



**FOR A HEALTHIER AND MORE SUSTAINABLE WORLD  
WITH VEGETABLE OILS AND PROTEINS**



**2025 INTEGRATED ANNUAL REPORT**

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# EDITORIAL

## A Vision for the Bioeconomy

Oils, plant proteins, and, more broadly, bio-based resources are now strategic assets for addressing major food, industrial, and environmental transitions. They contribute to better utilization of agricultural production, value creation in local regions, and the strengthening of industrial and food sovereignty. As such, they are at the heart of public policies for transition and sustainable reindustrialization.

The ITERG-IMPROVE Group's work is guided by this perspective. Its mission serves the public interest: to develop innovative bio-based solutions, ensure their safe industrial implementation, and support their scaling up, within a context marked by increasing demands for performance, safety, sustainability, and competitiveness.

Throughout the value chain, stakeholders must now balance product quality, process control, food safety, adaptation to regulatory changes, and growing economic constraints—particularly those related to energy and input costs. In the face of these challenges, the link between agriculture, science, and industry is more critical than ever. It determines the sectors' ability to transform plant-based resources into reliable, competitive solutions that are economically, environmentally, and socially acceptable.

Considering bio-based resources holistically—from agricultural raw materials to their functionalities, uses, and industrial applications—guides the work of the ITERG-IMPROVE Group. By combining scientific, technological, and economic expertise, the Group helps to better valorize plant-based production, develop high-value-added bio-based ingredients and solutions, and open new markets for the sectors, with a focus on sustainability and industrial resilience.

Within this framework, ITERG occupies a unique position. As an Industrial Technical Center, it carries out missions of public interest that confer upon it a recognized role as a trusted third party for agricultural and industrial sectors, businesses, public authorities, and society.

At the interface between the agricultural sector and stakeholders involved in the processing and value-added use of plant-based products. ITERG provides independent

independent scientific expertise on sensitive technical issues—process safety, contaminant control, trends in solvent use, and the use of hexane—helping to bring objectivity to the debate, inform collective decision-making, and ensure the safety of industrial operations.

ITERG's work is fully aligned with the 2024–2027 Objectives and Performance Agreement signed with the government and the industry. This agreement reflects the Center's contribution to national priorities regarding environmental, energy, and digital transitions, industrial sovereignty, and sector resilience, against a backdrop of significant economic and geopolitical shifts.

ITERG is also deeply rooted in its local region. Located in Canéjan, its site—shared with Terres Inovia—constitutes a unique hub of expertise, concretely illustrating the synergy between agricultural research, technological innovation, and industrial support. This operational proximity to Terres Inovia strengthens the continuity between agricultural production and industrial applications, serving the performance of the oilseed and protein crop sectors.

These regional roots and this capacity for collective action are supported by the ongoing backing of the Region, a key partner in the development of ITERG and the ITERG-IMPROVE Group. Through its commitment, the Region helps shape an innovation ecosystem that serves plant-based sectors, industrial employment, and the transition toward a sustainable bioeconomy that creates value in local communities.

At the Group level, the response to major societal challenges relies on close cooperation between the ITERG and IMPROVE teams, professional sectors, and a network of committed public and private partners. It involves sustaining, over the long term, the bridges between research, agriculture, industry, and public authorities, and fully leveraging the complementary nature of their expertise.

*By connecting stakeholders, objectively defining the challenges, and providing shared scientific and technical benchmarks, the ITERG-IMPROVE Group helps build the trust essential for developing a bioeconomy that is sustainable, competitive, and self-reliant, serving the plant-based and bio-based sectors and the public interest.*



ITERG - IMPROVE

Paul-Joël DERIAN

ITERG President  
IMPROVE President

In a particularly volatile economic and industrial climate, marked by persistent market tensions, geopolitical uncertainties, and accelerating transitions, ITERG has once again demonstrated the strength of its team and its ability to adapt. We owe this resilience above all to the unwavering commitment of our teams. Their professionalism, agility, and sense of responsibility have enabled the institute to continue its mission, maintain high scientific standards, and meet the expectations of its partners, despite a challenging environment. I would like to take this opportunity to sincerely thank all our colleagues for their dedication, their team spirit, and their commitment to ITERG. These past few years have also reminded us of the importance of staying true to our founding principles. In these challenging times, when clear objectives and the credibility of scientific and technical stakeholders are more essential than ever, we have maintained a clear course.

