁴ Argus Dewitt July 2014.

¹⁵ IHS.

Within five to ten years, rebalancing solutions will exist for certain olefins: the Group believes that solutions for converting ethylene into propylene, linear butene or even butadiene will be extensively used to correct imbalance in 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.

The case of 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. At current isobutene prices, this avenue is not used, as it is not profitable. The compounds making up the flow of by-products from FCC are therefore not 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 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 gives the following results:

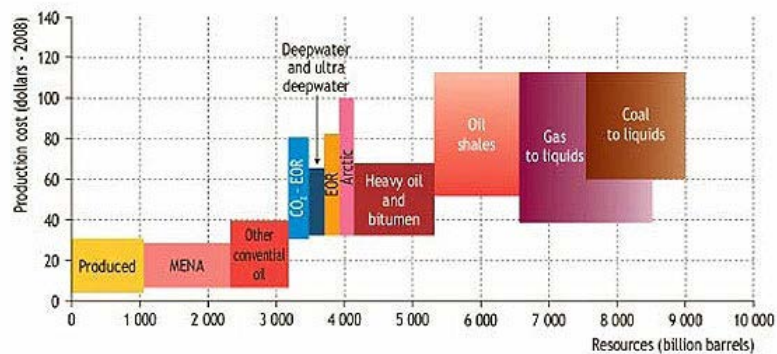
- Oil: 56 years, rising slightly (+0.5 years/year on average since 1982).
- Gas: 55 years, stable overall since 1982.
- Coal: 111 years, dropping sharply (-5 years/year on average since 1982).

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 75 years of visibility, a reduction of 1.3 years/year on average since 1982. This reduction has accelerated to reach 1.8 years/year on average since 2000.

In its forecasting report, *Energy Outlook 2035*, published in January 2014, BP forecasts that hydrocarbon consumption will continue to increase significantly until at least 2035, to meet the planet's growing energy requirements (+32%). By 2035, annual oil consumption will accordingly have risen by 20%, gas by 42% and coal by 20%.

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 are increasingly coming from unconventional deposits 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.

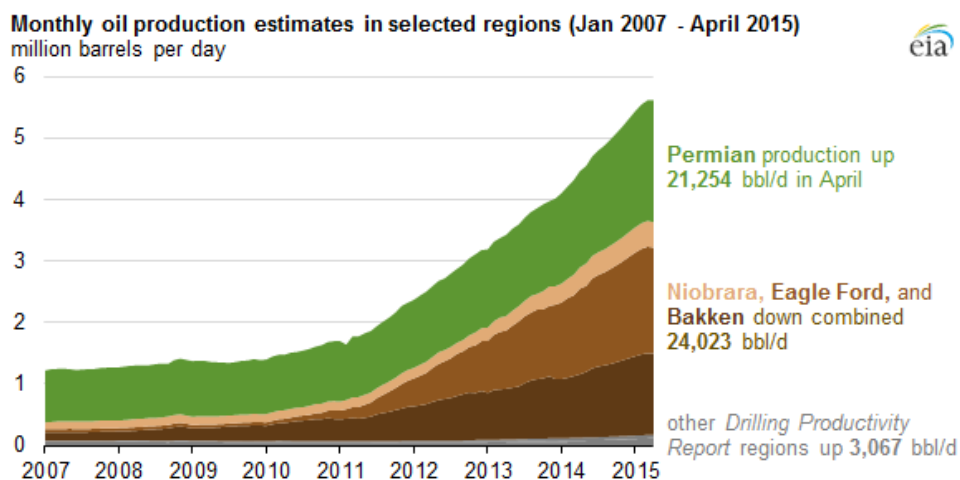
Historical deposits (Texas, Arabian Peninsula, North Sea), located in shallow waters, in porous rock from which extraction was simple and easily accessible, all led to low production costs (under \$40/barrel). In contrast, new reserves are either unconventional in nature (bituminous sands, shale hydrocarbons, extra heavy oils, etc.) or very difficult to access (very deep water, arctic waters, etc.). They generally have much higher production costs that may exceed \$100/barrel.



Source: IEA (2008)

Chart showing reserves and associated production costs (MENA: Middle East and North Africa; EOR: Enhanced Oil Recovery)

The price per barrel observed until August 2014 was dictated by the highest production costs of the barrels extracted. The rapid growth in shale oil in the United States created excess supply, stock saturation and a temporary fall in the price of oil, which hit a low of \$45/barrel in January 2015.



US Shale oil production evolution (Source: EIA)

This low price is unable to support exploitation of the most difficult reserves and, primarily, those of shale oil. A major reduction in investment and in the number of new wells drilled has already been observed. In April 2015, the EIA (Energy Information Agency) announced a reduction in US production of shale oil for the first time in 5 years. The price of oil concomitantly went on an upward trend.

These recent changes are in line with the forecasts of the World Energy Council, for whom a barrel price in excess of \$100 is a function of both geopolitical circumstances and the production costs of these unconventional reserves. Accordingly, it estimates that the minimum sustainable price today would be between \$80 and \$90/barrel¹⁶.

There are still a large number of unknowns surrounding these unconventional reserves. In particular, it is difficult to estimate the share of these reserves that will turn out to be effectively exploitable. It is, however, expected that a growing share of global production will come from this type of unconventional reserves¹⁷ and that a high price per barrel will be required to justify the major investments in drilling and support the high production costs.

The drop in investment in exploration by the oil majors is another consequence of the recent fall in oil prices. Mr Pouyané, CEO of Total, confirmed that today major investment is necessary just to maintain current production. Mr Descalzi, CEO of ENI, highlighted this point at the Davos Summit in January 2015 and believes that this reduction in investment could result in a production shortfall within five years and a brutal increase in the price of oil, up to \$200/barrel.

Coal production, which represents a significant share of energy (electricity and heating) worldwide is a major concern: visibility is declining rapidly for this hydrocarbon and reserves have only been in very small part renewed since the 1960s. The probability of extensive new discoveries seems limited. In contrast to oil and gas, coal production requires an on-site human presence and cannot be undertaken at great depth or at sea. The outlook for significant discoveries is accordingly limited.

6.2.2 Renewable resources

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 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 processes are in start-up phase and it will soon be possible to measure their economic footing;
- The third generation uses the carbon that is directly present in the atmosphere as CO₂. It requires the industrialisation of photosynthesis, using plant-based micro-organisms known as "micro-alga". This approach is still at an early stage.

All of these resources could eventually be converted into isobutene or other gaseous olefins, using processes developed by the Group.

¹⁶ World Energy Council – World Energy Resources 2013 Survey.

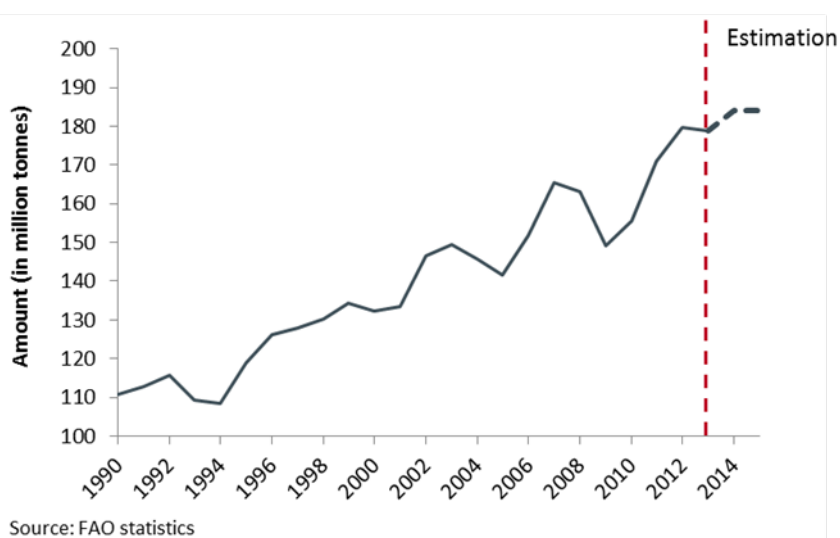
¹⁷ BP, Energy Outlook 2035.

6.2.2.2 *First generation*

Current fermentation processes use so-called first-generation feedstocks. These are produced from traditional agricultural sector products: sugar (cane or beet) and glucose from cereals (mainly 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. The 2013/2014 season saw production hit a record high of 184.1 million tonnes, resulting in a surplus of around 4 million tonnes. The 2014/2015 harvest is expected to again reach 184 million tonnes and generate a surplus of some 0.6 million tonnes¹⁸. 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 (24% of global production), India (15%), the European Union (11%) and China (8%)¹⁹.



Source: historical values: FAO Statistics; 2014/2015 Estimates: Czarnikow December 2014

Global sugar production (1990-2015)

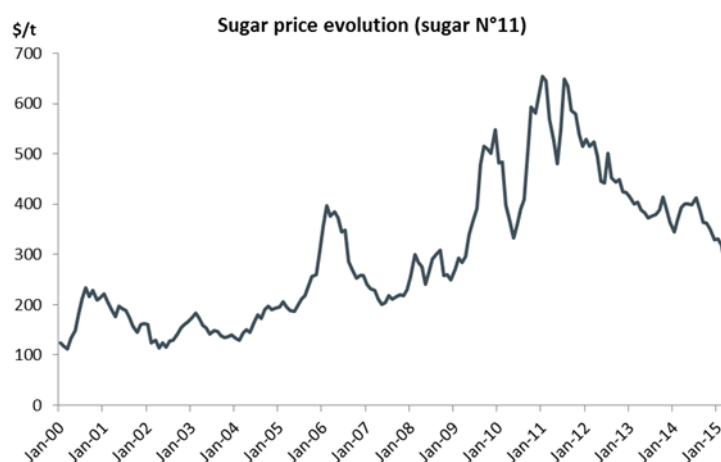
The 2008-2014 period saw major changes in the sugar market. Significant production shortfalls in the 2008/2009 (12 million tonnes) and 2009/2010 (3 million tonnes) harvests, against growing demand, led to a large rise in the price of sugar over the 2008-2011 period. This rise was also associated with considerable price volatility.

Surplus production from the 2010/2011 harvest (1 million tonnes) enabled the trend to be reversed, subsequently confirmed by further production surpluses in the following harvests. The fall in the price of raw granulated sugar from its peak of \$644/t in February 2011 was steadied by the rebuilding of global stocks, which had hit a historical low in 2009/2010. The price of raw sugar is currently \$270/t, its lowest since January 2009.

¹⁸ Czarnikow, 18 December 2014.

¹⁹ FAO, Food Outlook, November 2010.

The latest forecasts from Rabobank, dated December 2014 and April 2015, suggest that, in view of current stocks and the 2014/2015 harvest forecasts, the price of sugar will remain low in the short term. The fall in the price of oil is an additional element affecting these lower prices.



Source: Indexmundi (Coffee Sugar and Cocoa Exchange (CSCE) contract no.11 nearest future position)

Change in the price of industrial sugar January 2000 – April 2015

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.

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 (excluding rice) reached a record high of 2,001 million tonnes with the 2013/2014 harvest and the latest forecasts for the 2015 season are of a similar size, at 2,000 million tonnes. This level of production, sustained and exceeding demand, is likely to lead to the build-up of global stocks again, which, at 429 million tonnes, are at their highest in 15 years²⁰.

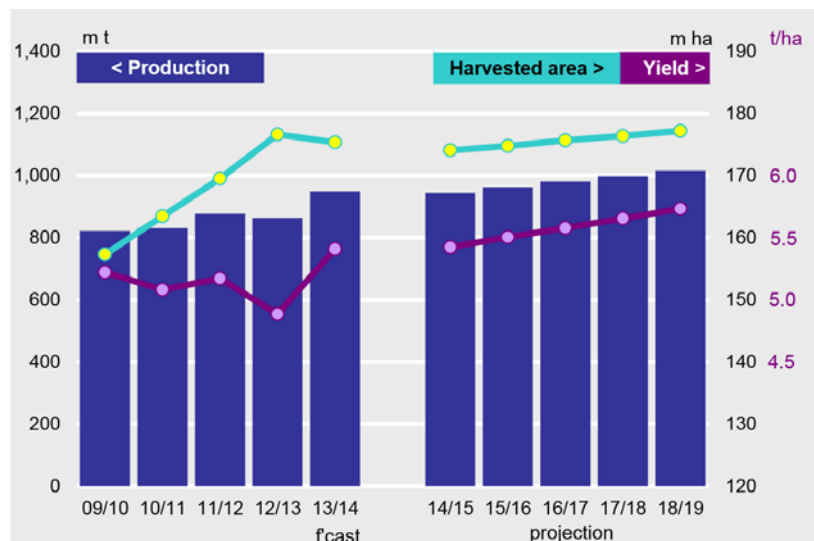
Cereal use breaks down as follows:

- 45% of production, i.e., nearly 900 million tonnes, is used for cattle fodder. This application is expected to grow at around 2.2% per year to the end of the decade, buoyed by economic development in non-OECD countries and in particular, China;
- 35%, or nearly 700 million tonnes, are used directly for human foodstuffs. This use will have the weakest growth, at 1.2% per year;

²⁰ International Grains Council at 26/03/2015

- Industrial uses represent 20% of today's demand, i.e., 400 million tonnes. This use is forecast to grow at a rate of 1.9% per year until 2019.

Corn remains the principal cereal used in industrial applications. Of the 2014/2015 harvest, it is anticipated that 57% (or some 530 million tonnes) will be used for cattle, 30% (270 million tonnes) for industrial applications (half of which will be for ethanol) and lastly, 13% (120 million tonnes) directly for human foodstuffs. Demand for corn is expected to grow at an annual rate of 2% and be offset by an increase in yields and land cultivated. In its annual report published in December 2013, 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, cultivated land, and global corn yields (Source: International Grains Council)

The cereals market was marked by soaring prices during the financial crisis. The price of wheat nearly quadrupled between 2007 and 2008 and corn prices doubled. Prices were rapidly restored, before increasing again in 2010 following poor harvests. Although still higher than prices at the beginning of the 2000s, cereal prices and, in particular, corn, have been trending downward since January 2011. At the end of 2014, the price of corn had returned to the level observed before the financial crisis, at around \$170/t.

Production of cassava, trailing corn as the second most important agricultural commodity for the production of starch, has risen by 60% since 2000, to hit a record high of 277 million tonnes in 2013²¹. 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 food²². The study systematically describes the changes in land use between 2000 and 2010 in 34 agricultural countries:

²¹ FAO statistics.

²² [http://www.biomassresearch.eu/Biomass Research 1301_Analysing the effect of biofuel expansion on land use.pdf](http://www.biomassresearch.eu/Biomass%20Research%201301_Analysing%20the%20effect%20of%20biofuel%20expansion%20on%20land%20use.pdf)

although biofuel production has required an additional 25 million hectares, 11 million of this has 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 tonnes²³. 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 a reduction in the cost of agricultural feedstock for use in industrial biological processes. 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 license covering 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 2014, four second-generation ethanol plants were built²⁴:

- In August 2014, Poet-DSM inaugurated a 60-75 thousand tonnes capacity cellulosic ethanol unit in Emmetsburg, Iowa, USA;
- In October 2014, Abengoa opened a 75 thousand tonnes plant in Hugoton, Kansas;
- Granbio, the largest second-generation ethanol plant in the Southern hemisphere, was opened in Brazil in September 2014. This plant has a production capacity of 82 million litres of ethanol;
- In late 2012, DuPont started construction of its first cellulosic ethanol unit, with a capacity of 90 thousand tonnes, in Nevada, Iowa, USA. Production is expected to start in 2015.

2014 was a key year for the development of the biomass waste recovery industry. The performance of these first plants will be keenly awaited in 2015. 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.

In this so-called second-generation category of processes, an alternative approach has recently emerged: This does not involve using enzymes to process lignocellulosic biomass, but its transformation into gas using oxygen-free combustion. The gas produced this way, mainly comprising carbon monoxide (CO) and hydrogen (H₂), is termed synthesis gas (Syngas). It is used as a source of carbon and energy in a fermentation process based on specific micro-organisms, which produce ethanol or other compounds. Similar processes, mainly developed by LanzaTech, Coskata, Ineos and Kiverdi, are also likely to come to market in the next few years. LanzaTech operates a number of demo plants and a first commercial

²³ <http://www.biocore-europe.org/page.php?optim=what-is-lignocellulosic-biomass-->

²⁴ Nature, volume 507 page 152 dated 13 March 2014.

plant is expected to start production in 2016²⁵. In June 2012, Ineos completed construction of a demo plant capable of producing commercial batches. The first batches were produced in July 2013; however the plant has since encountered difficulties²⁶.

These resources may eventually be used in entirely thermochemical processes. These technologies have yet to be scaled up. Choren in Germany and KiOR in the United States have both folded. Other public and private sector players are continuing to develop these technologies. Amongst others, Anellotech, Avantium, the CEA and Virent are aiming to produce fuels and intermediate chemicals using thermochemical processes. The commercial viability of these approaches remains to be seen.

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 of a number of commercial plants this year, suggests that this approach will soon be rolled out on a large scale.

6.2.2.4 *Third generation*

The industry is already preparing the future by working on a third generation of feedstock that will no longer be linked to the production of biomass.

The third generation is still in the very early stages of development. This technology uses industrial photosynthesis to produce fuels and other products directly from carbon dioxide (CO₂). Photosynthetic micro-organisms (cyanobacteria or micro-alga often termed "phytoplankton") are currently being widely studied for this purpose. However, there are a number of obstacles yet to be overcome by the players in this area before industrial-scale production can be rolled out. It is generally accepted that industrialisation of these third-generation processes will require many more years of research and development.

Two approaches are being developed for these third-generation processes. The first is looking at the direct use of photosynthetic micro-organisms to produce the compound of interest from CO₂. Joule Inc. and Algenol, for example, have selected this method to produce ethanol or specialty chemicals. In the second approach, the micro-organisms are used to produce sugars which can then be used in traditional fermentation processes. The American company Proterro and a government laboratory in Germany, the Fraunhofer Institute, are developing similar procedures.

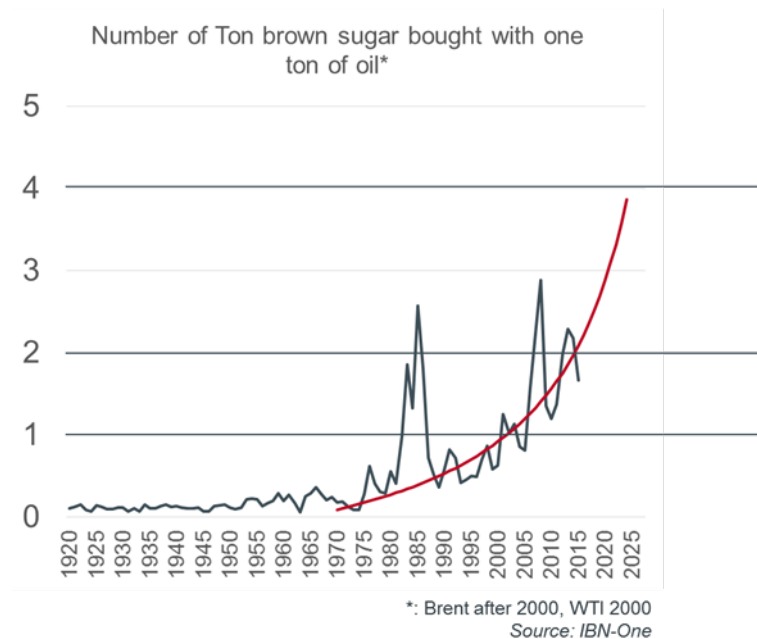
In principle, these approaches are compatible with the processes developed by the Group. However, they are not expected to be available on a commercial scale for a number of years.

²⁵ LanzaTech, 8 December 2014.

²⁶ Ineos Bio, 15 September 2014.

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 that 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. Ten years ago, one could buy a tonne of raw sugar with a tonne of oil. Today, one could buy two tons of sugar with a tonne of oil.



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

The widespread emergence of industrial biology will depend in part on the continuation of this trend, initiated in the 1980s: if the ratio between the price of oil and that of renewable materials continues to rise, the production of biofuels will soon be less costly than extracting unconventional oil.

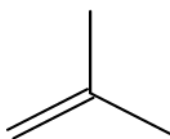
The Group believes that biofuels are not one of many options, but absolutely essential. There is currently no way to replace fossil fuels, and even if it seems likely that electric vehicles will assume a significant place in transportation over the coming decades, the production of liquid fuels using renewable resources would seem to be a necessity. The market is expected to adapt so that the underlying economics become favourable to the rollout of this industry.

6.3 ISOBUTENE PROGRAM

The Group's most advanced program 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 installation 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.

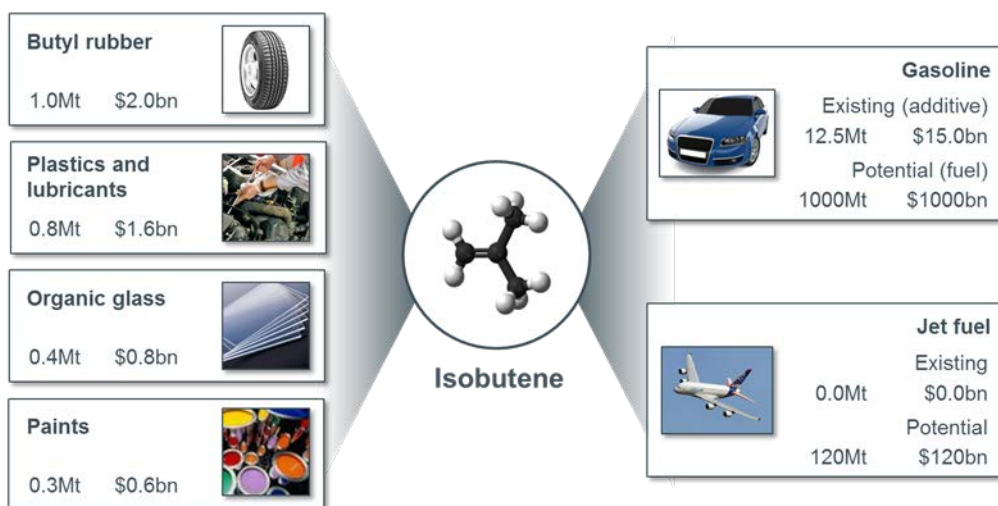


Chemical formula of isobutene

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 oil²⁷.

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.

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



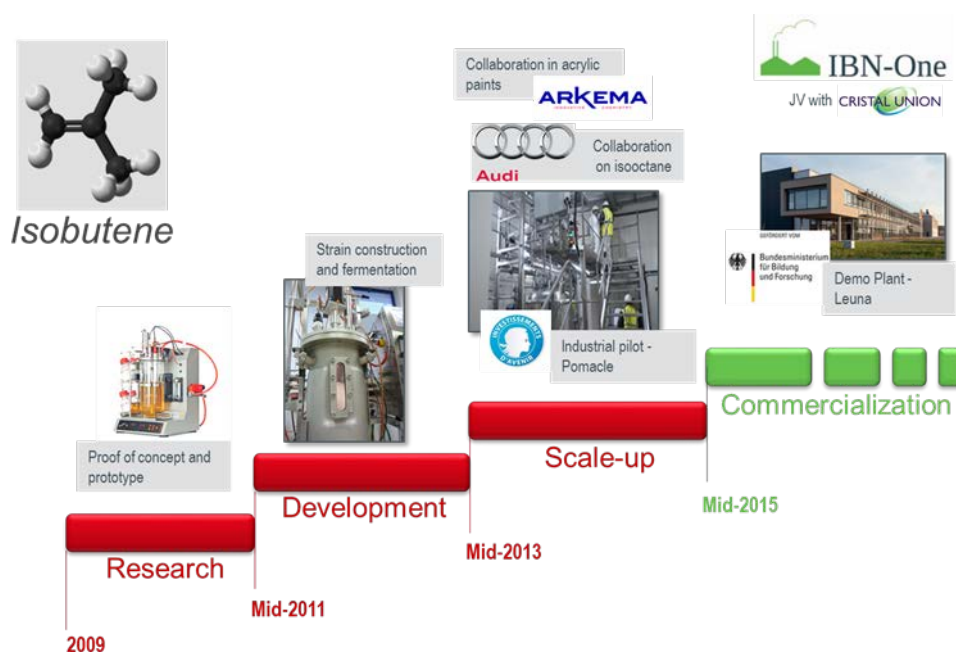
Isobutene product tree

²⁷ SRI 2008

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

6.3.2 Technological development

Isobutene was the first programme in which the Group invested, in early 2009. Several stages were conducted, from exploratory research to laboratory development and finally, industrialisation. The first agreements were signed with industrial companies such as Arkema and Audi. These various phases are illustrated in the diagram and sections below.



Development stages for the isobutene program

A fourth phase began in May 2015 with the signing with Cristal Union of a first joint venture, called IBN-One, whose purpose is to finance, build and operate a first isobutene plant in France. Further information regarding IBN-One is available in section 7.2 of the Registration Document. The Leuna demo plant—which will allow the production of high purity isobutene batches at the scale of about 10 tons—will constitute a first step towards commercial exploitation of the process. These batches will indeed be destined to be sold on niche markets. The large scale commercialisation of the process will then truly begin with the plant developed by IBN-One.

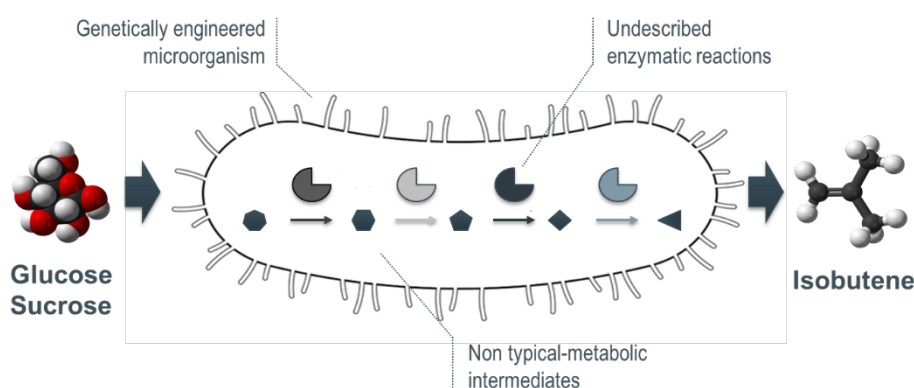
6.3.2.1 First phase: exploratory research

The first phase of the Isobutene programme, financed by a capital investment of €3.2 million (subscribed by Seventure, one of the largest venture capital companies in France), was carried out between early 2009 and mid-2011: this enabled the discovery of the 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: laboratory development*

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 ($2.9 \text{ g}\cdot\text{h}^{-1}\cdot\text{L}^{-1}$), 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 organized into three departments, dedicated to:

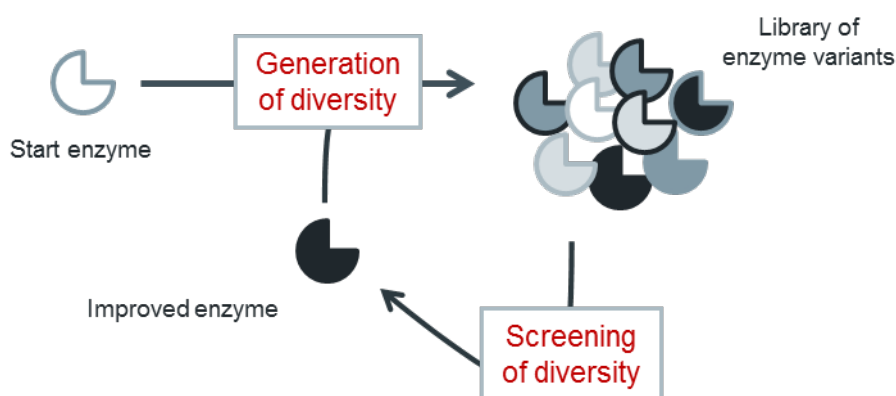
- enzymology (identification of new activities and their optimisation);
- construction of strains; and
- development of the fermentation process.

