

# **Press Release**

# ANNUAL RESULTS FOR THE FISCAL YEAR 2015: SIGNIFICANT STRENGTHENING OF THE CASH POSITION AND CONTINUING PROGRESS ON ALL PROGRAMS

- Cash position sharply improved by the December 2015 capital increase
- Reduction of net loss to €6.4m, vs. €6.5m in 2014
- Growth in operating expenses kept under control and resulting from the rise of research programs
- Two key milestones reached, signing of new cooperation agreements and strengthening of industrial property with 12 patents granted over the period

**Montpellier, FRANCE, 24 March 2016** – DEINOVE (Alternext Paris: ALDEI), an industrial biotechnology company developing innovative processes for producing biofuels and bio-based chemicals by using *Deinococcus* bacteria, announced today that its Board of Directors had examined and approved the 2015 annual accounts. It also called the Annual General Meeting for 10 May 2016.

Net result for 2015 is a loss of €6,356k, compared to a loss of €6,458k for the previous year. This 2% reduction in net loss was the result of good control of the Company's operating expenses in a context of strong growth in research programs, and a favorable comparison base, in terms of non-recurring items, and, to a lesser extent, R&D Tax Credit (CIR - *Crédit Impôt Recherche*).

During 2015, research programs were pursued and expanded, reaching key milestones in the Company's two main programs: DEINOL in biofuels and DEINOCHEM in green chemistry. A new research platform was launched, dedicated to the production of bio-based muconic acid, while the carotenoid platform evolved toward an integrated production model targeting its first commercial revenues by the year 2018. New industrial partnerships were forged in animal nutrition (Flint Hills Resources) and in the industrial exploitation of new sources of biomass (energy tobacco - Tyton BioEnergy Systems, forest residues - Arbiom). Technological capacities were consolidated through substantial investments in the fermentation and metabolic engineering platforms.

The net cash position reached +€12.4m at 31 December 2015, compared with +€2.2m at 31 December 2014. During the 2015 fiscal year, DEINOVE received €2.2m in milestone payments from Bpifrance and ADEME, as well as a total of €1.7m in R&D Tax Credit. The Company also raised €4.6m through the equity line funding set up with Kepler Cheuvreux at the end of 2014. Lastly, in December 2015, DEINOVE successfully undertook a €10.7m (gross) capital increase. DEINOVE considers it has the resources needed to ensure its financing through the end of 2017, not counting the aforementioned equity line funding.

"In 2015, we moved forward on all of our main programs, confirmed new opportunities for creating value with the development of our carotenoids and muconic acid and secured our financial situation thanks to the renewed trust of investors", said Emmanuel Petiot, CEO of DEINOVE. "We plan to pursue our R&D efforts for all our programs in 2016 and we are actively working to develop new industrial partnerships for the different applications that can be served by Deinotechnologies. We continue to



focus on our founding ambition: developing new production methods that are more responsible and more sustainable, and whose needs were recently confirmed by the COP21 conference."

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(in thousands of euros)	2015	2014
Total operating revenues	492	156
Total operating costs	8,457	7,216
o/w R&D costs	6,590	5,477
o/w G&A costs	1,867	1,739
Operating profit / loss	-7,965	-7,060
Financial result	-14	-37
Current pre-tax profit / loss	-7,979	-7,097
Non-recurring items	-10	-735
Income tax (R&D Tax Credit)	-1,633	-1,374
Profit / loss for the year	-6,356	-6,458
Net financial position	12,432	2,216
o/w financial investments <sup>1</sup>	0	0
o/which term deposits (maturity < 1 year)	0	0
o/w cash instruments (maturity < 3 months)	0	0
o/w cash on hand	12,432	2,216
(o/w financial debts)	0	0
Total assets	17,327	6,953
Total shareholders' equity	14,593	4,745
o/w equity	8,096	196
o/w conditional advances	6,497	4,550
<sup>1</sup> Excluding elements of the liquidity contract (cash and treasury shares), and deposits & guarantees.		