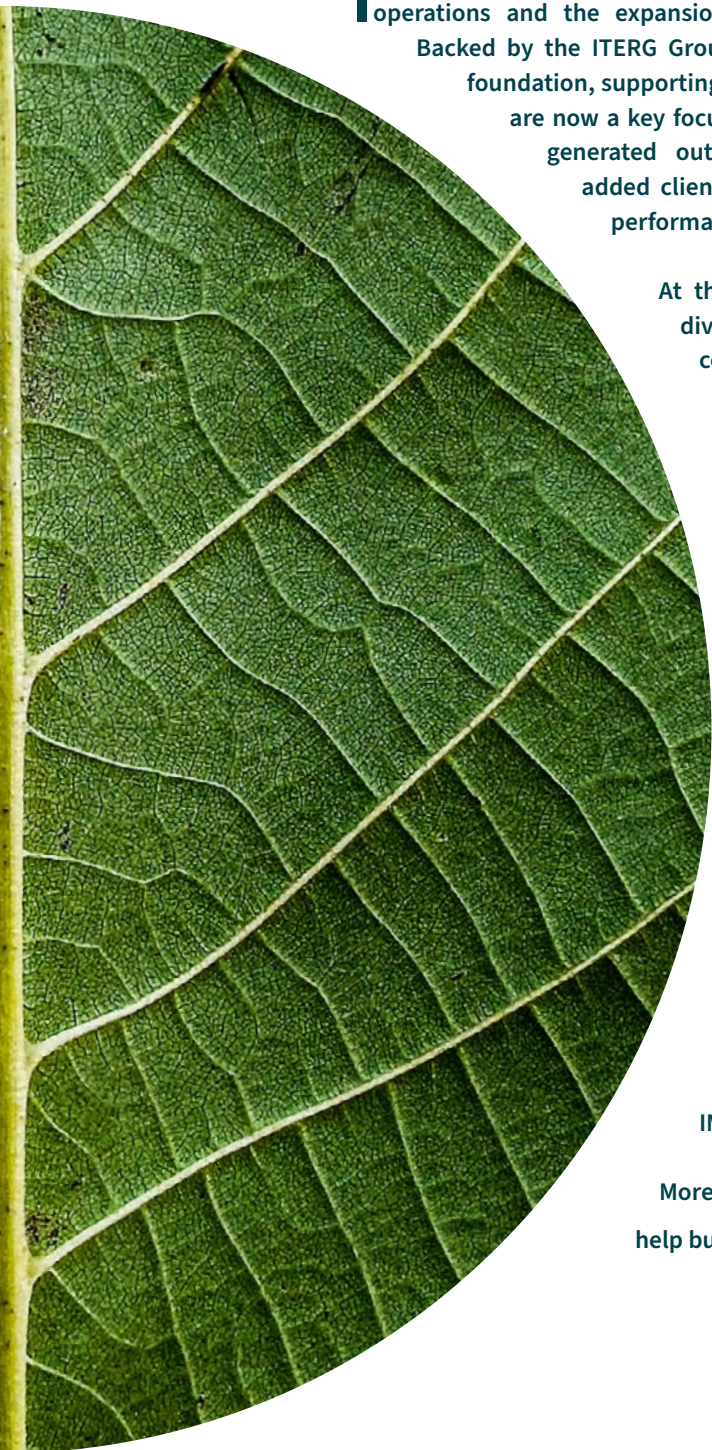
Scientific rigor, integrity and independence, useful and responsible innovation, and human commitment are not abstract principles: they concretely guide our practices, choices, and positions on a daily basis. They form the foundation of the trust we build over the long term with companies, sectors, and public stakeholders. These principles are fully aligned with our mission: “Transforming science into practical value: connecting research, agricultural sectors, and industry to develop, transfer, and deploy solutions that create a sustainable, sovereign, and competitive impact.” This is the meaning we give to our collective action, and this direction guides our strategy. The achievements presented in this report reflect this trajectory: strengthening our expertise, supporting sectors and industry, and helping to develop useful, sustainable, and transferable solutions.

Confident in the future, we continue to invest with conviction. The new scientific equipment and the landmark building project that positions us for 2030 are a testament to this ambition: to strengthen our research and innovation capabilities, provide our teams with resources commensurate with their skills, and reinforce ITERG’s position as a leading player serving sectors and industry.

*ITERG thus continues on its path with conviction, responsibility, and determination, remaining true to its values and resolutely focused on the future.*



Jean-David LEAO  
ITERG CEO



**I**MPROVE is entering a new phase of development, driven by the internationalization of its operations and the expansion of its market positioning beyond plant-based proteins alone.