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. In general, their level of activity 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 mimics 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 around 20 employees who monitor an array of robotic equipment enabling them to test more than 20,000 samples per day.



Some of the equipment comprising the high-throughput 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.

(Clockwise from top: 10L fermentation platform, on-line gas analysis, 1L parallel fermentation)

Adjustments are made on the smallest scales using different generations of strains. New strains are produced and tested on this platform every week under a large range of operating conditions: nature of the medium, level of agitation, 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 have enabled the share of risk associated with the development of the process to be 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. The laboratory development phase continues in parallel.

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. Significant public financing have also been granted to Global Bioenergies in France and Germany to support this industrialisation phase, which will be carried out in two stages: an industrial pilot plant in France (on 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 single fermentation unit of 500 litres, providing an annual production capacity of 10 tonnes. The pilot plant was launched in early 2014.



Design and construction of the fermentation module

The French government's *Investissements d'Avenir* program (Investment for the Future program) granted financing totalling €5.2 million to a consortium composed of Global Bioenergies, Arkema and the CNRS, including €4 million allocated directly to Global Bioenergies. The collaborative project aims to produce biological isobutene in an industrial pilot plant and convert it into methacrylic acid, a paint additive.

The Isobutene process was transferred to the industrial pilot plant at Pomacle-Bazancourt in November 2014, and the first tests were successfully conducted a short time later. These initially involved replicating on a larger scale the fermentation performances achieved in the laboratory. The purification module was then commissioned, to enable the production of batches of liquefied isobutene and its bottling in pressurised containers.

An initial batch was delivered to Arkema in May 2015, who will then convert the renewable isobutene into methacrylic acid, a compound used in acrylic paint.



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 ready in May 2015 and were delivered to Audi under a partnership agreement set up in early 2014.



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, as well as various strains and protocols that may result in improved performance.

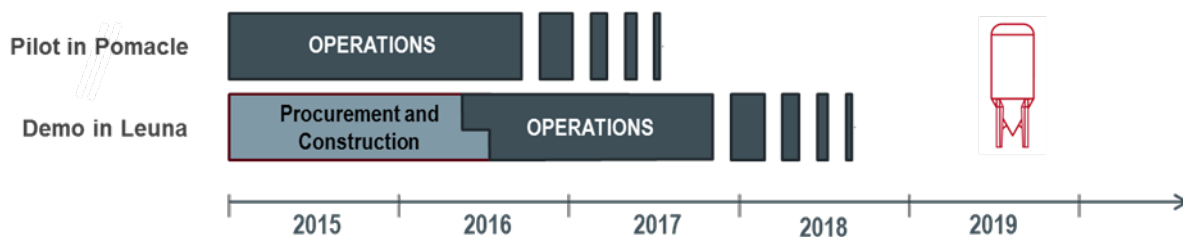
6.3.2.3.2 Leuna demo plant

The demo plant is the final stage in scaling up the fermentation process before large-scale commercialisation. A purification module is also being set up, to obtain high-purity isobutene that can be used to produce rubbers and plastics.

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 will be installed on this Fraunhofer CBP platform.

The demo plant's engineering has been performed by Linde, one of the global leaders in the industrial gas industry. Construction began in April 2015. The demo plant should be commissioned in the second quarter of 2016.

The schedule for the industrialisation of isobutene is summarised in the following diagram.



Industrialisation schedule for the Isobutene process

Construction and operation of the demo plant will be partially funded by €5.7 million in financing granted to the Group by the German Federal Ministry of Education and Research (BMBF). This has been supplemented by a €4.4 million loan from a consortium of four French banks (BNP-Paribas, Société Générale, CIC and Bpifrance) and backed by the Ile-de-France region guarantee fund.

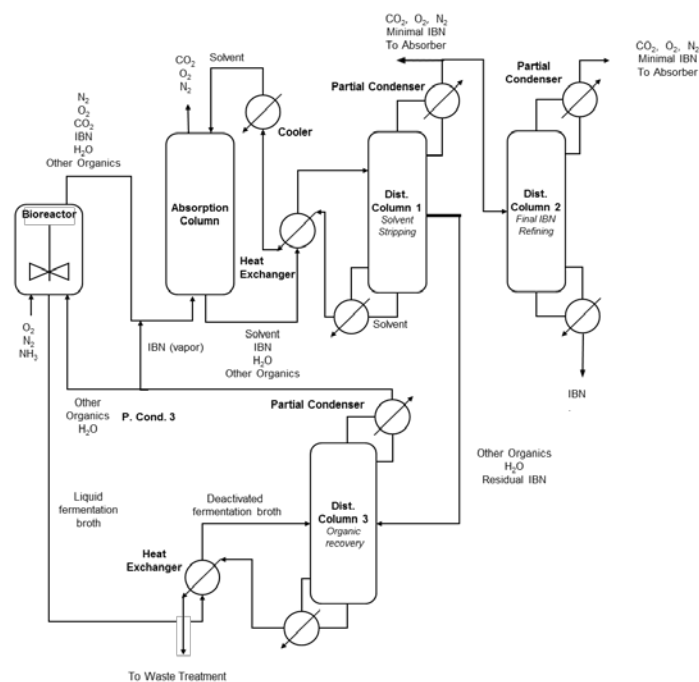


The Leuna refinery and the Fraunhofer CBP centre where Global Bioenergies's pilot plant will be installed (right-hand photo: example of pilot present on this platform)

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

The demo plant will be operated by Global Bioenergies GmbH, a wholly-owned subsidiary of Global Bioenergies, in collaboration with the Fraunhofer CBP. Up to 20 people will rotate in a 5/8 shift pattern to run the demo plant.

The diagram of the process, presented below, 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 will provide a high level of performance and robustness.



Preliminary process flow sheet including the purification system used to obtain high-purity isobutene

The first function of this demo plant will be technical: it will enable validation of the process' operation 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 50 will still exist between the fermenter of the demo plant and those of the first plant. This scaling up factor of 50 will only represent a low technological risk, 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 the teams who will later operate 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.

Once this demo plant is in operation, Global Bioenergies will be able to produce batches of isobutene of one tonne. Batches will be sent to other industrial companies for assessment, and initially to the car manufacturer, Audi, as provided for in the partnership agreement signed with Global Bioenergies in January 2014. The first batch of isooctane was delivered to Audi in May 2015 as announced in a press release published by Global Bioenergies on 18 May 2015. This ability to supply batches will support the Group's commercial approach, which aims to grant licenses for its process.

Lastly, the demo plant will have a directly commercial role: the size of these batches, in tonnes, will be sufficiently large to meet the needs of certain markets that require limited volumes. Isooctane could be produced and sold for motor racing. PIBs, one of the plastics families used in chewing-gum could also appear as another commercial option. For the first time, revenue will be generated through the sale of these products.

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.

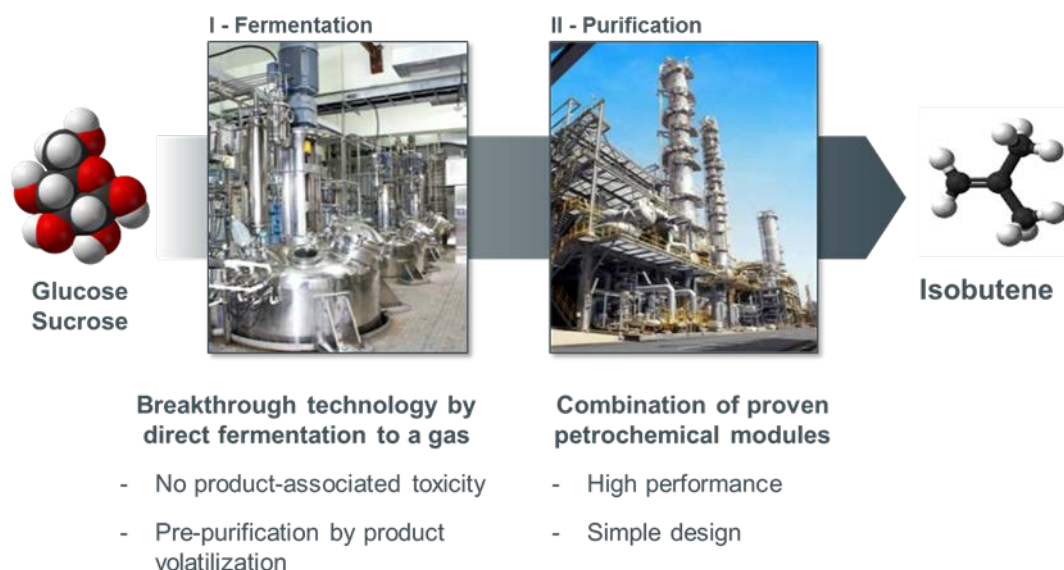
These aspects are each presented below:

6.3.3.1 Production costs

Production of a gas by fermentation has two benefits of major interest compared to that 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 such as bioethanol (which requires an additional distillation procedure that itself consumes energy) or isobutanol (which has to be extracted continuously during fermentation because of its high toxicity).

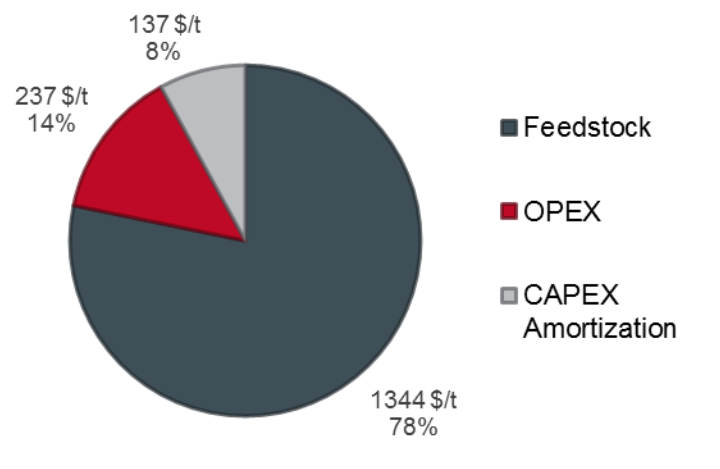
The industrial process has a simple two-stage design, each stage presenting economic advantages over liquid fermentation.



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)

Under average market conditions over the past five years (industrial quality sugar at \$350/t), the Group estimates that isobutene production costs will amount to \$1,719/t. The average price for high-purity petrochemical isobutene over the same period was around \$2,000/t²⁸. The breakdown of production costs is presented below. This preliminary study will need to be confirmed by the demo plant.



Assumptions regarding the breakdown of costs to produce one tone of isobutene using the Global Bioenergies process

This analysis indicates that the most significant item of expense will be feedstock, i.e., sugars, whatever their origin.

6.3.3.2 Reduced environmental impact

Oil consumption has a significant impact on the environment: each kilogram of oil used results in the emission of 3.1 kg of CO₂ into the atmosphere. The gradual increase in the concentration of CO₂ in the atmosphere has been linked to global warming by the IPCC.

The production and use of organic hydrocarbons will help reduce greenhouse gas emissions. In fact, although hydrocarbons of fossil origin follow a linear route, from underground (in the form of oil) to the atmosphere (in the form of CO₂) going through the refineries and the engines, the route of the hydrocarbons produced by the Group’s processes should be seen as a cycle: CO₂ is absorbed by plants to make sugars, which are converted to hydrocarbons by fermentation, then burned in engines, which releases CO₂ which is then re-absorbed by plants.

²⁸ Argus DeWitt.

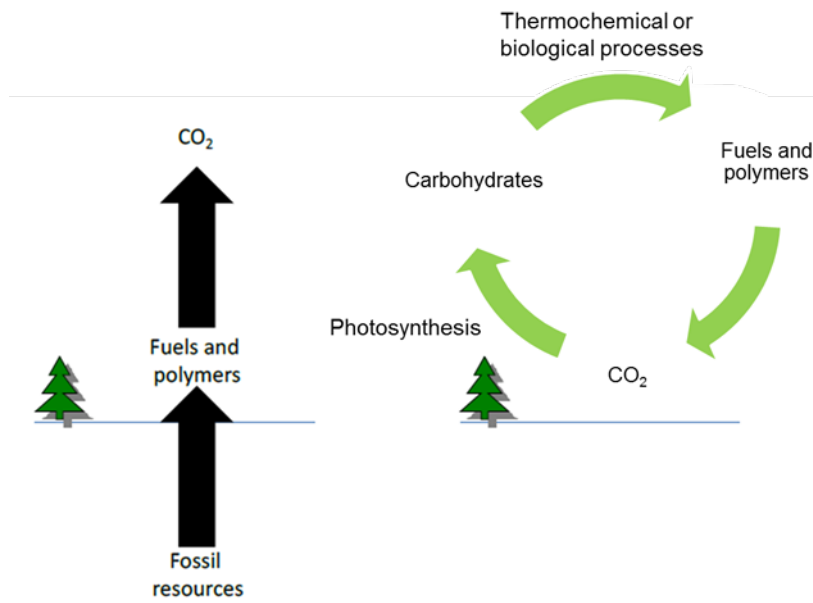
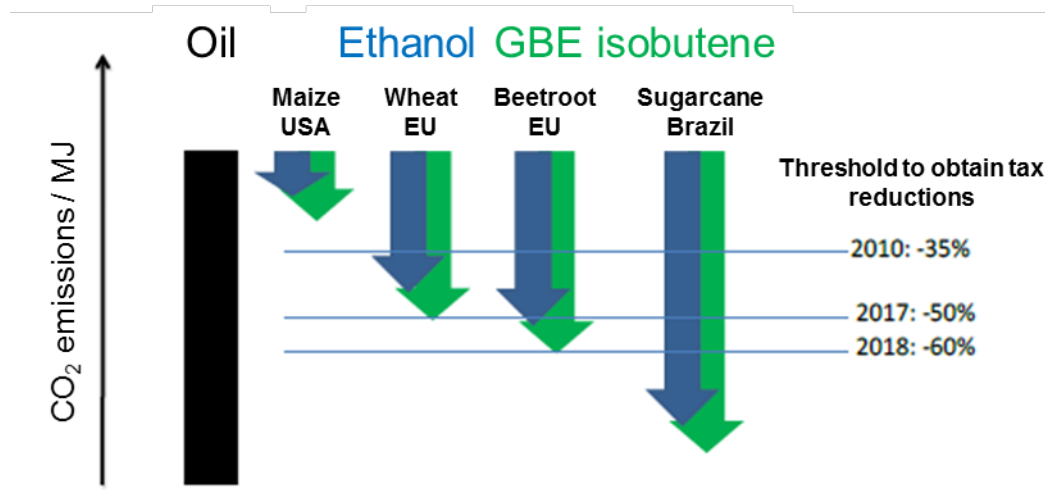


Diagram of the linear route of fossil carbon and the cycle route observed in biofuels

If this cycle was perfect, greenhouse gas savings would be 100%. Of course, it remains imperfect, because of fuel consumption in tractors, the use of fertilizers, etc. Greenhouse gas savings compared to the use of oil are between 0 and 70% inclusive depending on the plant resource used. The best greenhouse gas savings are made using sugar cane in Brazil.

If the amount of greenhouse gas savings expected by the Group's processes are compared with those observed in the bioethanol industry, the Group estimates that these savings would be even higher in its case, particularly due to the fact that there is no need to distil the products, and this technical segment has a high energy cost.



Representation of greenhouse gas savings in the ethanol²⁹ and Isobutene processes (estimates)

²⁹ ADEME/DIREM study of December 2002, ADEME study of February 2010, and assessments of the process for the biological production of isobutene carried out by Processium for Global Bioenergies.

This initial theoretical analysis carried out in-house by the Group will be backed up by a detailed 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 be then possible to sell the product at a higher price and/or achieve increased market shares: end-consumers of products such as plastic water bottles, tyres, plastic bags, nappies, etc. are becoming increasingly aware of environmental issues.

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 isobutene fermentation produced by Global Bioenergies' process are identical to those produced from petroleum-derived isobutene.

In particular, isooctane is miscible in fossil gasoline with no limit to proportion, and so would allow the ethanol blend wall to be crossed. This property, known as "drop-in" in the United States so as to give the idea of this total compatibility, represents a value in itself.

This gasoline that is similar to fossil sourced gasoline presents the advantage of not requiring the duplication of storage and distribution facilities. As the properties are similar, it is not necessary to indicate its presence to consumers by specific labelling, as is the particular case of ethanol, - notably stamped "E10" - which will allow the proliferation of pumps at service stations to be avoided.

The application of the Isobutene process to kerosene production is also being considered, and has similar advantages.

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

The fact of producing a compound identical to that already used by many industrial companies also facilitates commercial processes: It is not necessary to create the market, as is the case for numerous industrial biological processes leading to compounds that are used very little because they are difficult to produce from oil. Many industrial companies are already learning about this alternative source of a product that is already heavily used.

6.3.4 Business strategy

Global Bioenergies has already signed several industrial agreements relating to the Isobutene process. These agreements were signed while the process was still at an upstream stage of its development. They relate to R&D collaborations, associated with restricted rights to the process.

The commercial phase itself, which targets the granting of non-exclusive licences, one for the operation of each plant, has just started with the creation of IBN-One, a joint venture between Global Bioenergies

and Cristal Union. 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 performance.

6.3.4.1 Current industrial agreements

Within the scope of Cristal Union's acquisition of a stake in IBNOne via its subsidiary Cristal Financière, a cooperation agreement was signed on 18 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.

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.

A consortium agreement was signed with Arkema as part of the funding awarded by the French government on 4 June 2013 (*Investissements d'Avenir* programme) for the construction of the pilot plant as part of the development of the Isobutene process. This funding, paid in part to date, is described in Section 10.3.1 of the Registration Document. This agreement provides for shared access to the developments carried out jointly within the programme's framework, as well as access to the previous intellectual property developed independently by each of the parties, under "fair and reasonable" conditions which will be negotiated later.

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 was provided for in the contract. 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

A cooperation agreement with the New Zealand company LanzaTech started in November 2011. This agreement is aimed at the construction of a new generation of processes, and is based on the innovations made by the Group and those obtained by LanzaTech. It relates to assessing whether the Group's pathway, allowing the direct production of isobutene, can be transferred to LanzaTech's microorganisms, using carbon monoxide as a source of carbon. Carbon monoxide may be obtained from the pyrolysis of household waste and can also be recovered in the gaseous effluent from steel works. No payment is provided for in the contract.

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. This second scenario in fact represents the case where the licensee would be a player in agricultural processing, and where 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.

Scenarios: calculations on EBITDA; sale price of isobutene \$2,000/t, non-integrated sugars: \$350/t; integrated sugars: \$310/t; Duration: 30 years; Inflation 2%; Update 10%

These values represent only an estimate, and should be further developed through the results of the tests on the pilot plants.

It should be noted that the value of a plant is between \$202 million and \$341 million inclusive. 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. Many processes developed by other industrial biology companies target small markets, which means a model based on licensing 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, which currently deals with the engineering of the demo plant construction.

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 phase called “conceptual”: these will be produced by the Global Bioenergies teams and could generate revenues in the order of \$5 million per plant.
- For the more detailed engineering studies: Global Bioenergies will position itself as the project manager and will coordinate the studies performed by subcontractors. These could generate revenues in the order of \$25 million per plant.

This additional activity will allow Global Bioenergies to strengthen its expertise in the commercial implementation of its process and will generate a revenue during the upstream phases of each plant project that can be added to the upfront licence fee. The margins expected on this type of activity are generally low (about 10%). Nevertheless, a specific know-how in the field of fermentation of flammable gases will provide a differentiation in the competitive field of engineering services, and will preserve the profitability of the activity.

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 the operation by IBN-One of a plant in France with a maximum capacity of 50,000 tonnes. Global Bioenergies will be paid by milestone payments and then licence fees on operation.

The key values for this plant are shown in the diagram below



Global Bioenergies will receive advance payments at the time of the financing rounds that will be conducted by IBN-One, and will also receive licence fees on the isobutene produced and marketed by IBN-One. This agreement is the first license agreement concerning the industrial operation of the process. It marks a turning point in comparison to the research and development agreements described previously.

Details of the strategy for setting up the first commercial plant using the Isobutene process developed by Global Bioenergies can now be given. In fact, on 21 May 2015 Global Bioenergies and Cristal Union, the second largest sugar producer in France, announced that they had finalised an Elementary Pre-Project (EPP), jointly carried out in the first half of 2015. It relates to a preliminary study for setting up a plant producing bio-sourced isobutene. Various industrial sites, various feedstocks and several isobutene derivatives were studied so as to identify those representing the largest industrial and commercial interest from amongst the possible combinations.

The results of this summary draft plan have reinforced Global Bioenergies' and Cristal Union's intentions to launch the next phase of the project which consists in carrying out a Detailed Pre-Project (DPP) study. It will consist in detailing out the industrial project drafted during the EPP, in starting up the initiatives to be taken from a regulatory point of view and in developing the business procedures.

Based on the results of the EPP mentioned above, Cristal Union decided to acquire 50% of the capital of IBN-One (previously incorporated as a wholly-owned subsidiary of Global Bioenergies) as part of a transaction to increase share capital to €1 million, an amount that will allow the funding of the DPP. Other public and private partners will be invited to join the project in later stages. At this stage of the development of the project it is expected that these require the following funding:

- Phase 1: preparatory studies (DPP); estimated budget: €1 million;
- Phase 2: Engineering; estimated budget: €15 million;
- Phase 3: Construction and commissioning; budget greater than €100 million.

Phases 2 and 3 will require a significant 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 plan for the handling of improvements to the process and the generation of know-how which will be useful for setting up other plants.

The establishment of an industrial facility is the result of four distinct working phases: the EPP, the DPP, the engineering, and construction (PC in the graphic below, meaning “Procurement - Construction”).

The EPP’s objective is described above. This phase led to the prior constitution of IBN-One.

The purpose of the DPP is to finalise the project and in particular to clarify the preliminary engineering of the facility completed during the EPP. The technical and economical analyses are therefore extensive, and validated by contacts with third parties:

- quotes will be requested from potential suppliers to consolidate the figures drawn up during the EPP.
- expressions of interest and preliminary commitments will be sought with prospective clients.

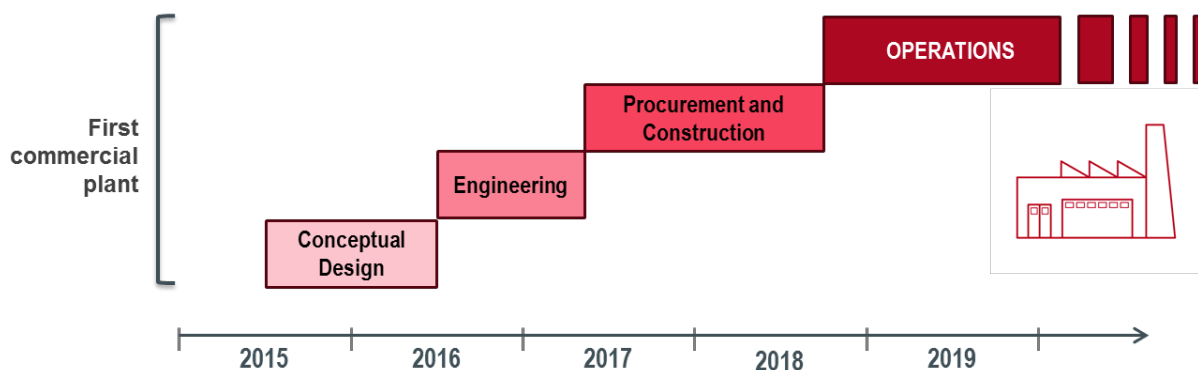
This DPP is carried by IBN-One which will out-source part of the studies to Global Bioenergies and Cristal Union. It is expected that this plant will be located on an existing Cristal Union-owned industrial site. The studies related to the implantation on this site will be naturally led by Cristal Union while the studies more directly associated with the isobutene fermentation and purification process will be carried out by Global Bioenergies.

The DPP phase should start mid-2015 for a period of about a year. Production at the plant is expected to start at the end of 2018.

The purpose of the engineering phase is to produce plans for each workshop “down to the nearest bolt”. These latest studies in fact overlap between the DPP and the procurement and construction stage. Equipment manufacturers and suppliers will then be contacted with a precise and definitive set of specifications.

The procurement and construction phase will therefore begin with a final batch of engineering studies and a call for tenders to select suppliers and subcontractors. It will end in a series of tests validating the facilities before delivery and commissioning.

The provisional schedule shown below is given as a guide, and will be refined at each stage.



IBN-One technical schedule

The project led by IBN-One is that of a 50 thousand tonnes isobutene plant with a high purity level which can find applications both in the field of commodity chemicals and bio-sourced fuels. This diversity of markets will provide a flexibility and will allow fine trade-offs depending on changes in the market.

6.3.4.4 Commercial pipeline

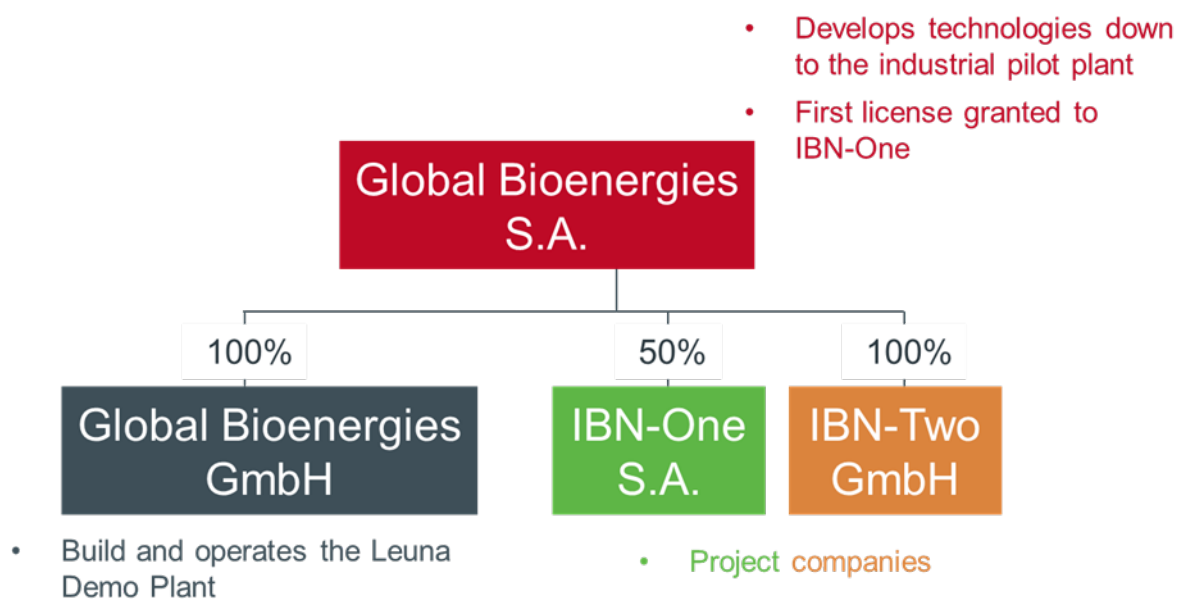
At the same time as carrying out the project for the first plant, Global Bioenergies will continue its Business Development activities in order to complete the projects of the following plants.