## FINANCIAL RESULTS FOR THE FISCAL YEAR 2015

The 2015 net result is a net loss of €6,356k, compared to a net loss of €6,458k in 2014.

### Operating income

DEINOVE received €492k in operating income, firstly from invoicing related to collaborative research agreements with industrial partners, and secondly from a Bpifrance grant after reaching 3<sup>rd</sup> key milestone of the DEINOL program.

At the same time, operating costs rose by +17%, reaching &8,457k. This rise reflects the increase in subcontracting expenses for the research programs, as well as that in operating costs related to the expansion of the Company's laboratories and equipment, and lastly to staff increases (+4 average FTEs).



R&D expenditure accounted for 78% of the total operating costs vs. 76% in 2014. Compared with the previous financial year, this increased by +20%, with general & administrative expenses increasing by just +7%.

The Company pursued its investments, mainly for developing its metabolic engineering platform (increased automation with the installation of a new cloning robot) and fermentation platform (installation of 20 new fermenters). This equipment multiplies the number of genetic variants and tests that can be performed on various kinds of substrates under different fermentation conditions and enables the Company to produce small batches of specialty compounds, thus speeding up the development of dedicated strains for each application.

#### Net result

The financial result showed a loss of  $\leq 14k$  vs. a loss of  $\leq 37k$  in 2014. It notably included a positive variation of  $\leq 37k$  related to the liquidity contract, partially made up for by  $\leq 6k$  in negative variations on investment interests and  $\leq 8k$  in foreign exchange transactions.

The non-recurring items showed a loss of  $\leq 10k$ , compared with a loss of  $\leq 735k$  in 2014, which was mainly the result of recognizing  $\leq 719k$  in costs related to the project for a capital increase whose cancellation was announced in early July 2014.

Corporate income tax almost exclusively concerned the CIR (R&D Tax Credit). It accounted for a €1,633k profit vs. €1,374k in 2014. As a reminder, in July 2013, DEINOVE had transmitted to the tax authorities a corrective statement of €658k concerning CIR for fiscal years 2010 and 2011. This amount, for the totality of which provisions were set aside as accrued income at the end of 2013, was reviewed downward in 2014, a year at the end of which a €200k 'loss' was recorded (€381k having been received, €77k remaining due). Thus, the comparison between 2015 and 2014 for this specific (and closed) affair regarding CIR corrective statements for2010 and 2011 shows a positive variation of €200k, which explains most of the variation in this item.

## FINANCIAL SITUATION

Financial needs during the year mainly concerned operational expenditure, for €7,823k (excluding provisions for depreciation amounts), and equipment investments, for €703k.

Over the same period, the Company received €2,234k in public funding (ADEME and Bpifrance), €1,654k under the CIR, and raised €4,574k (net of commissions) through the line of equity financing signed with Kepler Cheuvreux in December 2014. DEINOVE also undertook a capital increase with Preferential Subscription Rights in December 2015, and received €10,021k (net of part of the fees and commissions) at the very end of the financial year.

At 31 December 2015, the Company's net financial position reached +€12.4m. The Company considers that it has the resources necessary for financing its activities through the end of 2017, given the current configuration of its projects, without having to use the equity line funding signed with Kepler Cheuvreux.



## **HIGHLIGHTS**

Over the financial year, DEINOVE continued to develop its metabolic engineering platform and made progress in its research programs.

#### Genetic, metabolic and fermentation engineering platforms

Efforts in the first half of the year focused on automating the genetic and metabolic engineering platform, with the **installation of a new cloning robot connected to the CAD4Bio software**. A highly sophisticated genetic database coupled with this computer-aided design software and the robot makes it possible to produce more than 300 different strains a month and to multiply lines of research.

During the second half of the year, DEINOVE also reinforced its fermentation engineering platform with the **installation of 20 new fermenters** which speed up research operations by multiplying fermentation tests with different strains and different types of biomass.