Backed by the ITERG Group, the company benefits from a solid scientific and technological foundation, supporting its strengthened ambition to create value in global markets. Exports are now a key focus, with a commitment to significantly increase the share of revenue generated outside France, leveraging industrial partnerships and high-value-added client projects. This momentum responds to growing demand for high-performance, sustainable, and internationally competitive bio-based solutions.

At the same time, IMPROVE is undertaking a major strategic pivot by diversifying its activities into new segments: fibers, functionalities, co-products, complex ingredients, and non-food applications.

This diversification aims to better utilize the full plant resource, with a view to optimizing value sharing and reducing risks. It also enables the company to capture new market opportunities, in line with industry expectations regarding naturalness, performance, and sustainability. IMPROVE thus intends to position itself not merely as a player in the protein sector, but as an integrator of bio-based solutions.

This repositioning is based on a unique ability to bridge the gap between science, processes, and markets. It fully leverages ITERG's complementary expertise, particularly in lipids, processes, and industrial safety. By strengthening its innovation and industrial transfer capabilities, IMPROVE accelerates the market launch of differentiated solutions. This strategy is accompanied by heightened demands for competitiveness, industrial robustness, and time-to-market. It is part of a balanced portfolio approach, combining short-term projects with disruptive innovations.

Through this dual ambition—internationalization and diversification—IMPROVE strengthens its resilience and capacity for sustainable growth.

More than ever, the company is working alongside ITERG to help build a competitive, self-reliant, and globally open bioeconomy.



Frédéric BREDON  
IMPROVE CEO





# 01

# VISION & FOUNDATION

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CONNECTING RESEARCH, AGRICULTURAL SECTORS, AND INDUSTRY TO  
CREATE A SUSTAINABLE, SELF-RELIANT, AND COMPETITIVE IMPACT

**121**

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employees

**€11,9M**

---

revenue

**700+**

---

companies supported  
each year

**6**

---

technological  
platforms



# 01

Against a backdrop of agricultural, industrial, energy, and societal transformations, the role of a scientific and technical actor extends beyond the generation of knowledge. It involves informing decision-making, connecting knowledge to operational realities and providing long-term support to industry sectors.

The ITERG-IMPROVE Group is fully aligned with this approach. Rooted in the plant-based sectors and local regions, it operates at the intersection of research, industry, and upstream agriculture, supporting economic stakeholders. It leverages vegetable oils and proteins as strategic resources, central to the challenges of food security, sustainability, and competitiveness.

As such, it contributes to the structuring and evolution of these sectors by providing the scientific, technical, and methodological foundations necessary for the development and implementation of industrial solutions.

Drawing on the public-interest missions of an Industrial Technical Center and a foundation of expertise spanning the entire value chain, the Group implements an integrated approach, closely aligned with the needs of economic stakeholders.

Through this unique position, the Group bridges scientific vision, industrial realities, and the dynamics of the bioeconomy. It thus contributes fully to the French and European bioeconomy, at the intersection of public policies on transition, sovereignty, and sustainable reindustrialization.

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- 1.1 Giving meaning: transforming science into solutions
  - 1.2 Vegetable oils and proteins: a strategic national and European challenge
  - 1.3 Taking action at the heart of challenges and transitions
  - 1.4 Governance, ecosystem, and key benchmarks
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## 1.1 MAKING A DIFFERENCE: TURNING SCIENCE INTO SOLUTIONS

The ITERG-IMPROVE Group fosters close ties between research, industry, and the agricultural sector to transform plant-based resources into practical, sustainable, and competitive solutions.

ITERG (Institute for Fats and Related Products) and its subsidiary IMPROVE (a platform dedicated to the development of plant-based proteins) together constitute a leading player in the field of vegetable oils and alternative proteins. Since 2020, the Group has been applying its expertise to serve the food, nutrition, cosmetics, and bioproducts industries.

Its ambition is to innovate and support the development of high-performance, responsible products and processes that are adapted to economic realities and market expectations.

### A vision rooted in the realities of the agricultural sectors

The vision championed by the ITERG-IMPROVE Group is based on in-depth knowledge of the plant-based sectors and a detailed understanding of industrial challenges. At the intersection of research and application, it leverages reliable scientific data to inform decisions, optimize processes, and ensure the safety of new developments.