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 with the purpose of growing and maintaining their core activity of distributing liquid fuels;
- 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.

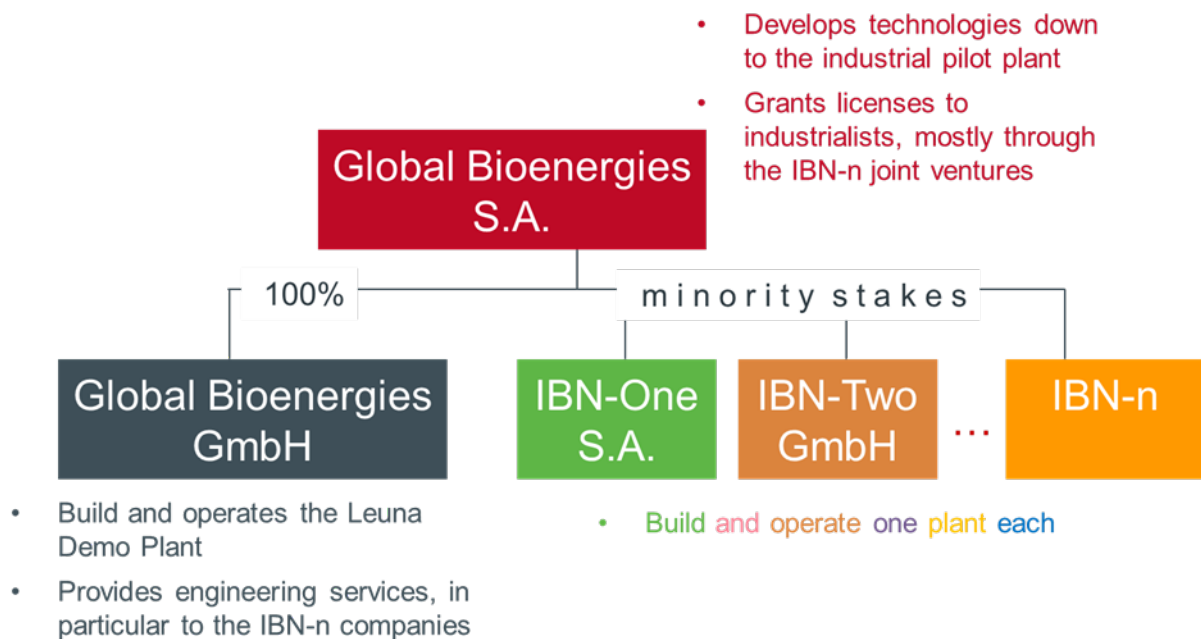
Granting a license to an industrial company is a possibility. Global Bioenergies is also considering the possibility of replicating the strategy used by IBN-One to other cases and to other geographical locations. This will again be a question of taking an active part in starting up the project so as 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 incorporate German industrial companies and financial institutions through capital increases.



Global Bioenergies Group in May 2015

Therefore a 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. These various elements are combined in the following diagram.



Global Bioenergies Group development project

Global Bioenergies estimates that its share in capital during the start-up phases is €500 thousand per plant. If the various rounds of capital raising are accounted for, it could represent between €3 to € million to be invested per project, or a few percent of the total investments.

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 support when it comes to marketing products.

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 (\$1,081/t³⁰) and methanol (\$380/t), we get a price of \$1,482/t for low purity isobutene as used in fuel applications.

³⁰ Company source March 2014.

Chemical applications such as the production of synthetic rubber require the use of high purity isobutene, of which in recent years the average price has been around \$2,000/t³¹.

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

The price of isobutene is affected by the price of oil and this has experienced a significant drop between August 2014 and January 2015. The trend is pointing upwards and almost half of the previous loss has already been covered (+50% between January and May 2015). A further 50% increase will allow the average price of the past few years to be reached again.

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 chemicals³² (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 by the end of 2015. 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;
- 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 situation also prevails in the case of the processes developed by the Group: initially, the drop-in biofuels niche market, associated with a

³¹ Historical prices Argus Dewitt.

³² SRI 2008.

significant tax benefit, will allow a few plants to be set up when the price of oil is \$50/barrel. The polymer commodities market, with or without a price increase, will then become accessible when oil exceeds \$85/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 \$150/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 fuels³³. Three additives are derived from isobutene:

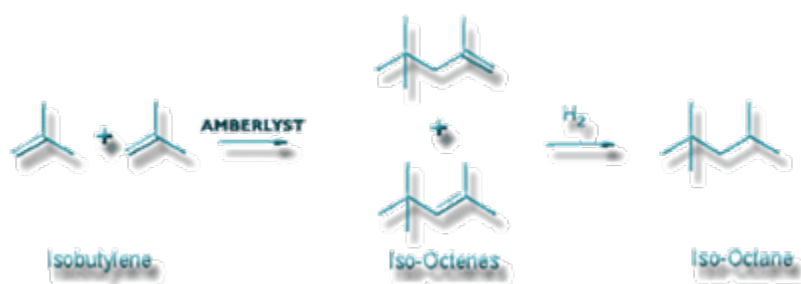
- MTBE, obtained by reacting isobutylene with methanol;
- ETBE, obtained by reacting isobutylene with ethanol;
- Isooctane, obtained by dimerising isobutene, followed by a hydrogenation step.

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 standard fuel for gasoline engines: so, by definition, pure isooctane is “super-unleaded 100”. It is used today as an additive to improve the performance of gasoline. This dimerisation reaction is carried out nowadays on a commercial scale by various manufacturers using catalysts such as Amberlyst, sold by Dow Chemical.

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

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 a reduced proportion (up to the "blend wall" detailed below).

³³ SRI 2008.

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 2013, biofuels accounted for 65 million tonnes of oil equivalent (45 million tonnes of oil equivalent from bioethanol and 20 million tonnes of oil equivalent from biodiesel) an increase of 6.1% compared to 2012. Biofuels today represent 1.55% of the 4,185 million tonnes of oil consumed the same year³⁴. The growth margin is therefore considerable, and global production of biofuels has already multiplied by 4.5 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 in the fuel ethanol 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. Beyond that, the engines should 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 isobutylene, 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 the Global Bioenergies Isobutene process to be competitive in these applications in current market conditions.

Generally, Global Bioenergies promotes the development of subsidiaries producing “drop-in“ fuels, which means high energy density, miscible in current petroleum fuels and therefore not requiring the development of new storage, transport and distribution infrastructures, in order to meet this limit on incorporating ethanol in gasoline.

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

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

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 the emission of 37.9 million tonnes of CO₂ and supported 86,500 direct jobs and 300,000 indirect jobs in the industry³⁵. The "Biobased Economy" is expected to create 800,000 jobs in the United States of America by 2020³⁶, one million in the EU of 27 over the same period according to another study³⁷, which also forecasts €1 billion in new revenues per year and the construction of about a thousand second generation biorefineries for an investment of €8 billion. For France: 135 biorefineries and 141,000 new jobs 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 really competitive with fossil fuels, the Group's isobutene process would be undoubtedly among the best options to enable the deployment of this industry on a large scale.

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.

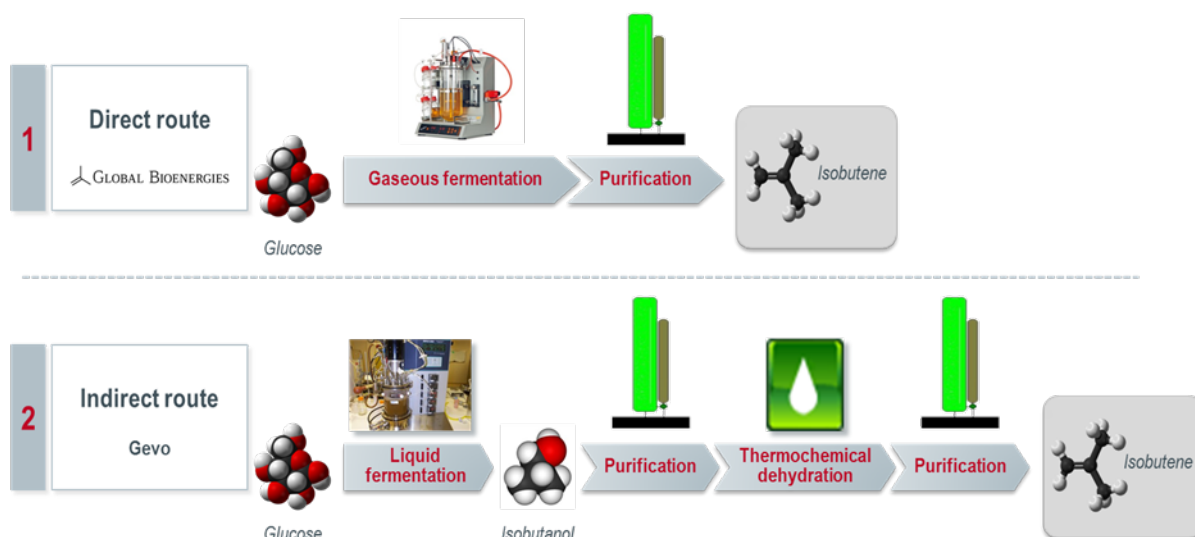
6.3.6.1 Competition on biological isobutene

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.

³⁵ Renewable Fuel Association 2014 ethanol industry outlook.

³⁶ World Economic Forum.

³⁷ Bloomberg New Energy Finance.



Comparison of direct and indirect methods for producing biological isobutene

Global Bioenergies' direct process, and Gevo's indirect process are the only two methods currently under development which could produce biological isobutene. So Gevo announced that it had produced isobutene and, firstly, had turned it into isooctane, and secondly, to aviation fuel.

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 vaporizes 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 by Ineos and KioR in particular in the United States have not met success to date³⁸.

A similar method has been developed by Virent (Wisconsin, USA) to obtain a mixture of hydrocarbons that can be used in gasoline engines, by only heating it up to 300°C. This stage is still the source of

³⁸ INEOS Bio, 15 September 2014.

significant energy expenditure, and should make it difficult to operate the process profitably and on a large scale.

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. If you compare it to ethanol, isobutanol is miscible in greater proportion in gasoline. 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. The programmes are currently at the pilot stage, and Butamax plans to open a demonstration plant in England soon. Gevo announced that it has changed a former ethanol production plant to an isobutanol production plant. Production was to begin in the summer 2012, but Gevo announced since then it has had difficulties with this final scaling up phase, and made a u-turn so that ethanol could be produced by the plant again. It currently produces ethanol and isobutanol at the same time. The profitability of this plant is not known to date.

The processes developed by Gevo and Butamax are similar. There is also an intellectual property dispute between them³⁹.

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.

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 5-carbon hydrocarbon. Amyris (California, USA) is developing a process based on this 5-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: 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 model⁴⁰. 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.

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, which has reached the stage of the pilot plant, has some benefits, but also has the limits associated with liquid products. LS9 has conducted four capital raising operations between its creation in 2005 and the 2nd half of 2010, for a total of \$75 million. Chevron and Procter & Gamble are two of its major investors. LS9 was acquired by Renewable Energy Group, a biodiesel producer based in Ames, Iowa, in January 2014.

Solazyme (California, USA) is 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 started commercial production in January 2014 in a unit

³⁹ <http://www.biofuelsjournal.com>

⁴⁰ <http://www.technologyreview.com/blog/energy/27570/>

with a capacity of 20,000 tonnes in Clinton, Iowa, and then in May launched the operation of a plant with a capacity of 100,000 tonnes in Moema in Brazil.

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

6.4 R&D PIPELINE

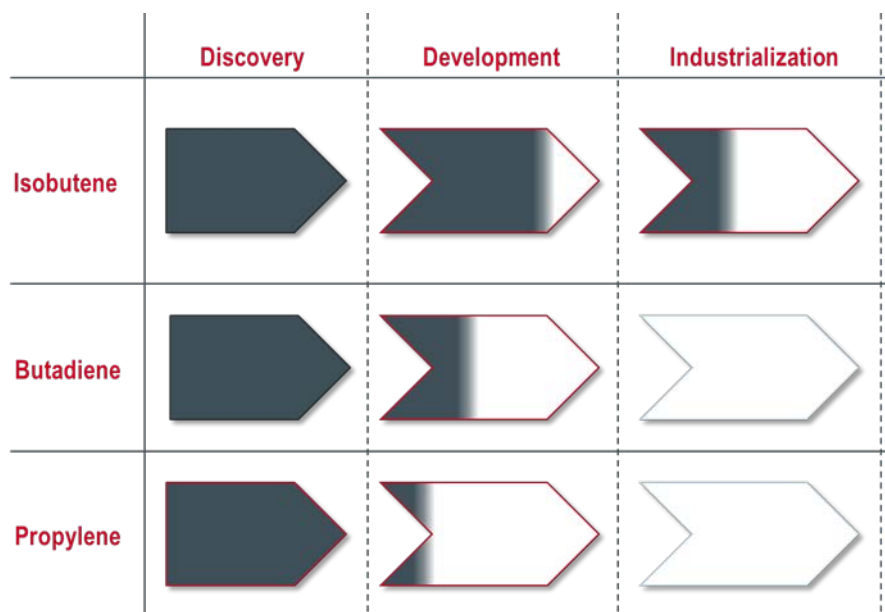
The success encountered in the Isobutene programme prompted the Group to start new programmes in this specific area of gas production by fermentation, which allows the benefits related to the lack of toxicity of the product to the strain to be taken advantage of, as well as to the simplicity of the purification stage.

The natural area where the Group may operate in a differentiated way is the production of light olefins by fermentation. The diagram below shows the general idea and identifies the target molecules.



Global Bioenergies is specialised in the biological production of gaseous olefins, a family of molecules currently extracted from oil

To date, the Group is carrying out three programmes relating to isobutene, butadiene, and propylene. The progress made by these programmes is shown in the following diagram.



Progress of the Group's three projects

The detailed situation of the butadiene and propylene programmes is described in the following sections.

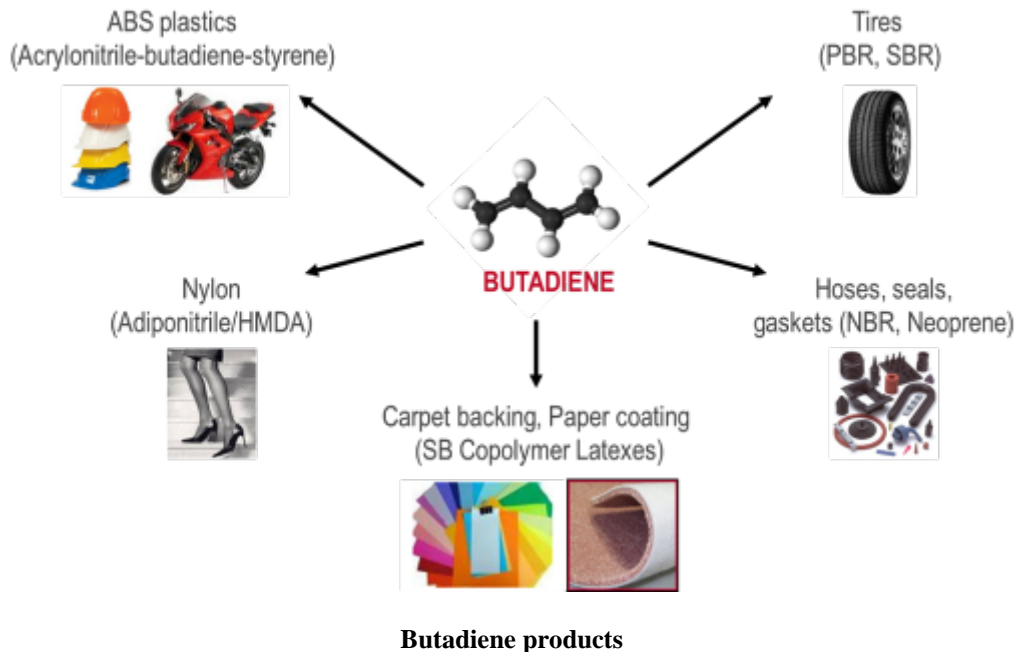
6.4.1 Butadiene programme

The Butadiene programme is the Group's second most advanced programme. Unlike the Isobutene programme which has been developed mainly on equity, the butadiene programme has been conducted in partnership with the Polish company Synthos, one of the European leaders in synthetic rubbers (2014 revenue of €1.1 billion and a market capitalisation of €1.6 billion). Synthos takes part in funding the programme in exchange for the operating rights extended to the rubber applications of the process.

6.4.1.1 Market

Butadiene is a 4-carbon compound having two double bonds and is one of the main precursors to the synthetic rubber industry. About 10.5 million tonnes of butadiene are produced each year, which corresponds to a market of about \$13 billion⁴¹. Asia consumes most of the world's butadiene (55%) followed by Europe (24%) and the USA (20%).

⁴¹ Company source: average price April 2014 - April 2015.



6.1 million tonnes of butadiene (nearly 60% of world production) are used to manufacture synthetic rubber for tyres. More specifically, two polymers are used in this industry:

- polybutadiene-styrene (SBR), where butadiene represents one polymer chain out of two, is the largest synthetic rubber in volume (about 40% of the market for synthetic rubber). In the USA the Rubber Manufacturers Association predicts 2% growth for this market in 2014.
- polybutadiene (PBR) is a polymer made only from butadiene, and is the second synthetic rubber in volume (about 25% of the market). The development of new grades of PBR, including Nd-PBR for high performance applications, is supporting a growth in the market share of these rubbers.

The 4.4 million tonnes of butadiene not used for tyres are distributed as follows:

- 1.3 million tonnes (or 12% of butadiene produced) for the production of Acrylonitrile-Butadiene-Styrene (ABS). ABS is the main thermoformable plastic resin. It is used in the automotive industry, household appliances, office automation, consumer electronics and for the production of toys (Lego brick for example);
- 900,000 tonnes for the production of latex styrene-butadiene used for paper coating and backing for carpets and rugs;
- 500,000 tonnes for the production of adiponitrile, an agent used in the production of nylon 6.6 and 6.12. These compounds are used in the manufacture of engineering plastics, the market for which is doing better than nylons for textile applications;
- 400,000 tonnes of nitrile rubber (NBR) used for applications other than tyres (hoses, tubes, seals, etc.);
- and finally 1.3 million tonnes, spread over various smaller size applications and, in particular, various types of speciality synthetic rubber.

In recent years the butadiene market has been marked by a high volatility of prices and possible trade-offs between the three main regions (North America, Europe, Asia). The average price of butadiene (April 2014–April 2015) is approximately \$1,300/t, and has changed in recent years between \$4,000/t (mid-2011) and \$1,000/t (spring 2013). As with isobutene, the recent fall of oil prices has severely impacted its price. The continuing recovery seen early this year should support a return to normal in the coming months.

Butadiene production is today still dominated by naphtha steam cracking. However the decrease in production capacity (resulting from the increasing use of gas as a resource for the steam crackers) is driving the development of new technologies for the production of butadiene. Therefore the share of the dehydrogenation of butane or butenes in the production of butadiene should increase from 3% in 2013 to nearly 10% in 2025⁴². Associated with high production costs (approximately \$2,000/t)⁴³ this technology should support a high price of butadiene over the long-term.

The global dynamics of the butadiene market means that the appearance of a shortage situation is possible in the next few years, which should be accompanied by higher prices and require alternative techniques to be set up.

6.4.1.2 Results and objectives of the butadiene programme

The butadiene programme was started at the time of signing a strategic partnership with Synthos in July 2011. In December 2012 the Group communicated the success of the discovery phase, marked by the identification and experimental validation of a method for the biological production of butadiene.

Synthos then validated the launch of the second phase of the programme, with financial support to the tune of a few million euros over three years. The programme is currently in the development stage in the laboratory.

6.4.1.3 Competition

Competition on the subject of butadiene is more significant than on other olefins and comes from just three American companies, Genomatica, Invista and Cobalt Technologies, as well as a French consortium of Axens and Michelin, amongst others:

- Genomatica has developed a process for producing 1,4-butanediol, a four carbon molecule with an alcohol group at each end. 1,4-butanediol can be converted to butadiene by thermo-chemical dehydration, but this reaction requires a very large amount of energy. Genomatica has also announced that it is researching solutions based on the production of 1,3-butanediol or 2,3-butanediol, or even methods for the direct production of butadiene. In fact, patent applications show that this company is looking to develop direct artificial metabolic pathways for this compound. Two partnerships on the subject of bio-sourced butadiene have been concluded with Versalis and Braskem;
- Invista also announced that it is looking to produce butadiene biologically. An indirect method going through 2,3-butanediol and requiring its thermo-chemical dehydration was initially planned. Secondly, Invista filed a patent application relating to the direct production of butadiene. No experimental result has been revealed to date. A second partnership, this time with LanzaTech and the Korean chemicals company SK Innovation, is for the production of butadiene from carbon monoxide;

⁴² Nexant - Asian Petrochemical Industry Conference - May 2014.

⁴³ Booz & Company - Future of Chemicals, Rebalancing Global Feedstock Disruptions with "On-purpose" Technologies.

- The American company Cobalt Technologies, specialising in the biological production of butanol. In the spring of 2013, this company announced that it had signed a strategic partnership with two Asian chemical companies to develop a process for the biological production of butadiene;
- In France, Axens and Michelin, in partnership with IFP Energies Nouvelles and the sugar manufacturer Tereos announced the launch in 2013 of an eight-year collaborative project supported by public funding to develop a way of converting ethanol into butadiene.

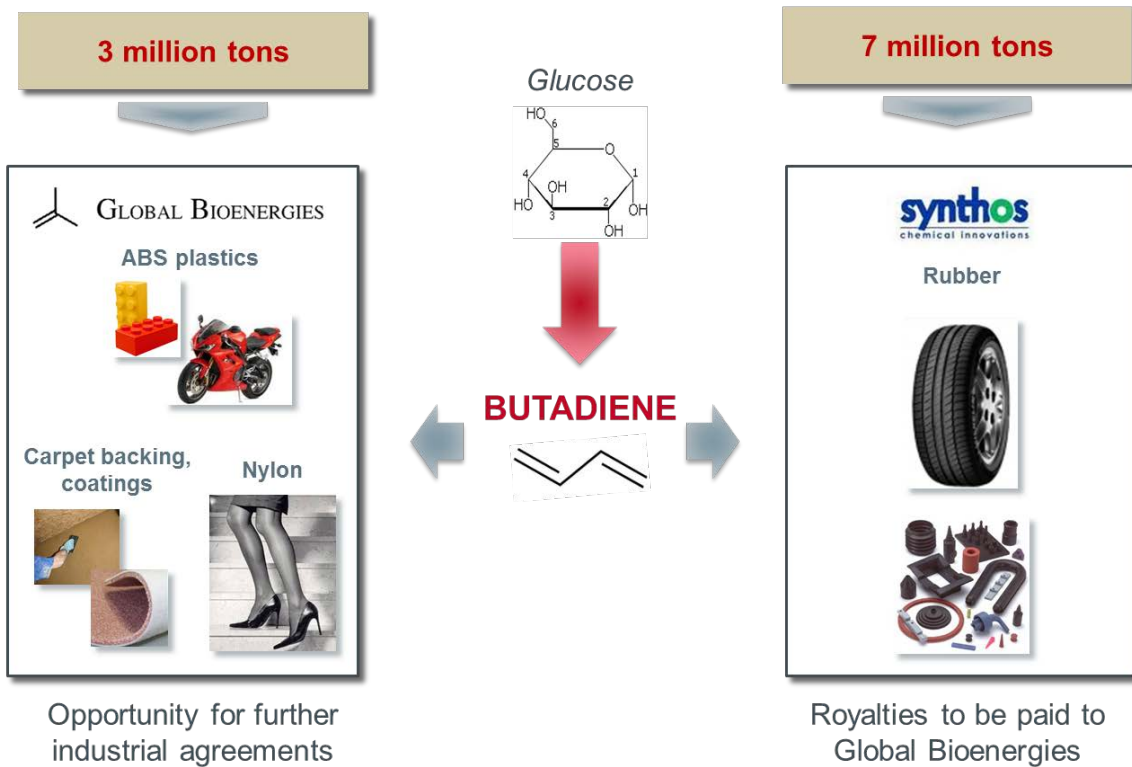
The situation over intellectual property associated with the biological production of butadiene has not yet been established, since most patent applications filed by the different players have not yet been issued. Genomatica has recently been issued two patents in the United States, each covering a process for producing bio-sourced butadiene; the process developed by Global Bioenergies and the ability of the Group to operate this process does not seem to be currently affected by any of the patents issued. Furthermore, in April 2014 Global Bioenergies obtained a key patent on this process in the United States and so appears well positioned.

6.4.1.4 Business strategy

The strategic partnership concluded in July 2011 with Synthos is detailed below and in section 22 of the Registration Document.

Through this agreement, the Group granted an exclusive sub-licence to Synthos relating to the applications of the Butadiene process in rubber. The Group itself benefits from an exclusive license for the use of patents related to butadiene, granted to Global Bioenergies by the company Scientist of Fortune (see section relating to License 2 in Section 11.2.3).

Therefore Synthos has the rights to PBR, SBR and NBR as well as latex for rubber applications, and should pay Global Bioenergies royalty fees for operating the process. The main applications for which Global Bioenergies retains the rights are ABS, latex for non-rubber applications and adiponitrile for the production of nylon. These rights represent a significant value, which can be made tangible in the next few years by additional agreements between the Group and industrial companies involved in the manufacture of these products.



To date, Synthos has paid a total of €5.1 million as part of the license agreement, development costs and success fees. Synthos also taken an equity stake in the Group capital for one €1.4 million in September 2011 and which represent 2.2% of its capital as of today.

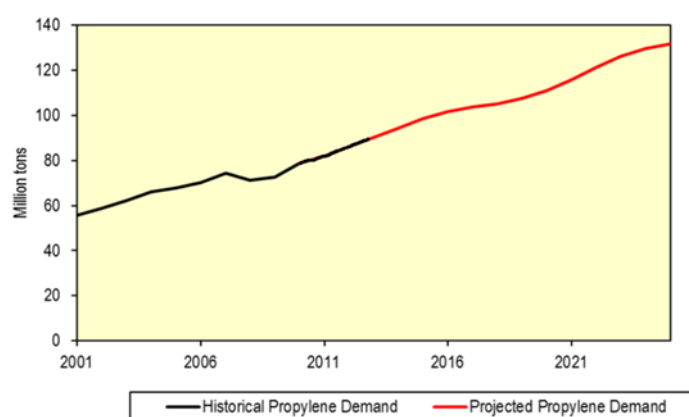
Today, Global Bioenergies is improving enzymes, creating production strains, and developing the fermentation process at laboratory level. It will then be a question of industrialising the process: The agreement states that the industrialisation phase is controlled by Synthos, who will be responsible for the associated costs.

