



2025
by
invivo

A i

DEVELOPING AG-FOOD INTELLIGENCE



2025

by

invivo

Contents



Editorial 04

In 2025, InVivo will have to meet the needs of a profoundly changed global food system 08

Contribute to feeding 9 billion human beings on a fragile planet	10
Respond to new eating habits	12
Mobilise diversified production processes	14
Combine technological advances with environmental responsibility	16
Take its proper place in globalised agricultural and agri-food flows	20
Help farmers to adopt new positions to create value	22
Build food 4.0	24



2025 by InVivo: the strategic plan in action 28

Deploy our three strategic ambitions	30
Act throughout the value chain, from farm to fork	32
Rely on the cooperative model, more than ever a factor of resilience	34
2015-2017: ensure solid foundations for our development	36
> An organisation adapted to our ambitions	36
> Highly involved governance	39
> A shared culture of economic performance	39
> Clearly identified business areas	42
2025 goal: growth and creation of value	44
> Support the development path of each business	44
> Five performance drivers for action	44



Our business areas projected in 2025 54

Bioline by InVivo, the partner for all forms of agriculture	56
Union InVivo, the historic core	58
Bioline by InVivo, the sense of the living	62
Neovia, with innovation at the centre	70
InVivo Retail, champion of the local store	80
InVivo Wine, from the vine to the glass	86
InVivo Food&Tech, the food lab	92

Afterword 97



Editorial

By **Philippe Mangin**, *Chairman*,
Thierry Blandinières, *Chief Executive Officer*,
and **Jérôme Calleau**, *Deputy Chairman*

In December 2014 we launched the 2025 by InVivo strategic plan which has aroused strong support.

In barely three years, thanks to the involvement of our member cooperatives, our Board of Directors, all our teams in France and around the world, we have profoundly transformed our group. We are proud of the work accomplished together and we are now ready to approach the future with optimism and determination, and to continue to roll out our strategic plan for 2025 and beyond.

Our place as the leading French agricultural cooperative group honours us, as much as it gives us obligations. The prospects open to us are immense, but we still have a lot to do and to succeed at. Because in three years, the challenges we already knew have seen a spectacular acceleration.

The growth in food demand is located more than ever in emerging countries and requires us to have a global vision of the competition and an ability to enter local and transnational markets with powerful brands.

To meet this growing demand, agricultural production must adapt, while facing growing economic and societal constraints, not the least of which is the impact of climate change. This requires, on our part, a responsibility commensurate with the challenges and the support of all our partners towards taking into account sustainable growth and solidarity.

The digital revolution creates new market opportunities, but it also brings new competitors, who challenge both our vigilance and our ability to incorporate a new logic of alliances and networks. The professions of the future are emerging at high speed and call on our strategic anticipation by digitising our activities and taking positions in a flexible and agile way. As a result, we must continue to invest in order to innovate, and thus guarantee value creation and the sustainability of our results, steps without which nothing is possible.

The digital transformation of our business also implies new ways of working together. We want to invest in the men and women who are the beating heart of our group and the bedrock of our future, by spreading a culture of engagement and collective intelligence, by helping to increase everyone's digital skills, and ensuring that all find their place in the transformation of the group.

This second edition of our strategic plan gives us the opportunity to measure with pride the progress we have made, and this delights me. But it is only a start. With this new version of 2025 by InVivo, we have a common platform to project ourselves into the future, and continue every day to build our project in the service of agriculture and food, while respecting the planet and its people.



—
Thierry Blandinières,
CEO

What challenges does the strategic plan 2025 by InVivo? respond to?

By 2025, the global food system we know now will have profoundly changed. The rise in global food demand, the volatility of markets, the globalisation of trade and competition, digitisation and environmental pressure represent the challenges for InVivo as well as for our member cooperatives and their members. We must be able to anticipate and meet these challenges, by setting the pace rather than following it.

2025 by InVivo projects our group into the future, by setting our strategic ambitions in the service of economic growth and the influence of French agriculture and agri-food in the world. Because 2025 is already tomorrow!

What were the goals of the transformation started in 2015?

Our goal was to clarify our economic and legal model, and to give our group more agility, transversality and clarity, to create even more value in all strategic segments of the food chain without ever losing sight of our cooperative DNA.

More agility thanks to our new organisation, which is centred on the Union InVivo and its historical service activities to our cooperatives, on the one hand, and on InVivo Group, our pivotal holding which drives the competing businesses of the future, on the other.

More transversality thanks to a corporate structure based on the essentials, which drives and supports the new collaborative working methods resulting from the digital revolution, builds our social and societal responsibility policy, and guarantees the coherence of our shared vision.

And finally more clarity, both internally and externally, thanks to our structure with clearly identified business areas, which carry with ambition and enthusiasm the innovation, the internationalisation and the growth of our group in France, in Europe and in the world.

Today, we have provided a solid foundation for our development and will devote ourselves fully to the achievement of our goal: to double the size of our group in 2025 thanks to the acceleration of our internationalisation and our capacity for innovation.

In 2025, InVivo will have to meet the needs _____ of a profoundly changed world food system

By 2025, the global food system we know now will have profoundly changed. These changes are accelerating and represent challenges that InVivo must be able to anticipate and meet.

Challenges posed by changes in the global food system:

1. Contribute to feeding 9 billion human beings on a fragile planet
2. Respond to new eating habits among consumers
3. Mobilise diversified production processes
4. Combine technological advances with environmental responsibility
5. Take its proper place in globalised agricultural and agri-food flows
6. Help farmers to adopt new positions to create value
7. Build food 4.0



Contribute to feeding 9 billion human beings on a fragile planet

Agricultural production must increase by 70%, and double in developing countries by 2050, to meet the demands of 9 billion inhabitants!

The projected range for population growth is between 8 and 11 billion inhabitants in 2050, depending on the studies and the assumptions made. But world food demand does not depend only on the demographics. It is also conditioned by economic growth, income inequality between different regions of the world, changing diets and the fight against losses and waste, which can lead to a variety of significantly different scenarios².

According to the different scenarios, growth in food demand will be between

+100% and +40%
between 2005 and 2050

The increase in global food demand seems inevitable, however. Agricultural production will have to meet this need, while constraints of all types and the impacts of climate change are increasing. Whatever assumptions are made, we will have to produce more and better.

Climate change will result in a

2%
reduction in agricultural yields per decade by 2030 (on average).

1. www.fao.org

2. Marie-Aude Even, Céline Laisney, "Food demand in 2050: figures, uncertainties and room for manoeuvre", analysis No. 27, February 2011, Ministry of Agriculture centre for studies and forecasting.

Respond to new eating habits

There is also a relationship between economic growth and a shift in the diet towards higher animal protein consumption. This phenomenon is called “nutritional transition”.

Nutritional transition has taken place very quickly in some emerging countries. In China, since the 1980s, consumption of meat per inhabitant has been multiplied by four, milk by ten and eggs by eight. Consumption of livestock products per capita has also increased significantly in the rest of East and South-East Asia.

However, for the same level of development, we can observe different consumption trends.

Cultural and religious preferences can limit nutritional transition, in particular the consumption of meat. This is the case for Japan, a highly developed country where the consumption of meat is low, while that of fish is high.

This is also the case in India, where vegetarianism linked to Hinduism remains significant.

Conversely, there has also been a second nutritional transition in developed countries. For public health reasons (cardiovascular diseases, diabetes, high blood pressure, obesity) and thanks to the development of nutritional education and information, the better-off and upper middle classes tend to reduce their fat and meat consumption and other social groups adopt their consumption patterns, often after a time lag. These health concerns can also be in accordance with caring about sustainable consumption, especially among Millennials.



Over the past 50 years, there has been a convergence of diets on a worldwide scale, or a “globalised diet”, increasingly based on four major crops: wheat, rice, potatoes and sugar. Wheat has entered the diet in 97.4% of countries, and rice in 90.8%³. While these crops have helped to reduce hunger in the world, the trend toward uniformity is creating health risks and increased problems of food safety in the event of poor harvests.

FLEXITARIANISM refers to the dietary practice of people who are primarily vegetarian, but who sometimes eat meat, fish and other “animal products”. Depending on the circumstances, a flexitarian may be vegetarian at home, but eat dishes that include meat on special occasions, such as at the restaurant, or during meals with family or friends.

A LOCAVORE is a consumer who makes the choice to consume products and foods made or produced nearby, within a radius of no more than 250 kilometres.

These emerging trends are not incompatible and can be combined with more traditional behaviours, such as the attachment to pleasure conveyed by the French gastronomic model. They mark a form of belonging to multiple identities that results in a certain breakdown in food consumption patterns.

On a global scale, eating habits oscillate between standardisation and fragmentation.

3. Data from the International Centre for Tropical Agriculture.

4. Monitoring Study “Food 2016-2017: 10 emerging trends by 2030”, Futuribles International.

20% of British youth and **15%** of German youth are vegetarian.

Trends in food consumption in developed countries⁴:

- high level of use of prepared foods and meals eaten out of the home;
- rise of vegetarianism and especially flexitarianism, interest in plant proteins;
- increase in consumption of organic products;
- return to local products and short supply chains - local food consumption, or locavores;
- sensitivity to animal well-being;
- attention given to nutritional labelling...
- ... and to the carbon footprint of production.



Mobilise diversified production processes

Faced with rising global food demand, two visions of the future of agriculture emerge by 2050⁵. The first favours an increase in agricultural yields to limit the extension of cultivated land and preserve natural areas for biodiversity and carbon storage. It is impeded, however, by the fact

that in many countries there has been a lesser increase in yields in the past decade due to land degradation and the scarcity of fresh water resources. Climate change will increase risks and accelerate land degradation (erosion, desertification, salinisation, rising water levels) in many parts of the world. The second, known as the “breakthrough vision”, is based on a transition to agro-ecological systems: these systems generally have lower yields and imply an extension of arable land. They are based on the hypothesis of a shift towards less meat-based diets, and thus a lower increase in agricultural needs. They also require strong support in terms of public policies.

AGROECOLOGY is the integrated use of the resources and mechanisms of nature with a view to agricultural production. It aims to take better advantage of interactions between plants, animals, humans and the environment in a systemic approach. It involves reintroducing agronomic knowledge and biosolutions to make better use of the functionality and interactions of nature.

In reality, these visions are not contradictory. It should be recalled that regional disparities are high: most of the production gains are to be expected from developing countries, particularly from Africa, while they will be low in Asia and in developed countries, especially in Europe, given the level of intensification already achieved. Global food security will require the

mobilisation of all forms of agriculture in the world, and family farms in particular⁶. A complementary solution is to promote urban agriculture, even if it is not enough to cover all the needs of cities. It currently accounts for 6% of the world’s cultivated land and 15% of food. In developed countries, it can take high-tech forms with techniques such as hydroponics and aquaponics, which provide good yields and take up less space. It applies not only to futuristic vertical towers, but also to the use of roofs of buildings, brownfield sites, containers, etc. This type of agriculture is particularly developed in Singapore, Japan, China and North America, but its cost remains high.

5. Marie-Aude Even, Julien Vert, “World agricultural production in 2050: comparison of four prospects”, Analysis No. 28, June 2011, Ministry of Agriculture centre for studies and forecasting.

6. *French agricultural cooperation and Africa*, Coop de France with InVivo Foundation, December 2016.

Combine technological advances with environmental responsibility

Producing more and better will depend on the combination of big data (see box), artificial intelligence, biogenetics and environmental responsibility.

Some technologies are in themselves environmentally friendly solutions, others are neutral from this point of view, and their impact will depend on the use that will be made of them.

Technology-assisted agriculture, or agtech, is already spreading in five areas and combines different technologies, all of which are based on a new "green gold": data.

•**Precision agriculture** uses digital devices (remote sensing, drones, sensors) to improve soil knowledge, increasing yields while targeting the delivery of water and inputs, so as to limit them to the right dose. It is useful to farmers and good for the planet.

AGRICULTURAL BIG DATA

The data revolution



Development of computer processing methods



Increased computer storage capacity



Systematic collection of data



Development of technologies for mass acquisition of data



Development of technologies for acquisition of high-precision data



Satellites • Farm machinery • Sensors on buildings • Field Sensors
Weather stations • Drones • Smartphones • Electronic chips • Robots

AGRICULTURAL BIG DATA



Creation of new knowledge



Obtaining new indicators



Renewal of models (more precise)

New multi-criteria analysis models

New services to farmers



Adaptation of agricultural advice



New decision-making tools



Development of applications



New web services



New intermediaries

• **Automated farm management** uses the Internet and connected objects to centralise, control and memorise functions and settings, using data from the farmer's entire fleet of machines.

• **Agricultural robotics** includes automatic guidance systems and feeding or milking robots, which have been widely used for several years now.

It is now moving towards completely autonomous solutions, for example weeding in market gardening or assisting operators in the vineyard, in order to make tasks less arduous.

• **Agricultural Big Data** represents a major political and economic issue, consisting in collecting and organising the huge amounts of data gathered by machines on soils, plants, animals and in the air.

• **Online services to farmers** include all digital platforms that can provide information or services to farmers: weather, price movements, crowdfunding, equipment rental, marketplaces, e-commerce, etc.

In addition to new information and communication technologies (NITCs), the focus of scientific research in agronomy and biotechnology takes into account the objective of producing using fewer resources and wasting less. Agroecology, organic farming, integrated production, sustainable agriculture, conservation agriculture, bioeconomy, are some of many concepts that describe an environmentally friendly agriculture. These systems combine a variety of technical, economic and social solutions, requiring multi-criteria approaches.



Artificial intelligence is the science of how to get machines to do the things they do in the movies.

Astro Teller, 1998



2017, the year of artificial intelligence

2017 will have been the year when artificial intelligence (AI) massively entered the public debate, beyond the sphere of specialists. There are several sides to the debate; a scientific and technological focus with the AlphaGo victory over the world's best Go player, seen as a sign of a major breakthrough in machine learning; a product/business focus with the first tests of autonomous car systems and the appearance of "intelligent" assistants like Siri or Alexa; an ethical and philosophical debate related to the positions of personalities such as Elon Musk, Stephen Hawking or Bill Gates announcing AI as an apocalypse for the human race via the replacement of man by machines. After years on the back burner, AI is poised to experience a new golden age, thanks to the explosion of the amount of data stored in the cloud and the increase in processing capacity of computers. AI does not have a single definition. It is neither a product nor a technology.