### The bioeconomy as a driver of action

As part of the bioeconomy movement, the Group contributes to the sustainable use of natural resources, supporting more efficient and resilient food and industrial systems. By utilizing all components of seeds, it promotes optimized use of raw materials and supports the emergence of higher-value-added solutions, benefiting local communities.

### Connecting research, upstream agriculture, and markets

The transformation of plant-based sectors relies on ongoing collaboration between agricultural stakeholders, research centers, and industry. The Group acts as a facilitator of these interactions, making science operational, accessible, and directly applicable by companies.

### OUR MISSION

“Transforming science into practical value: connecting research, agricultural sectors, and industry to develop, transfer, and implement solutions that create a sustainable, self-reliant, and competitive impact.”

### 1.1.1 - VALUES THAT TRANSLATE VISION INTO ACTION

The ITERG-IMPROVE Group’s mission guides all of its public interest initiatives and its innovation and technology transfer activities. This mission is embodied in shared values that inform scientific, technical, and people-related decisions on a daily basis.

#### USEFUL AND RESPONSIBLE INNOVATION

Innovating with pragmatism, taking into account real-world applications, industrial constraints, and environmental impacts, to offer robust and well-controlled solutions.

#### INTEGRITY AND INDEPENDENCE

Ensuring the objectivity of our work, the transparency of our processes, and the independence of our positions, in order to build lasting relationships of trust with companies, industries, and public stakeholders.



#### SCIENTIFIC AND TECHNICAL EXCELLENCE

Acting with rigor and method, from research to industrial application, to produce reliable, recognized knowledge and expertise that is useful for decision-making.

#### COMMITMENT TO PEOPLE

Making safety, skills development, and quality of life at work concrete priorities, to enable everyone to engage and grow in a trusting environment.

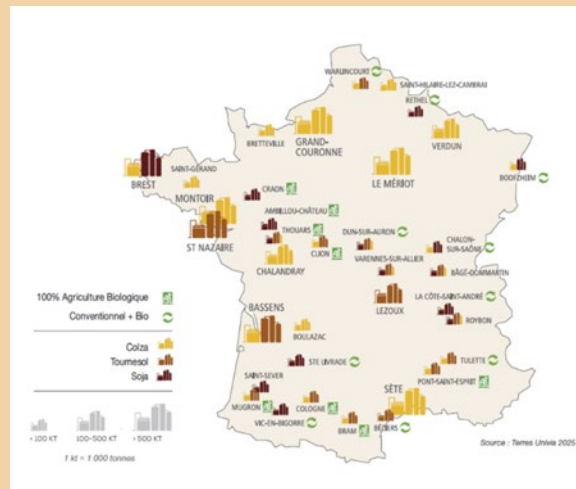
## 1.2 VEGETABLE OILS AND PROTEINS: A STRATEGIC NATIONAL AND EUROPEAN ISSUE

### Strategic Resources at the Heart of the Transition

Today, vegetable oils and proteins play a strategic role at the heart of issues related to food sovereignty, economic resilience, and the transition of agricultural and industrial systems.

In France, the sector involves approximately 130,000 farmers, covers 2.7 million hectares of cultivated land, and produces 7 to 8 million tons of seeds annually. It supplies nearly all of the vegetable oils consumed in food (excluding tropical oils) and more than 50% of the vegetable proteins used in animal feed.

MAJOR OILSEED PROCESSING FACILITIES IN 2024

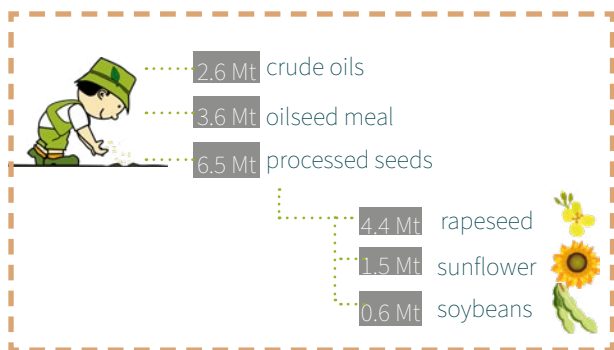


>> Click on the image to enlarge

### A well-structured industrial sector with strong potential

The French sector is supported by a dense industrial network comprising more than 40 processing facilities, 600 collection centers, and several leading technology platforms. It plays a vital role in adding value to agricultural products and driving regional economic development.

However, it operates in a challenging environment marked by rising production costs, regulatory changes, energy pressures, and the need to remain competitive in evolving markets.