Moreover, DEINOVE also continued fitting out its laboratories and notably exercised an option included in its lease term to rent additional space, in order to strengthen its fermentation and analysis platform. DEINOVE now has 1,500 m<sup>2</sup> of fully integrated laboratories.

DEINOL program for the production of biofuels from lignocellulosic biomass

In 2015, the DEINOL program's R&D efforts mainly focused on:

- Adapting the strain to different kinds of non-food plant-based raw materials (2G), with the goal
  of diversifying potential outlets for the DEINOL process. With its partners MBI, Abengoa, Tyton
  BioEnergy Systems and Suez, the work focused on corn stover, sugarcane bagasse, energy tobacco
  and urban waste. The goal was to optimize the strain's sugar assimilation and tolerance to
  inhibitors commonly found in 2G substrates, as well as to quantify the enzyme savings related to
  the use of *Deinococcus* bacteria instead of a conventional industrial host.
- Improving the fermentation parameters, the stage during which the bacteria transform plant sugars into ethanol. The objective is to replace the yeasts usually used in current processes with a thermophile *Deinococcus* bacterium capable of working at 48°C. The DEINOVE R&D team is working to optimize the DEINOL strain's performances in terms of assimilation and fermentation of sugars.

This research work has led to two significant advances:

- At the start of July, the 3<sup>rd</sup> and penultimate milestone of the DEINOL collaborative program was reached, triggering the payment of €1.2 million by Bpifrance in the form of innovation aid<sup>1</sup>.
- The production of ethanol at the 300-L scale<sup>2</sup> from a mixture of glucose (sugar with 6 carbon atoms C6) and xylose (C5), the main components in the non-food biomass. This step was carried out at the VTT<sup>3</sup>, a longstanding DEINOVE partner, which has the necessary infrastructures to carry

<sup>&</sup>lt;sup>1</sup> Press release dated 8 July 2015

<sup>&</sup>lt;sup>2</sup> Press release dated 19 November 2015

<sup>&</sup>lt;sup>3</sup> VTT Technical Research Centre of Finland Ltd, http://www.vttresearch.com

<sup>160324 |</sup> DEINOVE PR 2015 ANNUAL RESULTS



out and assess this kind of pilot operation. The optimized DEINOL strain made it possible to produce ethanol at  $7.3\% \text{ v/v}^4$ .

#### DEINOCHEM program for the production of bio-based chemical compounds

In 2015, the main developments in the DEINOCHEM R&D program have been concentrated on:

- Reaching the 1<sup>st</sup> milestone of the isoprenoids program, triggering the payment of nearly
   €1 million by ADEME in the form of a repayable advance<sup>5</sup>. Achieving this milestone validated
   the progress made in the genetic engineering of strains. The modified strains construction
   flow has multiplied by 10 in less than a year, thus accelerating the production and testing of
   strains of interest. Also, DEINOVE teams have made progress in identifying limiting enzymes
   to optimize the production of targeted isoprenoids.
- **Reinforcement of the platform dedicated to carotenoids**<sup>6</sup>, an isoprenoid sub-family, DEINOVE decided to develop this high value-added specialty chemistry activity in-house through to the production of market-ready batches. DEINOVE's goal is to offer a competitive bio-based alternative for manufacturers by developing a range of natural carotenoids (unlike the current production, which is mainly petro-sourced) produced by biotechnological processes and offering significant advantages in terms of supply stability, consistent high quality, conservation of natural resources and also costs. Besides Deinoxanthin, the exclusive carotenoid produced by *Deinococcus* bacteria, the Company has obtained proof of concept for the production of 5 different carotenoid molecules, all used in commercial applications: cosmetics, dietary supplements and animal feed. DEINOVE's objective is to get at least one of them to market in 2018. For this, the Company will rely on various technological partners who will help it in developing full production processes and scaling up the technology for carotenoids.
- Launch of a new R&D platform for the production of muconic acid<sup>7</sup>, a versatile chemical intermediate whose derivatives are widely used in the plastics, nylon, and food industries. The teams at DEINOVE have obtained proof of concept for the production of muconic acid, first from synthetic substrates, then with 2G cellulose-based substrates. At the same time, DEINOVE has undertaken discussions with several interested industrial companies that could become partners in this project.
- Reaching the 1<sup>st</sup> milestone of the COLOR2B project<sup>8</sup>, carried out in collaboration with the Avril group (formerly Sofiprotéol), and which specifically concerns the production of natural additives for animal feed. After an initial phase of strain selection by DEINOVE, Avril is involved in the second phase of the project focusing on testing the nutritional effects of the compounds produced by these strains.