One way to define AI is to look at the problems it is trying to solve:

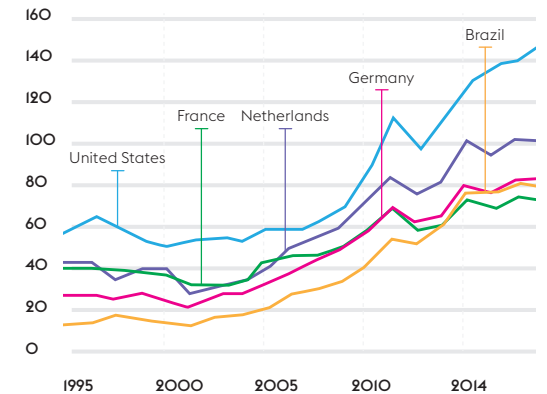
- **visual recognition:**
how to recognise shapes (objects, faces)?
- **vocal recognition and synthesis:**
how to transform sounds into words?
- **automatic processing of plain language:**
how to extract the meaning of language?
- **representation of knowledge:**
how to sort and organise information?
- **reasoning:** *how to combine pieces of information to draw conclusions?*
- **scheduling:** *how to plan a series of actions to achieve a given goal?*

Take its proper place in globalised agricultural and agri-food flows



The European Union remains the second largest agricultural power, and France the first among the member countries, but our country is only the fifth largest exporter behind the United States, the Netherlands⁷, Germany and Brazil. In the future, this ranking could create further surprises by bringing new countries into the world's leading exporters.

exports (billions of dollars)



7. The position of the Netherlands as the second largest exporter in the world can be explained by the central position in the European Union of Dutch ports (Rotterdam for example) for the export of European agricultural products. In this respect, the Netherlands re-exports a majority of agricultural products imported and processed locally.

How can we explain the decline of France's place among the great agricultural powers? The effects of the gradual dismantling of the CAP, combined with factors internal to France (high cost of labour, heavy tax burden, expensive agricultural land and raw materials), have accelerated the loss of competitiveness of French agriculture. Agricultural France must regain its place in the world agricultural and agri-food competition.

Help farmers to adopt new positions to create value

The model of the multipurpose family farm that produced under European protection is under threat. Subject to multiple economic and social constraints, French farmers are trying to find alternatives to the traditional model, to escape the volatility of markets and pressure on prices and to improve their income.

French agriculture in 8 figures

Agricultural production

75.2

billion euros
(1st place in Europe in front of Italy and Germany)

Share of value in the EU

15% in 2015

18% in 2014

Share of agriculture and agri-food in the GDP in 2014

3.7% in 2015

6% in 1980

Source: Agreste, Insee, Eurostat, MSA

Number of farms

474 000

> 1 000 000 in 1980

Average size of a farm

61 **43**

hectares in 2013 hectares in 2000

Agri-food companies exporting

20% in 2015
(80% in Germany)

Share of organic farms

7.3%

Workforce

1.4

million salaried and non-salaried employees (agriculture + agri-food)

This requires them to adopt new positions to create value and new production processes, whether this be to introduce new technologies in the fields, to specialise, to convert to organic farming, to mobilise the techniques of agroecology or diversify towards agrotourism.

In all cases, these conversions will require a rise in farmers' skills and real investment capacities, and will have to rely on collective actions supported by the public sector.

8 economic models

for farms

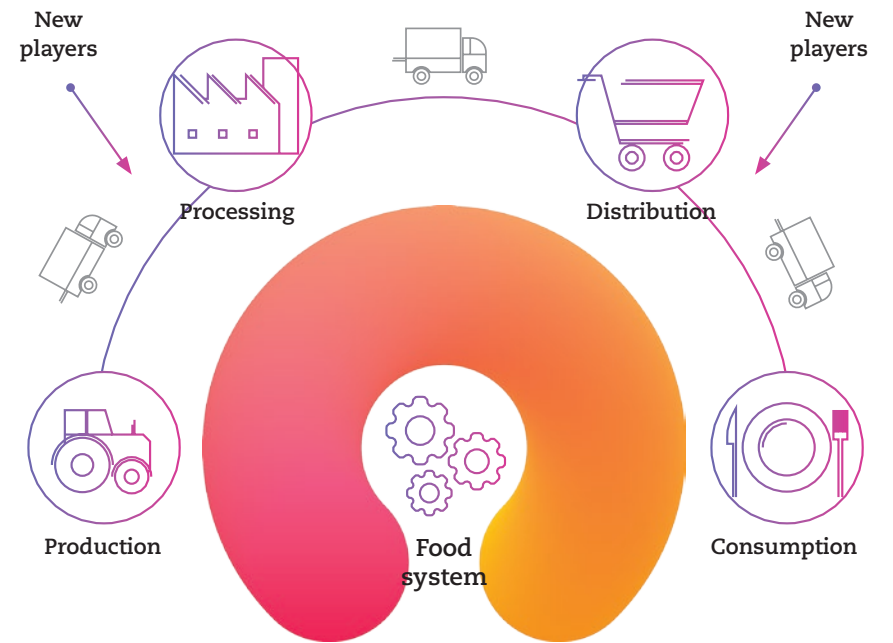
Specialised in niches	Specific production: fruit, nuts, olives, corn, seeds...	Production with geographical indication – Salers cheese, Puy lentils, Morteau sausages...	High-end positioning and gastronomy: saffron, mustard
Standardised in the mass	Thousand-cow farm – large cereal farms		Organic industry
Diversified	Family farm in polyculture Livestock	Agroecology and green tourism	Diversified organic farm
	Conventional production	Agroecology	Organic production

Source: Xavier Hollandts, Kedge Business School, 2017.



Build food 4.0

The digital revolution creates new market opportunities, but also leads to the emergence of new economic players that can “disrupt” the structure of the food chain - from agricultural production to consumption, passing through processing and distribution. Everyone is working to design the agriculture and food of tomorrow that will have to take into account new eating habits and environmental constraints. Promising start-ups are appearing in



agtech-foodtech, which are targets for investors – giants from Silicon Valley or investment funds created by large groups. Operators, both historical (agro-suppliers and cooperatives) and new entrants, are working together to accelerate the spread of innovative solutions and to organise themselves into networks or “valleys”.

The new players are positioning themselves in biotechnologies applied to agriculture, zootechnics, food innovations such as plant proteins, insects or algae, as well as connected objects applied to domestic animals, at home and in the garden, in urban or indoor agriculture, etc. The field of innovations and applications is immense.

In distribution, where concentration is at work in the context of a price war, we are witnessing the take-off of e-commerce food, which is developing in a dynamic way, especially in China, South Korea, Great Britain and France.

The next new horizon is the online purchase of fresh produce. Consumers seem to be interested, especially for short supply chains: according to a recent survey, direct purchase from producers’ sites is the most popular mode of food e-commerce for the French (68%)⁸. There is therefore no conflict between e-commerce and locavore consumption. On the contrary, e-commerce makes the local offer more visible and more accessible. For the farmer, this is a way to establish a direct interaction with the consumer and to recover a larger margin compared to traditional distribution. In the near future, platforms will develop to connect farmers and consumers. But e-commerce is obviously not the only way to regain control of distribution. Short supply

chains such as AMAP⁹, cooperative initiatives such as InVivo’s Frais d’Ici stores and social economy initiatives (La Ruche qui dit oui!) are still in the minority, but correspond to a strong demand from consumers.

“Canada Dry” food

You remember the advertisement “It has the colour of alcohol, the taste of alcohol... but it’s not alcohol”? The food of tomorrow is inspired by this slogan to offer “animal products” without animals: meat without meat, eggs without chickens, mayonnaise without eggs, desserts without milk. Thus, steaks can be plant-based: broad bean, chickpea, corn, wheat, soy, or even from cow stem cells grown in the laboratory. Water will take on the taste of wine or orange juice by “deceiving” the consumer’s sense of smell with natural aromatic additions, and milk can be designed in test tubes. Another emerging trend is to modify each product to remove the bad fats, sugars, salt or any other substance that may be bad for our health or for the planet.

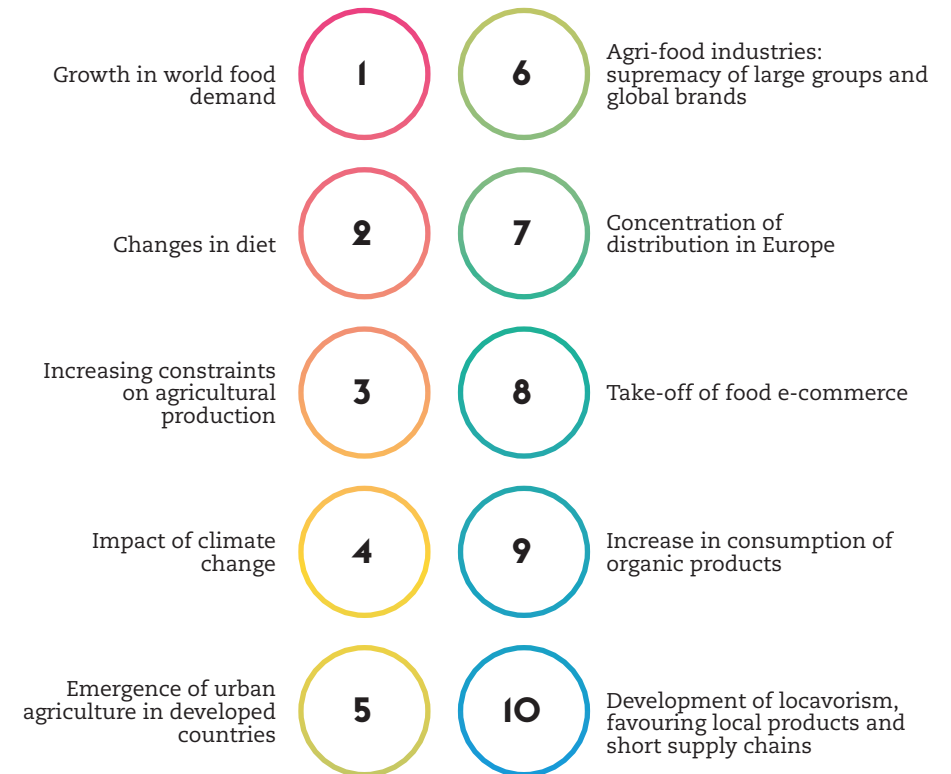
8. BVA for AlimAvenir, September 2015.

9. Association pour le maintien d’une agriculture paysanne, a community-supported agriculture group.

10. Vigie Alimentation 2015, Futuribles International.

to keep in mind

10 prevailing trends in the global food system¹⁰



2025 *by InVivo*: _____ the strategic plan in action

To be able to respond to the challenges brought about by the changes in the global food system, in December 2014 InVivo launched its strategic plan *2025 by InVivo*. In three years, the group has undergone a profound transformation, in order to create ever more value for the benefit of cooperatives, farmers and consumers, in France and around the world. InVivo's strategic plan will continue to unfold to enable the group to fulfill its mission.

InVivo
in figures
(in 2017)

No. 1

French agricultural cooperative group

206

member cooperatives

10 200

employees

34

countries

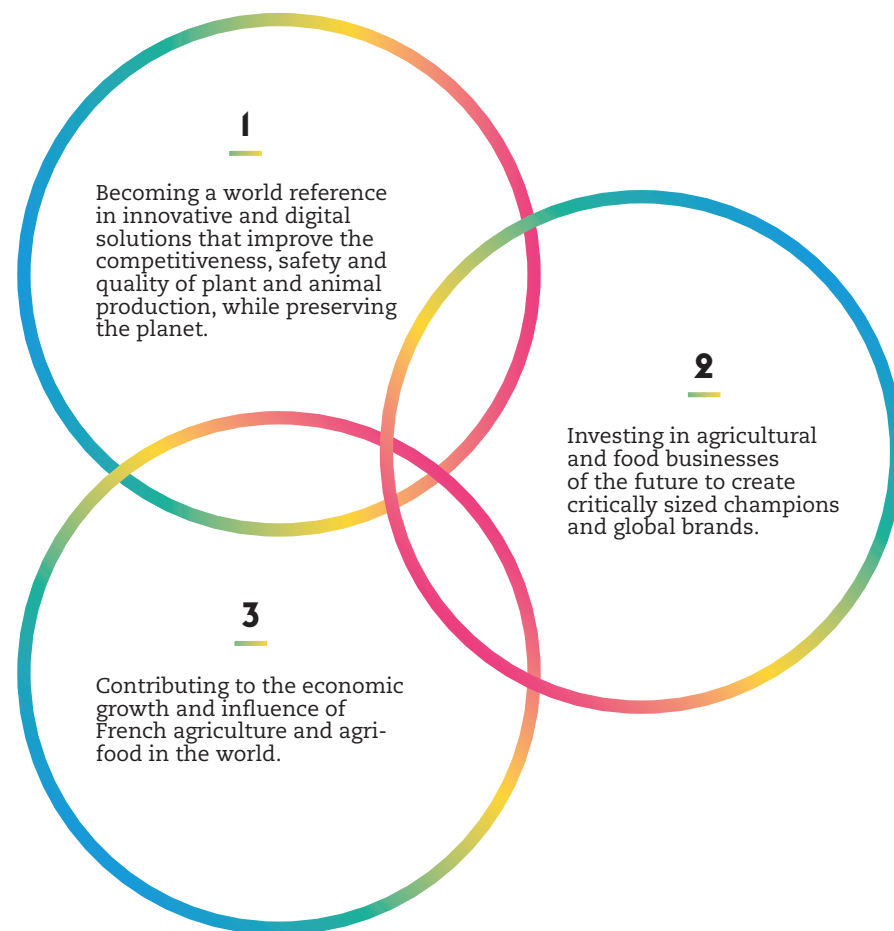
5.5

billion euros of turnover

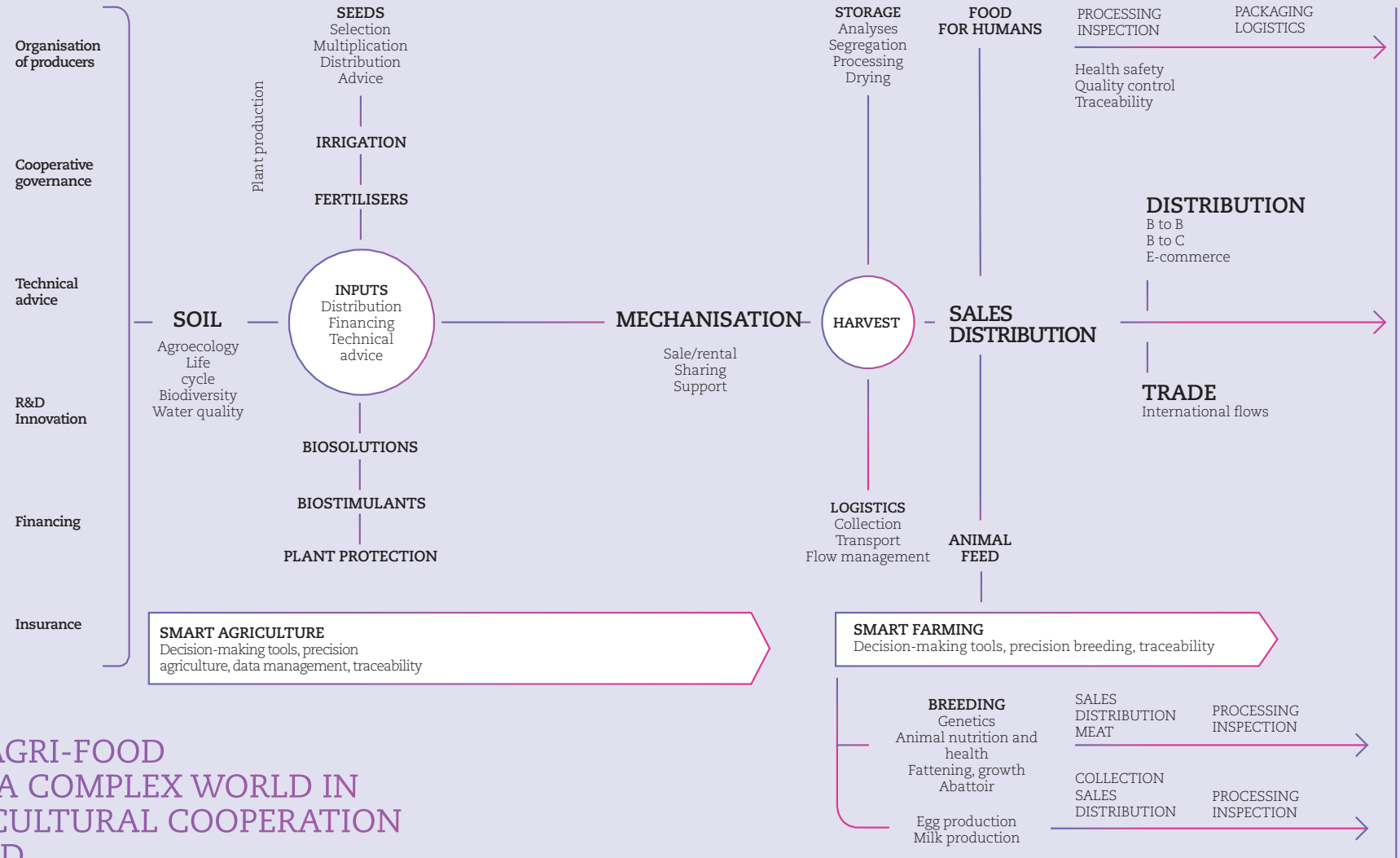
Deploy our three strategic ambitions



In 2014, InVivo set three strategic ambitions for 2025. Without being modified in substance, these have been greatly expanded.