### Strengthening sovereignty through innovation and value creation

Against a backdrop of geopolitical tensions, climate transition, and dependence on protein imports, this sector serves as a strategic lever for consolidating national sovereignty.

By promoting crops such as rapeseed, sunflower, and soybeans, it helps secure supplies, anchor value within regions, and meet the growing needs of agricultural, food, and industrial markets.

The work led by industry associations and public authorities thus supports several priorities:

- improving the sector's performance through innovation;
- strengthening quality, traceability, and French standards;
- developing processing and applied research capabilities, closely aligned with the needs of economic stakeholders.

Source: Terres Univia

In support of the oilseed and protein crop sector and public policies, the ITERG-IMPROVE Group works to sustainably strengthen the French sector's capacity to create value, gain autonomy, and respond to agricultural, food, and industrial transitions, in the public interest.

## Multiple applications, addressing real-world needs

From seed to ingredient, from the laboratory to the production line, the Group brings expertise across the entire value chain to accelerate the development of innovations, reduce risks, and ensure their industrial reliability.

The Group combines:

- applied research,
- laboratory expertise at an industrial scale,
- market vision and sustainability,



serving manufacturers engaged in vegetable oils and alternative proteins.

Oilseed and protein resources are distinguished by an integrated approach to their processing, enabling a consistent and comprehensive use of the seed's various fractions.

This approach promotes the optimization of market opportunities, strengthens the economic coherence of value chains, and addresses the diversity of applications: food, nutrition, cosmetics, plant chemistry, and bioproducts.

Faced with the challenges of transition and economic resilience, the ITERG-IMPROVE Group supports sectors and manufacturers in understanding, optimizing, and developing these resources.

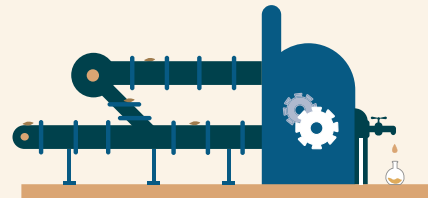
## A presence throughout the value chain

### UPSTREAM OF THE SECTOR



Help strengthen the economic resilience of agricultural sectors and promote recognition of the value of agricultural products.

### OIL MILLS AND REFINERIES



Offering innovative processes that balance industrial performance, product quality and safety, and reduced environmental impacts.

### CHEMICALS – PHARMACEUTICALS



Develop high-value-added bio-based products that combine naturalness, functionality, and sustainability.

### FOOD INDUSTRY – ANIMAL NUTRITION



Support industry players in ensuring food safety, ingredient quality, and taste optimization.

## 1.3 TAKING ACTION AT THE HEART OF CHALLENGES AND TRANSITIONS

The ITERG-IMPROVE Group is structured to balance public benefit, scientific rigor, and operational efficiency. It combines applied research, public interest initiatives, and industrial support to serve businesses, public sector entities, and the oilseed and protein crop sectors.

### AN INSTITUTIONAL FRAMEWORK GUARANTEEING NEUTRALITY AND TRUST

As an Industrial Technical Center (CTI) for oils and related products, ITERG operates under the supervision of the Ministry of Industry, within an institutional framework that guarantees neutrality, transparency, and the public interest.

Its role as a CTI is based on two complementary dimensions—collective research and public interest missions—pursuing a single objective: to generate reliable, shared knowledge that can be directly applied by industry stakeholders.

Collective research activities are governed by a Objectives and Performance Contract (COP), signed with the government and the industry, which sets the strategic roadmap for the 2024–2027 period.

This contract specifies the scientific priorities, research areas, and implementation methods, in line with the needs of the sectors and the guidelines of public authorities.

The 2024–2027 COP sets ITERG’s work on a trajectory structured around three major areas.



#### Digital Transition and the Industry of the Future

- Development and deployment of digital tools for analysis, traceability, and quality,
- Integration of new methodological approaches derived from the industry of the future,
- Improvement of industrial processes through the introduction of AI.

**Objective: to enhance process control and efficiency, as well as the quality and reliability of results.**



#### Energy and Environmental Transition

- Improving the energy efficiency of processing methods,
- Valorization of byproducts and optimization of biomass use,
- Environmental assessment of processes and products (footprint, impacts).

**Objective: reducing environmental impact while maintaining industrial performance.**



#### Industrial Sovereignty and Sector Resilience

- Securing analytical methods and key expertise within the country,
- Scientific support in situations of tension, dispute, or crisis,
- Development of new products from vegetable oils and proteins.