The Department of Business Development is therefore now active on the subject of butadiene and discussions were initiated with several players in the areas of the application of butadiene other than synthetic rubber. This work is preparing for the commercialisation of the process in these applications and could also lead to the signing of new industrial partnerships.

6.4.2 Propylene programme

6.4.2.1 *Market*

Propylene (propene according to IUPAC nomenclature) corresponds to the chemical formula C_3H_6 . It 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 current market for propylene over \$130 billion (\$1,573/t in December 2014⁴⁴). It is expected that the propylene market will grow by 3.7% per year, reaching 102 million tonnes in 2016.



Previous and forecast global demand for propylene⁴⁵

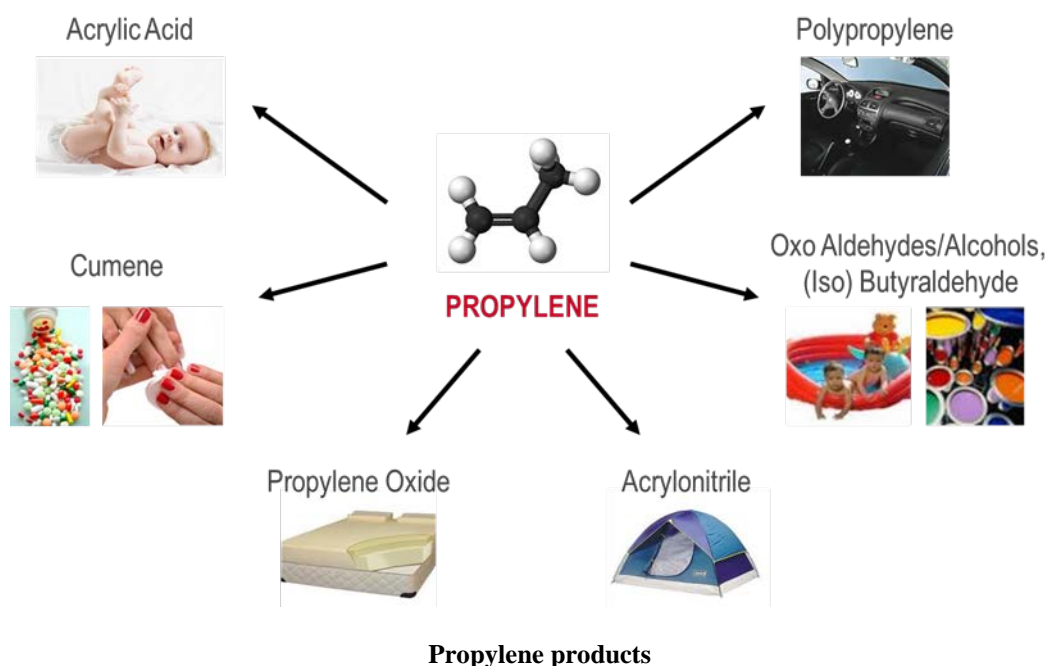
63% of propylene is used to produce polypropylene, a key plastic in the motor industry (bumpers, dashboards and interior trim). Today it represents about 7% of the weight of cars and its share should grow: the motor industry is using more and more plastic to make vehicles lighter. Polypropylene has unique 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. They each represent 7% of the demand, which is approximately 6 million tonnes of propylene.

⁴⁴ Platts, USA price December 2014.

⁴⁵ Chemsystems - Nexant.

Finally, propylene is also used for the production of Cumene (6%), acrylic acid (4%), and a range of niche products that 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 \$1000/t in mid-2009 to about \$1,500/t today⁴⁶.

Just as isobutene and butadiene, the propylene market will be affected structurally by the transition of American steam crackers towards the use of shale gas. A shortage of propylene could be seen in the next few years. However, it is expected that this shortage will be partly offset in North America by the construction of propane dehydrogenation units. Six of these units should come into operation between 2015 and 2018.

The competitiveness of the Group's process faced with fossil propylene will be difficult to establish. However, some propylene applications seem suited to the existence of a premium related to the product's bio-sourced source. This premium will make the process profitable.

6.4.2.2 *Results and objectives*

The propylene process for which the proof of concept was obtained in 2012 and the first prototype was announced in December 2014, is in the development phase in the laboratory. New enzymatic methods, however, continue to be researched.

6.4.2.3 *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.

⁴⁶ Platts.

The American company Coskata had announced the beginning of a collaboration with Total, IFP Energies Nouvelles and Axens in 2010 for the development of a process for the production of propylene by dehydration of biological propanol. No new announcement has been made since.

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.

6.4.2.4 *Partnerships*

The very large size of the propylene market brings together a large number of players with whom the Group could associate itself. These were prioritised and a limited number of leaders in the field were contacted. Discussions are underway with some of them in the various application domains.

The progress made in the laboratory strengthens Global Bioenergies' position in these discussions every month. The Group considers that agreements will be signed under better conditions when the programme is more advanced and does not want not rush into premature industrial agreements. No partnership has therefore been signed so far for the propylene programme.

6.4.3 **Other programmes**

Three other olefins add to the range of molecules that are of interest to the Group. They represent very different opportunities:

- Ethylene is associated with a huge market but is now produced massively, and at low cost from shale gas, which makes the competitiveness of an alternative process using plants difficult;
- N-butenes represent an important market, but are divided into numerous niche applications;
- Isoprene represents a much smaller market, concentrated on the rubber application. Its high price and relatively low technological barriers make this an attractive opportunity; several players are developing bioprocesses for this molecule.

Global Bioenergies could decide to start up new projects relating to the biological production of ethylene, n-butene, or isoprene. These preliminary analyses have been carried out.

6.5 **CONCLUSION AND PROSPECTS**

In just six years of existence, Global Bioenergies has managed to transform a theoretical vision to experimental proof and then to a process operated at a laboratory level before starting to scale up to an industrial level. Following the launch of its pilot plant, the Group now focuses on the construction and start-up of its demo plant. This is the final stage for validating the first bioprocess allowing the direct conversion of renewable resources into isobutene.

At the same time as the developments from its laboratories, Global Bioenergies has developed an ecosystem around itself of industrial companies who have signalled their interest in these technologies. With them, the Group is now considering the next phase of its development, dedicated to the large-scale commercialisation of its technologies. So 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 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

no player can access this area, due to the scientific complexity and the large intellectual property portfolio already controlled by the Group.

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 \$150. In the short term, the materials market, and in particular that of rubbers and plastics, should be accessible starting at \$85 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.

It seems imperative to us to ensure the sustainability of the production of liquid fuels essential to our civilisation. As fossil resources are exhaustible, the development of alternative methods towards liquid fuels cannot be considered as one option among others, but must be understood as an absolute necessity.

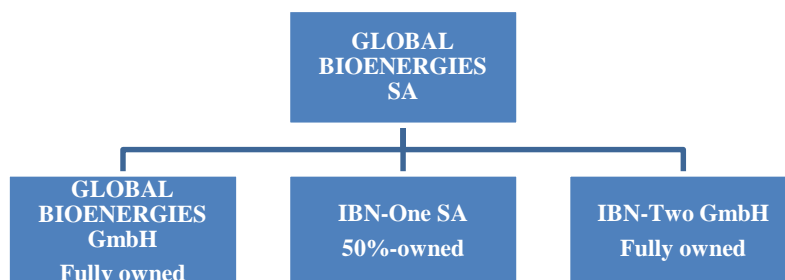
The production of a true gasoline from plants will not require, unlike ethanol, investment in watertight storage tanks or in new gasoline pumps (as already can be seen with the E10 fuel containing 10% ethanol). Hydrocarbons derived from isobutene appear as one of the very rare opportunities likely to compete effectively with ethanol. If this competitive situation was proven at an industrial scale, the Isobutene process would then be at the heart of the energy transition. Hundreds or even thousands of plants could be set up eventually.

This large number of plants will be commercialised by granting licences. The Group could then receive an income from milestone payments and licence fees. Engineering services will also be offered by the German subsidiary, Global Bioenergies GmbH.

7 ORGANISATIONAL STRUCTURE

7.1 LEGAL ORGANISATIONAL STRUCTURE

As of the date of the Registration Document, 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	Company's fully owned subsidiary based in Leipzig, Germany. Set up on 22 January 2013, it had four employees on 31 December 2014. It is headed by Ales Bulc, Project Manager of the demo plant to be built in Germany. As at 31 December 2014, this subsidiary posted a net loss of €1,312,000. Given that the construction and operation of the Leuna demo plant is one of the principal objectives for 2015 and 2016, the German subsidiary's expenses are expected to rise sharply over the next few years. The other principal objective of Global Bioenergies GmbH is to offer engineering services, in particular to companies wishing to build and operate plants using the Group's processes.
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. On 18 May 2015, Cristal Union – one of the Company's long-standing partners and shareholder – subscribed to shares in IBN-One SA within the scope of a capital increase, which is now 50%-owned by Cristal Union via its subsidiary Cristal Financière, and 50%-owned by the Company (in keeping with the minimum shareholder requirement for public limited companies, three shares are held by three Company employees or members of the Board of Directors and three share purchase loans were granted by Cristal Financière to three natural persons on Cristal Union's management team). 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. On 18 May 2015, 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.

Within the framework of the above-described partnership, the Company granted IBN-One a non-exclusive 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 (see section 11.2.2). 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.

IBN-Two GmbH

Company's fully 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.

7.3 MAIN INTRA-COMPANY FLOWS

A cash management agreement was signed between the Company and its subsidiary Global Bioenergies GmbH. As at 31 December 2014, the Company granted a current account advance of €1,325,000 at an interest rate of 2.79%.

8 IMMOVABLE PROPERTY, PLANT AND EQUIPMENT

The Group leases the sites on which it operates. The buildings leased at 31 December 2014 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 France	Offices and labs 2,315 sq. m	€46,000 excl. tax per quarter (including charges)	SEM Genopole	15 March 2010 and 1 January 2015	14 March 2019 and 31 December 2029
Landsberger Strasse 183 80687 Munich Germany	Offices 28 sq. m	€395 excl. tax per month	Grundstücksverwaltung Landsbergerstrasse Geither GmbH	1 September 2013	4 months' notice period
209 East First Street, Suite 230 Ankeny, Iowa, 50021 United States	Offices	\$250 per month	Murray Group	1 September 2014	31 August 2015*

*The lease was terminated on 1 April 2015.

9 REVIEW OF FINANCIAL SITUATION AND INCOME

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.

The progress of its programmes has led the Group to a research, development and industrialisation phase, which requires appropriate human and material investments: formation 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 on developing and industrialising its technologies, then licensing them to industrial partners who will exploit them on a large scale. The Group will generate its first operating income, in the form of usage fees, when the first licence agreements, or licence options have been granted. 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 essentially linked to investments in research and development and the Group's increased financing needs, in order to make progress on its programmes. The Group has opted to record its research and development costs under operating expenses. They do not appear in the assets side of the balance sheet.

The parent company, Global Bioenergies SA, benefits from Young Innovative Enterprise (Jeune Entreprise Innovante) status, which entitles it to a reduction in social charges for personnel involved in research and development work until 31 December 2015. 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 in research and development within the company, 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. The rate of reduction is 30%; this is doubled for the cost of research subcontracted to state laboratories and for the salaries paid to young PhDs employed by Global Bioenergies SA. When the company has a tax deficit, the CIR is reimbursed the following financial year. The CIR repayment has been requested by the Company when the law allows it.

In 2014, expenditures of Global Bioenergies SA covered by the research Tax Credit amounted to €6,254,000 after deduction of received subsidies. Taking into account the subsidies and repayable advances received in 2014, Global Bioenergies SA calculated that it had a CIR of €1,876,000 for 2014.

To meet the financing needs of its research and development work, the Group received several kinds of funding packages and innovation support from the French and German governments. All of the assistance granted to the Group is outlined in Section 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*

"**Other operating expenses**" are the Group's largest operating expenses item. It is made up of the following expenses:

- subcontracting: the Group uses different categories of subcontractors, including:
 - *Industrialisation studies*: In 2014, the Group continued to implement substantial measures to ensure the success of the first stages of its industrialisation. The Group has called upon recognised providers to support the development of its plants:
 - Linde, for the engineering of the demo plant in Leuna;
 - ARD, for the installation, commissioning and operation of the pilot plant in Pomacle;
 - Procintech, engineering firm expert in thermodynamics, for the purification of fermenter output gases, for both Pomacle and Leuna.

Other companies, with which Global Bioenergies was already working in 2013 on chemical engineering, were again called upon in 2014 due to the progress of the work. The work of these different participants makes it possible to anticipate the modelling of full-size plants.

- *Laboratory subcontracting*:
 - **Chemical**: 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).
 - **Genomic**: several companies have specialised in the manufacture of custom oligonucleotides (small fragments of DNA useful in a given genetic manipulation operation). The Group works with a preferred supplier for this activity, with oligonucleotide prices being limited to €5 to €10 each. The Group also has significant sequencing needs. This analysis activity, which takes place after each genetic manipulation operation, is entrusted to specialist companies. It is a routine activity performed at high speed with a unit cost of around €5. The subcontracting of oligonucleotide and sequencing work, which represents a significant proportion of the expenses, must take place in an environment where confidentiality is assured. Secure servers are consistently used, and confidentiality agreements have been signed with the suppliers.
- *Consultancy*: the Group subcontracts business development support, financing application design and specialist scientific work to different companies. The industrialisation of the processes developed by the Group lead to higher costs due to greater reliance on external studies.

- patent filing fees: this item reflects the crucial importance for the Group of protecting its intellectual property rights to continue its business development. This item includes all costs relating to patent applications filed by the Group, and by Scientist of Fortune;
- Biosupport and Apave services: these services concern the management of the Company's IT network by a group of people, as well as a normative activity focused on Quality, Safety and Environment;
- fees for the Scientific Board, to assist the Group in designing and supervising the various research and development programmes. The overall remuneration for members of the Scientific Board is limited to €20,000 per year;
- rent, upkeep and maintenance of the premises leased by the Group to conduct its research and development work;
- fees paid to lawyers, the Statutory Auditor, the accounting consultancy firm and various administrative providers;
- documentation, technology surveillance and seminars and conferences attended by the Group's key members;
- assignments and travel;
- miscellaneous costs, including a certain number of administrative and general costs required for the Group's operation.

"Employee expenses" are the second-largest area of operating expenses. Since its creation, Global Bioenergies SA has benefited from the status of Young Innovative Enterprise (Jeune Entreprise Innovante), applicable for eight years, until 31 December 2015. This status entitles it to reduced social security charges on the salaries of the scientific personnel who actively and implicitly contribute to research and development activities.

"Raw material purchases" mainly refer to purchases of consumables necessary to research and development work and which fall under different categories: chemical products, disposable plastic materials and high-value consumables to be installed on equipment, such as chromatography columns. These products are purchased from specialist laboratory equipment suppliers. Certain chemical products are custom made by specialist chemical subcontractors. This item is increasing significantly, due to the rapid automation of optimisation platforms, which increases the speed of tests and leads to an increased consumption of these reagents and other consumables.

"Amortisations and provisions" mainly correspond to amortisations on investments made by the Group in research and development materials and office supplies.

The second item **"Other operating expenses"** corresponds to the fees paid by the Group to Scientist of Fortune (controlled by Philippe Marlière) under the licence contract initially concluded with Philippe Marlière on 13 February 2009. A second licence was signed with Scientist of Fortune and, as of July 2011, has resulted in an increase in this item.

"Duties and taxes" cover various taxes such as the apprenticeship tax, continued training tax, business tax, registration fees and stamp duty.

9.2.1.3 Financial income

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;
- positive exchange rate differences, for small amounts.

9.2.1.4 Financial expenses

The Group's financial expenses come from:

- interest paid on loans with lending institutions;
- interest paid on repayable advances received.

9.2.1.5 Exceptional income and expenses

Almost all of the exceptional income and expenses recorded by the Group since its creation come from the refinancing of materials acquired from financial leases (for further details, please refer to Section 9.3.3.1 of the Registration Document).

9.2.1.6 Income tax

Since its creation, the Group has recorded losses due to its low operating income.

The income tax calculation includes the deduction of the Research Tax Credit (CIR), which may be assimilated to income, for which Global Bioenergies SA 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 AT 31 DECEMBER 2014 AND 31 DECEMBER 2013

This section aims to compare the financial information extracted from the Group's consolidated financial statements for the years ending 31 December 2013 and 31 December 2014. These financial statements, in line with French standards on a voluntary basis, have been audited and certified by the Statutory Auditor.

The table below contains the main aggregates of the consolidated profit and loss account (after restatement of expenses transfers):

<i>Data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Revenue	1,793	1,158
Operating income ⁽¹⁾	3,166	1,179
Operating loss	(9,500)	(6,706)
Financial income	130	106
Operating loss before tax	(9,371)	(6,600)
Exceptional profit (loss)	(83)	23
Net profit (loss)	(7,578)	(5,211)

(1) Restated for expense transfers linked to capital increase costs allocated to equity (€87,000 offset in both operating income and expenses in 2014, against a restatement of the same nature of €1,270,000 in 2013).

9.3.1 Formation of consolidated operating result

9.3.1.1 Revenue and operating income

<i>Data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Revenue	1,793	1,158
Subsidies	1,372	21
Other operating income ⁽¹⁾	0	0
Total	3,166	1,179

(1) Restated for expense transfers linked to capital increase costs allocated to equity (€87,000 offset in both operating income and expenses in 2014, against a restatement of the same nature of €1,270,000 in 2013).

Revenue: €1.8m in 2014 compared with €1.2m in 2013

- €0.63m received from the German partner, Audi, in 2014

In early 2014, Global Bioenergies announced a partnership with Audi to develop the biological production of a high-performance petrol using isobutene. The signature of this agreement involved the immediate payment of €0.5m by the German carmaker. This partnership also involves payment when key stages are completed: €25,000 in this regard were paid to Global Bioenergies SA in November 2014 for attainment of the first milestone.

- €1.17m received from the Polish partner Synthos in 2014 and 2013

Under another partnership agreement, Global Bioenergies invoiced €1.17m to the Polish group Synthos, European synthetic rubber manufacturing leader. This invoicing is for Synthos' financial participation in the research that Global Bioenergies will conduct into the Butadiene process between October 2014 and October 2015. The research conducted between October 2012 and October 2014 previously generated two invoices for the same amount (€1.17m) in 2012 and 2013 respectively.

Subsidies: €1.4m in 2014

- €0.8m in subsidies from the French government via the French energy management and environment agency (ADEME) in 2014

The ADEME, acting on behalf of the French government, signed a finance agreement with Global Bioenergies SA as part of the Bioma+ project, which is part of the Investment for the Future program (Programme d'Investissements d'Avenir). This project relates to total eligible expenses of €7.3m. The maximum financial assistance granted to Global Bioenergies SA is €4m, split between a maximum of €1.3m in subsidies and a €2.7m repayable advance.

In the year ending 31 December 2014, the Group recorded €0.2m in subsidies corresponding to an initial payment received over the year amounting to 15% of the total subsidies granted, and €0.6m in subsidies to be received from the ADEME, given the expenses committed by Global Bioenergies SA to the Bioma+ project in 2014.

- €0.6m in subsidies from the German government in 2014

In November 2013, Global Bioenergies GmbH received financial assistance from the German Federal Ministry of Education and Research (BMBF). The latter is committed to supporting Global Bioenergies GmbH's project to install and operate a second demo of its Isobutene

process at the Leuna site in Germany. The subsidy awarded to Global Bioenergies GmbH is up to €5.7m.

In the year ending 31 December 2014, the Group recorded €0.6m in subsidies corresponding to an initial payment received over 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.

The table below shows changes in the main items under the Group's operating expenses:

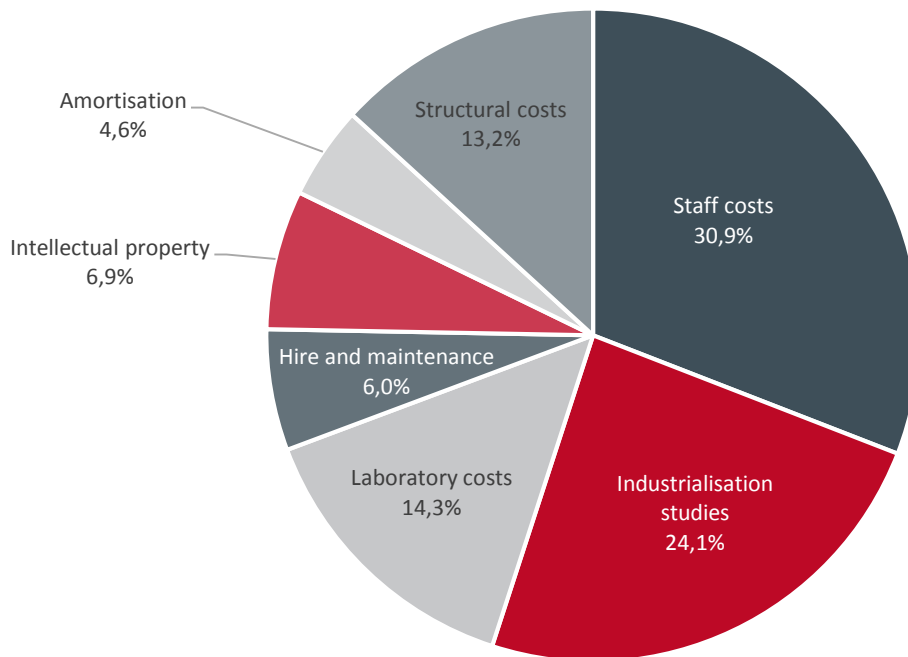
<i>Data in thousands of euros</i>	31/12/2014 12 months	31/12/2013 12 months
Personnel costs	3,919	2,359
Industrialisation studies	3,053	1,390
Laboratory (consumables + subcontracting)	1,805	1,357
Hire and maintenance of scientific equipment	762	559
Intellectual property	619	373
Licence fees	225	260
Amortisation	585	346
Structural costs	1,670	1,241
Total operating expenses	12,666	7,885

Restated for expense transfers linked to capital increase costs allocated to equity (€87,000 offset in both operating income and expenses in 2014, against a restatement of the same nature of €1,270,000 in 2013).

The main expenses can be broken down as follows:

- Personnel costs: 30.9% at 31 December 2014, compared with 29.9% at 31 December 2013;
- Consumables and subcontracting: 14.3% at 31 December 2014, compared with 17.2% at 31 December 2013;
- Intellectual property (including licence fees): 6.9% at 31 December 2014, compared with 8.0% at 31 December 2013;
- Pre-industrialisation studies: 24.1% at 31 December 2014, compared with 17.6% at 31 December 2013;
- Rental of property and scientific equipment: 6.9% at 31 December 2014, compared with 7.1% at 31 December 2013;
- Amortisation: 4.6% at 31 December 2014, compared with 4.4% at 31 December 2013;
- Operating costs: 13.2% at 31 December 2014, compared with 15.8% at 31 December 2013.

Distribution of operating expenses 2014



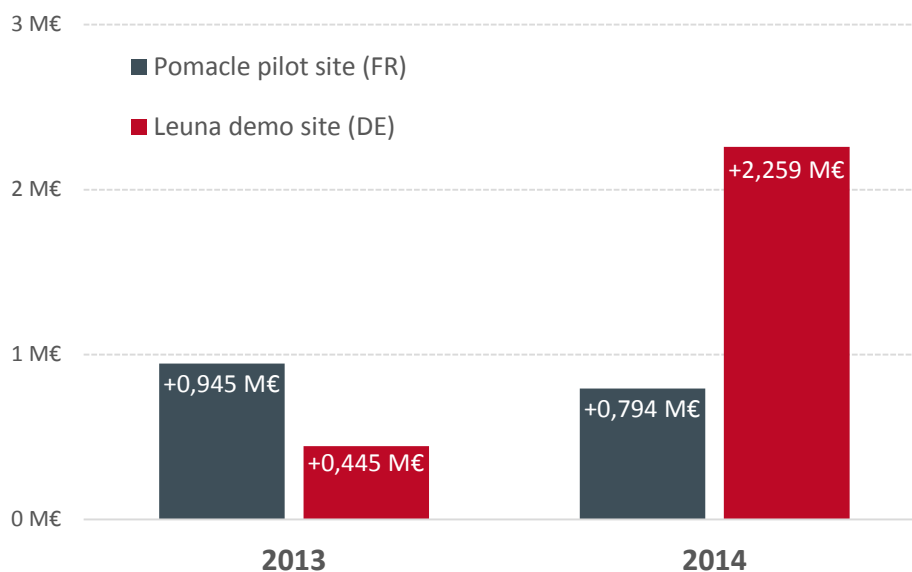
At 31 December 2014, operating expenses had increased by €4.8m, a 61% rise compared with 2013:

- increased personnel costs (+€1.6m, a 67% rise): in 2014, the Group hired a significant number of new staff. There were 68 employees at the end of 2014, compared with 47 at the end of 2013, i.e. 21 additional staff - 18 in France and 3 in Germany. In France, most of the recruitment was for experienced lab staff. The three staff members recruited in Germany aim to give the German operations the structure needed to support the design of the demo plant in Leuna initially, but also to supervise its operation;
- increased study expenses due to the pilot plants (+€1.7m, i.e. +120%): 2014 saw engineering studies take place for the Pomacle pilot plant and the Leuna demo plant:
 - o €0.8m in expenses for the Pomacle site in 2014 compared with €0.9m in 2013,
 - o €2.3m in expenses for the Leuna site in 2014 compared with €0.4m in 2013.

In 2014, the Group called upon renowned service providers to support the development of the pilot and demo plants:

- o ARD, for the installation, commissioning and operation of the pilot plant in Pomacle,
- o Procintech, engineering firm expert in thermodynamics, for the purification of fermenter output gases, for both Pomacle and Leuna,
- o Linde, for the engineering of the demo plant in Leuna.