Act through-out the value chain, from farm to fork



AGRICULTURAL AND AGRI-FOOD PRODUCTION CHAIN: A COMPLEX WORLD IN WHICH FRENCH AGRICULTURAL COOPERATION OPERATES END-TO-END



Rely on the cooperative model, more than ever a factor of resilience



InVivo is today the leading French agricultural cooperative group and in 2025 will be a major player in the global food chain.

Our mission is to create value for actors in the agricultural, agri-food and territorial sectors, in all strategic segments of the food chain, in France and around the world. We will thus respond fully and qualitatively to the growth of global demand and new consumption habits, and contribute to the influence of French agriculture, while respecting the planet and its people.

InVivo intends to undertake this mission with a strong conviction: to contribute to feeding humanity without harming the planet – by guaranteeing consumers quality food, in sufficient quantity and at an affordable price – and to restore to producers a fair share of the value they create, a balance must constantly be sought between the interests of three parties: producers, consumers and the Earth. This means working openly, respectfully and in a long-term perspective, with all partners and all stakeholders to co-build the solutions of tomorrow. This is how InVivo gives life and meaning to its signature: “Cooperation adds value” because the cooperative model remains more than ever a factor of resilience in confronting the future. The level of investment required by innovations, the power of competition on the world stage will always require more agricultural intelligence and collective actions that can be sustained over time. In this context, cooperatives have a unique asset: that resulting from the

pooling power of their members and the strength of their historical values: transparency, fairness, responsibility, solidarity and altruism. Cooperatives have the power and the will to act for a sustainable and inclusive future, vibrant agriculture and healthy and tasty food for all.

“Cooperatives act so that no one is left behind”

“By putting people at the heart of their action, cooperatives play a major role in the fight against poverty and the achievement of the Sustainable Development Goals (SDGs),” the United Nations underlined on the occasion of the International Day of Cooperatives, 1 July 2017.

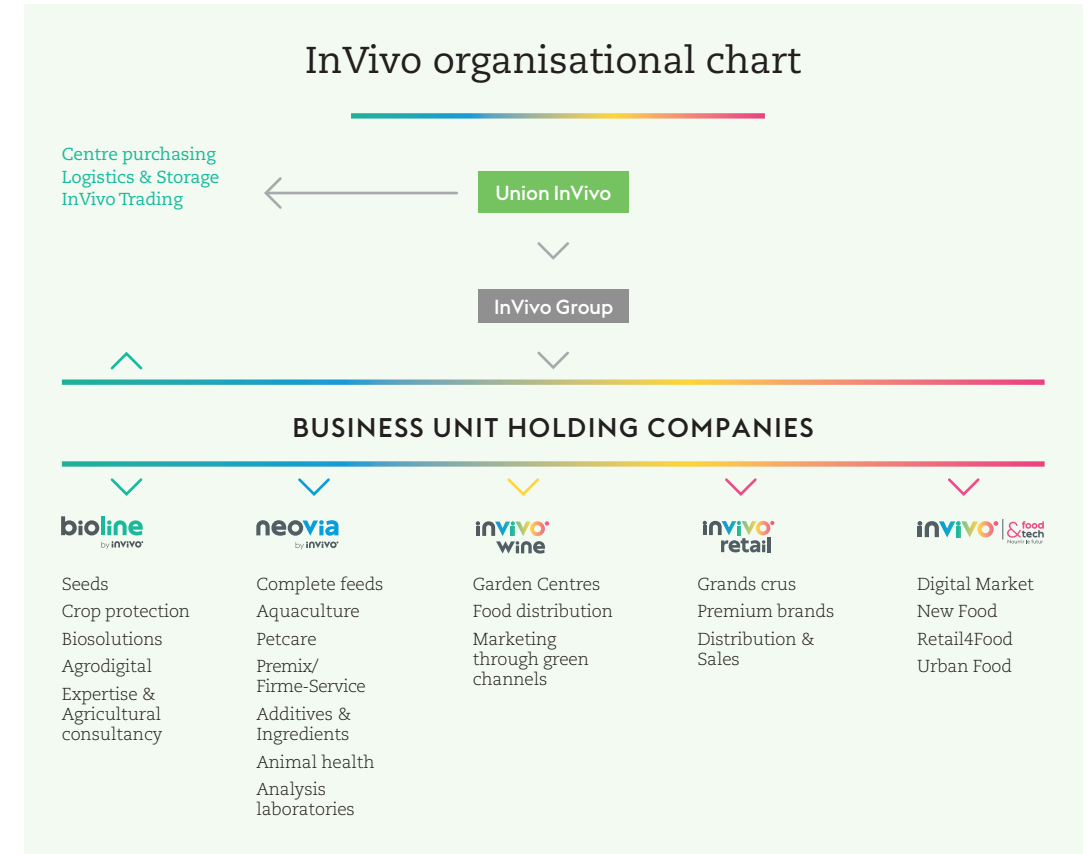
2015-2017: ensure solid founda- tions for our develop- ment

An organisation adapted to our ambitions

The group's new strategy has led to a legal separation between service activities directly related to member cooperatives and competitive activities with high development potential, which has resulted in a three-level organisation:

- **Union InVivo** which encompasses the historic service activities directed to the cooperatives and the resources allocated to them. As the group's parent company, it manages the interests of the members and fixes strategic directions. Governance is exclusively by representatives of the member cooperatives. The Union's vocation is to ensure the link and organisation with the cooperative world, as well as its influence.

- **The main holding company InVivo Group**, which carries the corporate functions and marks the boundary between the activities of the Union of cooperatives and competitive activities. It is at this level that the group's strategy is defined and proposed to the Board of Directors. To lead and control the application of this strategy, InVivo Group works cross-functionally on development, innovation, brand strategy and the coordination and consistency of Union activities and other activities. It organises the financing of all group business.

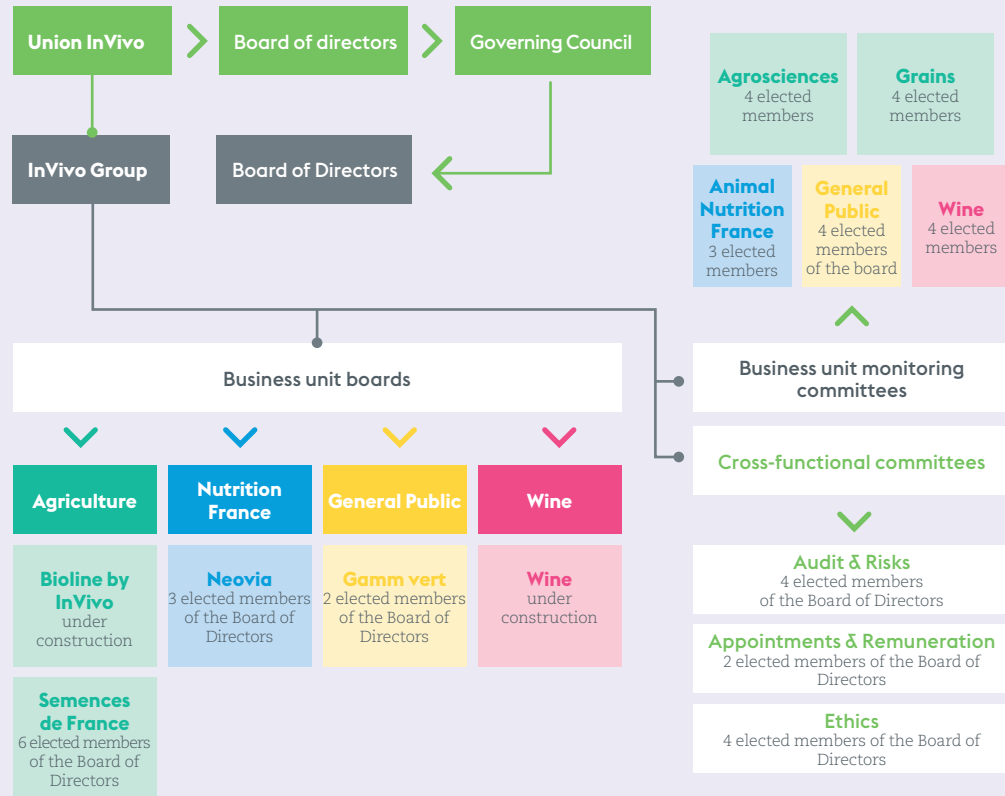


- **Business unit holding companies** that bring together all the group's competitive business. Each business unit holding company establishes and implements its strategy in line with group strategy, by being responsible for its financial result.

This organisation is consistent with respect of the fundamental values of agricultural

cooperation that are central to the *2025 by InVivo* strategic plan: fairness and solidarity in collaboration with our stakeholders, ethics and responsibility in undertaking our actions. InVivo continues to draw its strength from the dynamic of the cooperative movement and aims to foster its influence, both locally and internationally.

Elected members take part in our strategic decisions at all levels



Highly involved governance

The new governance bodies of the InVivo group make it possible to involve our 206 member cooperatives more closely in the choice and deployment of strategic directions.

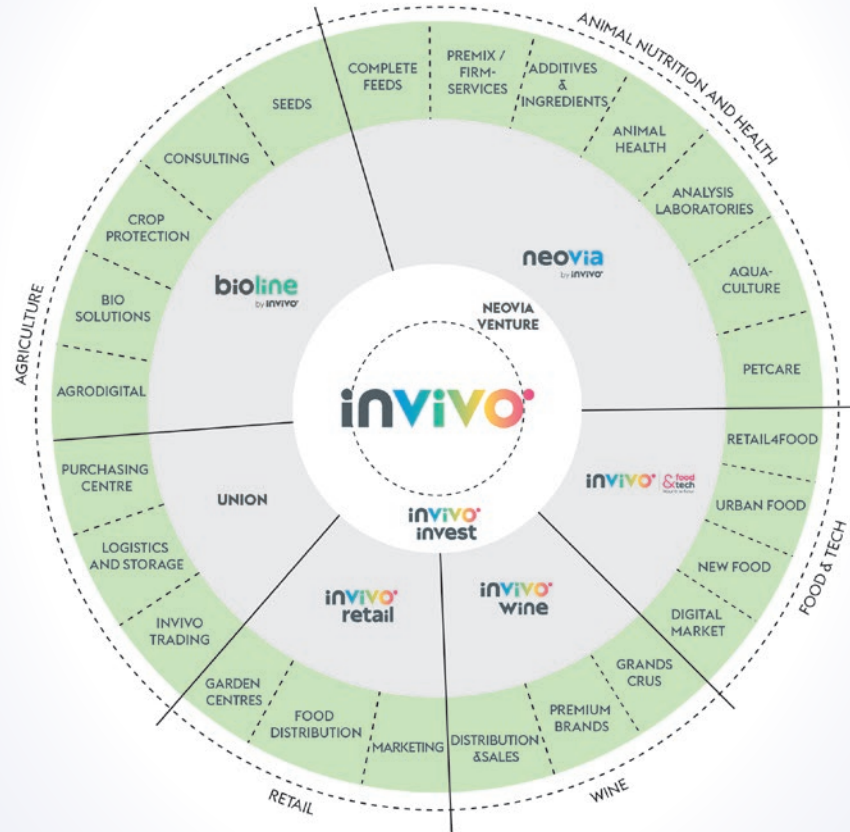
- This resulted in setting up:
- **Five monitoring committees by business sector:** agro-sciences, grains, animal nutrition France, general public and wine. Two to four directors sit on each of them, participating in the definition of the business strategy, its implementation and monitoring.
 - **Three cross-functional committees:** ethics, appointments and remuneration, audit and risks.

These bodies are the place for fruitful exchanges, marked by a listening culture, taking everyone's contributions into account. In addition, thematic trips, learning expeditions and seminars shared with the directors help to build an ethical and inclusive relationship model.

A shared culture of economic performance

Since 2015, InVivo has focused on spreading a shared culture of economic performance throughout the group and to all employees. It is this culture that enables the company to guarantee its results and to continue investing to accelerate its transformation, its international development and its capacity for innovation. In early 2016, InVivo secured the financing of its five-year business plan, raising 800 million euros. This operation ensures a balanced funding base to support the development of the group's various activities. It demonstrates the confidence of the financial community in the strategic plan 2025 by InVivo.

The business unit wheel



4 QUESTIONS FOR

MAHA FOURNIER

Administrative and Financial Director of the InVivo group



What does the strategic plan 2025 by InVivo mean for you?

It is the essential frame of reference for all our partners and stakeholders. It establishes InVivo's business project, which relies heavily on innovation and internationalisation. It enables all our contacts, members, directors, bankers, investors, partners and employees to understand the fundamentals of our action and thus become actors involved in the group's strategy.

What are InVivo's economic goals for 2025?

Our ambition is to double the economic weight of the group, from 5-6 billion euros today to 10-12 billion in 2025. Critical size is essential to taking our place on the world stage. But our goal is also, and above all, to triple our profitability (Ebitda), improving the contribution of each of our

measured way. And since 2015, the business unit holdings have welcomed investors as minority shareholders, in order to contribute to the financing of their growth over timescales allowing them a real strategic involvement.

What are your main management indicators?

I will cite two of them. Leverage – the ratio of net debt to Ebitda – is controlled to keep it less than or equal to 3.5. And gearing – the ratio of net debt to equity – is controlled to keep it less than or equal to 1. With these two indicators, we can continue our development while ensuring its financing and our ability to repay the debt.

activities to this growth and ensuring a better balance of contributions between businesses.

How are you going to finance this ambitious growth?