**Objective: to strengthen the self-reliance, resilience, and adaptability of the sectors**

## MISSIONS OF PUBLIC INTEREST

### ACTING AS A TRUSTED SCIENTIFIC THIRD PARTY IN THE SERVICE OF INDUSTRIAL SECTORS

Establishing common reference frameworks, informing decision-making, and ensuring the security of economic exchanges: these are the missions of public interest that guide ITERG's work in support of the vegetable oil and protein sectors. As an Industrial Technical Center, the Institute leverages its scientific and analytical expertise to produce reliable references, share knowledge, and provide concrete solutions to industrial challenges. Standardization is one of the key drivers of this mission.

#### Contributing to standardization at the national, European, and international levels

ITERG participates in the development and evolution of national and international standards for vegetable oils within expert groups (AFNOR, CEN, ISO).

#### This work aims to:

- harmonize analytical methods with the most recent scientific requirements,
- ensure the reliability, comparability, and international recognition of results,
- provide common, robust, and enforceable standards useful for economic trade and the management of sensitive situations (disputes, health crises).

#### 3 levels of engagement, 3 major bodies

ITERG is involved in the main standardization bodies:

- **International:** ISO/TC 34/SC 11: "Fats and oils of animal and vegetable origin"
- **Europe:** CEN/TC 307: "Oilseeds and fats of animal and vegetable origin and their co-products – Sampling and analysis methods"
- **France:** AFNOR/T60C: "Fats of animal and vegetable origin"

View the poster presented at the AOAC in San Diego, California, August 23–28, 2025, by Lionel Lagardère - ITERG: "Development, through a collaborative study, of 6 standardized methods for the determination of protein, fat, sugars, loss on drying, and ash."

View the poster: <https://urls.fr/taVzSr>



#### International leadership

In 2025, ITERG confirmed its role as a leading player by leading two international projects:

- NF EN ISO 12966-4 (revision)  
Interlaboratory test involving 25 international laboratories.
- prISO 26056  
Determination of sterols and related compounds in olive oils and olive pomace oils.

#### Recent Standards Work

Between August 2024 and July 2025, 5 standards were published:

- NF EN 14105 (revision) – Fatty acid methyl esters: determination of free and total glycerol and of mono-, di-, and triglycerides
- NF EN ISO 3961 (minor revision) – Determination of the iodine value
- NF EN ISO 18363-2 (minor revision) – Determination of MCPD and glycidol esters
- ISO 5132 – HPLC analysis of phenolic antioxidants
- ISO 20948 – Determination of aflatoxins B1, B2, G1, and G2 by liquid chromatography



Lionel Lagardère, President of CEN and AFNOR (bottom left in the photo).

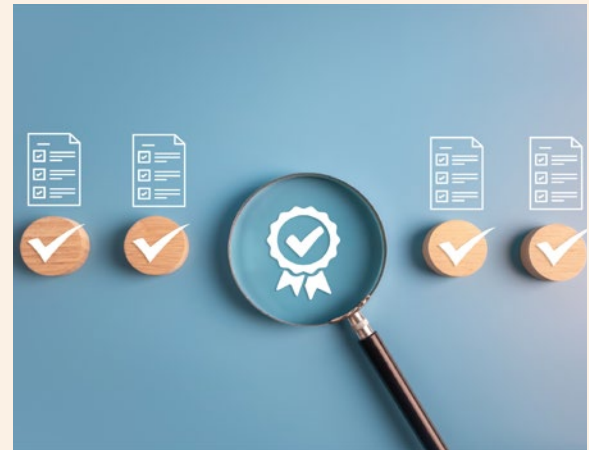
Meeting of ISO/TC 34/SC 2 and ISO/TC 34/SC 11 in March 2026 in New Delhi.

## Conducting Scientific and Regulatory Monitoring

As part of its public interest missions, ITERG conducts scientific, technological, regulatory, and standards-related monitoring specifically for the oilseed and protein crop sector.

This monitoring draws on specialized sources, expert databases, and the direct application of internal expertise.

ITERG's Monitoring & Information Unit answers scientific and regulatory questions from companies and partners, providing targeted, reliable, and actionable insights.



In 2025, the Monitoring & Information Unit answered more than 200 questions across all fields.