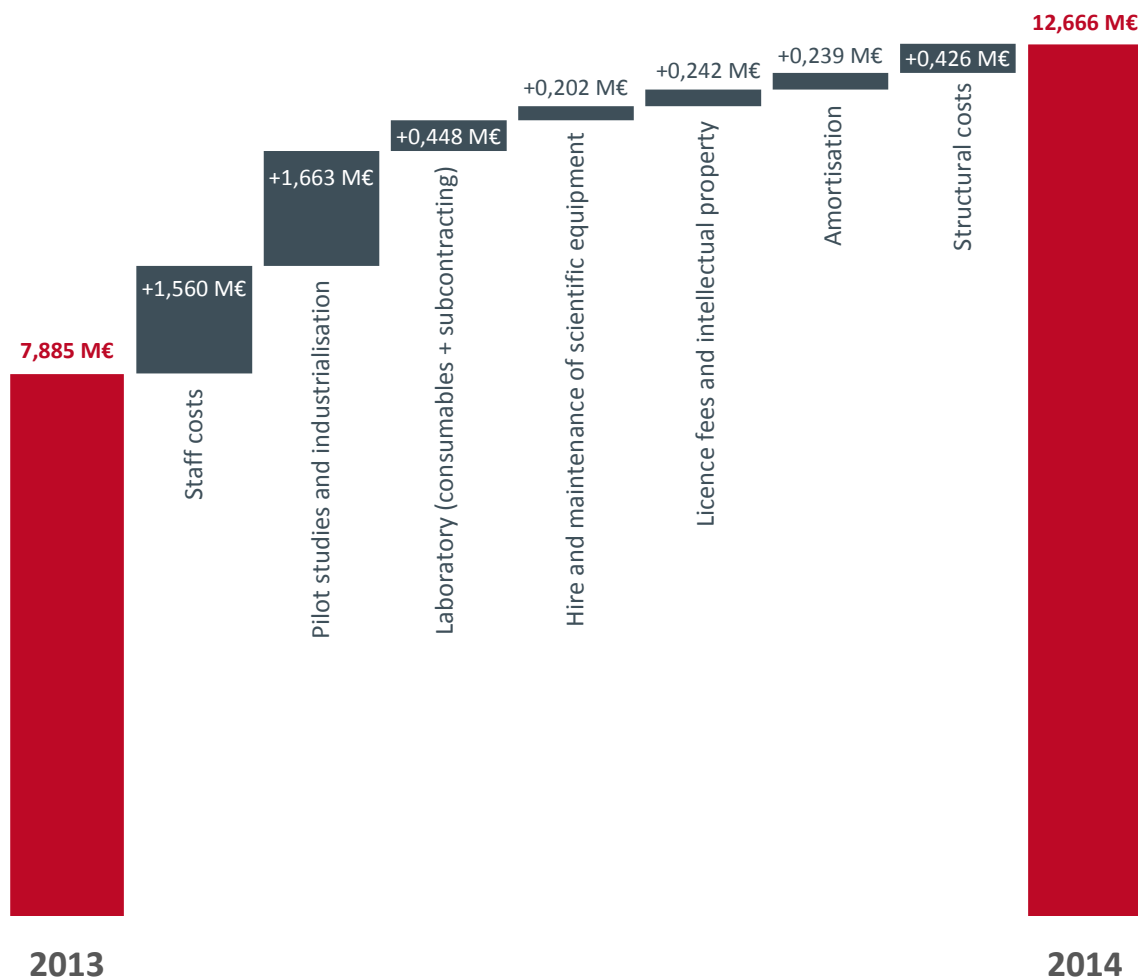
Changes in the breakdown of pilot study expenses



- increased purchases of laboratory consumables, including subcontracting for specific products (+€148,000, a rise of 33%). However, this increase is still less than the increase in all operating expenses reflecting cost optimisation as more tasks are being completed internally.
- increased rents (+€202,000, a 36% rise): due to the higher number of staff required to operate new equipment, the surface area of the premises occupied in Evry was increased to accommodate additional offices and laboratories. In 2014, rents and charges associated with this extension amounted to excess expenditure of €102,000 compared with 2013. Equipment maintenance and upkeep expenses increased by €86,000 between 2013 and 2014, a direct consequence of new acquisitions.
- increased amortisation (+€239,000): higher amortisation is a result of the investments made in 2013 (full-year effect). The Company also acquired new laboratory equipment in the first half of 2014.

Reasons for the rise in operating expenses between 2013 and 2014

Rise in operating expenses between 2013 and 2014



9.3.1.3 Operating profit (loss)

<i>Data in thousands of euros</i>	31/12/2014 12 months	31/12/2013 12 months
Total operating income	3,166	1,179
Total operating expenses	12,666	7,885
Operating profit (loss)	(9,500)	(6,706)

Restated for expense transfers linked to capital increase costs allocated to equity (€87,000 offset in both operating income and expenses in 2014, against a restatement of the same nature of €1,270,000 in 2013).

Due to the recruitments in 2014 and the progressing industrialisation of the processes, operating expenses rose significantly compared with 2013. The German subsidiary, the long-term intention of which is to operate the Isobutene process demo plant, represents an increasing proportion of the Group's business volume and now accounts for almost 15% of the latter's operating expenses, compared with only 0.7% in 2013.

Therefore, the Group's operating loss was €9.5m in 2014 compared with €6.7m in 2013.

9.3.2 Formation of the operating profit (loss) before tax

9.3.2.1 *Financial income*

<i>Data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Financial earnings	247	129
Financial expenses	118	24
Financial income	130	106

The increased financial income between 2013 and 2014 is mainly due to the full-year effect of the funds invested in term accounts following the capital increase of July 2013.

9.3.2.2 *Operating profit (loss) before tax*

The operating loss before tax was €6.6m at 31 December 2013 and €9.4m at 31 December 2014.

9.3.3 Net profit (loss)

9.3.3.1 *Exceptional profit (loss)*

<i>Data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Exceptional income	58	10
Exceptional expenses	142	34
Exceptional profit (loss)	(83)	(23)

Exceptional profit (loss) is mainly made up of the balance of the treasury share buyback transaction. In 2014, this amounted to (€40,000) compared with (€34,000) in 2013.

9.3.3.2 *Net profit (loss) for the year*

<i>Data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Operating profit (loss)	(9,500)	(6,706)
Financial income	130	106
Operating profit (loss) before tax	(9,371)	(6,600)
Exceptional profit (loss)	(83)	(23)
Income tax (CIR)	1,876	1,413
Net profit (loss) for the year	(7,578)	(5,211)

Due to the increased recruitment and associated research expenses, the Group's tax credit rose from €1.4m in 2013 to €1.9m in 2014.

Therefore, the Group's net loss amounted to €7.6m in 2014, compared with €5.2m in 2013.

10 CASH AND CAPITAL

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

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

At 31 December 2014, the Group's cash position amounted to €15.6m, compared with €23.7m at 31 December 2013. The Group's cash, marketable securities and liquid instruments only include limited-risk money market funds (SICAVs), term deposits and current accounts all with a maturity of less than 12 months. 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:

<i>In thousands of euros</i>	Capital increase	Subsidies	Repayable advances	Innovation loans	Bank loans	TOTAL
From 17/10/08 to 30/06/09	637	0	0			637
From 01/07/09 to 30/06/10	600	20	330			950
From 01/07/10 to 30/06/11	8,589	40	0			8,629
From 01/07/11 to 30/06/12	1,403	75	332			1,810
From 01/07/12 to 31/12/12	3,038	59	193			3,290
From 01/01/13 to 31/12/13	23,000	20	0	740		23,760
From 01/01/14 to 31/12/14	1,148	1,372 ⁽¹⁾	398		1,018	3,936
TOTAL	38,415	1,586	1,253	740	1,018	43,012

(1) Including €564,000 recorded on 31/12/2014 and paid in March 2015.

10.1.1 Capital finance

Since its creation, the Group has received a total of €38.4m (before deduction of the costs of capital increases) via several capital increases. The table below summarises the capital increases, in value, which have taken place in the last two years.

Date	Amount raised ⁽¹⁾	Transaction	Investors
July 2013	€3,000,000	Capital increase by public offering	Public
June to December 2014	€10,000	Capital increase by exercise of warrants for the issue of shares	YA GLOBAL MASTER SPV LTD
June and October 2014	€4,000	Capital increase via the exercising of founders' warrants (BSPCE) and equity warrants (BSA)	Employees/consultants
January and July 2014	€1,000	Issue of equity warrants (BSAs)	Employees/Members of Scientific Board
January 2014	€500,000	Issue of equity warrants (BSAs)	Industrial partner

(1) before recording the costs of the issue.

10.1.2 Finance through loans

In 2014, the Group resorted for the first time to a bank loan (excluding financial leasing, which Global Bioenergies SA has been using since it was created). 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.

The Group also used financial leasing to finance some of its materials acquisitions. When preparing the consolidated financial statements, the goods financed via leasing contracts were restated, and presented as amortisable fixed assets under assets and debts with credit institutions. Fees were split between amortisation of fixed assets and financial liabilities. The share of financial debts represented by leases was €1.6m in 2014.

Banking institution	Capital remaining due at 31/12/2014			
	Up to 1 year	1 to 5 years	over 5 years	Total
Finance leasing for materials	€77,000	€1,141,000	-	€1,618,000
BNP ⁽¹⁾	€93,000	€607,000	-	€800,000
SG ⁽²⁾	€4,000	€64,000	-	€18,000
Total	€723,000	€1,913,000	-	€2,636,000

(1) €800,000 loan taken out in May 2014, quarterly, fixed rate 2.5%.

(2) €218,000 loan taken out in December 2014, monthly, fixed rate 1.15%.

Additionally, in March 2015, the Group was awarded a five-year, €4.4m loan. This was awarded by a consortium consisting of BNP-Paribas, Société Générale, CIC and Bpifrance; it is guaranteed by the Ile-de-France region guarantee fund, managed by Bpifrance. It bears interest at an average fixed rate of around 2.60%.

10.1.3 Finance from government grants

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

Repayable advances and loans at 31 December 2014

Type of government grant	Periodicity of due dates	Date	Term	Value at 31/12/2014			Amount remaining due at 31/12/2014 (including accrued interest)			
				Granted	Received	Yet to be received	Up to 1 year	1 to 5 years	over 5 years	Total
BPI France ⁽¹⁾	Quarterly	02/2010	31/12/2015	€60K	€23K	-	€23K	-	-	€23K
BPI France ⁽²⁾	Quarterly	09/2011	31/12/2015	€475K	€475K	-	€15K	-	-	€15K
Total conditional advances				€1,135K	€98K	-	€38K	-	-	€38K
ADEME ⁽³⁾	Yearly	11/2013	20/12/2021	€2,655K	€398K	€2,257K	-	€47K	-	€47K
interest-free loan from BPI France ⁽⁴⁾	Quarterly	03/2013	31/12/2020	€740K	€740K	-	-	€92K	€48K	€740K
Total miscellaneous financial debts				€4,393K	€1,138K	€2,257K	-	€1,039K	€48K	€1,187K

(1) "Development of a new metabolic pathway towards isobutene to build an industrial production strain" programme; 1st repayment on 31 March 2013.

(2) "Pre-industrial, laboratory-scale development of a bacterial strain to produce isobutene" programme; including €332,500 received in 2011 and €142,500 received in 2013; 1st repayment on 31 March 2013.

(3) Investment for the Future Program, construction of a pilot plant to develop the Isobutene process; €0.4m received in March 2014. Repayable in four instalments. First repayment due on 20/12/2017.

(4) "Development assistance to improve the performance of a isobutene-based glucose fermentation pilot lab" programme; 1st repayment due on 31 March 2016.

At 31 December 2014, the repayable assistance received from BPI France was recorded under conditional advances on the Group's balance sheet for €38,000, given the repayment of €60,000 over the year.

The Group also received the first payment of €398,000 from the ADEME in repayable advances to finance the pilot plant in Pomacle, which is recorded, along with the interest-free loan from BPI France, under miscellaneous financial debts in the Group's balance sheet, a total of €1,187,000.

Operating subsidies

Body	Programme	Date	Amount granted	Total received by the Company at 31/12/2014	Amounts received in the years ending:		
					12/2012	12/2013	12/2014
BPI France	<i>Subsidy for the development of a new metabolic pathway towards isobutene to build an industrial production strain</i>	02/2010	€100,000	€79,000	€9,000	-	-
Ile-de-France region - Grant for responsible innovation (AIR)	<i>Identification of a biological means of producing propylene using renewable natural resources.</i>	11/2010	€100,000	€85,000	-	-	-
OSEO	<i>Maturation assistance for the strategic positioning and creation of a collaborative project leading to the development of a biological process to synthesise ethylene</i>	03/2012	€20,000	€20,000	€2,000	€8,000	-
Ile-de-France region	<i>Assistance for the partnership to develop methacrylic acid by fermentation processes</i>	04/2012	€22,000	€22,000	-	-	-
ADEME ⁽¹⁾	<i>Investment for the Future program,, construction of a pilot plant to develop the Isobutene process</i>	11/2013	€1,328,000	€199,000	-	-	€199,000
BMBF	<i>Construction and operation of an Isobutene process demo plant</i>	11/2013	€5.7m	€602,000	-	-	€602,000
Total subsidies				€1,007,000	€71,300	€8,000	€801,000

(1) Investment for the Future program, construction of a pilot plant to develop the Isobutene process; €564,000 of additional subsidies were received in March 2015

10.1.4 Off-balance-sheet commitments

The commitments given at 31 December 2014 amounted to €1,394,000 including:

- Pledge on material: €849,000
- Pledge on securities: €545,000

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

The table below summarises the Group's cash-flow at 31 December 2013 and 31 December 2014:

<i>Data in thousands of euros</i>	31/12/2014 12 months	31/12/2013 12 months
Net cash generated by operations	(8,009)	(4,333)
Cash-flow from investments	(2,798)	(785)
Net cash from finance operations	2,720	22,523
Change in cash position	(8,087)	17,404
Cash at start of year	23,695	6,291
Cash at year-end	15,608	23,695

10.2.1 Cash-flow from operations

<i>Audited data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Net profit (loss)	(7,568)	(5,211)
Amortisation	586	346
Capital gains on asset transfers	(11)	
Cash-flow	(6,980)	(4,865)
Change in working capital requirement	(1,029)	532
Net cash generated by operations	(8,009)	(4,333)

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

<i>Audited data in thousands of euros</i>	31/12/2014	31/12/2013
Change in inventory	132	44
+ Change in trade receivables	1,167	(1,169)
- Change in operating liabilities	(1,677)	(176)
+ Change in other operational receivables	1,602	574
- Change in other operational liabilities	(195)	157
= Change in working capital requirement	1,028	(532)

The change in inventory (+€132,000) in 2014 is due to the increased volume of activity in 2014 compared with 2013.

The rise in trade receivables in 2014 (+€1,167,000) is due to the services provided under the industrial partnership entered into with Polish company Synthos for the Butadiene programme and for which the payment for 2014 was not collected until early 2015. By contrast, the previous milestone under this partnership was invoiced to Synthos and paid by the latter in November 2013.

The rise in other receivables in 2014 (+€1,602,000) partly results from the rise in the volume of activity in 2014 compared with 2013, mainly for the following:

- a rise in the research tax credit (CIR) of €465,000;
- the recording at the end of 2014 of the subsidy to be received from the ADEME amounting to €570,000 for the validation of stage 1 of the Bioma+ project;
- a €320,000 rise in VAT due to the Group's increased activity.

The increase in operating debts (+€1,677,000) comes from increased supplier debts due to both the increased volume of activity in 2014 compared with 2013, costs borne by the German subsidiary and the effect, at the end of the year, of a temporary delay in supplier payments to early 2015.

10.2.2 Cash-flow from investments

<i>Audited data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Acquisition of fixed assets	(2,801)	(786)
Sale of fixed assets	3	
Cash-flow from investments	(2,798)	(785)

During 2014, the Group's investments were mainly in research materials for the Pomacle and Evry sites (laboratory equipment and analysis apparatus for R&D departments based in Evry, fermenter, purification unit and condensation unit in Pomacle).

Over the year ended 31 December 2013, the Group's investments were mainly in research materials: €641,000 at 31 December 2013.

Future investments in process development are outlined in Chapter 5.2.3 of the Registration Document.

10.2.3 Cash-flow from finance operations

<i>Audited data in thousands of euros</i>	31/12/2014	31/12/2013
	12 months	12 months
Capital increase in cash	1,148	23,000
Costs of capital increase allocated to issue premium	(83)	(1,266)
Repayable advances received	398	142
Loans arranged	1,996	1,187
Loans repaid	(379)	(242)
Repayable advances repaid	(360)	(300)
Net cash from finance operations	2,720	22,523

Various capital increases took place during 2014:

- subscription by an industrial partner to warrants enabling access to Global Bioenergies' capital for €500,000;
- successive drawdowns on the Yorkville Advisors capital credit line for €10,000;
- subscription by Global Bioenergies' employees and members of the Scientific Committee to warrants allowing them in the future, and under certain conditions, to purchase Global Bioenergies' shares and exercise outstanding warrants for around €35,000 overall.

Global Bioenergies SA also received a first payment of €98,000 from the ADEME in repayable advances as part of the financing for the Pomacle pilot site agreed in June 2013.

Furthermore, the new financial debts contracted by the Group in 2014 amounted to €1,996,000, broken down as follows:

- In 2014, the Group took out two loans with banking institutions for a total of €1,018,000 to finance the fermenter at Pomacle and part of the acquisitions of the laboratory in Evry,
- lease under financial leases (portion of lease included in financial debt), the balance to finance various research materials.

Loans repaid for €379,000 correspond to the calculation of the amortisation of leased materials.

Finally, the Group repaid €360,000 in advances granted in 2009 and 2011 respectively by OSEO to support the Isobutene programme.

At 31 December 2013, the main recorded financing transactions were:

- The capital increase performed in July 2013 by the Company in the total gross amount of €23m to which €1.3m in costs are allocated (fully offset by the issue premium), giving net proceeds of €21.7m;
- the interest-free loan from BPI France for €740,000 in March 2013.

The Company has not distributed any dividends since it was created.

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 current cash and the financial instruments amounting to €15.6m at 31 December 2014, the Company expects to be able to continue receiving a significant Research Tax Credit.

11 RESEARCH AND DEVELOPMENT, PATENTS AND LICENCES

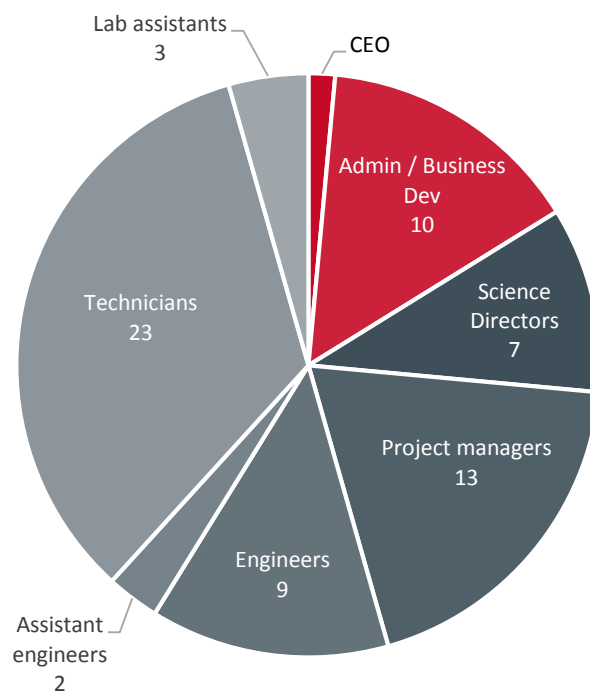
11.1 RESEARCH AND DEVELOPMENT

A description of the Group's research and development activities can be found in Section 6.3 of the Registration Document.

The table below comes from the Group's management report, which was published on 9 April 2015. It shows the Group's operating expenses. At year-end 2014, the Group had not begun marketing its processes, and most of the expenses below come from research and development activities:

<i>DISTRIBUTION OF OPERATING EXPENSES</i>		01/01/14 to 31/12/2014
Operating expenses (€thousands)		12,666
STAFF COSTS		30.9%
<i>EMPLOYEES AT 31 DECEMBER (Number)</i>		68
<i>AVERAGE WORKFORCE (Number)</i>		61
INDUSTRIALISATION STUDIES		24.1%
<i>for the Pomacle pilot plant in France</i>		26%
<i>for the Leuna demo plant in Germany</i>		74%
Laboratory (consumables + subcontracting)		14.3%
<i>laboratory consumables</i>		61.6%
<i>laboratory subcontracting</i>		38.4%
Hire and maintenance of scientific equipment		6.0%
Intellectual property		6.9%
<i>licence fees</i>		30%
<i>legal fees in relation to IP</i>		70%
Amortisation		4.6%
Structural costs		13.2%

The Group's workforce is distributed as follows:



84% of staff work in R&D

11.2 INDUSTRIAL PROPERTY

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

11.2.1 Patent applications and Patents

The Group exploits a portfolio of 26 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 26 Patent applications pending, which were filed in recent years, are now at different stages of progress. To date, 17 Patent applications have been published and, of these, ten patents have been granted: four in Australia, four in the United States and two in Europe.

The Group adds to this portfolio by regularly filing new Patent applications to protect the results of its R&D programmes.

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 (16 Patent applications);
- exclusively by the Company (2 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

L1 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 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 further 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;
- 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:
 - o a fixed quarterly fee as long as the parties jointly perform development work on the L1 Patent applications,
 - o a 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 widens the scope of the licence to include a new Patent application.

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.

Rider no. 5 (of 12 September 2012) and no. 6 (of 30 October 2012) aim to bring new joint inventions and Patent applications between SCIENTIST OF FORTUNE SA employees and 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. The Company pays a lump sum every six months, which entitles it to ownership over all of the results obtained by Isthmus.

The rights granted to the Company under Licence 1 are applied within the context of a research contract entered into with the New Zealand company LanzaTech on 9 November 2011 (see Chapter 22 of this Registration Document) on the performance of a feasibility study aiming to assess whether the Company's technology can be expressed in the microorganisms developed by LanzaTech that use carbon monoxide.

Furthermore, the Company granted to IBN-One a non-exclusive licence to exploit its Isobutene process using some of the L1 Patent applications for the construction and exploitation of a plant in France with a production capacity of 50,000 tonnes of isobutene per year. 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 must 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.

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 entered into a contract for the L2 Patent applications with the Polish company Synthos, on 18 July 2011, which aims to develop the process for the biological production of butadiene (see Chapter 22 of this Registration Document). This partnership includes research financing and involves Synthos taking a €1.4m stake in the Company's capital; this took place on 6 September 2011 via the subscription of 53,625 new Company shares. The partnership also provides for, depending on the progress of the project, cash payments in order to finance the project's development, the payment of fees for the exploitation of butadiene to produce synthetic rubber, as well as a distribution of intellectual property rights for the results of the work. To date, Synthos has paid the Company a total of €5.1 million under licensing agreements, and in development costs and success fees.

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.


To optimise the management and development of its know-how and to ensure respect and strict confidentiality, the Group is implementing a "high quality management" system, based on gradually establishing procedures, and improving the Group's information system. The working hours of the

Company's employees are managed in such a way as to set aside a dedicated time slot for training and completing "Quality, Safety and Environment" work. Furthermore, the digital media containing this know-how is stored on secure servers in France; access to these servers is strictly limited to permanent members of the Group's staff who specifically need to access them in order to perform their work.


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	13/04/10	1 045 283	13/04/2020	01, 04, 42

12 TRENDS

Press release (May 25, 2015):

MODIFICATION OF THE LIQUIDITY CONTRACT

Evry (France), May 25th, 2015 – Global Bioenergies (Alternext Paris: ALGBE) announces a modification of the liquidity contract entrusted to the brokerage firm Gilbert Dupont.

With regards to the liquidity contract entrusted by GLOBAL BIOENERGIES to the brokerage firm Gilbert Dupont, an additional contribution for an amount of €75,000 has been made on May, 19th, 2015.

As of December 31st, 2014, date of the half-year report, the financial means relating to the liquidity contract were the following:

- 4,706 Global Bioenergies shares and
- €75,766.52.

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
Marc Delcourt 44 years old	5, rue Henri Desbruères 91000 EVRY	Chairman of the Board of Directors and director	First appointment: 13 February 2009	- Chairman of Schmilblick Ventures SAS - Director of Heurisko - Director of IBN-One SA	
		Chief Executive Officer	Mandate expiry date: General Meeting to approve the financial statements for the year ending 31 December 2019		
Philippe Marlière 59 years old	5, rue Henri Desbruères 91000 EVRY	Director	First appointment: 13 February 2009 Mandate 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 35 years old	5 - 7 rue de Monttessuy 75007 PARIS	Director	First appointment: 23 October 2012* Mandate expiry date: General Meeting to approve the financial statements for the year ending 31 December 2019	- Director Proviciel (MLstate) - Director Balyo - Director, Lucane Pharma - Director, Domain Therapeutics	- Director, Holding ISF Masseran Technologie
CM-CIC Innovation, represented by Karine Lignel 46 years old	28, avenue de l'Opéra 75002 PARIS Espace Cordeliers 2, rue du Président Carnot 69293 Lyon Cedex 02	Director	First appointment: General Meeting of 6 November 2013 Mandate expiry date: General Meeting to approve the financial statements for the year ending 31 December 2018	- Member of the Supervisory Board of Rhône Alpes Création (CM-CIC Investissement) - Director of Oncodesign - Director of Polyplus - Director of ImmuniD - Member of the Coldway Supervisory Board - Director of Gecko Biomedical - Director of EyeBrain - Director of Silios	- Member of the Nanobiotix Supervisory Board - Director of Px Therapeutics - Director of Ariana

* in replacement of Masseran Gestion for the remaining duration of the latter's mandate.

Marc Delcourt (44 years old) – Chairman of the Board of Directors, 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 leaves in 2008 to found Global Bioenergies.

Philippe Marlière (59 years old) – Director: co-founder of Global Bioenergies, Philippe Marlière chairs its Scientific Board. 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 (35 years old) – Permanent representative of Seventure Partners: Sébastien Groyer is Partner at Seventure, a subsidiary of BPCE. 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 market launch or takeover of about 20 innovative companies, mostly in the domain of life sciences.

Karine Lignel (46 years old) – Permanent representative of CM-CIC Innovation: Karine Lignel is a director at CM-CIC INNOVATION, a subsidiary of CM-CIC Capital Finance, Crédit Mutuel. CM-CIC Capital Finance focuses its investments on outstanding entrepreneurial companies, and has invested €2.6 billion in 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, in his capacity as Chairman and Chief Executive Officer.

The company SCIENTIST OF FORTUNE SA received fees under Licence 1 and Licence 2, as outlined in Chapter 11 and in paragraph 19.1 of the Registration Document.

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

Marc Delcourt	31/12/2013	31/12/2014
Chairman and Chief Executive Officer	(12 months)	(12 months)
Remuneration due for the year	€156,000 *	€175,000 **
Value of multi-year variable remuneration allocated over the year	NA	NA
Value of options allocated over the year	NA	NA
Value of restricted stock	NA	NA
Total	€156,000	€175,000

*including a €36,000 variable component

**including a €40,000 variable component approved in principle but whose payment depends on the improvement of the Company's financial visibility

Summary table of the remuneration paid to each corporate officer

Marc Delcourt	31/12/2013		31/12/2014	
	(12 months)		(12 months)	
Chairman and Chief Executive Officer	Amounts owed	Amount paid	Amounts due	Amount paid
Fixed remuneration	€120,000	€120,000	€135,000	€135,000
Annual variable remuneration	€36,000	€36,000	€40,000 *	€0
Multi-year variable remuneration	NA	NA	NA	NA
Exceptional remuneration	NA	NA	NA	NA
Attendance fees	NA	NA	NA	NA
Benefits in kind	NA	NA	NA	NA
Total	€156,000	€156,000	€175,000	€135,000

** approved in principle but whose payment depends on the improvement of the Company's financial visibility*

The remuneration paid to Marc Delcourt as Chairman of the Board of Directors and Chief Executive Officer was determined at the Board meeting of 15 January 2015. Marc Delcourt's annual gross fixed remuneration was set at €135,000 as of 1 January 2015.

The Company's Board meeting, held on 15 January 2015, agreed to allocate a variable component to Marc Delcourt, in addition to his fixed remuneration. 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	31/12/2013 (12 months) Amounts paid	31/12/2014 (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

On the date of the Registration Document, none of the members of the Company's Board of Directors or its corporate officers benefited from allocations of equity securities, debt securities, share purchase or subscription options or performance-based shares.

Therefore, tables 6, 7, 8 and 10 in Appendix 2 of the AMF's Position-recommendation no. 2014-14 are not applicable.