We have a substantial capital and this is consolidated each year by the company's profits. We have recourse to debt in a

Clearly identified business areas



Bioline by InVivo, the partner for all forms of agriculture

At the end of 2017, InVivo created Bioline by InVivo, the new global umbrella brand that unites the group's agricultural businesses: seeds (Semences de France); crop protection (Life Scientific, Phyteurop, CCAB Agro); biosolutions (Bioline Biosolutions); smart agriculture (Smag, be Api, Studio agrodigital, Fermes LEADER); consulting (Agrosolutions).



Neovia, with innovation at the centre

Neovia, a specialist in animal nutrition and health, is a world leader in this sector. Its activity is based around seven complementary business areas: complete feeds; aquaculture; pet care; service companies and premix; additives and ingredients; animal health; analysis laboratories.



InVivo Retail, champion of the local store

This powerful multi-activity, multi-brand and multi-channel distribution division, with franchises and branches, is present in three business areas: garden centres; food distribution; and marketing expertise.



InVivo Wine, from the vine to the glass

Created in 2015, InVivo Wine intends to build a powerful French wine division, creating value in France and internationally, around three priorities: becoming a leader in wine distribution; developing strong "premium" brands; and strengthening the competitiveness of French viticulture.



InVivo Food&Tech, the food lab

Created in 2017, InVivo Food & Tech is dedicated to digitising the group's businesses and to food innovation in all its forms (ingredients, preparation, processes), to respond to new consumer trends and to ensure better openings for French agriculture and stronger integration of its downstream value chain.

2025 goal: growth and creation of value

Support the development path of each business

InVivo Group ensures strategic and operational support to its business units at each step in their development, to enable them to achieve their growth and value creation targets. To do this, the group relies on agile and efficient corporate functions.

Five performance drivers for action

To become a major global player in the agricultural and food sectors, InVivo is supporting its development with five performance drivers:

1. Digital transformation
2. Open innovation
3. Internationalisation
4. Smart HR
5. CSR Inside

I. Digital transformation

Initiated in 2016, the *InVivo Tech 2020* initiative, part of the *2025 by InVivo* strategic plan, aims to accelerate the deployment of this plan and the growth of the group in two major areas:

- **The transformation of the Group's digital culture** in all its components: incentives for cross-functionality and sharing, development of the intrapreneurial spirit to encourage the emergence of new activities and start-ups; the spread of new collaborative and distance working practices; becoming paperless.
- **The digitisation of its activities:** creation of an ecosystem for monitoring and identification of innovative projects; support for the development of new activities from start-ups, intrapreneurship or cooperatives, thanks to a financing ecosystem centred on two seed funds (InVivo Invest for agtech and foodtech, and Neovia Venture for feedtech) and equity investments in development funds.

InVivo Quest: a Tour of France of innovation to invent the agriculture and agri-food of the future

InVivo Quest is an innovation challenge offered to three types of population: students at top universities, innovative ecosystems (incubators and start-up incubators) and InVivo employees. It is an ambitious programme aimed at identifying and supporting new talents to build the agriculture and food of the future: new ingredients, new agri-food processes, e-commerce and new modes of distribution, urban farming, connected objects, big data. InVivo Quest is mobilising all agtech, foodtech and digital stakeholders on these themes in five major French cities: Montpellier, Nantes, Bordeaux, Lyon and Paris. Organised in the second half of 2017, following the pre-selection of projects in the regions, the first edition of this agri-food innovation challenge brought together 13 teams at the final in Paris on 12 December. During this day, the finalists pitched their projects in front of a jury of international experts. Three projects were selected. The 2017 laureates were also invited to present their projects at InVivo's annual convention.

3 QUESTIONS FOR

NICOLAS FERRAS

Director of InVivo Invest

Why was InVivo Invest created?

Created in late 2016, InVivo Invest is a seed fund intended to take minority stakes in agtech-foodtech start-ups with potential for synergy with our businesses. We represent a homing device for the group, destined to seek out innovative projects in a spirit of open innovation. To this end, we had to start by making ourselves known to the main agtech-foodtech innovation networks, in order to bring out projects related to our areas of expertise.

This is now done, and our ability to accelerate projects thanks to our knowledge of the markets is starting to be fully recognised. We reviewed over 100 proposals, funded three in 2016, five are in the process of being finalised, and several more are under review. We are also going to open up to projects from the United States and Israel: For these foreign start-ups, InVivo represents an excellent lever for penetrating the European market. But we are



not chasing numbers; what interests us is the relevance of each project in relation to the group's strategy, and our ability to give meaningful support in the long term.

How does the relationship with a start-up develop in concrete terms?

We target existing companies that have proven the viability of their business model. This

is the case with 10-Vins, for example, which won the prize for the best start-up in 2016 at the Consumer Electronic Show in Las Vegas. The start-up is then sponsored by an InVivo business, which performs an in-depth analysis of its business model and the possible synergies. In the case of 10-Vins, the start-up is relying on InVivo Wine (see p. 90) to build its brand and its international development. We are not a sleeping partner, and the business sponsor will support development while respecting the vision of the founders. Collaborating with a start-up involves a particular relational position, a relationship ethic, to which Millennials are often very sensitive. InVivo Invest thus contributes indirectly to spreading a digital culture and new attitudes to work in our business divisions.

How do you see InVivo in 2025?

Like a constellation. Swarm structures gravitating



We represent a homing device for the group, destined to seek out innovative projects in a spirit of open innovation.



around our core businesses, with levels of collaboration ranging from integration to simple partnership. This is also called an "extended enterprise" or "platform enterprise". As a cooperative of cooperatives, we have the advantage of having had this ecosystem logic in our genes for a long time.

2. Open innovation

To improve the quality of crop and livestock production and build a more technical and sustainable agriculture, and to accelerate the marketing of products and solutions adapted to new consumer trends, InVivo has put innovation in all its forms at the forefront of its strategy.

The group promotes and encourages co-innovation through internal and external exchanges: partnerships and alliances with public and private stakeholders (competitiveness clusters, universities, research laboratories, start-ups, cooperatives), and multidisciplinary cross-cutting collaboration between internal teams.

While each business area is responsible for its own innovation strategy, consistent with the group's strategic plan, InVivo has supported the development of four incubators, which are platforms to encourage open innovation:

- **We'nov**, Neovia's global animal nutrition and health innovation centre, was inaugurated in July 2016 in Saint-Nolff, Morbihan.
- **The Agro-digital Studio in Montpellier**, specialised in connected agriculture and agricultural big data, opened in May 2017.
- **La Maison du végétal** in Reims, which will open in the first half of 2018, in the Village by CA (Crédit Agricole).
- **La Pépinière InVivo Tech** in Paris, bringing together all the group's expertise in e-commerce and digital uses.

Eight priority fields of innovation for InVivo, with high technological and digital content

- Smart agriculture and smart farming: precision agriculture, viticulture and animal nutrition, linked to agricultural big data.
- Biosolutions: alternatives to phytosanitary products for crop protection.
- Zootechnics and animal physiology.
- Connected objects for agriculture, the home, the garden and for pets.
- Urban and indoor agriculture.
- Alternative food proteins.
- A food blockchain for more traceability, security and independence in the food chain.
- New distribution concepts.



3. Internationalisation

Internationalising all its businesses is at the heart of the InVivo strategic project. Thanks to its subsidiaries, InVivo Group has strong positions in 34 countries and has wide international experience with export flows to more than 60 countries. The group also wants to support French cooperatives internationally, by letting them take advantage of its knowledge of markets, its infrastructures and its expertise to create new outlets for French products. Scientific and economic partnerships, alliances with foreign companies and acquisitions of shares in companies based

outside France also form a basis for developing InVivo's five business divisions internationally. To fulfill this mission successfully, the group is gradually adopting a suitable organisation with the establishment of "base camps" in strategic geographical areas: Singapore, São Paulo, Boston and Paris.



O1 South Africa	O8 China	O15 Hungary	O22 Myanmar	O29 Russia
O2 Algeria	O9 South Korea	O16 India	O23 Netherlands	O30 Singapore
O3 Germany	O10 Cuba	O17 Indonesia	O24 Philippines	O31 Switzerland
O4 Belgium	O11 Spain	O18 Ireland	O25 Poland	O32 Taiwan
O5 Brazil	O12 USA	O19 Algeria	O26 Portugal	O33 Thailand
O6 Cambodia	O13 France	O20 Japan	O27 Czech Republic	O34 Vietnam
O7 Canada	O14 Great Britain	O21 Mexico	O28 Romania	

4. Smart HR

InVivo's transformation and development rests on the commitment of its men and women. Before being a technological revolution, digital transformation is a cultural and human revolution. With its *Smart HR* programme, InVivo intends to support all its employees on the path to collective intelligence for sustainable growth. A whole series of initiatives flow from this imperative.

Developing digital skills and collaborative work:

it is essentially through the implementation and generalisation of new everyday work practices in adapted work spaces that the digital culture is gradually deployed.

Due to an increasingly decentralised and international organisation, the group affirms the importance of action learning and provides employees with connected tools (corporate social network, corporate Skype, videoconferencing) to strengthen collaboration and communication, in a context of increasingly paperless processes (electronic document management, electronic mail management) and the reinforcement of remote working.

Spreading the digital culture: the group is putting in place increasing opportunities for internal and external meetings and exchanges to share digital skills and good practices, inspiring new ideas and the spirit of entrepreneurship among all.

The awareness programme *Be a startup-er* allows employees to interact with InVivo start-up creators and intrapreneurs, and aims to make everyone a digital ambassador, both internally and externally.



Smart management: the six dimensions of management at InVivo
By Sébastien Graff,
Group HR Director

1. Agile and flexible organisations to accelerate business: organisations must be designed to serve the business and adapt continuously. They must have clarity and be understandable by everyone.

2. A simplified hierarchy to involve and motivate: the hierarchy has been simplified. It is made up of inspiring managers or team leaders, who set the direction, share decision-making and adopt a manager-coach position. The role of manager is more about supporting teams and letting them grow rather than controlling them.

3. Empowerment of everyone to facilitate action: empowerment helps to make employees involved in the implementation of the strategy and to free up all their potential. It means everyone being able to act autonomously, according to the defined direction, and to take action, including taking risks.

4. A culture of innovation and creativity to think about the agriculture of tomorrow: cultivating collective intelligence, encouraging collaboration and sharing experiences, within teams and between businesses, allows value to be created.

Management encourages the emergence of ideas and initiatives, and the development of entrepreneurial spirit in start-up mode.

5. Management of shared activity to drive development: regular managerial rituals have been set up to share strategy, monitor activity, make decisions and pass on information.

Performance indicators are defined with the teams responsible for monitoring them independently. Self-checking is preferred to inspection, and a duty of warning has been established. Reporting and control are retained only when they add value.

6. Transparent and caring communication to give meaning: access to information has been facilitated, communication is shared with all employees and is permanent within the organisation. It aims to communicate corporate values. Social events are organised to encourage bonding and to celebrate important events within the organisation.

Stimulate and support intrapreneurs: the group is putting in place an ambitious programme to identify and support internal talents, in order to imagine the new activities that will make the agriculture and food of tomorrow. The innovation challenges – InVivo Quest and We'can at Neovia – give each employee the opportunity to submit an innovative idea. If it is selected, the employee benefits from support (provision of resources, mentoring, training, contact with internal or external partners) to demonstrate the feasibility of the idea and its market potential. Finally, if the project proves viable, it can be supported through to being put on the market. Ouifield, a digital platform for the procurement of goods and services for farmers, and Agrosolutions Insurance both came from InVivo intrapreneurship.

Relying on cooperative and collaborative management (see box opposite): InVivo management wants to encourage team commitment, to meet the challenges of the strategic plan, develop groundbreaking innovation and increase the group's ability to take advantage of market opportunities. It strives to share a vision and values that constitute the framework of collective action, give meaning and promote team motivation. By trusting, sharing and empowering employees, it promotes commitment, initiative and innovation among the workforce.

5. CSR Inside

Many companies adopt a CSR policy to meet legal obligations or to be seen in a friendly light. At InVivo, however, CSR is activated as a performance driver. It invigorates each of our businesses, products and services, and acts as a driver of innovation and a provider of sustainable growth.

Which is why we talk about CSR inside. Agriculture is at the heart of almost all contemporary global challenges, whether it is to feed people, create jobs, take care of natural resources, promote energy transition or develop territories. At InVivo, we are gearing up to meet these challenges through innovative, responsible and sustainable solutions.

The CSR policy at InVivo, the leading French agricultural cooperative group, reflects its loyalty to the cooperative ideal based on transparency, fairness, solidarity and altruism. We firmly believe that only *Smart Cooperation* will ensure sustainable growth for cooperatives, farmers and consumers while respecting the planet.

Directed towards People, Planet, Profit, InVivo confirms three commitments

- Producing more and better
- Promoting access to a better diet
- Placing people at the heart of our actions

3 QUESTIONS FOR

RACHEL KOLBE-SEMHOUN

CSR manager at InVivo group, in charge of the endowment fund InVivo Foundation



Why was the InVivo Foundation created?

It was a question of InVivo affirming its societal commitment to serving agriculture, farmers and consumers, beyond its immediate business activities. Our endowment fund will work in three main areas: helping farmers to earn a better living from their profession; bringing new sustainable food solutions; and taking care of natural

resources. We support projects that contribute to these principles, and ideally all three at the same time.

In concrete terms, what are the selection criteria for the projects you support?

Our approach can be summed up by “small gesture, big impact”. Each project must be coherent with our working principles, carried out in the general interest, and able to be duplicated and applied internationally. We want to be able to bring not only financial support to these projects, but more especially a contribution of know-how, such as helping to structure sectors in developing countries.

What are your first projects?

We already have around ten under way. In Africa, in Togo, we are helping to set up an agroecological production unit within an orphanage near Lomé. It will enable the

orphanage to become self-sufficient in food, teach children the basics of agroecology and secure additional funding through the sale of excess production. Research on varietal associations in the tropics is associated with this project. In Mali, we are supporting an organisation of women farmers to build a layer hen farm that will provide their families with protein from eggs and a supplementary income. In Cameroon, we are assisting in the construction of an “edible insects” sector, moving from the collection of insects to breeding farms, and with the addition of processing units to transform them into meal. In this way, we are helping to structure a new sector that allows farmers to do better business while providing a new source of sustainably produced protein.