## Providing independent and recognized expertise

ITERG provides independent scientific expertise to public and professional bodies, both in France and internationally. Its experts actively participate in leading committees such as BIPEA, FOSFA, FNCG, and Terres Univia, contributing to debates and decisions on matters of public interest. In sensitive situations—commercial disputes, technical controversies, or health crises—ITERG acts as a scientific authority and technical arbitrator, providing reliable, certified, and recognized analyses.



### Case Study:

Scientifically safeguarding the industry amid the hexane debate

Background: In 2025, the European Food Safety Authority's (EFSA) reevaluation of hexane, combined with several high-profile media reports mentioning the presence of traces in certain food products, sparked significant public concern.

However, some of the data released were based on analytical methods that were either unvalidated or insufficiently documented, undermining the scientific reliability of certain interpretations.

The Institute contributed to:

- objectively assessing the scientific situation,
- developing a reliable and reproducible analytical method for the detection and quantification of hexane. This method was accredited by COFRAC in December 2025 (scope available at [www.cofrac.fr](http://www.cofrac.fr)).

Impact: This initiative helped reestablish a solid scientific foundation, based on validated and enforceable methods, to inform discussions with public authorities and stakeholders.

**This case fully illustrates ITERG's role: providing independent scientific expertise and helping to safeguard sectors in sensitive situations.**

## SERVICES: EXPERTISE TAILORED TO PROJECT NEEDS

The Group's services are based on the mobilization of targeted expertise, tailored to the challenges of specific sectors and the various phases of projects. This approach enables us to support stakeholders from design through to commercialization on complex, multidisciplinary projects.



### Our services

- Oil extraction and refining
- Dry/wet protein extraction
- Application formulation
- Protein functionalization and applications
- Physicochemical and sensory analysis
- Plant chemistry
- Nutritional studies, biological analyses
- Environmental studies (life cycle assessment, etc.)
- Scaling up from kilogram to ton scale and contract manufacturing
- Training/Audits, consulting services

Link to the corporate video:  
<https://www.youtube.com/watch?v=VSbFIEcez8M>



### Diverse application markets

We support companies of all sizes—start-ups, SMEs, and large corporations—in the following markets:

- Agri-food: functional ingredients, clean label, plant-based foods
- Health nutrition & nutraceuticals: proteins, extracts, active ingredients
- Cosmetics: plant oils, eco-friendly formulations
- Animal feed: value-added co-products, oilseed meal
- Biosolutions & biotechnologies: bio-based ingredients, green chemistry, biorefinery
- Industry & materials: plant-based surfactants, natural solvents



### An evolving portfolio

Working closely with collaborative research, this portfolio is constantly evolving to transform scientific advances into operational solutions for the industry.

New services developed in 2025 are presented on page 52.

### Our key strengths

- recognized scientific expertise,
- research-industry interface,
- dynamic partnership network,
- state-of-the-art analytical and technological platforms.

## 1.4 GOVERNANCE, ECOSYSTEM & KEY METRICS

The year 2025 was marked by several changes in governance, carried out in a spirit of continuity and gradual transition.

### Executive management

Denis Chéreau stepped down as ITERG CEO on June 30, 2025, and then from IMPROVE at the end of September, having left a lasting mark on the Group's development.

Effective July 1, 2025, Jean-David Leao succeeded him as ITERG CEO. Having been with the Institute for nearly twenty years, he has a deep understanding of its teams, business lines, and challenges, and naturally embodies the Center's values.

On October 1, 2025, Frédéric Bredon took over as head of IMPROVE. With a strong industrial background, he joins the Group with in-depth knowledge of the challenges related to the value-added processing of vegetable oils and proteins, thereby helping to guide the next stages of its development.

### Presidency

At the Board of Directors (BoD) meeting on December 17, 2025, ITERG's directors appointed Paul-Joël Derian as President of the Institute. Vice-Chair of the Board of Directors since 2019 and Director of Innovation & Sustainable Development at Avril, he succeeds Yves Delaine, whose dedication was praised by all members of the Board. Paul-Joël Derian was also appointed IMPROVE President, strengthening the cohesion of the ITERG-IMPROVE Group within a unified governance framework.

Update: at the board meeting on may 4, 2026, arnauld daudruy was appointed vice chair of the iterg board.

### Shared and balanced governance

ITERG's operations are based on collegial governance involving the government, the scientific community, and industry representatives, ensuring the independence of its strategic direction and results

- The Scientific Committee reviews research programs and ensures their scientific quality. It brings together leading scientists, representatives of the public, and industry members to ensure a balanced alignment between societal challenges, economic needs, and scientific requirements.
- The Board of Directors defines strategic directions and ensures the sound management of the Institute. Its composition—comprising government representatives, qualified scientific experts, and industry stakeholders—ensures public oversight, independent expertise, and consideration of industrial realities.