On the date of the Registration Document, none of the Company's non-corporate officer employees benefited from securities giving access to the Company's capital, apart from 93,478 warrants for subscription to business creator shares (BSPCEs) issued by the Company enabling subscription for that number of Company shares (see paragraph 21.1.4.2). 3,877 of these warrants have been exercised in 2015 and 400 in 2014. 7,088 were cancelled due to employee departures.

SHARE SUBSCRIPTION OR PURCHASE OPTIONS AWARDED TO THE FIRST TEN NON-CORPORATE OFFICER EMPLOYEES	Total number	Number per plan	Exercise price per warrant
Highest number of options awarded, during the year ended 31 December 2014, 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 (overall information)	23,800	11,500 BSPCEs A01-2014 9,600 BSPCEs B01-2014 1,200 BSCPEs A07-2014 1,500 BSPCEs B07-2014	€24.80 €24.80 €40.61 €40.61
Highest number of options purchased or subscribed, held over the issuer and the companies referred to previously, exercised during the year ending 31 December 2014 by the 10 employees of the issuer and of these companies (overall information)	400	400 BSPCEs 02-2013	€29.89

Some non-corporate officer employees were also awarded restricted stock (see paragraph 21.1.4.4).

The table below gives further details of the conditions for remuneration and other benefits awarded to corporate officers.

Corporate officers	Employment contract	Additional pension plan	Indemnities or benefits owed or likely to be owed due to a cessation of or change in functions	Indemnities relating to a non-competition clause
<p>Marc Delcourt Chairman and Chief Executive Officer</p> <p>Mandate start date: Meeting to approve the financial statements to 30 June 2009</p> <p>Mandate end date: Meeting to approve the financial statements to 31 December 2019</p>	No	No	No	No

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.

On the date of the Registration Document, the Company's general management is assumed by Marc Delcourt, who is also Chairman of the Board of Directors.

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 director's term of office. The Chairman may be re-elected.

The age limit for the office of Chairman of the Board of Directors is set at 65. 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.

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

To the Company's knowledge, there are no services agreements between the members of the Board of Directors and the Company or any of its subsidiaries providing for benefits upon 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 SCIENTIFIC BOARD

The creation of a Scientific Board was decided at the Board meeting of 8 June 2009. The Scientific Board is chaired by Company director Philippe Marlière. The members of the Scientific Board are appointed by the Board of Directors and are internationally renowned high-profile professionals with whom the Company signs consultancy agreements (except with Philippe Marlière who is a Director). The overall remuneration of Scientific Board members for their duties on that board is limited to €20,000 per year.

The Scientific Board is composed of a maximum of 12 members, in addition to the Chairman of the Scientific Board (the minimum number of members is four). The members of the Scientific Board are appointed for a renewable term of two years, as from the appointment date set by the Board of Directors for each appointment.

On the date of the Registration Document, the Scientific Board was composed of the following persons:

Name	Date of first appointment	Training/Experience
Doctor Bernard Badet	08/06/2009	CNRS Laboratory Director (Institut de Chimie des Substances Naturelles - ICSN)
Doctor Richard E. Bockrath	27/09/2012	Doctor of Chemical Engineering. Former Technical Director at DuPont
Professor Donald Hilvert	08/06/2009	Laboratory Director (ETH Zurich)
Doctor Yves Gimbert	27/09/2012	Scientific expert in molecular chemistry
Doctor Philippe Marlière	08/06/2009	Chemist and microbiologist, Ecole Normale Supérieure. Synthetic biology pioneer
Doctor Charles E. Nakamura	20/12/2011	Former head of research at DuPont. 2007 "Heroes of Chemistry" award, American Chemical Society
Professor Jean-Marc Paris	08/06/2009	Former Scientific Director, Organic Chemistry and Biotechnologies (Rhodia)
Professor Dieter Söll	08/06/2009	Laboratory Director (Yale University). Co-discoverer of the genetic code
Doctor Jean Weissenbach	08/06/2009	Director of the Genoscope, the genomic institute of the CEA. 2008 CNRS Gold Medal

The Scientific Board meets once a year in the month of September. Its purpose is to arbitrate between the various scientific projects conducted or contemplated by the Company.

16.5 STRATEGIC COMMITTEE

A Strategic Committee, whose composition and operating principles have not yet been formalised, has been holding quarterly meetings under the chairmanship of Marc Delcourt since October 2010.

This Strategic Committee is tasked with assisting the Company in establishing and steering its strategy of interactions with industrialists and financial institutions.

It is composed of the following persons:

Name	Duties
Marc Delcourt	Chairman
Patrick Langlois	Former Chief Financial Officer of Aventis
Pierre Lévi	Former Chairman of Salins Group
Michel Marlière	Former COO of Tank & Rast

16.6 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.

While the Company does not yet comply with all the recommendations of said code, in particular concerning the appointment of independent directors and setting up an audit committee, the Company intends to promote, in the upcoming months, the set-up of good governance practices, in addition to existing ones, in keeping with its development ambitions.

17 EMPLOYEES

17.1 NUMBER OF EMPLOYEES AND BREAKDOWN BY ROLE

At 31 December 2014, the Group had 68 employees.

The tables below show the structure and changes in headcount within the Group.

Headcount by role	31/12/2014	31/12/2013	31/12/2012
Global Bioenergies SA	64	46	37
Global Bioenergies GmbH	4	1	0
Chief Executive Officer	1	1	1
Admin / business dev.	10	8	6
Project managers	20	13	8
Engineers	9	5	4
Assistant engineers	2	0	0
Technicians	23	17	16
Lab assistants	3	3	2
Total	68	47	37

At 31 December 2014, the Group employed 74% of its staff on permanent contracts. At this same date, salaried executives amounted to 56% of the headcount, and 54% of employees were women.

The table below shows the breakdown of employee numbers at 31 December 2014 by age group:

	18 to 30 years old	31 to 40 years old	41 to 50 years old	51 and over
at 31 December 2014	31	19	13	5
<i>as % of total headcount</i>	<i>46%</i>	<i>28%</i>	<i>19%</i>	<i>7%</i>

The Company is not under any obligation to produce a human resources report. Elections for employee representatives to the works council are currently being organised.

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 Chairman of the Board of Directors and Chief Executive Officer	Molecular Biologist, Ecole Normale Supérieure. Has been leading industrial biology companies for over 10 years.
Frédéric Pâques	2013	Chief Operations Officer	Doctor of Molecular Genetics. Former researcher at the French centre for scientific research (CNRS) then Scientific Director at Collectis.
François-Henri Sahakian	2014	Chief Administrative and Financial Officer	Degree in Cellular Biology, Master's in Corporate Finance. Five years' experience in corporate finance at BPIFrance, then five years of corporate financial management.
Thomas Buhl	2010	Head of Business Development	Degree in Biological Engineering and Master's in Biotechnology Company Management. Former strategic development manager at Morphosys, one of Germany's top three biotechnology companies.
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).
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)

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.
Romain Chayot	2009	Head of Strains Construction	SupAgro university, microbiology thesis (Institut Pasteur) on microorganism engineering.
Denis Thibaut	2013	Head of Fermentation Department	Formerly head of the fermentation development department at Sanofi.
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
Marc Delcourt, Chairman of the Board of Directors	358,860	12.9%
Philippe Marlière, Director	358,635	12.9%
Various funds managed by Seventure Partners, represented by Sébastien Groyer,	742,994	26.8%
Various funds managed by CM-CIC Capital Finance, represented by Karine Lignel	322,578	11.6%
Total	1,783,037	64.2%

17.3 EMPLOYEE STAKES IN THE COMPANY'S SHARE CAPITAL

The Company issued 93,478 warrants for subscription to business creator shares (BSPCEs) to Company employees, allowing them to subscribe to this number of Company shares (see paragraph 21.1.4.2 of the Registration Document).

The Company also allocated 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).

17.4 INCENTIVE PLANS AND PROFIT SHARING

As the Company has over fifty employees, it will be obliged to implement a profit-sharing agreement when its profits exceed 5% of its equity. 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	31/12/2014		31/12/2013		31/12/2012	
	Number of shares	% capital and voting rights	Number of shares	% capital and voting rights	Number of shares	% capital and voting rights
Marc Delcourt ⁴⁷	358,860	12.9%	358,860	13.0%	358,860	19.7%
Philippe Marlière ⁴⁸	358,635	12.9%	358,900	13.0%	358,900	19.7%
Funds managed by Seventure Partners	742,994	26.8%	742,994	27.0%	722,833	39.8%
Funds managed by CM-CIC Investissement ⁴⁹	322,578	11.6%	322,578	11.7%	-	-
Cristal Union	164,861	5.9%	164,861	6.0%	75,652	4.2%
Public float	827,540	29.8%	807,063	29.3%	301,614	16.6%
Total	2,775,468	100.0%	2,755,256	100.0%	1,817,859	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.

18.2 VOTING RIGHTS OF PRINCIPAL SHAREHOLDERS

Unless otherwise provided for by law, each shareholder is entitled to as many voting rights and votes at General Meetings as the number of full paid-up shares they hold.

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.

Moreover, no measure has been set up within the Company to prevent 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.

⁴⁷ Shares directly and indirectly held by Schmilblick Ventures, of which it is the sole shareholder.

⁴⁸ Shares directly and indirectly held by Enuma, of which it is the sole shareholder.

⁴⁹ On 31 March 2015, CM-CIC Capital Finance changed its name to "CM-CIC Investissement".

19 RELATED-PARTY TRANSACTIONS

19.1 SIGNIFICANT AGREEMENTS WITH RELATED PARTIES

Licence 1 and Licence 2, as detailed in Section 11.2.3 above, are agreements signed between the Company and SCIENTIST OF FORTUNE SA, a company controlled and managed by Philippe Marlière. They thus come under Article L. 225-38 of the French Commercial Code. During the financial year ended 31 December 2014 (12-month period), the remuneration paid to SCIENTIST OF FORTUNE SA amounted to €257,700 breaking down as follows:

- €137,700 paid for Licence 1 in respect of 2014;
- €20,000 paid for Licence 2 in respect of 2014.

On 8 December 2014, the Company signed a "GM3" machines rental and technical assistance contract with Heurisko GmbH, a company controlled by Philippe Marlière. No remuneration was paid to this company during the year ended 31 December 2014.

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 Section 11.2.3.

On 18 May 2015, the Company signed a licence agreement with IBN-One SA, as well as a collaboration agreement with IBN-One SA and Cristal Union and a shareholders' agreement with IBN-One SA and Cristal Financière to ensure the development and operation by IBN-One SA of the first isobutene bioproduction plant using the processes developed by the Group.

19.2 SPECIAL STATUTORY AUDITORS' REPORT ON REGULATED AGREEMENTS FOR THE YEAR ENDED 31/12/2014

In our capacity as Statutory Auditors of your Company, we hereby present our report on regulated agreements.

In accordance with Articles L. 225-38 *et seq.* of the French Commercial Code, we were informed of the regulated agreements entered into during the year ended 31 December 2014, as well as those approved by the General Meeting in prior years and which were still in effect in the past financial year.

Our responsibility does not extend to seeking out the possible existence of other such agreements, but to inform you, based on the information given to us, of the main characteristics and provisions of the agreements brought to our attention, without having to express an opinion on their usefulness or appropriateness. It is up to you, under the terms of Article L. 225-38 *et seq.* of the French Commercial Code, to assess the benefits resulting from these agreements for their approval.

We conducted our review in accordance with the professional standards applicable in France, which require us to perform the necessary procedures to verify that the information provided to us is consistent with the source documents from which it stems.

1. AGREEMENTS SUBJECT TO APPROVAL BY THE GENERAL MEETING

Agreements subject to prior authorisation:

In accordance with Article L. 225-40 of the French Commercial Code, we were informed of the following agreements for which prior authorisation was granted by your Board of Directors.

- **Rider 8 to the Licence 1 agreement with Scientist of Fortune S.A.**
 - Purpose of the agreement: Integration of the following patent applications in the Licence 1 agreement of 13 February 2009:
 - "Method for enzymatic production of isoprenol using mevalonate as a substrate", filed with the European Patent Office (EPO) on 05/04/2012 under No. EP12163330.9;
 - "Production of volatile dienes by enzymatic dehydration of light alkenols", filed with the EPO on 29/08/2012 under No. EP12192428.6;
 - "Methods for the enzymatic production of isoprene", filed with the EPO on 13/11/2012 under No. EP12192428.6;
 - "Alkenol dehydratase variants", filed with the EPO on 17/05/2013 under No. EP13168380.7;
 - Rider 8 was authorised by the Board of Directors on 14 May 2014;
 - Director concerned: Philippe Marlière;
 - No royalty was paid during the year in respect of this rider.

- **Equipment rental and technical assistance agreement with Heurisko GmbH signed on 8 December 2014**
 - Purpose of the agreement: Rental of two "GM3" machines, assistance for the installation and use of said machines, and maintenance services;
 - The equipment rental and technical assistance agreement was duly authorised by the Board of Directors on 2 December 2014;
 - Director concerned: Philippe Marlière.

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;
 - The Licence 1 agreement was authorised by the Board of Directors on 13 February 2009, while riders 1 to 6 were authorised after their conclusion by the Board of

Directors on 24 April 2013 and ratified by the Ordinary General Meeting on 14 June 2013;

- Rider 7 was duly authorised by the Board of Directors on 29 April 2013;
- The riders were approved by the Board of Directors and ratified by the Ordinary General Meeting on 14 June 2013;
- Director concerned: Philippe Marlière;
- The services invoiced and paid during the year amounted to €137,746.00.

▪ **Licence 2 agreement with Scientist of Fortune S.A.**

- Purpose of the agreement: Operation and development of research work on biological butadiene;
- Licence 2 agreement signed on 8 July 2011 with Scientist of Fortune;
- Director concerned: Philippe Marlière;
- Authorisation given by the Board of Directors on 8 July 2011 ratified by the Ordinary General Meeting of 6 December 2012.
- This licence was granted subject to Company's annual payment of the highest of the following two amounts:
 - €120,000 exclusive of VAT;
 - 2% of the pre-VAT revenue earned from the direct exploitation of the patent applications set out in the Licence 2 agreement, and 10% of the pre-VAT revenue earned from the indirect exploitation of patent applications set out in the Licence 2 agreement.
- Scientist of Fortune has undertaken to sell to the Company all the technology, patents and patent applications coming under Licence 2 at the price of €1 million at any time should the Company request it.

This purchase shall become obligatory for the Company, at the request of Scientist of Fortune, if two conditions are jointly met:

- 1- the Company raises over €50 million in new funds;
- 2- the Company enters into an agreement with an industrial partner for the exploitation of the technology coming under Licence 2.

- The services invoiced and paid during the year amounted to €20,000 exclusive of VAT.

Such are the agreements which took place in the year ended 31 December 2014 and which come under Articles L. 225-38 *et seq.* of the French Commercial Code.

Evry, 30 April 2015

The Statutory Auditor

Max Peuvrier

20 FINANCIAL INFORMATION ON THE GROUP'S ASSETS, FINANCIAL SITUATION AND RESULTS

The Company's corporate financial statements for the year ended 31 December 2013 are presented in Chapter 20 of the Registration Document filed with the AMF on 21 November 2014 under number D.14-1067.

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. These consolidated financial statements were audited by the Statutory Auditor.

20.1 CONSOLIDATED FINANCIAL STATEMENTS OF GLOBAL BIOENERGIES AS AT 31 DECEMBER 2014 AND 31 DECEMBER 2013

BALANCE SHEET – ASSETS

	31/12/2014	31/12/2013
Concessions	27,007	11,456
Other intangibles assets	109,890	73,260
Technical facilities, Evry	2,285,784	1,489,119
Technical facilities, Pomacle	679,722	-
Other tangible assets	208,489	92,114
Assets under construction	547,281	-
Financial assets	109,799	91,385
NON-CURRENT ASSETS	3,967,972	1,757,334
Inventory	285,747	153,548
Trade receivables and related accounts	1,167,135	-
Supplier receivables	6,237	1,017
Staff costs	1,000	1,000
Income tax	1,976,815	1,470,035
VAT	573,591	253,167
Other receivables	577,953	4,134
Advances and down payments given	58,564	200
Marketable securities	684,690	602,014
Cash	14,972,793	23,093,031
Prepaid expenses	274,828	137,385
CURRENT ASSETS	20,579,353	25,715,531
Translation gains (losses)	-	-
ACCRUALS	-	-
TOTAL ASSETS	24,547,325	27,472,865

BALANCE SHEET – LIABILITIES

	31/12/2014	31/12/2013
Share Capital	138,773	137,763
Share premium and additional paid-in capital	36,008,993	34,945,386
Retained earnings	-12,087,291	-6,876,659
Group profit (loss)	-7,577,818	-5,210,634
NET TOTAL	16,482,657	22,995,856
Minority interest		
SHAREHOLDERS' EQUITY	16,482,657	22,995,856
Conditional advances	337,800	697,800
TOTAL OTHER CAPITAL	337,800	697,800
Provisions for pensions	28,522	18,733
PROVISIONS FOR RISKS AND CHARGES	28,522	18,733
Loans from credit institutions	2,636,765	1,018,804
Miscellaneous financial debts	1,187,391	740,000
Trade payables and related accounts	2,395,042	717,966
Advances received from customers	-	-
Tax and social security liabilities	581,463	386,021
Other operating liabilities	-	-
Non-operating liabilities	-	-
Deferred income	897,685	897,685
PAYABLES	7,698,346	3,760,476
TOTAL LIABILITIES	24,547,325	27,472,865

PROFIT & LOSS ACCOUNT

	31/12/2014	31/12/2013
Production sold	1,792,743	1,157,666
Operating subsidies	1,372,088	20,769
Reversals of provisions and depreciation, transfers of expenses	86,643	1,270,370
Other operating income	864	989
OPERATING INCOME	3,252,338	2,449,794
Raw materials purchases	1,236,981	821,996
Change in inventory	-132,200	-44,143
Other operating expenses	6,818,313	5,377,329
Duties and taxes	60,663	41,551
Employee costs	3,918,847	2,351,757
Depreciation, amortisation and provisions	586,390	345,760
Other operating expenses	263,517	261,369
OPERATING EXPENSES	12,752,511	9,155,619
OPERATING PROFIT (LOSS)	-9,500,174	-6,705,825
Interest and other income	244,827	128,582
Foreign exchange gains	2,580	754
Income from sales of marketable securities	37	19
FINANCIAL INCOME	247,444	129,355
Interest and financial expenses	108,150	16,130
Foreign exchange losses	9,690	7,661
FINANCIAL EXPENSES	117,840	23,791
FINANCIAL PROFIT (LOSS)	129,604	105,564
Asset management income	3,449	
Other income	54,652	10,497
EXCEPTIONAL INCOME	58,101	10,497
Asset management expenses	1,124	
Other exceptional expenses	140,385	33,536
EXCEPTIONAL EXPENSES	141,509	33,536
EXCEPTIONAL PROFIT (LOSS)	-83,408	-23,039
Income tax	1,876,159	1,412,666
NET PROFIT (LOSS) ATTRIBUTABLE TO THE GROUP	-7,577,818	-5,210,634

BASIC EARNINGS PER SHARE

Number of shares	Net profit (loss)	Earnings per share	
		Year N	Year N-1
2,775,468	-7,577,818 €	-2,73 €	-1,89 €

CASH FLOW

	31/12/2014	31/12/2013
Net profit (loss)	-7,577,818	-5,210,633
Depreciation and provisions on operations	586,390	345,760
OPERATING CASH FLOW	-6,991,428	-4,864,873

NET PROFIT (LOSS)	-7,577,818	-5,210,633
Amortisation	586,390	345,760
Capital gains on asset transfers	-10,991	
Cash flow	-6,980,437	-4,864,873
Change in working capital requirement	-1,028,863	531,749
Net cash generated by operations	-8,009,300	-4,333,124
Acquisition of fixed assets	2,801,074	785,415
Sale of fixed assets	2,845	
Cash flow from investments	-2,798,229	-785,415
Capital increase in cash	1,147,600	23,000,000
Capital increase expenses charged to premium	82,983	1,265,750
Repayable advances received	398,287	142,500
New loans	1,996,474	1,187,486
Loans repaid	379,103	241,561
Repayable advances repaid	360,000	300,000
Net cash from finance operations	2,720,275	22,522,675
Change in cash	-8,087,254	17,404,136
<i>Cash at start of year</i>	<i>23,695,045</i>	<i>6,290,909</i>
<i>Cash at year-end</i>	<i>15,607,789</i>	<i>23,695,045</i>

Consolidation principles and evaluation methods

General

These are the first consolidated financial statements drawn up by the Global Bioenergies Group. They were drawn up on a voluntary basis as the Group has not yet reached the legal thresholds for the 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.

The subsidiary which is more than 50%-owned by the Group is fully consolidated. This subsidiary is:

- ✓ **GLOBAL BIOENERGIES GmbH**

Reciprocal transactions and accounts

Reciprocal transactions and accounts between Group companies have been eliminated.

Goodwill

As the shares in Global Bioenergies GmbH were originally subscribed by Global Bioenergies SA, no goodwill was recognised.

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 life cycle 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 broken down 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% (including inflation)
- ✓ salary growth rate: 2%
- ✓ retirement age: 62 years
- ✓ life expectancy table: INSEE TV 88-90
- ✓ turnover rate:
 - Executives: 2%
 - Non-executives: 22%

The actuarial debt measures the likely commitment discounted to 31 December 2014 in respect of the rights accumulated on that date. It amounts to €27,922 as at 31 December 2014 and was recognised in the consolidated financial statements.

Individual entitlement to training

Given the company employee's short length of service, the commitment with regard to individual entitlement to training is insignificant as at 31 December 2014.

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 No. 508 596 012	Consolidating company		Research & Development
GLOBAL BIOENERGIES GmbH	LEIPZIG (Germany)	100,00%	Full consolidation	Research & Development

NON-CURRENT ASSETS (€)

	Balance at start of year	Inputs	Outputs	Balance at end of year
INTANGIBLE ASSETS	117,206	77,338		194,544
Software	43,946	40,708		84,654
Other intangible assets	73,260	36,630		109,890
TANGIBLE ASSETS	2,201,151	2,702,477	11,790	4,891,838
Technical facilities	2,056,822	1,986,858		4,043,680
Other tangible assets	144,329	168,338	11,790	300,877
Assets under construction		547,281		547,281
FINANCIAL ASSETS	91,385	21,259	2,845	109,799
TOTAL ASSETS	2,409,742	2,801,074	14,635	5,196,181

DEPRECIATION, AMORTISATION AND PROVISIONS (€)

	Value at start of year	Expenses	Reversals	Balance at end of year
AMORT. OF INTANGIBLE ASSETS	32,490	25,157		57,647
Software	32,490	25,157		57,647
AMORT. OF TANGIBLE ASSETS	619,918	551,444	799	1,170,563
Technical facilities	567,703	510,471		1,078,174
Other tangible assets	52,215	40,973	799	92,389
TOTAL AMORTISATION OF ASSETS	652,408	576,601	799	1,228,210

FINANCIAL ASSETS				
Inventory				
Trade receivables				
Other receivables				
Marketable securities				
TOTAL PROVISIONS	-	-	-	-

Maturities of receivables (in €)

Receivables	Under 1 year	1 to 5 years	Over 5 years	TOTAL
RECEIVABLES, CURRENT ASSETS	4,361,195			4,361,195
Trade receivables and related accounts	1,167,135			1,167,135
Other operating receivables	3,194,060			3,194,060
PREPAID EXPENSES	274,826			274,826
TOTAL	4,636,021	-	-	4,636,021

Maturities of payables (in €)

Payables	Under 1 year	1 to 5 years	Over 5 years	TOTAL
Borrowings and debts with credit institutions	723,384	1,912,790		2,636,174
Miscellaneous financial debts		1,039,391	148,000	1,187,391
Trade payables and related accounts	2,395,042			2,395,042
Tax and social security liabilities	581,463			581,463
Deferred income	897,685			897,685
TOTAL	4,597,574	2,952,181	148,000	7,697,755

Revenue (in €)

Revenue	31/12/2014
Production sold	1,792,743
TOTAL	1,792,743

Change in net consolidated position (in €)

	Capital	Premiums and equity warrants	Reserves	Net profit (loss) for the year	Shareholder's equity
Opening date	137,763	34,945,386	-6,876,659	-5,191,899	23,014,591
Capital increase	1,010	1,063,607			1,064,617
Net profit (loss) for the year				-7,577,818	-7,577,818
Allocation of previous year's profit (loss)			-5,210,633	5,210,633	
Dividends paid					
Other changes					
TOTAL	138,773	36,008,993	-12,087,292	-7,559,084	16,501,390

Corporate officers

This information would entail the disclosure of confidential data.

Workforce

The workforce of the two companies consists of 68 people.

Share capital

It is composed of 2,775,468 shares of €0.05 each, i.e. €138,773.40.

Events after the reporting date

No significant event has taken place after the preparation of these financial statements that would require a modification of the financial statements or disclosure in the notes thereto.