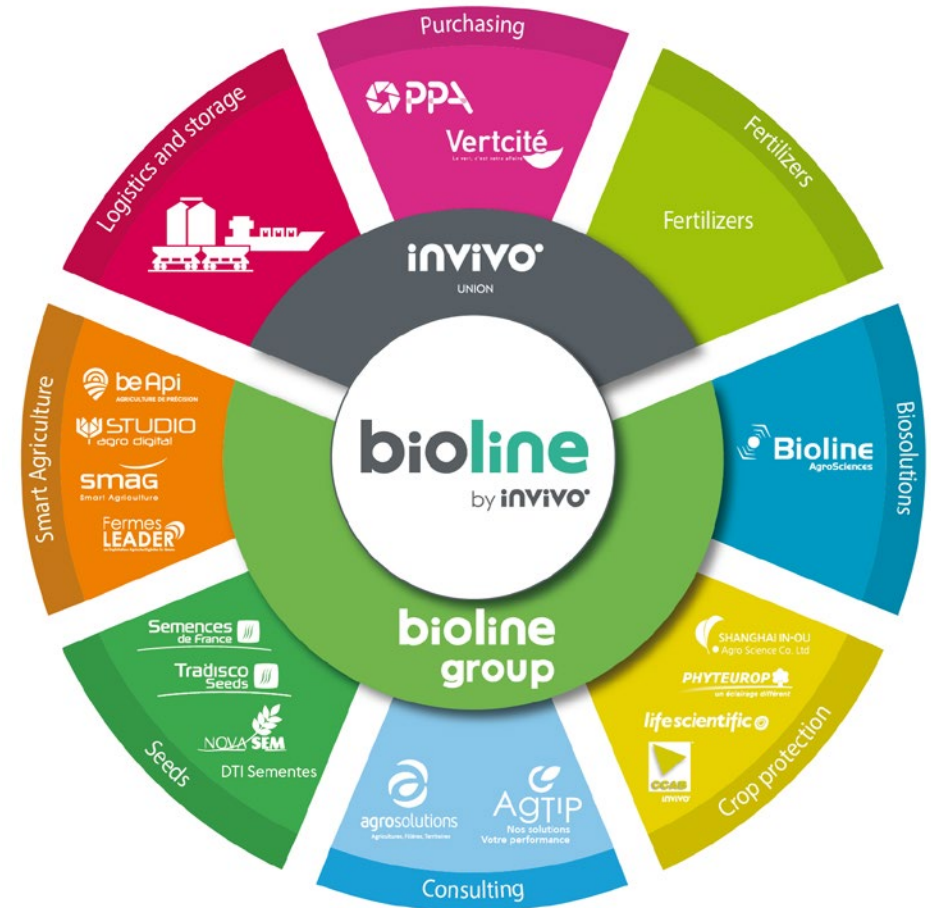
In the field of next-generation sustainable food research, InVivo Foundation is supporting the New Harvest Institute's research on cell farming, an area that could

provide protein solutions in the future without using animals. It also relies on scientific studies on microorganisms capable of transforming CO₂ into foods rich in proteins, amino acids and other vitamins. Finally, in Germany, we are supporting a circular economy project that aims to make use of inedible milk curds to make fabrics. This project is absolutely emblematic of the InVivo Foundation approach: it will reduce waste, while providing an additional outlet for dairy farmers. We are going to work with a partner who is developing the process, and with cooperatives, to organise the collection of milk curd and thus help the farmers to do better business.

Our
business areas
projected _____

in
2025

Bioline by InVivo, the partner for all forms of agriculture





Union InVivo, the historic core

Since the start of the strategic plan in 2014

- > Consolidation and management of the historical service activities for member cooperatives.
- > Structuring of Agricultural Supply Partners division (central purchasing)
- > Opening of the Wine section within the Union, bringing in 23 new cooperatives.

Since 2015, Union InVivo has encompassed the statutory service activities for the member cooperatives. It pursues the objective of always giving them the benefit of the best offers and solutions, adapted to the specialities of their production and their needs in all fields (seeds, fertilisers, crop protection, agricultural equipment, export assistance), linked to the

activities and partnerships of the InVivo Group businesses. Union InVivo acts systematically in a partnership and bottom-up logic, in order to co-build the required solutions with cooperatives and to promote the export of French agricultural products.

The Agricultural Supply Partners division

The national referencing and purchasing centre for agricultural supply products for member cooperatives is number one in France, number one in Europe, and is ranked among the top 5 in the world. The seven regional cooperative groups belonging to the division buy together in a spirit of trust and sharing.

InVivo Logistics & Storage

As the leading national operator in grain logistics and storage, InVivo Logistics & Storage has pursued a policy of continuous improvement of

its supply chain for more than 20 years, which gives it first-class know-how in this area. The driving force behind the Union's export activity, InVivo Logistics & Storage has some particularly powerful tools with:

- 12 silos in France, situated on the Atlantic seaboard and major river routes, with a storage capacity of 1.5 million tonnes;
- significant holdings in the main French export ports, including Rouen, Dunkirk and La Pallice;
- sites overseas, notably in Morocco.

InVivo Trading

Since the start of the strategic plan in 2014

- > Complete change in InVivo Trading's business model and strategy to adapt to the configuration of globalised markets: from wheat exporter to global niche player in grain trading.
- > The trading mission has become that of transforming uncertainty in the markets for agricultural raw materials into controlled risk.
- > Development of operational excellence in market forecasting and risk management tools (econometric models, algorithms, etc.).

In a decade, grain markets have become completely globalised and financialised, completely transforming the nature of former trading businesses.

France is thus seeing a change in the rules of the competitive game that governed its wheat exports. The historic destinations for French exports (Egypt, Morocco, Algeria, West Africa) are increasingly open to global competition and are now buying wheat from other countries (Russia, Ukraine, Argentina, Germany, the Baltic states), which have similar quality to French production. As a result, price has become the sole adjustment variable on world markets.

The French wheat industry has costs that hinder its competitiveness, and it is therefore under structural pressure.

These changes have necessitated a complete overhaul of InVivo Trading's business model, whose ambition is now to become a global niche player in grain trading.

Four complementary strategic approaches

InVivo Trading is implementing a strategy based on four complementary approaches.

- **Maintaining its historic role as a provider of liquidity on wheat export markets, to the benefit of the cooperatives**, while reducing the proven risk of negative margins on this activity. To do this, at the end of 2017 Union InVivo created **the first digital platform dedicated to wheat exports**, a resource-sharing tool open to all the cooperatives, with a mission to seek out added value for the wheat sector in France,

thanks to better optimisation of export logistics (the supply chain). The historic fixed-price commitment contracts with cooperatives are being converted into preferential-rate trading contracts, whose flows will be processed by InVivo Trading France via the new platform.

Union InVivo's results from this activity will be redistributed to cooperatives in proportion to the volumes contributed to the platform. In its first year of operation, the platform should generate a turnover of 600 million euros.

- **Balancing the portfolio by diversifying the raw materials handled** (soybeans, corn) to ensure diversification of risks and sources of revenue. The consumption of soy, for example, is growing by 8 % a year. Production is concentrated in three countries (the United States, Argentina and Brazil) and consumption is 80 % in China. InVivo Trading is developing a soybean trading activity from its office in Sao Paulo (InVivo Trading do Brasil).

- **Developing international grain and oleaginous seed collection and distribution activities**, to generate recurring margins. An agreement signed by Bioline InVivo with twenty Brazilian cooperatives (CCAB) will give InVivo Trading the opportunity to offer them logistical collection services for corn and soybeans. This type of activity can then be developed in other countries such as Ukraine or Spain. In parallel, a corn and soybean distribution activity for the Middle East will be operated from the InVivo Trading office in Singapore, with players having dominant positions in certain ports in the region.

- **Monetising the expertise in consulting and risk management (as a service provider) with partners.** InVivo Trading has developed

first-rate know-how in risk management related to speculative trading, in order to transform uncertainty into controlled risk. Value will be extracted from this expertise through service contracts, partnerships or alliances.



Bioline by InVivo, the sense of the living

Since 2014

- > At the end of 2017, InVivo opened the capital of its subsidiary dedicated to agricultural businesses and launched the umbrella brand Bioline by InVivo.
- > The business division is ahead of the game in precision agriculture (Be Api) and agricultural big data (Smag).
- > It has become the third world player in biocontrol.

To provide sustainable financing for the agriculture of the future, InVivo has opened the capital of its subsidiary dedicated to agricultural activity to new

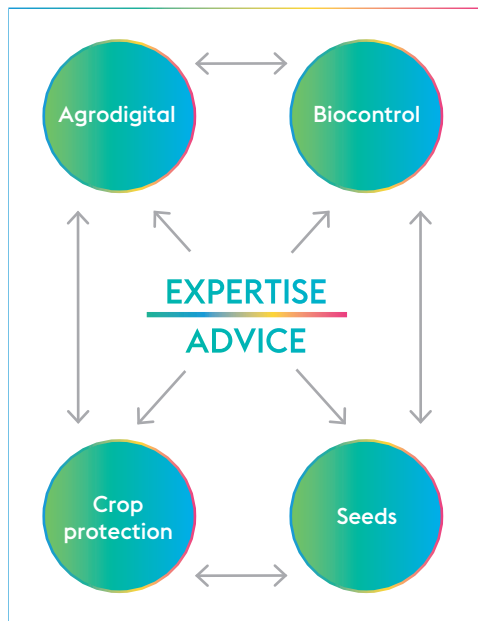
investors and has taken this opportunity to launch its umbrella brand, Bioline by InVivo. This new corporate name, consisting of the Greek word Bios (life) and “line”, an Anglo-Saxon word with many meanings, is understandable worldwide. It is intended to unite current and future InVivo businesses dedicated to agricultural performance and innovation.

Bioline by InVivo, the partner for all forms of agriculture, aims to identify, design and offer more effective and innovative solutions to produce more and better, for agricultural sectors in France and throughout the world. Bioline by InVivo is organised around:

- **two businesses that form the bedrock of its relationship with the cooperatives:** seeds – Semences de France – and crop protection – Life Scientific, Phyteurop, CCAB Brésil;
- **two businesses of the future in which InVivo intends to become a world reference:** smart agriculture – Smag, be Api, Studio agrodigital, Fermes LEADER – and biosolutions – Bioline Biosolutions;
- **A cross-functional business to serve all the activities:** the agro-environmental expertise and advice provided by Agrosolutions.

An increase in capital has given Bioline by InVivo the means to finance its future activities.





quantity and quality of production. This transformation is a source of value, both economic and agro-environmental, for the farmer, the consumer and the planet. With the 2014 acquisition of Smag, the French leader in technological applications for the agricultural world, InVivo has gained a head start on these topics and is actively contributing to the spread of digital innovations within farms and the construction of agricultural big data.

Bioline by InVivo is based around two activities:

> **products and services for farmers and for the sectors**

- **Smag**, providing software solutions and services in the cloud (software as a service - Saas), and connected objects for agriculture,
- **Be Api**, a subsidiary devoted to precision agriculture, with 31 participating cooperatives;

> **the accelerators of digitisation and agrodigital innovation**

- **The Studio agrodigital** in Montpellier, an accelerator of innovative projects coming from the group, from member cooperatives or other partners, and which can be relevant to all InVivo businesses.

- **The Fermes LEADER programme** initiated by InVivo, which will gradually allow the large-scale deployment of a range of digital solutions and services for farms. It is intended to demonstrate and accurately document the economic and environmental impact of agrodigital for farmers (see box opposite).

According to Stéphane Marcel, its director, the Agrodigital division aims to triple its turnover by 2025, thanks in particular to an ambitious international development

programme in Asia, Brazil and Europe. Smag, for example, has just signed a major contract with Michelin to roll out the Rubberway solution, which aims to map the CSR practices of its natural rubber supply chain, operated by Smag Singapore.

Fermes LEADER: the living lab of 1000 digital farms

The Fermes LEADER programme was initiated by InVivo and aims to equip up to 1000 farms with excellent digital services and solutions. The objective is to carefully evaluate the economic and environmental gains achieved by the farmers, to improve the products and to co-design, with the farmers involved and the cooperatives, new services and tools, thanks to the data collected by the programme. As Carole Rocca, the project manager, explains, "This is a three-party programme involving InVivo, the cooperatives and the farmers, to collectively build technological skills." After a phase to identify the farms, with the help of the partner cooperatives and the signing of the commitment charters, comes the implementation of the tools within the farms (software, precision farming and local detection tools, connected objects like weather stations, insect traps, etc.). It will be followed by an evaluation phase leading to a strategic diagnosis of the farm in three areas: profitability, productivity and environmental impact.



Three strategic approaches

Become a world leader in the agrodigital sector

The advent of the digital world constitutes a true revolution for agriculture.

We are moving from reasoned agriculture to measured, data-driven agriculture. It is also becoming predictive, capable of anticipating events and predicting, for example, the

Become a world reference in biosolutions

To protect plants against pests, biocontrol favours the use of natural mechanisms and interactions, whether micro- or macro-organisms, or natural chemical mediators such as insect pheromones. With the expansion of health and environmental awareness, and the proliferation of legislation aimed at reducing the use of chemical pesticides, biocontrol represents a market with a great future. But because of its complex ecosystem character, the widespread use of biocontrol practices requires sustained support for the farmers. A skill that can be found in Bioline by InVivo's portfolio of businesses with Agrosolutions, the leading centre for agri-environmental expertise and advice. Already owner of Biotop, specialised in field

crop biocontrol, InVivo has expanded its field of expertise with the acquisition of Bioline Biosolutions, an English company specialising in mites and greenhouse pest management, and has also signed a distribution and co-development agreement with Valagro, the international leader in biostimulants that help plants resist stress.

To develop ever more innovative solutions, InVivo continually invests in R&D and is looking to extend its expertise in biocontrol to other sectors, such as market gardening, trees and vines. The inauguration of the Maison du végétal in Reims will accelerate agronomic innovation projects dedicated to plant sectors, whether they come from the group or from other partners (cooperatives, start-ups). InVivo has thus become the world's third largest biocontrol player and expects double-digit growth in this sector for the next ten years.



From agricultural data to artificial intelligence

The digitisation of agriculture allows the accumulation of agricultural data, from which many applications of AI for agriculture can be developed. Advances in visual pattern recognition are leading to the emergence of autonomous fruit and vegetable “picker” robots or algorithms that can identify, classify and target pests faster than a specially trained human being. Start-ups are developing yield prediction algorithms based on the crossover between satellite imagery, weather data and yield history for a given type of crop and territory. AI should also help accelerate the development of new seeds, fertilisers and crop protection products by improving the efficiency of R&D processes through the analysis of huge biogenetic and environmental databases. In terms of variety selection, AI algorithms will predict more precisely which crop or seed variety is most likely to succeed in an area with a given soil and climate. As a result, farmers should benefit not only from new technologies directly applicable to their farms, but also from the use of AI in upstream agricultural R&D.

Accelerate internationalisation

Bioline by InVivo intends to accelerate the growth of its businesses internationally. In Brazil, it has taken over CCAB, which gives it access to 20% of Brazilian farmers in the area of distribution of plant protection products.

In China, it has founded the joint venture Shanghai IN-OU with a Chinese company, to market plant protection products. Several projects for mergers, takeovers or creation of subsidiaries are under way in Australia and the United States.

3 QUESTIONS FOR

LAURENT MARTEL

Managing Director of
Bioline by InVivo



How do you see your business division in 2025?

Since 2014, we have completely transformed InVivo's activities in the service of agriculture and farmers, by separating the statutory activities in the service of cooperatives from the business-oriented activities. The latter have been grouped together in our subsidiary Bioline by InVivo, whose mission is to offer the agricultural sectors the most innovative and efficient solutions to produce more and better. Two phenomena are disrupting ways of producing: digital and environmental responsibility. These two fields are closely linked: it is thanks to the agricultural digital revolution, which allows a precision, measured and predictive agriculture, that we can reduce inputs (water, manure, pesticides, fertilisers), and therefore feed people better while reducing the impact on the planet. This has led us to change the direction

of our strategy. Of course, we maintain our global position of niche player in the two businesses that represent the bedrock of our relationship with the cooperatives: seeds and plant health, and we remain on the lookout for growth opportunities in these sectors. These activities are crucial for French cooperatives and farmers. We must ensure that they can continue to have access at all

times to products that are adapted to their type of crop and their needs, at a time when large globalised groups are tending to lose interest in the French market, which is considered too narrow. At the same time, to respond to the transformation I was talking about, we have taken strong positions in two future business areas that will become global: agrodigital and biosolutions.