<sup>&</sup>lt;sup>4</sup>volume/volume: volume of ethanol contained in the total volume of fermentation liquid. 7.3% v/v equals 5.8% w/v (weight/volume).

<sup>&</sup>lt;sup>5</sup> Press release dated 21 January 2015

<sup>&</sup>lt;sup>6</sup> Press releases dated 16 June, 26 October 2015 and 8 February 2016

<sup>&</sup>lt;sup>7</sup> Press releases dated 21 July and 2 September 2015

<sup>&</sup>lt;sup>8</sup> Press release dated 19 May 2015



#### New partnerships

### Technological and commercial partnership with Tyton BioEnergy Systems<sup>9</sup>

DEINOVE has signed a partnership with the American company Tyton BioEnergy Systems, a pioneering agricultural biotech company developing energy tobacco, a new renewable energy source that is economical and ecological for the production of sugars, oils, proteins and other bio-based compounds with high added value. The main goal of the partnership is to combine *Deinococcus*-based fermentation solutions and a new kind of feedstock, energy tobacco, to produce compounds of industrial value.

### Partnership with Flint Hills Resources<sup>10</sup>

Deinove has entered into a partnership with Flint Hills Resources (FHR) – one of the largest private companies in the world and a leader in refining, petrochemicals and biofuels in the United States – to develop a process for producing natural ingredients for animal nutrition. This 17-month project, financed by FHR, consists, for Deinove, in screening its library of 6,000 strains, identifying and then optimizing the bacteria that are able to grow in good conditions using raw materials supplied by Flint Hills Resources and to produce the targeted compounds in acceptable quantities.

#### Collaboration with Arbiom<sup>11</sup>

Post-closing, DEINOVE announced the launch of a collaboration with Arbiom, a Franco-American biorefinery company specialized in processing forest residues. The two companies have decided to combine their technologies to provide a comprehensive value proposal to industrial players active in the bioeconomy. After a first stage of characterization of Arbiom's biomass and assessing the potential for *Deinococcus* bacteria to assimilate the sugars extracted from this biomass, tests will be expanded to define which molecules could be produced by fermentation.

## **Corporate Information**

#### Integration of new management skills<sup>12</sup>

During the 2015 financial year, DEINOVE strengthened its management in view of the upcoming phases of its development:

- Marie Bézenger, Director of Operations, joined the Company with a mission of providing support for the scaling up, industrialization and commercialization of DEINOVE technology.
- Dennis McGrew took up the position of Chief Business Officer in charge of developing research, industrial and commercial partnerships with a special focus on the North American market.

#### New patents granted<sup>13</sup>

During the 2015 financial year, DEINOVE expanded its portfolio of intellectual property with 12 new patents granted, including for the first time China (2 patents) and the United States (6 patents).

<sup>&</sup>lt;sup>9</sup> Press release dated 8 September 2015

<sup>&</sup>lt;sup>10</sup> Press release dated 3 November 2015

<sup>&</sup>lt;sup>11</sup> Press release dated 14 March 2016

<sup>&</sup>lt;sup>12</sup> Press releases dated 5 and 9 October 2015

<sup>&</sup>lt;sup>13</sup> Press releases dated 25 February 2015, 12 November 2015 and 18 February 2016



## Share Capital breakdown at 31 December 2015

At 31 December 2015, the Company's capital comprised 8,554,907 common shares with a par value of 0.40 euro, of which 14,982 (or 0.18% of the capital) were held by DEINOVE under the liquidity contract with Kepler Cheuvreux.