Exceptional profit (loss)

Exceptional profit (loss)	Expenses	Income
Items from prior years	1,122	3,449
Share buyback	140,385	54,652
Fines and penalties	4	
TOTAL	141,511	58,101

Off-balance-sheet commitments

	Residual amount at the time this table was prepared
COMMITMENTS GIVEN	1,394,197
Pledge on material	849,000
Pledge on securities	545,197
COMMITMENTS RECEIVED	400,000
BPI intervention	400,000

20.2 CORPORATE FINANCIAL STATEMENTS OF GLOBAL BIOENERGIES SA FOR THE YEAR ENDED 31 DECEMBER 2014

BALANCE SHEET	Gross	Amortization & Impairment	Net at 31/12/14	Net at 31/12/13
Intangible assets				
Set-up costs				
R&D costs				
Concessions, patents and similar rights	84,654	57,647	27,007	11,456
Goodwill				
Other intangible assets	109,890		109,890	73,260
Assets				
Land				
Buildings				
Technical facilities, equipment and tooling	1,649,113	301,782	1,347,331	470,316
Other tangible assets	293,026	91,179	201,847	92,114
Assets under construction/Advances & down payments	547,281		547,281	
Financial assets				
Equity investments and related receivables	1,350,000		1,350,000	25,000
Other long-term investments				
Loans				
Other financial assets	109,799		109,799	91,385
TOTAL FIXED ASSETS	4,143,763	450,608	3,693,155	763,531
Inventories				
Feedstock and other supplies	285,747		285,747	153,548
Goods in progress				
Services in progress				
Intermediate and finished products				
Goods				
Receivables				
Trade receivables and related accounts	1,167,135		1,167,135	
Supplier receivables	6,237		6,237	1,017
Personnel costs	1,000		1,000	1,000
Income tax	1,976,815		1,976,815	1,470,035
Tax on revenue	488,128		488,128	247,028
Other receivables	593,512		593,512	24,134
Miscellaneous				
Advances and down payments paid on orders	58,564		58,564	200
Marketable securities	684,690		684,690	602,014
Cash	14,785,238		14,785,238	23,075,133
Prepaid expenses	274,826		274,826	137,386
TOTAL CURRENT ASSETS	20,321,893		20,321,893	25,711,494
Charges to be deferred over several years				
Bond redemption premium				
Translation gains (losses) - Assets				
TOTAL ASSETS	24,465,656	450,608	24,015,047	26,475,025

	Net at 31/12/2014	Net at 31/12/2013
Share capital or individual capital	138,773	137,763
Share premiums & other paid-in capital	36,008,993	34,945,386
Revaluation adjustments		
Legal reserve		
Statutory or contractual reserves		
Regulated reserves		
Other reserves		
Retained earnings	-12,008,928	-6,876,659
Net profit (loss) for the year	-6,256,369	-5,132,269
Investment subsidies		
Regulated provisions		
TOTAL EQUITY	17,882,468	23,074,220
Proceeds from issues of equity securities		
Conditional advances	337,800	697,800
TOTAL OTHER CAPITAL	337,800	697,800
Provisions for risks		
Provisions for expenses		
TOTAL PROVISIONS FOR RISKS AND EXPENSES		
Convertible bonds		
Other bonds		
<i>Loans</i>	1,018,590	
<i>Bank overdrafts</i>		
Borrowings and debts with credit institutions	1,018,590	
Miscellaneous financial borrowings and debts	1,187,391	740,000
Miscellaneous financial borrowings and debts - Associates		
Advances & down payment received on current orders		
Trade payables and related accounts	2,123,760	682,181
<i>Staff costs</i>	231,480	150,955
<i>Social security contributions</i>	283,831	199,863
<i>Income tax</i>		
<i>Tax on revenue</i>		167
<i>Guaranteed bonds</i>		
<i>Other tax and social security liabilities</i>	52,043	32,154
Tax and social security liabilities	567,353	383,139
Payables on fixed assets and related accounts		
Other payables		
Deferred income	897,685	897,685
TOTAL PAYABLES	5,794,779	2,703,005
Translation gains (losses) - Liabilities		
TOTAL LIABILITIES	24,015,047	26,475,025

PROFIT & LOSS	From 01/01/14 to 31/12/14	From 01/01/13 to 31/12/13	Change (amount)	Change (%)
INCOME				
Sale of goods				
Production sold	1,792,743	1,157,666	635,077	54.86
Production stored				
Operating subsidies	769,866	20,769	749,096	NS
Other income	87,507	1,271,359	-1,183,852	-93.12
Total	2,650,116	2,449,794	200,322	8.18
CONSUMPTION OF GOODS & MATERIALS				
Purchase of goods				
Change in inventories (goods)				
Purchase of feedstock & other supplies	1,236,981	821,996	414,984	50.48
Change in inventories (feedstock)	-132,200	-44,143	-88,057	199.48
Other purchases & external expenses	5,557,297	5,580,920	-23,622	-0.42
Total	6,662,078	6,358,773	303,305	4.77
MARGIN ON GOODS & MATERIALS	-4,011,962	-3,908,979	-102,983	2.63
EXPENSES				
Duties, taxes and related expenses	60,663	41,551	19,112	46.00
Salaries and emoluments	2,836,719	1,833,803	1,002,916	54.69
Social security contributions	881,489	512,402	369,087	72.03
Depreciation, amortisation & provisions	262,044	111,492	150,553	135.03
Other expenses	263,517	261,369	2,148	0.82
Total	4,304,433	2,760,617	1,543,816	55.92
OPERATING PROFIT (LOSS)	-8,316,395	-6,669,596	-1,646,799	24.69
Financial assets	265,698	129,355	136,343	105.40
Financial liabilities	64,179	7,682	56,497	735.46
Financial income	201,519	121,673	79,846	65.62
Joint operations				
OPERATING PROFIT (LOSS)	-8,114,876	-6,547,923	-1,566,953	23.93
Exceptional income	1,037,585	457,983	579,602	126.56
Exceptional expenses	1,055,237	454,995	600,242	131.92
Exceptional profit (loss)	-17,652	2,988	-20,640	-690.83
Employee profit-sharing				
Income tax	-1,876,159	-1,412,666	-463,493	32.81
NET PROFIT (LOSS) FOR THE YEAR	-6,256,369	-5,132,269	-1,124,100	21.90

Notes to the financial statements

ACCOUNTING RULES AND PRINCIPLES

NOTES TO THE BALANCE SHEET AND THE PROFIT & LOSS ACCOUNT

Notes to the balance sheet before appropriation of earnings for the year ended 31/12/2014:

- which total €24,015,047;
- and notes to the profit & loss account showing a loss of €6,256,369, presented in list form.

The reporting period covers the 12 months from 01/01/2014 to 31/12/2014.

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 2014 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 and 3 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.

Wholly-owned subsidiary

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 2014, no revenue was recognised. A subsidy of €602,000 was booked, along with expenses of €1,914,000. Global Bioenergies SA granted the subsidiary a current account advance of €1,325,000,000 as at 31 December 2014. This advance bears interest at a rate of 2.79% for the year ended 31 December 2014, for €20,098.

The shares that Global Bioenergies SA holds in its subsidiary were not impaired for the following reasons:

- This is the second year of operation for Global Bioenergies GmbH;
- At the end of 2013, Global Bioenergies GmbH secured an agreement for a subsidy of €5.7 million from the German Federal Ministry of Education and Research, giving it financial visibility for the three years to come.

Capital increase through the exercise of share issue warrants (BEAs)

On 6 December 2012, the General Meeting authorised the Board of Directors to issue securities, on one or more occasions, on the French and/or international markets, with the cancellation of shareholders' preferential subscription rights. Said securities may consist of new Company shares and/or any other marketable securities conferring access to the Company's share capital, immediately or in the future, at any time or on a set date.

Consequently, on 14 May 2014, the Board of Directors decided to use this power to create 135,008 share issue warrants (BEAs) entitling their holders to subscribe to a maximum of 135,008 ordinary Company shares with a par value of €0.05 each.

The issue price of the BEAs was set at €0.001 per BEA.

The issue price of the shares subscribed via the exercise of the BEAs is set at 95% of the lowest weighted average daily price of the Company's shares over the five consecutive trading days preceding the subscription request.

The 135,008 BEAs were issued to YA GLOBAL MASTER SPV LTD. On 14 May 2014, the Board of Directors delegated its powers to the Chairman in his capacity as CEO to decide on the final terms for the issue of the BEAs under the conditions set, and more specifically:

- Issue the BEAs;
- Determine the terms of payment for the shares and BEAs;
- Set, if necessary, the terms for the exercise of the rights attached to the shares or other securities to be issued and, in particular, set the date, even retroactively, starting on which the new shares will bear dividend rights;
- Collect the subscriptions and corresponding payments, record each capital increase and amend the bylaws accordingly;
- Sign and implement the BEA issue agreement;
- Enter into any agreement, take all appropriate measures and carry out all formalities related to the issue and the recording of the securities thus issued with the financial service.

The Board of Directors resolved that the CEO would report on the use of the powers granted to him and on the final terms of the transaction.

On 16 May 2014, the CEO decided to issue 135,008 BEAs under the powers granted to him by the Board of Directors on 14 May 2014.

On 9 June 2014, the CEO asked YA GLOBAL MASTER SPV LTD to exercise part of its BEAs and to subscribe to 1,500 Company shares at the price of €39.4438 per share, including the issue premium. On 11 June 2014, the CEO noted that YA GLOBAL MASTER SPV LTD had paid its entire subscription in the amount of €9,165.70 and amended article 6 "Share Capital" of the Company's bylaws.

On 8 October 2014, the CEO asked YA GLOBAL MASTER SPV LTD to exercise part of its BEAs and to subscribe to 2,600 Company shares at the price of €38.7835 per share, including the issue premium. The CEO noted that YA GLOBAL MASTER SPV LTD had paid its entire subscription in the amount of €100,837.10 and amended article 6 "Share Capital" of the Company's bylaws.

On 14 October 2014, the CEO asked YA GLOBAL MASTER SPV LTD to exercise part of its BEAs and to subscribe to 2,700 Company shares at the price of €38.2217 per share, including the issue premium. The CEO noted that YA GLOBAL MASTER SPV LTD had paid its entire subscription in the amount of €103,198.59 and amended article 6 "Share Capital" of the Company's bylaws.

On 29 October 2014, the CEO asked YA GLOBAL MASTER SPV LTD to exercise part of its BEAs and to subscribe to 2,750 Company shares at the price of €36.4014 per share, including the issue premium. On 31 October 2014, the CEO noted that YA GLOBAL MASTER SPV LTD had paid its entire subscription in the amount of €100,103.85 and amended article 6 "Share Capital" of the Company's bylaws.

On 4 December 2014, the CEO asked YA GLOBAL MASTER SPV LTD to exercise part of its BEAs and to subscribe to 7,000 Company shares at the price of €35.8730 per share, including the issue premium. On 5 December 2014, the CEO noted that YA GLOBAL MASTER SPV LTD had paid its entire subscription in the amount of €251,111.00 and amended article 6 "Share Capital" of the Company's bylaws.

The capital increase fees amounted to €2,982.50. They were booked as expenses. The impact on the profit & loss account was offset by an expense transfer coming under "Other income" and charged to the issue premium in the same amount.

Capital increase through the exercise of founders' warrants (BSPCEs)

On 7 February 2013, the Board of Directors resolved, under the powers granted to it by the General Meeting of 6 December 2012, to issue 27,209 02-2013 founders' warrants (BSPCEs) to a number of employees.

In March 2014, one of the beneficiaries exercised 400 02-2013 BSPCEs and subscribed to 400 shares at the price of €29.89, including the issue premium, and paid the total amount of the subscription, i.e. €11,956. On 19 June 2014, the Board of Directors consequently resolved to increase the Company's capital through the issue of 400 shares with a par value of €0.05 each and amended article 6 "Share Capital" of the bylaws.

Capital increase through the exercise of equity warrants (BSAs)

On 30 October 2012, the Board of Directors resolved, under the powers granted to it by the General Meeting of 12 May 2011, to issue 10,000 10-2012 equity warrants (BSAs) to two people. On 17 October 2014, the Board of Directors acknowledged the request for the exercise of 100 10-2012 BSAs giving the right to subscribe to 100 new ordinary shares of the Company, as well as the payment of the subscription price of €2,210. Consequently, the Board of Directors resolved to increase the Company's capital through the issue of 100 shares with a par value of €0.05 and amended article 6 "Share Capital" of the bylaws.

Award of free shares

The Board of Directors was authorised by the General Meeting of 12 May 2011 to award free Company shares to Company employees or corporate officers, following a vesting period.

During the year ended 31 December 2014, 3,162 free shares with a par value of €0.05 each were awarded to several Company employees. These shares were created by deducting the corresponding amount from the issue premium.

As at 31 December 2014, no free shares remained to be awarded.

Award of BSPCEs – BSAs – BEAs

Since 2009, the Company has set up various stock plans such as BSPCEs, BSAs and BEAs. The details of these stock plans are set out in the table below:

Stock plans	Number of warrants outstanding as at 31/12/14	Corresponding number of shares	Latest exercise date
BSA 06-2009	12,000	12,000	30/11/19
BSA 12-2011	2,477	2,477	19/12/21
BSA 10-2012	9,900	9,900	29/10/22
BSPCE 02-2013	24,356	24,356	06/02/18
BSPCE A01-2014	12,750	12,750	07/01/19
BSPCE B01-2014	15,400	15,400	07/01/19
BSA A01-2014	8,000	8,000	07/01/24
BSA B01-2014	34,247	34,247	30/04/16
BEA	118,458	118,458	16/05/17
BSA 07-2014	3,000	3,000	02/07/24
BSPCE A07-2014	6,600	6,600	02/07/24
BSPCE B07-2014	1,500	1,500	02/07/24

Change in share capital

The share capital of Global Bioenergies SA was as follows at the end of each fiscal year:

	30/06/09	30/06/10	30/06/11	30/06/12	31/12/12	31/12/13	31/12/14
Capital in euros	41,800	46,600	79,009	82,830	90,892.95	137,762.80	138,773.40
Nbr of existing ordinary shares	41,800	46,600	1,580,180	1,656,600	1,817,959	2,755,256	2,775,468

Treasury shares

On 12 May 2011, the General Meeting authorised the Board of Directors to implement a share buyback programme. This authorisation was renewed by the General Meeting of 6 December 2012. 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 December 2014, since the signing of the liquidity contract during the IPO, Global Bioenergies SA has paid out €350,000, breaking down as follows:

- 4,706 treasury shares representing 0.17% of the total number of outstanding shares, at the acquisition price of €38,960.13;
- Cash account in the amount of €75,766.52.

Young Innovative Enterprise (JEI) status

Following the query filed by Global Bioenergies SA, the Essonne tax authority granted the Company the JEI status.

This status totally exempts the Company from income tax the first year it posts a profit and reduces its tax liability by 50% the second year it posts a profit. Throughout the period during which the special status applies, the Company is also totally exempt from the annual flat-rate tax and territorial economic contribution, and partially or totally exempt from social security contributions on researchers' salaries. These exemptions have been granted until 2015, provided the Company complies with the five necessary conditions at the end of each year.

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 2014, the quarterly fees totalled €106,496 and the additional fees amounted to €1,250.

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: €20,000 or 10% of indirect revenue. In view of the revenue earned in respect of this licence agreement, the fee amounts to €20,000 for the year ended 31 December 2014.

Research Tax Credit (CIR)

In 2014, Global Bioenergies SA had expenditure covered by the Research Tax Credit, in the amount of net received subsidies of €6,253,865. Taking into account the subsidies and repayable advances received in 2014, Global Bioenergies SA calculated a Research Tax Credit of €1,876,159 for 2014.

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 €9,000 excluding tax.

Revenue

At year-end, the Company's revenue was made up of services provided under a multi-year development contract. The payment received during the year in respect with this contract was recognised prorata temporis.

The geographical breakdown is as follows:

In euros	France	Rest of the world	Total
Service provision	0	1,791,666	1,791,666
Related income	833	243	1,076
Total	833	1,791,909	1,791,742

Innovation aid received in previous years

In 2009, Global Bioenergies SA was awarded innovation aid estimated at €60,000 but the final amount of which was €22,800.

For the year ended 30 June 2010, Global Bioenergies SA received €30,000.

For the year ended 30 June 2011, no amount was received under this aid.

For the year ended 30 June 2012, no amount was received under this aid.

For the year ended 31 December 2012, Global Bioenergies SA received €92,800.

The reimbursement of this aid started on 31 March 2013 and must be completed by 31 December 2015.

The reimbursement for the year ended 31 December 2014 totalled €20,000.

The amount remaining to be reimbursed as at 31 December 2014 is €12,800, in less than one year.

In 2011, Global Bioenergies SA was awarded innovation aid of €75,000.

For the year ended 30 June 2012, Global Bioenergies SA received €32,500.

For the year ended 31 December 2012, no amount was received under this aid.

For the year ended 31 December 2013, Global Bioenergies SA received €42,500.

The reimbursement of this aid started on 31 March 2013 and must be completed by 31 December 2015.

The reimbursement for the year ended 31 December 2014 totalled €40,000.

The amount remaining to be reimbursed as at 31 December 2014 is €15,000 in less than one year.

Innovation aid received during the year

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.

The project's total eligible expenses amount to €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 €98,287.24.

During the year ended 31 December 2014, the expenses incurred by Global Bioenergies SA for the Bioma + project totalled €3,000,808. Consequently, accrued income of €69,890 was recognised in respect of the subsidy portion.

The repayable advance will have to be refunded to ADEME according to the progress of the operation and the achievement of technical objectives. The repayments will bear interest at the annual rate of 15%. For the year ended 31 December 2014, interest of €49,104 was recognised.

Interest-free innovation loan

During the year ended 31 December 2013, Global Bioenergies SA was awarded an interest-free innovation loan of €740,000 by Oséo, 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 will take place on 31 March 2016 and the last on 31 December 2020, i.e.:

- One to five years: €92,000
- Over five years: €148,000

Average number of employees

During the year ended 31 December 2014, the average number of employees at Global Bioenergies SA amounted to 58, of which 28 non-managers and 30 managers.

As at 31 December 2014, the Company had 64 employees (see Note 13).

Retirement commitments

As at 31 December 2014, the retirement commitments amounted to €27,922 and were not recognised in the accounts.

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

Individual entitlement to training

Given the Company employee's short length of service, the commitment with regard to individual entitlement to training is insignificant as at 31 December 2014.

Competitiveness-Employment tax credit (CICE)

The CICE on eligible wages paid in 2014 was recognised in account 444 – Income tax – in the amount of €74,696. 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.

Asset refinancing through lease-back arrangement

During the fiscal years ended 31 December 2013 and 31 December 2014, Global Bioenergies SA acquired fixed assets for a gross amount of €78,474.32, which it then sold to a finance leasing firm to fully refinance them. Given the depreciation allowances booked between the acquisition date and the refinancing date, exceptional income of €6,446.86 was recognised.

In the following tables, all amounts are expressed in thousands of euros unless otherwise stated.

Financial information

Balance sheets as at 31 December 2014 and 31 December 2013, under French standards

ASSETS	Note	31 December 2014	31 December 2013
Intangible assets	2	137	85
Assets	3	2,096	562
Financial assets	4	1,460	116
Fixed assets		3,693	763
Inventories	5	286	154
Trade receivables and related accounts		1,167	0
Other receivables and accruals	6	3,399	1,881
Short-term investments		15,437	23,226
Cash	7	33	452
Current assets		20,322	25,713
Total assets		24,015	26,475
LIABILITIES	Note	31 December 2014	31 December 2013
Capital		139	138
Share premium		36,009	34,945
Retained earnings		-12,009	-6,877
Profit (loss)		-6,256	-5,132
Equity	1	17,883	23,074
Conditional advances	8	338	698
Loans	9	2,206	740
Trade payables and related accounts	10	2,123	682
Other debts	10	1,465	1,281
Payables		6,132	3,401
Total liabilities		24,015	26,475

Profit & loss accounts as at 31 December 2014 and 31 December 2013, under French standards

	Note	31 December 2014	31 December 2013
Revenue		1,793	1,158
Subsidies		770	21
Other income		1	1
Total operating income		2,564	1,180
Consumables and change in inventories		1,105	778
External expenses		5,471	4,311
Duties and taxes		61	42
Staff costs	13	3,718	2,346
Fees		225	260
Amortisation		262	111
Other expenses		8	1
Total operating expenses		10,880	7,849
Operating profit (loss)		-8,316	-6,669
Financial assets		266	129
Financial liabilities		64	8
Financial income	11	202	121
Exceptional income		1,038	458
Exceptional expenses		1,055	455
Exceptional profit (loss)	12	-17	3
Research tax credit		1,876	1,411
Apprenticeship tax credit		0	1
Withholding tax		0	0
Net profit (loss)		-6,256	-5,132

NB: the expenses relating to the capital increases carried out in 2013 and 2014 were recognised as transfers of expenses. However, in the above table, they were deducted from external expenses, as in previous years.

CASH-FLOW			
	31 Dec 2014	31 Dec 2013	31 Dec 2012
Net profit (loss)	-6,256	-5,132	-251
Amortisation	262	111	66
Capital gain on asset disposal	66	26	23
Cash flow	-6,060	-5,047	-208
Change in working capital requirement	-1,189	499	-519
Net cash flow from operating activities	-7,249	-4,548	-727
Acquisition of fixed assets	4,108	830	434
Sale of fixed assets	979	447	396
Cash-flow from investments	-3,129	-383	-38
Capital increase in cash	1,148	23,000	3,054
Capital increase expenses charged to share premium	83	1,266	284
Repayable advances received	398	142	193
Loans arranged	1,018	740	0
Repayable advances repaid	360	300	0
Net cash flow from financing activities	2,121	22,316	2,963
Change in cash-flow	-8,257	17,386	2,198
Cash at start of year	23,677	6,291	4,093
Cash at year-end	15,420	23,677	6,291

Notes

Note 1: Change in Equity

Net amount at 31 December 2013	23,074
Capital increase	1
Increase in share premium	1,064
Dividend distribution	0
Profit (loss)	(6,256)
Net amount at 31 December 2014	17,883

Note 2: Intangible assets

Items	31 December 2013	Increase	Decrease	31 December 2014
Software and website	117	77		194
Intangible assets, gross	117	77		194
Amortisation	32	25		57
Impairment	0			0
Intangible assets, net	85	52	0	137

Note 3: Tangible assets

Items	31 December 2013	Increase	Decrease	31 December 2014
Research material	641	2,523	967	2,197
Fixtures and fittings	51	117	0	169
IT equipment	86	40	13	113
Furniture	7	4	0	11
Intangible assets, gross	785	2,685	980	2,490
Depreciation/Amortisation	223	237	67	393
Impairment	0	0	0	0
Intangible assets, net	562	2,448	913	2,097

Note 4: Financial assets

Items	31 December 2013	Increase	Decrease	31 December 2014
Deposits and guarantees	91	22	3	110
Equity investments	25	0	0	25
Receivables from equity investments (*)	0	1,325	0	1,325
Financial assets, gross	116	1,347	3	1,460
Impairment	0			0
Financial assets, net	116	1,347	3	1,460

(*) The increase in receivables from equity investments corresponds to the current account advance provided by Global Bioenergies SA to its German subsidiary.

Note 5: Inventories

Items	31 December 2013	Decrease	31 December 2014
Consumable materials	285	0	285
TOTAL	285	0	285

The sharp growth in the Company's activities, along with the significant increase in the size of its premises and purchase of consumables had a significant impact on inventories, which grew 80% compared with 2013.

Note 6: Other Receivables and Accruals

Items	Gross, 31 December 2013	Provision	Net, 31 December 2014	Under 1 year	Under 5 years
Trade receivables	1,167	0	1,167	1,167	0
Other receivables	3,122	0	3,122	3,122	0
Prepaid expenses	275	0	275	275	0
TOTAL	4,564	0	4,564	4,564	0

Other receivables mainly consist of various tax credits totalling €2,264,000 (CIR, CICE, VAT receivables and apprenticeship tax credit), as well as a subsidy of €70,000 to be received

Note 7: Cash and cash equivalents and investments

As at 31 December 2014, cash and cash equivalents totalled €14.7 million, breaking down as follows:

- Bank current accounts: €0.03 million
- Term accounts: €9.5 million
- Term deposits: €5 million
- Accrued interest: €0.215 million

Note 8: Conditional advances

Items	31 December 2013	Increase	Decrease	31 December 2014
Repayable advances	697	0	360	337
TOTAL	697	0	360	337

Note 9: Loans

Items	31 December 2013	Increase	Decrease	31 December 2014
Bpifrance (formerly Oséo)	740	0	0	740
BNP	0	800	0	800
SG	0	218	0	218
Ademe	0	398	0	398
TOTAL	700	1,416	0	2,156

Note 10: Operating liabilities

Items	Gross amount	Under 1 year	Under 5 years
Trade accounts payable	2,124	2,124	0
Tax and social security liabilities	567	567	0
Deferred income	898	898	0
TOTAL	3,589	3,589	0

Note 11: Financial income (loss)

Items	31 December 2014
Foreign exchange gains	3
Income from investments	263
Total income	266
Foreign exchange losses	7
Interest on loans	57
Financial income	64

Financial income	202
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Note 12: Exceptional income (loss)

Items	31 December 2014
Exceptional management income	3
Proceeds from asset disposal	979
Share buyback gain	55
Total income	1,038
Exceptional management expenses	1
Value of assets sold	914
Share buyback loss	140
Total expenses	1,055

Exceptional profit (loss)	(18)
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Note 13: Staff costs

Staff at	31 December 2014
Managers	34
Non-managers	30
Total	64

Staff costs	31 December 2014
Salaries	2,837
Social security contributions	881
Total	3,718

Note 14: Off-balance-sheet commitments

Items	31 December 2014
Deposits, sureties and other guarantees given	
Pledge on material	849
Pledge on securities	545
Finance lease commitment	1,677
Other commitments given	
Total commitments given	3,071

Deposits, sureties and other guarantees received	400
Finance lease commitment	
Other commitments received	
Total commitments received	400

OTHER INFORMATION
(€ thousands)

ACCRUED INCOME

Accrued income included in the following balance sheet items	31 December 2014
Other receivables	8
Interest on current accounts	16
Interest on term accounts	216
Total	240

ACCRUED LIABILITIES

Accrued liabilities included in the following balance sheet items	31 December 2014
Trade payables and related accounts	306
Tax and social security liabilities	285
Total	591

DEFERRED INCOME

Prepaid expenses	31 December 2014
Operating income	898
Total	898

PREPAID EXPENSES

Prepaid expenses	31 December 2014
Operating expenses	275
Financial liabilities	
Exceptional expenses	
Total	275

FINANCE LEASE

	Land	Buildings	Equipment & tooling	Other	Total
Initial value			2,394,567.00		2,394,567.00
Prior years' total			397,289.00		397,289.00
Provision for the year			379,103.00		379,103.00
Depreciation/Amortisation			776,392.00		776,392.00
Prior years' total			423,801.09		423,801.09
Fiscal year			445,513.00		445,513.00
Fees paid			869,314.09		869,314.09
Up to one year			559,939.32		559,939.32
Over one year and up to five years			1,117,379.35		1,117,379.35
Fees remaining to be paid			1,677,318.67		1,677,318.67
Over one year and up to five years			86,858.00		86,858.00
Residual value			86,858.00		86,858.00
Amount for the year			430,332.22		430,332.22

20.3 VERIFICATION OF HISTORICAL FINANCIAL DATA

20.3.1 Statutory Auditor's general report on the consolidated financial statements as at 31 December 2014

Pursuant to the mission entrusted to us by your General Meeting, we hereby present our report for the fiscal year ended 31/12/2014, on the following:

- the review of the consolidated financial statements of GLOBAL BIOENERGIES, as appended to this report ;
- the substantiation of our assessments ;
- the specific verifications and disclosures required by law.

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.

1 - Opinion on the financial statements for the fiscal year

We conducted our audit in accordance with the professional standards applicable in France; these standards require us to perform the necessary procedures to obtain reasonable assurance that the consolidated financial statements contain no material misstatements. An audit involves verifying, on a test basis or through the use of any other selection methods, the evidence supporting the amounts and data provided in the consolidated financial statements. It also involves assessing the accounting principles used, any significant estimates made, and the overall presentation of the financial statements. We believe that the evidence we have collected forms an adequate, appropriate basis for our opinion. We certify that the year's consolidated financial statements provide a true and fair view of the net worth, financial situation and results of the consolidated group, in accordance with the accounting rules and principles applicable in France.

2 – Substantiation of our assessments

Pursuant to the provisions of Article L. 823-9 of the French Commercial Code on the substantiation of our assessments, we would like to draw your attention to the following matters:

As part of our assessment of the accounting rules and principles used by your company, we examined the data and assumptions underlying the estimates made by Management and reviewed the calculations made by the Company. These assessments form part of the audit of the consolidated financial statements taken as a whole, and thus contributed to shaping our opinion expressed in the first part of this report.

3 – Specific verifications and disclosures

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. We have no comments to make as to the fair presentation of this information, or its consistency with the consolidated financial statements.

Évry, 30 April 2015

The Statutory Auditor

Max Peuvrier

20.3.2 Statutory Auditor's general report on the corporate financial statements as at 31 December 2014

**FRANCE AUDIT CONSULTANTS
INTERNATIONAL**
10, allée des Champs-Élysées
91042 Evry

GLOBAL BIOENERGIES
Société Anonyme
5 rue Henri Desbruères
91000 EVRY

Statutory Auditor's Report on the financial statements for the fiscal year as at 31/12/2014

To the shareholders,

Pursuant to the mission entrusted to us by your General Meeting, we hereby present our report for the fiscal year ended 31/12/2014, on the following:

- the review of GLOBAL BIOENERGIES's financial statements for the fiscal year, as appended to this report;
- the substantiation of our assessments;
- the specific verifications and disclosures required by law.