What are your priorities?

We need to grow rapidly in agrodigital trades, which cover the digitisation of the farm, precision farming, and also agricultural big data. These fields are developing at high speed, and we need to be agile and fast. There is no question of leaving control of agricultural data in the hands of large American operators. For our national and European sovereignty, we need to remain masters of our data. With the creation of our Agrodigital division, headed by



We need to grow rapidly in agrodigital trades, which cover the digitisation of the farm, precision farming, and agricultural big data.



Stéphane Marcel, we are really at the forefront in these topics and can, without boasting, affirm a global ambition in this sector.

Our second business for the future is in the field of biosolutions and agroecology. It is a market that will experience strong growth, but which requires support for the farmers, because it is complex. We are already the world's third largest biocontrol player and we will continue our development. We are fortunate to be able to rely on Agrosolutions, the leading French agri-environment consultancy. There are many natural synergies between our activities and we are working to make the most of them.

What drivers are you relying on?

We are putting our money on agronomic and agrodigital innovation in all its forms, but also and especially on a method of innovation. We are

not going to invent everything on our own. We need to identify innovators internally and externally, and support their projects. This is why we have set up two open innovation platforms: the Agrodigital Studio in Montpellier for connected agriculture and the Maison du végétal in Reims for the plant sectors. By supporting our intrapreneurs, we can build new businesses. This is the case, for example, with Agrosolutions Insurance. This internal idea was born from the observation that France is one of the countries where farmers are the least insured regarding the loss of income due to poor harvests. Now, thanks to our mastery of large amounts of data, it is possible to build very precise risk tables, leading to a new type of insurance: index-based insurance.

We are going to build an offer by partnering with an insurer, which we can then offer to our member cooperatives.

We also need to demonstrate the value of our innovations to farmers and their impact in terms of value. This is the reason behind our major Fermes LEADER programme – which will equip up to 1000 farms with digital solutions – to document the impact of new technologies on the farm according to three criteria: profitability, productivity and the environment. Finally, the internationalisation of our business activities is definitely a priority.



Neovia, with innovation at the centre

Since the start of the strategic plan in 2014

- > Establishment of a matrix organization at the global level.
- > Very active acquisitions policy in France and abroad.
- > Increase in the capital of InVivo NSA (now Neovia by InVivo).
- > Opening of the world innovation centre We'nov.
- > Launch of the Neovia Venture investment fund.
- > Creation of Applifarm: the first French platform for big data services in ruminants.



Neovia is one of the world leaders in the animal nutrition and health sector. The company has 8300 employees, 75 production sites and 11 research centres in 28 countries.

Its strong development is based on a clear strategy, an ambitious and open vision of innovation, and strong internationalisation.

This growth is also based on re-thought internal processes, adapted to the challenges of an ever-more connected and evolving world.

Three strategic approaches

A resilient and efficient business model

Neovia's business model aims to balance its income sources through the diversity of its businesses, animal species and geographical areas, in order to respond efficiently to quantitative and qualitative changes in global demand, and to the need for rational management of resources. . A dynamic external growth policy, with close to 20 acquisitions in three years, supports this approach, facilitated and accelerated by an increase in capital in 2015.

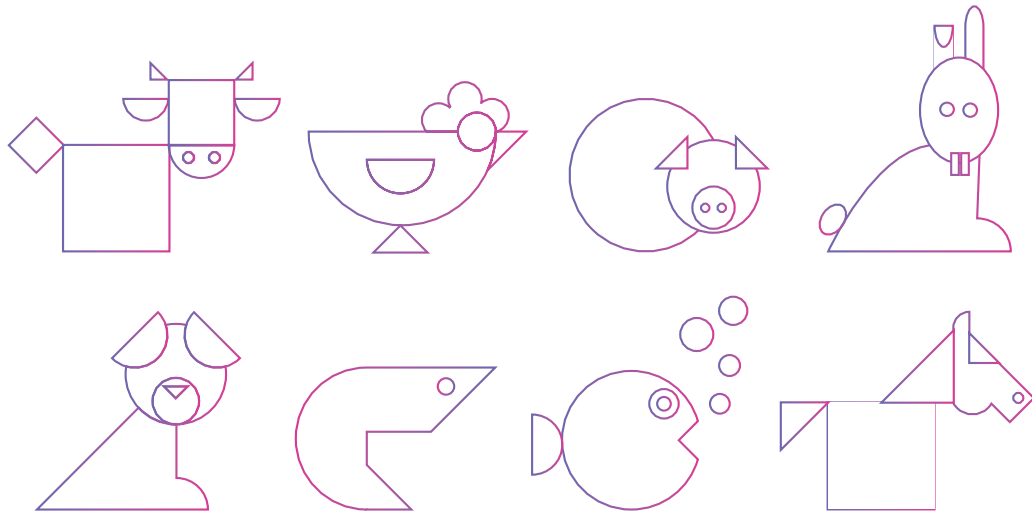
Multi-business

Neovia has changed the structure of its offering from five to seven business areas, in order to better meet the challenges of global demand and seize new opportunities for growth. Already present in the segments of complete feeds, premixes and service companies, animal health and analysis laboratories, it has, in recent years, significantly strengthened or acquired strong positions in additives and ingredients, petcare and aquaculture. This expansion of the offer was coupled with a strong investment in services. An approach

sustained and illustrated by the deployment of a policy of strong global brands in several of its activities: creation of the international brand *Wisium* for premix/service companies; and launch of *Upscience* for analysis laboratories.

Multi-species

Neovia's multi-species zootechnic expertise enables it to meet the needs of all forms of animal breeding and production, with special attention given to animal welfare.



- | | | | | |
|----------------|-------------------|-----------------|----------------|------------------|
| 01 France | 07 Portugal | 13 Russia | 19 Thailand | 25 Brazil |
| 02 Germany | 08 Italy | 14 Algeria | 20 Cambodia | 26 Mexico |
| 03 Belgium | 09 Hungary | 15 South Africa | 21 Philippines | 27 Cuba |
| 04 Netherlands | 10 Czech republic | 16 Canada | 22 Indonesia | 28 United States |
| 05 Switzerland | 11 Romania | 17 India | 23 Vietnam | |
| 06 Spain | 12 Poland | 18 Myanmar | 24 China | |



Multi-zone

Neovia is present in 28 countries and exports to more than 60 countries. This global presence, in large mature markets as well as in geographical areas with high development potential (South America, Asia, Africa), has led it to develop global solutions adaptable to local needs. In recent years, Neovia has particularly strengthened its presence in

Brazil, Mexico, South Africa, the Philippines and Vietnam. The recent majority stake taken in Sanpo allows Neovia to become a major player in the Chinese pet food market and to expand its positions in this market with high potential in Asia.

Innovation and digital at the heart of the differentiation strategy

Neovia has put innovation and digital at the heart of its strategy to quickly adapt its offer and its services to the configuration of moving and interconnected markets.

This agility is reflected in its processes and methods of innovation. Neovia favours a collaborative approach to innovation, co-developed with all of its stakeholders – customers, partners, suppliers, territories, employees and consumers – within We'nov, its global centre for innovation, and linked with an ecosystem made up of start-ups, competitiveness clusters, universities and research laboratories around the world. Neovia also promotes the development of a culture of innovation among all its employees, through internal events such as “Innovation meetings” and the “We’can” innovation challenge, open to all its employees throughout the world.

Neovia has defined five priority areas of innovation, which will be the engines of tomorrow’s growth. The Neovia Venture corporate investment fund reinforces this system. Its goal is to take minority stakes in innovative companies, in connection with these fields of innovation.

This constant choice of innovation must now be coupled with a capacity for technological experimentation to build the sustainable breeding of tomorrow for farmers and consumers. This is the meaning of the “Farm of the future” collaborative project, launched by Neovia in 2016.

Design thinking, a collaborative innovation methodology

Neovia’s reflection on the evolution of customer uses and needs is inspired by the principles of “design thinking”. This approach relies on the use of social science observation and inquiry methods to continuously create or improve products and solutions based on user behaviour and usage, and to maximise the customer experience. Resolutely multidisciplinary, design thinking feeds on transversality and allows the different parts of the company to better understand each other and enrich each other.



Neovia’s five priority areas for innovation

- **Smart farming:** new technologies (connected objects, applications and data platforms) serving the performance of farmers and food producers.
- **Intensive aquaculture:** a holistic approach to aquaculture, from the feed to the management of the breeding ponds.
- **Optimisation of resources:** development of optimised nutritional solutions by substitution of materials in short supply, making better use of the materials and strengthening the share of co-products.
- **Interactive petline:** connected objects for pets.
- **Functional ingredients:** alternative solutions to the use of medication in the service of zootechnic performance.

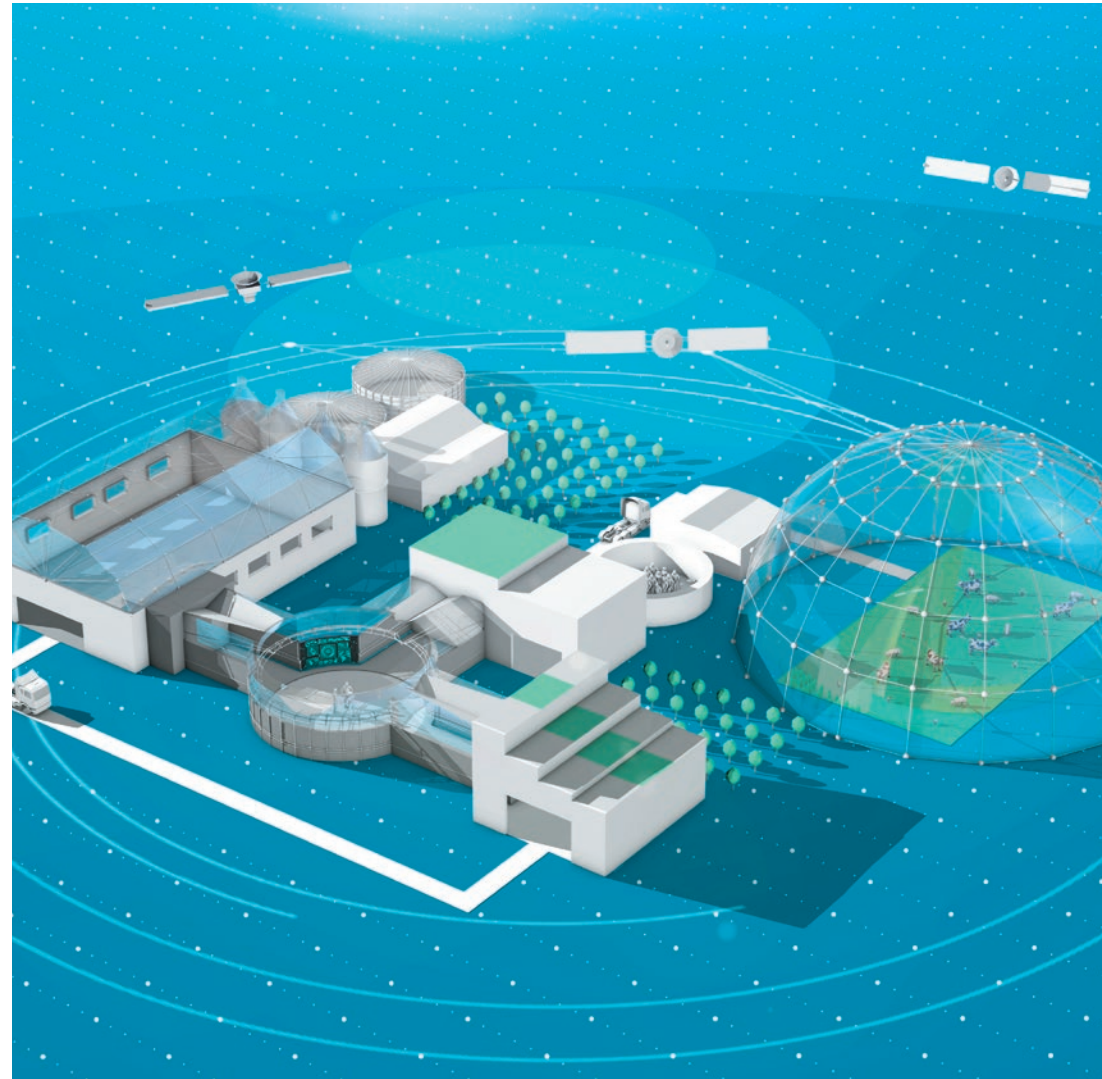
Digital technology in the service of operational excellence

Neovia's digital transformation affects all of its activities and processes, and should contribute to the operational excellence of the company. The group's IT systems and their application architecture have been redesigned to ensure a close connection of production sites and regional platforms, and enable effective exchanges based on shared monitoring indicators.

Significant work has also been done in the purchasing and supply chain areas with the Buy'In and SMILE projects, which have made it possible to optimise purchases of raw materials, supplies and the organisation of the supply chain at the global level.

The appointment of a Chief Digital Officer and the strengthening of the digital team, in connection with market intelligence, the Design Lab, R&D, marketing and a software publishing function, have also made it possible to increase the number of internal and external applications, while streamlining the number of decision-making tools, pooling technological building blocks and spreading good digital practices across the group.

Finally, the multicultural nature of recruitment and management at its headquarters in Morbihan, which includes 19 nationalities, has led Neovia to create an original website to promote job search for employees' spouses, and to set up a multilingual creche and an international baccalaureate school section, confirming the local anchoring of the company in the service of a global strategy.



The Farm of the future: a real social project

True to its logic of open innovation, Neovia wants to make the Farm of the future an open project, closely associating research partners, industrialists, customers, suppliers and final consumers. The Farm of the future has three goals: projecting R&D into the future, promoting interaction between farmers and consumers, and playing the role of a “technological demonstrator”.

This project, initiated in France, will become a reality in 2020. It will deal primarily with three species (pigs, ruminants, poultry; then aquaculture and pet food) and will gradually become international (Brazil, Vietnam), in connection with the French and international network of connected model farms of Neovia and its partners. The project will focus on showing that agriculture and livestock farming are exciting jobs for the future.

With this in mind, a call for solutions, launched on 15 May 2017 (closed 31 July 2017), has allowed Neovia to identify its first partners around three major areas of work: precision farming (precision breeding, behavioural analysis of animals, predictive piloting, robotics), easy farming (continuous training of e-breeders, re-thought working conditions, animal welfare), sustainable farming (reduction of environmental impact, traceability and product quality).

3 QUESTIONS FOR

HUBERT DE ROQUEFEUIL

Chairman of Neovia and
Deputy CEO of InVivo
Group



How do you see Neovia in 2025?

By 2025, Neovia will have doubled in size and probably moved up in the ranking of the world's leaders in animal nutrition and health. We will have helped to build a new paradigm for connected and sustainable livestock farming on an international scale by promoting the entry of the farm and farmers into the future.