Shareholders	Number of shares	Percentage held	Voting rights	Percentage
Truffle Capital-managed funds	2,828,215	33.06%	5,493,433	48.37%
Tereos EU	118,685	1.39%	118,685	1.05%
Scientific founders	20,000	0.23%	40,000	0.35%
Management and directors	62,848	0.73%	81,589	0.72%
Floating	5,525,159	64.58%	5,623,646	49.52%
TOTAL	8,554,907	100.00%	11,357,353	100.00%

#### At 31 December 2015 – non-diluted basis

#### Evolution of the share capital

- Kepler Cheuvreux equity line funding<sup>14</sup>: this underwriting contract calls for the release of four successive tranches over a total period of three years, only the 1<sup>st</sup>, issued upon signing in December 2014, was mandatory. The 2<sup>nd</sup> tranche was implemented on 19 May 2015. During the 2015 financial year, this line of financing enabled the Company to raise a net total of €4,574k through the issuance of 699,000 new shares.
- Capital increase with Preferential Subscription Rights<sup>15</sup>: on 27 November 2015, the Company launched a capital increase with Preferential Subscription Rights for which the subscription period ended on 14 December. The result of the operation was a 128% over-subscription, announced on 21 December. DEINOVE therefore chose full exercise of the 15% extension option, and the gross amount of the capital increase was finally raised to €10,667,862 (including the issue premium). Payment-delivery and admission for trade on the Alternext Paris market for the 2,370,636 new shares occurred on 23 December 2015.
- Crossing of threshold: on 28 February 2015, Truffle Capital SAS fell below the threshold of 50% of DEINOVE's capital after the increase in the total number of shares and voting rights. On 23 December 2015, Truffle Capital fell below the 50% threshold of DEINOVE voting rights after the aforementioned capital increase with Preferential Subscription Rights.

<sup>&</sup>lt;sup>14</sup> Press releases dated 1 December 2014 and 15 June 2015

<sup>&</sup>lt;sup>15</sup> Press releases dated 27 November, 21 and 23 December 2015



## **About DEINOVE**

DEINOVE (Alternext Paris: ALDEI) is ushering in a new era of green chemistry by designing and developing new standards of production based on bacteria of untapped potential: the *Deinococci*. Taking advantage of the bacteria's unique genetic properties and unusual robustness, DEINOVE optimizes natural fermentation and metabolic capabilities of these bacterial "micro-factories" to produce high value-added products from non-food biomass. The Company's primary markets are 2nd-generation biofuels (DEINOL) and bio-based chemicals (DEINOCHEM). On these markets, the Company offers its technology to industrial partners globally.

Listed on NYSE Alternext since April 2010, DEINOVE was founded by Dr. Philippe Pouletty, General Partner of TRUFFLE CAPITAL, and Pr. Miroslav Radman, of the Faculty of Medicine of Paris Descartes University. The company employs 50 people in its offices and laboratories located in Montpellier, France.

More information at www.deinove.com

The 2015 annual financial report will be available on the Company website: http://www.deinove.com/en/investors/documentation-center/financial-reports

## Contacts

DEINOVE Emmanuel Petiot CEO Tel.: +33 (0)4 48 19 01 28 emmanuel.petiot@deinove.com

**Coralie Martin** Communication and Investor relations Tel.: +33 (0)4 48 19 01 60 coralie.martin@deinove.com

#### Julien Coste

Director of Finance & Administration Tel.: +33 (0)4 48 19 01 00 julien.coste@deinove.com

ALIZE RP, Press Relations Caroline Carmagnol / Wendy Rigal Tel.: +33 (0)1 44 54 36 66 deinove@alizerp.com