The financial statements for the fiscal year were approved by your Board of Directors. Our role is to express an opinion on these financial statements, based on our audit.

1 - Opinion on the financial statements for the fiscal year

We conducted our audit in accordance with the professional standards applicable in France; these standards require us to perform the necessary procedures to obtain reasonable assurance that the financial statements for the fiscal year contain no material misstatements. An audit involves examining, on a test basis or through the use of any other selection methods, the evidence supporting the amounts and data provided in the financial statements for the fiscal year. It also involves assessing the accounting principles used, any significant estimates made, and the overall presentation of the financial statements.

We believe that the evidence we have collected forms an adequate, appropriate basis for our opinion.

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.

2 – Substantiation of our assessments

Pursuant to the provisions of Article L. 823-9 of the French Commercial Code, regarding the basis of our opinion on the financial statements for the fiscal year taken as a whole, we hereby inform you that our assessments, which focused on the accounting principles applied, the significant estimates used for the preparation of the financial statements, and their overall presentation, call for no special comment.

These assessments form part of the audit of the financial statements for the fiscal year taken as a whole, and thus contributed to shaping our opinion expressed in the first part of this report.

3 – Specific verifications and disclosures

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' report and the documents sent to the shareholders on the Company's financial position and the financial statements for the fiscal year.

Evry, 30 April 2015

The Statutory Auditor

Max Peuvrier

20.4 DATE OF LATEST FINANCIAL INFORMATION

The financial statements as at 31 December 2014 are the latest financial statements audited by the Statutory Auditor.

20.5 INTERIM FINANCIAL INFORMATION

None.

20.6 PRO FORMA FINANCIAL INFORMATION

None.

20.7 DIVIDEND DISTRIBUTION POLICY

20.7.1 Distribution policy

It is not the Company's intention to pay dividends in the near or medium terms.

20.7.2 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.

20.8 JUDICIAL AND ARBITRATION PROCEEDINGS

On the filing date of the Registration Document and to the Company's knowledge, there are no exceptional events or governmental, judicial or arbitration proceedings which may have, or having had over the past 12 months, a significant unfavourable impact on the Company's financial situation.

20.9 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

The Company's share capital is €138,773.40, divided into 2,775,468 shares with a par value of €0.05 per share, fully paid in and all of the same class.

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 19 June 2014 and 3 June 2015.

Purpose of resolution adopted by the General Shareholders Meeting of 19 June 2014 and 3 June 2015	Date the delegation expires (duration of the delegation)	Maximum amount authorised	Previous delegations used	Residual amount at the time this table was prepared (in €)
<p>AGM of 3 June 2015 (6th resolution)</p> <p><i>Issuance of common shares and/or securities immediately and/or eventually convertible into the Company's equity, with preferential subscription rights of shareholders (*)</i></p>	02/08/2017 (26 months)	€200,000 (€100,000,000 with respect to debt instruments)	-	€200,000 (€100,000,000 with respect to debt instruments)
<p>AGM of 3 June 2015 (7th resolution)</p> <p><i>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 (*)</i></p>	02/08/2017 (26 months)	€200,000 (€100,000,000 with respect to debt instruments)	-	€200,000 (€100,000,000 with respect to debt instruments)

<p>AGM of 3 June 2015 (8th resolution)</p> <p><i>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</i> (*)</p>	<p>02/08/2017 (26 months)</p>	<p>€200,000 (€100,000,000 with respect to debt instruments)</p>	-	<p>€200,000 (€100,000,000 with respect to debt instruments)</p>
<p>AGM of 3 June 2015 (16th resolution)</p> <p><i>Increase in the number of shares to be issued in the event of a capital increase with or without preferential subscription rights of shareholders, subject to the time frames and limits provided by applicable regulations in force at the date of issue</i></p>	<p>02/08/2017 (26 months)</p>	<p>Ceiling of the resolution governing the initial issue</p>	-	<p>Ceiling of the resolution governing the initial issue</p>
<p>AGM of 3 June 2015 (9th resolution)</p> <p><i>Capital increase via the incorporation of premiums, reserves, earnings or other items</i> (*)</p>	<p>02/08/2017 (26 months)</p>	<p>€200,000</p>	-	<p>€200,000</p>

<p>AGM of 19 June 2014 (12th resolution)</p> <p><i>Issuance without preferential subscription rights of shareholders to a category of persons of common shares and/or securities immediately and/or eventually convertible into the Company's share capital or into its debt instruments (*)</i></p>	<p>18/12/2015 (18 months)</p>	<p>€200,000 (€100,000,000 with respect to debt instruments)</p>	-	<p>€200,000 (€100,000,000 with respect to debt instruments)</p>
<p>AGM of 3 June 2015 (10th resolution)</p> <p><i>Awards of restricted Company stock, in accordance with Articles L. 225-197-1 et seq. of the French Commercial Code (**)</i></p>	<p>02/08/2018 (38 months)</p>	<p>€0,000 Total number of existing or unissued shares of restricted stock, limited to 10% of capital as of the grant date</p>	-	<p>€0,000</p>
<p>AGM of 3 June 2015 (11th resolution)</p> <p><i>Issuance of Company common share purchase warrants (BSAs) without pre-emptive subscription rights, for a category of persons (**)</i></p>	<p>02/12/2016 (18 months)</p>	<p>€0,000</p>	-	<p>€0,000</p>
<p>AGM of 3 June 2015 (13th resolution)</p> <p><i>Issuance of warrants for subscription to business creator shares (French acronym BSPCE) without pre-emptive subscription rights, for a category of persons (**)</i></p>	<p>02/12/2016 (18 months)</p>	<p>€0,000</p>	-	<p>€0,000</p>

<p>AGM of 3 June 2015</p> <p>(15th resolution)</p> <p><i>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</i></p>	<p>02/08/2017</p> <p>(26 months)</p>	<p>€9,000</p>	<p>-</p>	<p>€9,000</p>
<p>AGM of 19 June 2014</p> <p>(14th resolution)</p> <p><i>Capital increases reserved for employees (par. 2) enrolled in a savings plan sponsored by the Company</i></p>	<p>18/08/2016</p> <p>(26 months)</p>	<p>€9,000</p>	<p>-</p>	<p>€9,000</p>

() The Ordinary and Extraordinary General Shareholders Meeting of 3 June 2015 voted that the issues carried out pursuant to these resolutions would be subject to a shared ceiling of €200,000 with respect to equity securities and €100,000,000 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 3 June 2015 voted that the issues carried out pursuant to these resolutions are subject to a shared ceiling of €9,000.*

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

At 31 December 2014 the Company held 4,706 shares representing less than 0.2 % of its capital⁵⁰, as part of a liquidity contract managed by Gilbert Dupont.

The Company's General Meeting of 19 June 2014 authorised, for a period of 18 months from the Meeting forward, a share buyback program in order to:

⁵⁰Based on the number of shares comprising the share capital at the filing date of the Registration Document

- carry out any and all of the Company's stock option plans under Articles L. 225-177 *et seq.* of the French Commercial Code or any similar plan;
- award restricted stock under Articles L. 225-197-1 *et seq.* of the French Commercial Code;
- grant or sell shares to the employees and/or corporate officers of the Company and/or the Group in connection as a way for them to share in the company's profits or to carry out any employee savings plan as provided by law, particularly Articles L. 3332-1 *et seq.* of the French Labour Code;
- tender shares when rights attached to securities convertible into equity are exercised by redemption, conversion, exchange, presentation of a warrant or by any other means;
- tender in exchange or payment for external growth transactions, mergers, spin-offs or asset contributions, not to exceed 5% of the Company's share capital as provided by Article L. 225-209 par. 6 of the French Commercial Code, so as to minimise the acquisition cost or more broadly improve the terms of a transaction in the manner prescribed by the *Autorité des Marchés Financiers*;
- stimulate 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
- cancel all or part of such repurchased shares based on the 8th resolution, also approved by the same General Meeting.

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 €5,510,512.

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, at 30 April 2014 the total number of shares was 2,755,256, 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 common share purchase warrants (**BSAs 06-09**) entitling the purchase of 12,000 new shares in the Company;
- 2,477 common share purchase warrants (**BSAs 2-2011**) entitling the purchase of 2,477 new shares in the Company;
- 9,900 common share purchase warrants (**BSAs 10-2012**) entitling the purchase of 9,900 new shares in the Company;

- 20,352 warrants for subscription to business creator shares (**BSPCEs 02-2013**) entitling the purchase of 20,352 new shares in the Company;
- 12,417 warrants for subscription to business creator shares (**BSPCEs A01-2014**) entitling the purchase of 12,417 new shares in the Company;
- 14,600 warrants for subscription to business creator shares (**BSPCEs B01-2014**) entitling the purchase of 14,600 new shares in the Company;
- 8,000 common share purchase warrants (**BSAs A01-2014**) entitling the purchase of 8,000 new shares in the Company;
- 34,247 common share purchase warrants (**BSAs B01-2014**) entitling the purchase of 34,247 new shares in the Company;
- 71,415 share issue warrants (**BEAs**) entitling the purchase of 71,415 new shares in the Company as part of the optional equity financing line signed with Yorkville Advisors on 16 May 2014, for which 135,008 BEAs were initially issued⁵¹.
- 3,000 common share purchase warrants (**BSAs 07-2014**) entitling the purchase of 3,000 new shares in the Company;
- 6,200 warrants for subscription to business creator shares (**BSPCEs A07-2014**) entitling the purchase of 6,200 new shares in the Company;
- 1,500 warrants for subscription to business creator shares (**BSPCEs B07-2014**) entitling the purchase of 1,500 new shares in the Company;
- 8,625 warrants for subscription to business creator shares (**BSPCEs A01-2015**) entitling the purchase of 8,625 new shares in the Company;
- 18,419 warrants for subscription to business creator shares (**BSPCEs B01-2015**) entitling the purchase of 18,419 new shares in the Company;
- 6,000 common share purchase warrants (**BSAs A01-2015**) entitling the purchase of 6,000 new shares in the Company;
- 750 common share purchase warrants (**BSAs B01-2015**) entitling the purchase of 750 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 0.92% if all of these dilutive instruments were exercised.

The equity warrants (BSAs) and founders' warrants (BSPCEs) issued by the Company account for 5.3% of the Company's fully diluted share capital, including 2.9% for Group employees, 1.1% for Audi AG, 0.9% for Richard Bockrath and Charles E. Nakamura (Vice-Chairmen) and 0.4% for the members of the Scientific Board.

21.1.4.1 Common share purchase warrants (BSAs)

At the date of the Registration Document, 600 BSAs 06-09, 2,477 BSAs 12-2011, 10,000 BSAs 10-2012, 8,000 BSAs A01-2014, 34,247 BSAs B01-2014, 3,000 BSAs 07-2014, 6,000 BSAs A01-2015 and 750 BSAs B01-2015 were granted, or a total of 65,074 BSAs entitling the purchase of 76,474 new

⁵¹ The terms and conditions for the exercise of the share issue warrants (BEAs) are governed by the tenth resolution of the Combined General Meeting of 6 December 2012, as set out in Section 21.1.4.3 hereunder.

shares so long as the specific conditions of each BSA are complied with. At the date of the Registration Document, 100 BSAs 10-2012 had been exercised.

The BSAs 06-09 were issued by the Company's Board of Directors meeting on 1 December 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 the Board of Directors meeting of 20 December 2011, acting on the authority delegated by the General Shareholders Meeting of 12 May 2011 issued for the benefit of a member of the Scientific Board 2,477 BSAs 12-2011. Each BSA 12-2011 issued at €1.211 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €6.15 per share (including a new issue premium of €6.10). 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.

The Board of Directors meeting of 30 October 2012, acting on the authority delegated by the General Shareholders Meeting of 12 May 2011 issued for the benefit of two members of the Scientific Board 5,000 BSAs 10-2012 apiece. Each BSA 10-2012 issued at €1.63 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €2.10 per share (including a new issue premium of €2.05). 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.

Furthermore, the Board of Directors meeting of 7 January 2014, acting on the authority delegated by the General Shareholders Meeting of 6 December 2012 issued for the benefit of two members of the Scientific Board 8,000 BSAs A01-2014. Each BSA A01-2014 issued at €2.06 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €8.18 per share (including a new issue premium of €8.13). The BSAs A01-2014 are exercisable by tranche: 2,667 BSAs A01-2014 exercisable starting 8 January 2015, 2,667 BSAs A01-2014 exercisable starting 8 January 2016 and 2,666 BSAs A01-2014 exercisable starting 8 January 2017, the deadline for their exercise being set at 7 January 2024, by midnight.

In addition, the Board of Directors meeting of 15 January 2014, acting on the authority delegated by the General Shareholders Meeting of 6 December 2012 issued for the benefit of an industrial partner 34,247 BSAs B01-2014. Each BSA B01-2014 issued at €4.5999 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €4.5999 per share (including a new issue premium of €4.5499). The BSAs B01-2014 have all been exercisable since they were issued; the deadline for their exercise is set at 30 April 2016, by midnight.

The Board of Directors meeting of 3 July 2014, acting on the authority delegated by the General Shareholders Meeting of 19 June 2014 issued for the benefit of an employee of the subsidiary Global Bioenergies GmbH 3,000 BSAs 07-2014. Each BSA 07-2014 issued at €0.8 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €0.61 per share (including a new issue premium of €0.56). The BSAs 07-2014 are exercisable by tranche: 1,000 BSAs 07-2014 exercisable starting 3 July 2015, 1,000 BSAs 07-2014 exercisable starting 3 July 2016 and 1,000 BSAs 07-2014 exercisable starting 3 July 2017, the deadline for their exercise being set at 2 July 2024, by midnight.

Furthermore, the Board of Directors meeting of 13 January 2015, acting on the authority delegated by the General Shareholders Meeting of 19 June 2014 issued for the benefit of two members of the Scientific Board 6,000 BSAs A01-2015. Each BSA A01-2015 issued at €2.20 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €8.52 per share

(including a new issue premium of €28.47). The BSAs A01-2015 are exercisable by tranche: 2,000 BSAs A01-2015 exercisable starting 13 January 2016, 2,000 BSAs A01-2015 exercisable starting 13 January 2017 and 2,000 BSAs A01-2015 exercisable starting 13 January 2018, the deadline for their exercise being set at 12 January 2025 by midnight.

Lastly, the Board of Directors meeting of 13 January 2015, acting on the authority delegated by the General Shareholders Meeting of 19 June 2014 issued for the benefit of an employee of the subsidiary Global Bioenergies GmbH 750 BSAs B01-2015. Each BSA B01-2015 issued at €0.57 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €28.52 per share (including a new issue premium of €28.47). The BSAs B01-2015 are exercisable by tranche: 250 BSAs B01-2015 exercisable starting 13 January 2016, 250 BSAs B01-2015 exercisable starting 13 January 2017 and 250 BSAs B01-2015 exercisable starting 13 January 2018, the deadline for their exercise being set at 12 January 2025, 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 equity warrants (BSAs) were exercised.

21.1.4.2 Warrants for subscription to business creator shares (BSPCEs)

At the date of the Registration Document, 27,209 BSPCEs 02-2013, 13,100 BSPCEs A01-2014, 17,800 BSPCEs B01-2014, 6,600 BSPCEs A07-2014, 1,500 BSPCEs B07-2014, 8,850 BSPCEs A01-2015 and 18,419 BSPCEs B01-2015 were granted, or a total of 93,478 BSPCEs entitling the purchase of as many new shares so long as the specific conditions of each BSPCE are complied with. At the date of the Registration Document, 3,944 BSPCE 02-2013 and 333 BSPCE A01-2014 had been exercised. In addition, 2,913 BSPCEs 02-2013, 350 BSPCEs A01-2014, 3,200 BSPCEs B01-2014, 400 BSPCEs A07-2014 and 225 BSPCEs A01-2015 were cancelled when employees left the Company.

The Board of Directors meeting of 7 February 2013, acting on the authority delegated by the General Shareholders Meeting of 6 December 2012 issued for the benefit of 24 employees 27,209 BSPCEs 02-2013. Each BSPCE 02-2013 entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €29.89 per share (including a new issue premium of €29.84). 8,679 BSPCEs 02-2013 are exercisable from 7 February 2014 until 6 February 2018, by midnight; 9,079 BSPCEs 02-2013 are exercisable from 7 February 2015 until 6 February 2018, by midnight; 9,051 BSPCEs 02-2013 are exercisable from 7 February 2016 until 6 February 2018, by midnight.

In addition, the Board of Directors meeting of 7 January 2014, acting on the authority delegated by the General Shareholders Meeting of 6 December 2012 and 14 June 2013, issued 13,100 BSPCEs A01-2014 (of which 12,750 are still outstanding now due to the departure of one employee) for the benefit of 7 employees and 17,800 BSPCEs B01-2014 for the benefit of 24 employees. Each of these BSPCEs entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €24.80 per share (including a new issue premium of €24.75).

- 4,250 BSPCEs A01-2014 are exercisable from 8 January 2015 until 7 January 2019, by midnight;
- 4,250 BSPCEs A01-2014 are exercisable from 8 January 2016 until 7 January 2019, by midnight;
- 4,250 BSPCEs A01-2014 are exercisable from 8 January 2017 until 7 January 2019, by midnight;
- The BSPCEs B01-2014 are all exercisable from 8 January 2017 until 7 January 2019 by midnight.

Furthermore, the Board of Directors meeting of 3 July 2014, acting on the authority delegated by the General Shareholders Meeting of 19 June 2014, issued 6,600 BSPCEs A07-2014 for the benefit of 10 employees and 1,500 BSPCEs B07-2014 for the benefit of one employee. Each of these BSPCEs entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €40.61 per share (including a new issue premium of €40.56).

- 2,200 BSPCEs A07-2014 are exercisable from 3 July 2015 until 2 July 2024, by midnight; 2,200 BSPCEs A07-2014 are exercisable from 3 July 2016 until 2 July 2024, by midnight; and 2,200 BSPCEs A07-2014 are exercisable from 3 July 2017 until 2 July 2024, by midnight;
- BSPCEs B07-2014 are all exercisable from 3 July 2017 until 2 July 2024, by midnight.

Finally, the Board of Directors meeting of 13 January 2015, acting on the authority delegated by the General Shareholders Meeting of 19 June 2014, issued 8,850 BSPCEs A01-2015 for the benefit of 8 employees and 18,519 BSPCEs B01-2015 for the benefit of 28 employees. Each of these BSPCEs entitles the purchase of 1 common share in the Company of €0.05 par value each at a subscription price of €28.52 per share (including a new issue premium of €28.47).

- 2,950 BSPCEs A01-2015 are exercisable from 13 January 2016 until 12 January 2025, by midnight; 2,950 BSPCEs A01-2015 are exercisable from 13 January 2017 until 12 January 2025, by midnight; and 2,950 BSPCEs A01-2015 are exercisable from 13 January 2018 until 12 January 2025, by midnight;
- The BSPCEs B01-2015 are all exercisable from 13 January 2018 until 12 January 2025, 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 Share issue warrants (BEA)

On 14 May 2014, the Board of Directors acting on the authority granted to it by the General Meeting of 6 December 2012, entrusted full power to the Chief Executive Officer to decide on the arrangements for the issue of share warrants as part of the optional equity financing line of a maximum of €3 million (the equity line programme), for which the subscription price may not be below the weighted average share price over the last 20 trading days preceding said issue. Under the terms of this equity line agreed with the Company, Yorkville Advisors, based in New Jersey, USA, and acting on behalf of YA GLOBAL MASTER SPV LTD, has undertaken to subscribe to successive and limited capital increases over a period of three years, at the Company's request and at its sole discretion.

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. Given the minimum price set by the General Meeting of 6 December 2012 under its tenth resolution, and failing a subsequent resolution by the General Meeting amending the terms regarding the setting of the subscription price of the shares attached to these BEAs, only 87,965 BEAs would be exercisable within the €3 million limit contractually agreed. This equity line thus accounts for 2.4% of the Company's fully diluted capital.

At the date of the Registration Document five draws have been made, representing the exercise of a total of 16,550 BEAs.

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 0.95% if all of the remaining issue warrants (BEAs) were exercised.

21.1.4.4 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.

21.1.4.5 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)	Premium on new issue, contribution or merger (in euros)	Aggregate share capital (in euros)	Aggregate number of shares
6 October 2008	Incorporation	37,000	1	37,000	0	37,000	37,000
13 February 2009	ABSAs issued	4,800	1	4,800	595,200	41,800	41,800
16 September 2009	ABSAs issue due to exercise of BSAs	4,800	1	4,800	595,200	46,600	46,600
9 July 2010	ABSAs issued due to exercise of BSAs	4,800	1	4,800	595,200	51,400	51,400
4 August 2010	ABSAs issued due to exercise of BSAs	2,000	1	2,000	998,000	53,400	53,400
15 November 2010	ABSAs issued due to exercise of BSAs	2,879	1	2,879	356,996	56,279	56,279
15 November 2010	ABSAs issued due to exercise of BSAs	6,046	1	6,046	0	62,325	62,325
12 May 2011	Split in the par value per share	1,246,500	0.05	0	0	62.325	1,246,500
14 June 2011	Shares issued	333,675	0.05	16,683.75	6,606,765	79,008.75	1,580,175
22 July 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
6 September 2011	Shares issued	59,625	0.05	2,981.25	1,397,013.75	82.830	1,656,600
4 July 2012	Shares issued	153,459	0.05	7,672.95	3,030,815.25	90,502.95	1,810,059

24 October 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 January 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 July 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 October 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 June 2014	Capital increase by issuance of shares	1,500	0.05	75	59,090.70	137,837.80	2,756,756
19 June 2014	Capital increase by issuance of shares	400	0.05	20	11,936.00	137,857.80	2,757,156
25 July 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 August 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 October 2014	Capital increase by issuance of shares	5,400	0.05	270	205,975.69	138,285.90	2,765,718
31 October 2014	Capital increase by issuance of shares	2,750	0.05	137.50	99,966.35	138,423.40	2,768,468
5 December 2014	Capital increase by issuance of shares	7,000	0.05	350	250,761.00	138,773.40	2,775,468

To the Company's knowledge, none of its share capital has been pledged

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 to 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:
 - o the financial statements for the fiscal year and the list of the directors of the Board and, when appropriate, the consolidated financial statements;
 - o the reports of the Board of Directors and the Statutory Auditors that will be submitted to the General Meeting;
 - o if appropriate, the texts of, and reasons offered for, the proposed resolutions, along with information concerning the candidates to the Board of Directors;
 - o 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;
 - o the total amount, certified by the Statutory Auditors, of payments made pursuant to 1 and 4 of Article 238(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 authorized intermediary's record of bearer shares.

The authorized 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 well 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 forfeit 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

Cooperation agreement signed on 16 January 2014 with Audi

On 16 January 2014 the Company signed a cooperation agreement with Audi AG for the development of know-how and the conduct of work and studies by the Company 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 to the possible acquisition of Global Bioenergies shares amounting to 1.1% of the Company's capital.

Cooperation agreement signed on 18 May 2015 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 18 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.

Development and licence agreement signed on 18 July 2011 with Synthos S.A

On 18 July 2011, the Company signed a development and licence agreement with Polish company Synthos S.A. This agreement concerns research and development for an innovative process to convert renewable resources into butadiene. Under this agreement, the Company will retain ownership of the developments and related rights, while Synthos will benefit from an exclusive global licence for the use of the process for the production of synthetic rubber. This partnership includes research financing and involves Synthos taking a €1.4m stake in the Company's capital; this took place on 6 September 2011 via the subscription of 53,625 new Company shares. The partnership also provides for, depending on the progress of the project, cash payments in order to finance the project's development, the payment of fees for the exploitation of butadiene to produce synthetic rubber, as well as a distribution of intellectual property rights for the results of the work. As at the date of this Registration Document, Synthos paid the Company a total of €5.1 million in respect of licence agreements, development costs and success fees.

Collaboration agreement signed in November 2011 with LanzaTech

The Company signed a collaboration agreement with the New-Zealand-based company LanzaTech for a feasibility study relative to the biological conversion of carbon monoxide into isobutene. Should this study prove successful, the Company and LanzaTech have undertaken to examine the possibility of a partnership for the development of kerosene from the isobutene stemming from carbon monoxide. During the research period, the Company has undertaken not to collaborate with any third party for the development of kerosene from carbon monoxide.

Consortium agreement of 15 November 2012 with Arkema, the CNRS, the Université des Sciences et Technologies de Lille and the Université Claude Bernard Lyon 1

On 7 January 2014, within the framework of the financing agreement signed with the French Environment and Energy Management Agency (ADEME), the Company entered into a consortium agreement (the Project) with Arkema France. The Project was also signed by the Centre National de la Recherche Scientifique (CNRS) on 16 January 2014, the University of Science and Technology of Lille on 28 January 2014, and the Claude Bernard Lyon 1 University on 3 February 2014. The Project's effective date is 15 November 2012 and its starting date is 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.

For other major contracts, see Section 11.2.2 of the Registration Document.

**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.

Hard copies of the above documents can be examined at the Company's registered office.

25 INFORMATION ON EQUITY HOLDINGS

The information relating to the undertakings in which Global Bioenergies holds a proportion of the capital likely to have a significant effect on the assessment of its own assets, financial position or results is set out in Chapter 7 "Organisational structure" of the Registration Document.

GLOSSARY

Agrolefins: plant-derived olefins.

Bioethanol: the main biofuel currently used in petrol engines.

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.

Dimerizing: 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 $\text{CH}_3\text{-CH}_2\text{OH}$.

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.

Gaseous olefins: family of molecules including ethylene, propylene, n-butene, isobutene and butadiene.

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.

Isobutanol: alcohol whose molecular formula is $\text{CH}_3\text{-CH}_2(\text{CH}_2)\text{-CH}_2\text{OH}$, 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.

Metabolic engineering: modification, through genetic engineering, of the natural metabolism of living organisms, in the general aim of getting them to produce specific chemical compounds with a yield allowing industrial exploitation.

Metabolic pathway: series of enzymatic reactions in living cells resulting in the synthesis of a product from a substrate, via several stages.

Molecular biology: technique used for the analysis and modification of nucleic acids.

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.

Olefins: Hydrocarbons with one or two double bonds.

Oligomer: polymer solely consisting of a few (2 to 50) monomers.

Photosynthesis: natural process which enables plants and certain bacteria to synthesize organic matter through sunlight and atmospheric CO₂.

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.

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.

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).

Substrate: substance that will be transformed into a product by a microorganism or enzyme.

Synthetic biology: scientific field combining biology and engineering principles in the aim of designing and building (i.e. synthesising) new biological systems and functions.

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.

Thermochemistry: field of chemical reactions taking place at high temperatures, most often through the use of specific catalysts.

Titre: production measurement unit, generally expressed in gram per litre ($g.L^{-1}$)

Transesterification: 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).

Trimerization: operation resulting in the transformation of three monomers into a trimer.

Yield: In fermentation, this is the ratio between the amount of end product and the amount of feedstock used for its production.