This is the goal of our collaborative project "The Farm of the future", which should be operational in 2020. We will also have been actively involved in thinking about healthy eating, how to optimise the use of resources and animal welfare issues through targeted scientific and technological innovations. Finally, we will have helped the French agricultural sectors to continue to strengthen food safety and traceability, and to find new sources of value: an imperative today! Neovia's strong international

presence makes it possible to capture ideas for innovative solutions or products that can then be industrialised in France using local raw materials. We already do it in many fields, like pet food based on our Brazilian know-how.

What are the major trends that will influence your markets?

Population growth will impact the various regions of

the world differently. It will mainly concern Africa, Asia and Latin America. That is why we will continue to grow in these three major regions, which already account for 75% of our turnover and workforce. Rising living standards and urbanisation in emerging countries will also increase demand for animal protein, which is expected to increase by 60% by 2040. At the same time, the reasoned use of resources will become a major social issue. How to solve this equation? Neovia's approach starts from a simple observation. In a context of continuous increase in demand for raw materials, market volatility and stagnation of yields, the company must develop nutritional solutions that are increasingly adapted to the needs of its customers and sustainable development issues: by substituting for example, raw materials in short supply by other

materials, or by enhancing the value of co-products from its production cycle or that of other actors in the agri-food industry. Precision nutrition, the search for new proteins such as insects, the links between genetics and nutrition, predictive animal monitoring, and water management are all areas of research in which Neovia innovates and invests in order to preserve the environment, while feeding the planet. It is in this spirit that over the past three years we have strengthened our Additives and ingredients division, which develops alternative solutions to drugs for zootechnic and economic performance of farms.

What part will digital play in these changes?

Digital must today be fully integrated into the overall corporate strategy. We understand this through two distinct aspects. On the one hand, digital in the service of

the customer and the consumer, an approach that is embodied by a strong involvement in smart farming. There, we are investing in digital innovations that transform livestock farming and running farms, that is to say, breeding and precision nutrition, connected objects, applications and data platforms that will bring the farmer into the future, and that will come together in our collaborative "technology demonstrator": "The Farm of the future". In the same spirit, we are also focusing our innovation in the field of the interactive petline - connected objects and databases to strengthen interactions between humans and their pets. We also rely on digital as a tool for the in-depth transformation of the company, in the service of our operational excellence and performance. There, digital is intended to "irrigate" all of our activities, from



The company must develop nutritional solutions that are increasingly adapted to the needs of its customers and to sustainable development issues.



supply to communication, passing through marketing, purchasing, HR, finance, R&D, leading teams and ways of working. This way of working in agile mode, which can be observed within We'nov, our newest global centre of innovation, is a perfect illustration of how Neovia has been able to integrate the cultural changes brought about by digital technology.



InVivo Retail, champion of the local store

Since the start of the strategic plan in 2014

- > Opening of the chain **Frais d'Ici**, specialised in the distribution of fresh local products.
- > Purchase by InVivo Retail, now a garden centre franchisor and retailer, of the **Delbard** franchise network and 90 **Gamm vert** stores (2017), bringing its total number of points of sale to 1300.
- > Rise of e-commerce (**plantes et jardins.com**, leader in the online gardening industry), synergies with points of sale (click and collect) and construction of communities.

The strategy of the InVivo Retail business division is to enable the member cooperatives to respond to a triple concern:

- establish a direct relationship with millions of consumers and position agricultural cooperatives as leaders in green distribution;
- develop a food offer with a short supply chain, connected with local production;
- capture an increased share of the “distribution” value.

To this end, InVivo Retail operates in three mutually reinforcing and complementary business areas:

- **the garden centre** with its network of 1300 points of sale in Gamm vert and Delbard franchises and branches, and with the leading online gardening site www.plantes-et-jardins.com, acquired in 2012.
- **the marketing expertise** of Neodis, which has been boosting green circuits (LISA, garden centers, pet shops) for 40 years, through sales, marketing and product innovation in three sectors: animal, hygiene and pest control.
- **food distribution** with the **Frais d'Ici** fresh local produce brand created in 2015 and with the development of food corners in the garden centres.

Three strategic approaches

Become a major player in garden centres and pet shops

In the mature garden centre market, where competition is mainly driven by downward pressure on prices, the Gamm vert network has resolutely chosen a position as a specialist advisor. While this network already enjoys an exceptional approval rating, regularly measured among customers, it today proposes to re-enchant the customer experience through quality, and the high level of advice and content offered.

This is the thinking behind the ambitious Magasins 2020 transformation plan, which aims to strengthen brand identity, merchandising and digitisation of the point of sale network.

This programme will combine:

- the development of a legitimate, buoyant and differentiating brand territory: “Growing it yourself changes everything”;
- the transformation and extension of the product ranges with an environmental and sustainable orientation (see *Gamm vert and Neodis boxes opposite*);
- strengthening the omni-channel customer experience through the synergy between points of sale and e-commerce (click and collect);
- the construction of Gamm vert virtual and IRL (*in real life*) communities;

New brand territory for Gamm vert: family self-production

Producing fruits and vegetables or aromatic herbs, learning how to make your own bread or beer, building a hen-house and collecting eggs, these are some examples of family self-production. It is in this original and relevant new brand territory that the Gamm vert network has decided to invest. This choice responds to consumerist trends in full development, such as the control of the diet on the basis of health and naturalness, the pleasure of doing it yourself, the return to sources with the passing on and sharing of forgotten know-how.

- strengthening of advice and training through technical data sheets and video tutorials adapted to plants, pets and the garden.

After the Delbard chain, InVivo Retail acquired 90 Gamm vert outlets in the west of France in 2017 and reached a milestone, by moving from franchise network operator to manager of a branch network.

In addition, at the end of 2017, InVivo announced its strategic alliance with the Jardiland group, to strengthen its leading position in the garden centre and pet shop markets.

Achieve a critical size in the distribution of fresh food products

In 2015, InVivo Retail, capitalising on its franchising know-how, launched into the food distribution sector with the Frais d'Ici chain, a distributor of locally sourced fresh produce, in perfect harmony with the rise in locavore consumption and short supply chains.

Since then, the opening of three stores has made it possible to test the relevance of the model, for both consumers and producers.

The brand is now accelerating its growth with the goal of creating 150 additional stores by 2025 according to two models:

- Frais d'Ici stores attached to Gamm vert stores, traffic accelerators for both chains;
- independent openings, supported by the member cooperatives, when the customer catchment area on the outskirts of urban areas seems appropriate.

Thanks to Frais d'Ici, producers have their own local chain, while benefiting from a distribution know-how that is much higher than that usually found in farmers' stores.

Neodis: sourcing “green” products for the garden of the future

For 40 years, Neodis has been an expert in marketing through green channels in three areas: plant, animal and hygiene, for the general public and for professionals. Its skills now extend upstream, with the sourcing of new products for the garden of the future and the implementation of production specifications.

A trendsetter and provider of continuous monitoring for InVivo Retail, Neodis conceives the garden of the future as a natural reserve and a place of environmental education where the fauna and flora will flourish by mixing species.

In the context of the law on energy transition, the incentive for biological control and the use of natural processes involves a “re-design” of the garden to encourage new interactions between plant and animal species: vegetable gardens mixing flowers and vegetables, and the introduction of new predators of harmful species, such as insects, hedgehogs, birds or microbiological organisms. These new trends give more meaning to biodiversity, giving it a useful role in vegetable gardens. From now on, birds, butterflies and small mammals will not only be pleasant guests in the gardens, they will be welcomed as useful helpers of the gardener.

The garden of the future therefore requires both new products (hotels for birds, insects, etc.), and local training and advice to customers, which for the Gamm vert network has become a speciality.

In 2025,

1450

points of sale in franchises
and branches in France
for InVivo Retail

Develop new concepts of international distribution

Garden centres and the distribution of fresh food products are essentially local markets. But InVivo Retail's know-how in franchising and distribution allows it to consider the development of new distribution concepts that can be exported internationally. This is the case of So France, the first showcase for French bistronomy, opened in Singapore in 2017 on 500m², which will be gradually followed by other openings in major global capitals. Other internationally oriented concepts are under study.

So France is so French!

A partnership between InVivo and the Nouvelle-Aquitaine region, So France is a distribution concept combining catering and grocery, designed to showcase the wealth of France's agricultural and agri-food heritage around the world. A lively and accessible bistronomy, which values terroirs, traceability, typical characters, flavours, and more generally the act of production.

3 QUESTIONS FOR

JEAN-PIERRE DASSIEU

CEO of InVivo Retail



How do you see your business division in 2025?

We must never forget the purpose of InVivo Retail: to bring producers closer to consumers, ultimately to enhance the act of production and develop perceived value. By building on this foundation, several development hypotheses will be possible. Based on our know-how as a network operator of franchises in garden centres, three years ago we started distributing fresh local food products

coming from our regions. Frais d'Ici is an activity that is still young, that must be grown to reach a critical size. Thanks to what we are learning, other paths are opening up to us to develop innovative distribution concepts designed for export, just as we did in the food industry with the opening of the first So France in Singapore, the showcase of French bistronomy.

What are your priorities?

In the garden centre, a mature market, our priority is to consolidate and strengthen our network to position it as the leading advice-giving specialist in the sector. The "Magasins 2020" transformation programme will allow the network of Gamm vert franchises to become more global in order to reach even more services, advice and content, and offer an enriched and omnichannel customer experience. To do this, we will be able to rely on our new branches acquired in 2017, which will make a strong commitment to bringing our new brand territory to life in our stores: "Growing it yourself changes everything". The strategic alliance with Jardiland will strengthen the leadership position in the garden centre and pet shop segments.

Neodis, our marketing subsidiary, is expanding its skills upstream, with the sourcing of new products for the garden of the future and for the protection of living stocks, at the forefront of biological control and the use of natural solutions. For our Frais d'Ici brand, which responds perfectly to the locavore trend, priority is given to the growth of the number of points of sale through two channels: stores attached to Gamm Vert which will increase the traffic for both brands; and independent openings, with the overall goal of reaching 150 stores by 2025.

What drivers are you relying on?

Our ability to roll out our new "Magasins 2020" programme in each of our formats, as well as the digital transformation which, in terms of distribution, produces leverage at all levels. For the consumer, this is the promise of an experience of accessibility and comfort, combining the store, e-commerce and click and collect. Through communities dedicated to their centres of interest, experiences offered by the network such as farm visits, content that helps and facilitates, consumers build a sense of belonging and enhance their potential for

success; they thus participate in an approach that is much more than an act of purchase. In terms of operational management, digital technology, especially through communities, transforms the leadership of our network of 7 000 people. Messages get passed on better and faster, best practices are shared, and remote meetings are facilitated.

As for the quality of service, it is tremendously enriched by the permanent contact of the network with the customers via "scoring" of the stores and the analysis of their comments.

But beyond these digital developments, our specificity and our strength will always be to maintain a human relationship, of trust, with each of our customers in all our territories. Our brands are characterised by the local approach that brings customers closer to producers: plants, animal feed and food products.



InVivo Wine, from the vine to the glass

Since the start
of the strategic plan in 2015

- > Creation of the “Wine” business division of the InVivo group: 23 winemaking cooperatives belonging to the Wine section of Union InVivo
- > Acquisition of the merchants Cordier and Mestrezat Grands Crus in Bordeaux and taking a shareholding in the capital of Vinadeis, the leading French wine cooperative based in the Languedoc.
- > Redesign of the Bordeaux Cordier brand and launch of the signature *Cordier Enjoy la Vie!* supported by an international communication campaign.
- > Construction of a solid international distribution network with the acquisition of the Baarsma group (Europe), the creation of InVivo Wine America and taking a majority shareholding in the Vinadeis marketing, sales and distribution network in Asia.



Launched in June 2015, InVivo Wine is the fourth business division of the InVivo group. It aims to structure a French wine division of international dimensions, powerful and integrated – from the vine to the glass – to regain “France” market share, faced with increasingly intense global competition and to capture opportunities for development in many markets.

In two years, InVivo Wine has established itself as a disruptive player in the wine sector, relying on two main levers: a cooperative project and a distribution project.

Today, 23 member cooperative (3 500 winegrowers) have joined the Union InVivo, which is the largest wine cooperative in France. It has a total wine-growing area of 25 000 hectares, spread out between Bordeaux, south-western France, Languedoc-Roussillon, the Rhône valley, and Beaujolais.

InVivo Wine also owns the Bordeaux merchants Cordier and Mestrezat Grands Crus, as well as a number of partnerships, investments and participations, including a minority holding in the French winegrowing cooperative Vinadeis.

In July 2017, InVivo Wine acquired the Dutch Baarsma Wine group, a leading wine import and distribution company in Europe.

From vineyards to markets; InVivo Wine's objective is to be a global player, carrying out 80% of its business internationally and reaching €500 million in turnover by 2020.

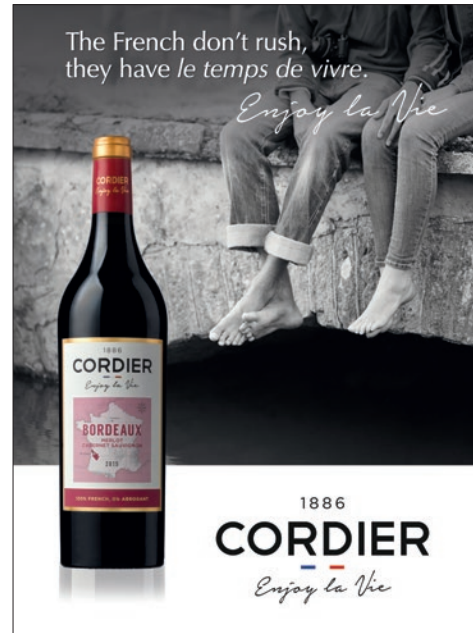
Three strategic approaches

Become a global leader in the distribution of wine in the largest consumer countries

InVivo Wine is accelerating its international development to build a global distribution force and create added value for the wine sector with wines from the best regions.

The recent acquisition of the Baarsma Wine Group, the Dutch leader in wine distribution in Europe, present in the Netherlands, the United Kingdom, Switzerland, Belgium, South Africa and Hong Kong, will allow the emergence of a major global distributor, vertically integrated from the grape to the consumer.

InVivo's fourth business division is using its resources to develop the international market, by ramping up its sales and marketing network in major consumer markets. It is in this logic that InVivo Wine decided, alongside Vinadeis, to join forces with BGI (specialised in service and logistics in the United States) and Vintage Epicure (a marketing and sales expert), to form a new company: Vintners Alliance. Based in New Rochelle in the state of New York, with the opening of an office in Boston and branches in Chicago, Houston, San Francisco and Washington DC, this new grouping lays the foundation for InVivo America, whose defining challenge is penetration of the US market. In parallel, InVivo Wine has taken a majority interest in the Vinadeis Asia network and its sales and marketing teams within its eight subsidiaries: Hong Kong, Seoul, Tokyo, Taipei,



Shanghai, Beijing, Chengdu and Singapore. This internationalisation is also accompanied by new management, split between Europe, Asia and the United States, and led by Bertrand Girard, CEO of InVivo Wine. Other acquisition projects are under consideration to further strengthen the group's international distribution capacity, particularly in regions where InVivo already has a strong presence, such as Brazil, Mexico and South-East Asia.

Develop strong premium brands in large markets

Building a global premium wine brand offer, targeted at Millennials, is at the heart of InVivo Wine's strategy to gain market share and create value.

In terms of wine, the Millennials, a generation born between the mid-1980s and the early 2000s, have common characteristics around the world. They are hedonistic consumers, often inexperienced, but thirsty for discoveries and learning. Their consumption is mainly determined by grape variety and price. To meet these expectations, the offer must be legible and clear, with an affordable but rewarding product mix.

The Cordier brand was chosen as the standard bearer of this new offer, representative of the richness of France's wine terroirs and playing on new simplified brand codes. The brand has been reorganised into collections (vineyards of France and grape varieties) in the premium segment, from 8 to 10 euros in supermarkets in France, and around 17 dollars in the United

States and 188 yuan in China. International communication has been completely redesigned with a new brand signature, *Cordier Enjoy la Vie!* The campaign was launched in 2017, with the support of local distributors, in China, Japan, the United States, and also in France.

Capitalise on the know-how of InVivo to strengthen the competitiveness of French viticulture

The transversal nature of InVivo's business divisions enables French cooperatives and winegrowers to be federated all along the value chain.

The collaboration between InVivo Wine and Bioline by InVivo, for example, helps cooperatives and winemakers to improve their farming and management practices. Introducing digital technologies into estate management, thanks to the expertise of the Agrodigital division, enables vineyards to develop precision viticulture, strengthen traceability or improve yields.

In terms of distribution, InVivo Retail contributes to making French wine production known in food corners such as Gamm vert, Frais d'Ici or the So France restaurant-grocery brand, created in collaboration with the Nouvelle-Aquitaine region and intended to promote French bistronomy around the world.

InVivo Wine is also bringing its expertise and know-how to new innovative projects. A study is being conducted to identify start-ups behind disruptive innovations in wine that can create still more value and meaning,



from the producer to the consumer. Through the InVivo Invest seed fund, InVivo Wine has already invested in the IO-Vins start-up which has designed the D-vine, the first tasting machine that aerates and brings the wine to temperature in less than a minute, from specially selected bottles.

When artificial intelligence meets wine

The applications of AI for wine will be numerous. Often, when visiting a wine store, the staff ask questions to try to determine what type of wine, grape variety and terroir we "match". The new recommendation engines will make it possible to reproduce this process. Artificial intelligence will analyse your tastings, your notes and your purchases to help you re-stock your cellar or to discover new wines, but also to provide you with indications of "food and wine" pairings or help you to find the wine corresponding to the year of birth of your children and likely to age well until they come of age. Ultimately, the recommendation engine could become a virtual sommelier. But wine is also a speculative investment commodity. AI techniques can be applied to provide predictive analysis of the price variation of the grands crus. Applications that will primarily interest merchants, brokers or investors.

2 QUESTIONS FOR

BERTRAND GIRARD

CEO of InVivo Wine



How do you see your business division in 2025?

If we keep up the pace we have adopted since 2015, and I have no doubt that we will succeed, we will be a leading international player in the distribution of French wines around the world. It must be understood that building a powerful distribution capacity is essential for the French sector. In the face of the offensive from New World wines and the opening of new consumer markets, French wine, despite its exceptional prestige, faces competition and is threatened. We must win back global market share for the benefit of the French sector and have legible and competitive brands for the international market. But this distribution capacity is only a part, certainly a very important part, of our overall goal of enhancing value creation for the whole chain, from the vine to the glass, and for wine cooperatives and their members.

What are the benefits to cooperatives in joining Union InVivo?

First, they participate in the construction of the strategic direction of the leading French cooperative group. Then, they benefit from a very advantageous mechanism of financing and guaranteed prices for their commitments, which is quite exceptional today. Lastly, they

benefit from the transversal nature of InVivo's businesses and thus have access to the group's research and innovation, which strengthens their competitiveness. For the cultivation of the vine and ageing the wine, this means, for example, applying the advances of precision agriculture in the vineyards and in the cellars, initiating biocontrol or installing powerful management software and connected objects in vineyards. Innovations that come from Bioline by InVivo. When InVivo Invest, our seed fund, invests in a wine start-up like 10-Vins, which received several awards in Las Vegas, it is still brand France, combining innovation, the art of living and wine, which shines internationally.



InVivo Food&Tech, the Food lab

In addition to its four traditional businesses, in 2017 InVivo created a new business division dedicated to innovation in food and e-business: InVivo

Food&Tech. InVivo, via this subsidiary, aims to become a major player in food innovation by responding to new consumer trends (see *part II*), and ensuring better integration of the value chain downstream for French agriculture.

It will also support or boost e-commerce initiatives for the other group businesses and the Union, providing them with its consultancy services and technological skills.

Four strategic approaches

A food lab and developer of solutions and business, InVivo Food & Tech will focus its action on four areas.

Digital Market

InVivo Food & Tech is dedicated to digitising the group's businesses and member cooperatives by bringing together and developing know-how in digital marketing and e-commerce, and by participating in the pooling of technological choices. Ouifield, the platform for goods and services for cooperatives and farmers, is a first example.

New Food

This activity aims to bring out innovations in agri-food (ingredients, preparation methods or processes), related to future consumption trends (alternative proteins, protein culture, algae, family self-production) and involving one or more links in the food chain, between the farm and the fork.

To this end, it identifies (see *InVivo Quest box p. 45*) stimulates and incubates internal projects (intrapreneurship) or external ones (partnerships with R&D laboratories, acceleration of start-ups supported by the InVivo Invest seed fund). The acquisition of a stake in Il était un fruit, a start-up specialising in fruit snacking from products rejected by supermarkets, is a first example of achievement in this area of development.

Retail4Food

InVivo Food & Tech will support food distribution, both locally and internationally, through innovative marketing techniques, whether via e-commerce or through new distribution concepts, such as the Frais d'Ici franchise developed by InVivo Retail. The field is wide because it covers various but related topics, such as packaging, merchandising, and the fight against food waste all along the supply chain.

Urban Food

InVivo Food&Tech will contribute to greater availability of fresh produce in urban areas, by researching production solutions in the heart of large cities (urban farms, production and growing systems, etc.), enabling the

joint distribution of the traditional produce of local cooperatives. This division aims to reconnect the farmer to the consumers of the cities and to offer them fresh, varied products, mixing productions that require controlled climate technology (rare and fragile vegetables, aromatic plants, etc.) with the resources of traditional agriculture.



Platform for pooling the purchase of goods and services for agriculture

Ouifield is the first digital intermediation network dedicated to the agricultural and rural world, offering: negotiated offers at the best price for cooperatives and for farmers (industrial and light vehicles, maintenance equipment, electrical equipment, tools, tyres, office equipment, etc.); a set of collaborative and social solutions to strengthen social ties in the agricultural and rural world (exchange, sharing, renting).

With its past experience as a service provider and the relationship of trust built with 190 cooperatives and 80 suppliers (Giga Services), InVivo will now put the power of digital technology at the service of the rural world. The platform, co-built with cooperatives to exactly meet their needs, has been operational since September 2017 and will evolve by expanding its offer.

2 QUESTIONS FOR

YVES CHRISTOL

CEO of InVivo Food&Tech



Why was InVivo Food&Tech created?

The creation of Food & Tech corresponds to the identification of two major trends. On the one hand, new consumer trends are appearing and giving rise to innovations in the food chain. Concerns about health, the environment or animal welfare come together and lead consumers to wish for new forms of proteins (plants, algae, insects), but more generally healthy, tasty, natural products, with good nutritional qualities and credible traceability. Short supply chains, family self-production (do-it-yourself), urban agriculture are some of the answers to these new trends.

On the other hand, the innovative ecosystems of what we call “foodtech” are an essential component in the design of these new products. Similarly, the mastery of digital techniques and uses becomes essential to promote and distribute agricultural production and manage information flows to better analyse consumer expectations and respond to them.

At the junction of these two trends, we have decided to bring together, in a single subsidiary, the innovative and exploratory activities related to food, from design to distribution.

How will you operate?

We operate as a laboratory of trends and innovations for all of the group's businesses and

as an incubator for projects until their industrialisation. We begin by documenting topics, doing a world tour of trends, actors and research. That is what we did for urban agriculture, for example. Then we create or go looking for projects related to our centres of interest, with an open, agile, partnership-based approach. InVivo Quest, our challenge in five major French regions, aims to identify promising projects that prepare for the food of tomorrow, whether they come from start-ups, universities or internally. Then we “challenge” the project, we dissect it in all its aspects and, if it relates to one of the group businesses, it is submitted, discussed and improved with the business experts until it can be presented in strategic committee. We then organise the industrialisation. We can intervene in industrialisation, distribution, creation of franchises or acquisition of shares in R&D for patents or licences. Once the activity is launched, it can be managed by us, or by another subsidiary of the InVivo Group.

Afterword



Developing ag-food intelligence

By Joël de Rosnay,
*doctor of science, prospectivist, writer,
advisor to the president of Univercience
and chairman of Biotics International.*

**Developing ag-food intelligence, what a fine programme!
What a wonderful profession of faith!
“Food intelligence”... This expression represents the opposite
of a fixed, outdated or rebellious approach to innovation.**

It is the very example of this “enhanced collective intelligence”, which I have long anticipated and supported, and which calls as much for artificial intelligence, the power of algorithms and biogenetics, as for human knowledge, patiently accumulated over time and encapsulated in ancestral practices of organising nature in the service of man. To feed 9 billion people, we will need both.

Towards an enhanced collective intelligence

The Martian, the novel by Andy Weir adapted for cinema by Ridley Scott, seems to me to perfectly reflect this winning combination. Here is a scientist, a botanist, part of a state-of-the-art space exploration team on Mars, with a high level of knowledge, the finest of high-tech systems, and all the hardware and intellectual resources of NASA. Following a storm, he finds himself alone on the red planet, devoid of any means of communication, but still equipped with some technical equipment and his brain. With one goal: to stay alive as long as possible. His first obligation is to ensure a sustainable supply of food. He must therefore cultivate, becoming a space farmer: making water and fertilisers for the barren land to make potatoes grow. Far from being able to rely on artificial intelligence, he must resort to strictly human skills: the art of adapting to the environment, thinking out of the box, hacking the functions of objects that are re-purposed, hybridisation of knowledge and techniques. And yet, despite this ingenuity and know-how, our interstellar Robinson Crusoe is ultimately condemned. It is only when he succeeds in re-establishing a system of communication, as rudimentary as it is, with his base on Earth, in other words when he will once again have access to a collective intelligence, supported by advanced computer systems, that he will eventually be truly saved. Individual intelligence and augmented collective intelligence... Can we not see in this dialectic some kinship with the functioning of the agricultural cooperative system? Is there not food for thought for all of our agricultural sectors?

“Artificial intelligence doesn’t scare me”

I have written often that artificial intelligence doesn’t scare me, and I would like to invite you to share this opinion. With our interconnected power, in robotics and artificial intelligence, we become more than ourselves, without losing what we are. We can multiply our capacities, without giving in to some transhumanistic fantasy. I counter the transhumanist ideological current with an ambition for the human race that I call “hyperhumanist”. In this vision, the progress of technology frees the human spirit of materiality, cooperation takes precedence over the balance of power, the specifically human values of empathy, altruism and sharing resurface. It is certainly a wager on the future, but it indicates above all a path towards a collective construction of the future.

The time of risks

Being positive about the future does not mean being naive. The monopolistic dominance of a few hyper-powerful global corporations is indeed a danger. But we can fight against these transverse digital monopolies, using the same tools but with a logic of civic and participative correlation. We must dilute this power, by sharing it between a greater number of actors: companies, researchers, citizens, consumers.

Other risks must also be taken into consideration. The extension of current trends could result in global warming reaching, according to a recent study, up to 5°, well above the objectives of the Paris agreements. That is not me speaking, it is the former vice-president of the IPCC and the greatest French climateologist, Jean Jouzel, born into a family of Breton farmers. If we add to this the population explosion expected in Africa, which is precisely an area of great fragility in the face of the consequences of climate change, we understand that delay is no longer possible. In the absence of global governance, it is up to everyone to have a clear awareness of their responsibilities. We must rediscover a unity with the rhythms and mechanisms of nature.

An in-depth transformation model that is up to the challenges

At InVivo, you have chosen an in-depth transformation model that takes into account both the emerging digital ecosystem and the environmental ecosystem. This demonstrates an excellent understanding of the issues for the future. Because it is by weaving the two together that we can hope to meet the challenges facing humanity. I think farmers are at the forefront of this fight because they directly perceive the effects of climate change on production: warmer and earlier summers, mild winters followed by late frosts are bad for many crops. If we are not careful, the time is not far when we will have to produce Bordeaux wine in the south of England. Climate adaptation is becoming a constant concern for the profession. This is where measured, data-driven agriculture comes into play. An agriculture that becomes predictive, that is, capable of anticipating events to better adapt to them. This is where InVivo is playing its full cooperative role, helping to collect, organise and share this data with farmers, and providing them with innovative and forward-looking solutions to produce more and better.

Another important point is the pace of transformation. You are perfectly right to set a deadline and establish it with the 2025 by InVivo strategic project. If I have indeed correctly anticipated certain trends, I think I have underestimated the speed of adoption of digital uses and the resulting transformation of societies. The rise of this global generation, born with social networks and new technologies, gives me the feeling that we can do something together. States are slow, it is cities and companies today, at least some of which you are part of, that set the tempo. “For he who has time and hopes for time, time is running out,” says the verse of a troubadour. Time is the key to everything today and we do not have much.

There is too much information and not enough time to manage it. That is why we need to create time capital, which means investing time to gain it through digital technologies.

COMMUNICATION DEPARTMENT

DESIGNED AND PRODUCED BY:  PUBLICORP

– 14875 – 01 55 76 11 11.

PHOTO CREDITS: 10-Vins, Géraldine Aresteanu, Artiste associé photographes, Bioline, Philippe Couette, Arnaud Dauphin, Cyrille Dupont, Thomas Gogny, Alain Goulard, harpazohope, Bruno Levy, liuzishan, Neovia, Pitpatpet ltd, piyasuk, Pobytov, Loic Pommelet / Airshoot, Christophe Pouget, TRAVEL67, Union InVivo, Vitalij Cerepok / EyeEm, Ylm Picture.



This document contributes to the protection of the environment. It is printed on FSC certified paper from sustainably managed forests at an Imprim'Vert printer using plant inks.

2025, the global food system we know now will have profoundly changed.

The rise in global food demand, the volatility of markets, the globalisation of trade and competition, digitisation and environmental pressure represent the challenges for InVivo as well as for our member cooperatives and their members. We must be able to anticipate and respond to these challenges, and seize the opportunities. Thanks to the involvement of the cooperatives, of our Board of Directors and all our teams in France and the world, the first years of deployment of our strategic plan (2015-2017) have provided a solid foundation for our development. 2025 by InVivo projects our group into the future, with confidence and determination, by setting our strategic ambitions in the service of economic growth and the influence of French agriculture and agri-food in the world. Because 2025 is already tomorrow!

invivo

**la
coopération
agricole**
produisons l'avenir