This structure provides a strong guarantee of neutrality, independence, and transparency, preventing any unilateral influence on the work by a single industry stakeholder.

Paul-Joël DERIAN  
ITERG President  
IMPROVE President



Jean-David LEAO  
ITERG CEO



Frédéric BREDON  
IMPROVE CEO

### Qualifications



INDUSTRIAL TECHNICAL  
CENTER



AGRO-INDUSTRIAL  
TECHNICAL INSTITUTE



TECHNOLOGY RESOURCE  
CENTER



CARNOT INSTITUTE

# ITERG BOARD OF DIRECTORS

By order dated December 1, 2025, the ITERG Board of Directors was renewed



## **AS REPRESENTATIVES OF BUSINESS LEADERS IN THE FATS AND OILS INDUSTRY**

Mr. Arnauld DAUDRUY - Chairman of the OLVEA Group (new member)  
Mr. Paul-Joël DERIAN - Director of Innovation and Sustainable Development at the AVRIL Group  
Mr. Hervé LIMOUZIN - Business Unit Director at ADM/SIO  
Ms. Hacina MOSA - QSE Manager at PROVENCE HUILES  
Mr. Olivier NASLES - President of the COPA-COGECA Olive Oil Group - Treasurer of France OLIVE  
Mr. Jean-Christophe SIBILEAU - Director of SAINT-HUBERT

## **ON BEHALF OF LEADERS REPRESENTING HIGHER TECHNICAL EDUCATION OR SPECIALIZED FIELDS:**

Ms. Monique AXELOS – Scientific Director of Food and Bioeconomy at INRAE  
Ms. Marie-Jane FALLOURD - Director of the Pigments and Functional Proteins Unit at FERMENTALG (new member)  
Ms. Paula LENNON - Director of Cosmetics at GATTEFOSSE (new member)  
Mr. Gilles ROBILLARD – President of TERRES INOVIA (new member)  
Mr. Laurent ROSSO – Director of TERRES UNIVIA

## **ON BEHALF OF TECHNICAL STAFF REPRESENTATIVES:**

Mr. Guillaume BIRAULT – LESIEUR (new member)

## **OBSERVERS:**

Mr. Hubert BOCQUELET - General Delegate of the FNCG  
Mr. Gabriel KRAPF - Chair of the FEDIOL Quality Commission  
Mr. Patrick GUILLEMOTEAU - Nouvelle-Aquitaine Region  
Mr. Yves DELAINE - Former Chair of ITERG  
Mr. Cédric KSON – Industrial Director at SAIPOL (new member)

# OUR ECOSYSTEM



## FOCUS

### A regional dynamic

ITERG is an active member of the regional technology transfer ecosystem through its involvement in:

- **ACTENA**, the association of Technology Transfer Centers in Nouvelle-Aquitaine (founded in 2024), which aims to facilitate companies' access to scientific advancements and regional technology platforms,
- the **University Innovation Hub (PUI)**, a strategic initiative that accelerates the commercialization of research results and encourages the emergence of new technologies.

In addition, a Regional Technical Committee, established in 2023 at the request of the Nouvelle-Aquitaine Region, provides independent scientific expertise on ITERG's Resource Program while taking into account the needs of regional socio-economic stakeholders.

This regional base helps build an innovation ecosystem that supports the plant-based sectors, industrial employment, and the development of a sustainable bioeconomy in Nouvelle-Aquitaine.

# KEY FIGURES 2025

ITERG

IMPROVE

## Women and Men at the ITERG-IMPROVE Group



## ITERG-IMPROVE Group Resources



IMPROVE  
2 636 K€

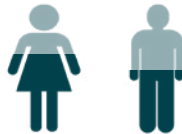
ITERG  
9 302 K€

73% Revenue

27% Collective resources

### Workforce

**121** employees



## Spotlight on Our Clients



**706**

ACTIVE CLIENTS

**524**

AT ITERG

**182**

AT IMPROVE

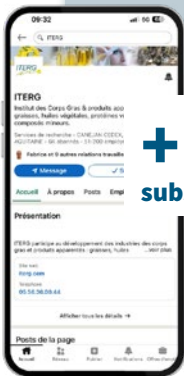
## Gender Pay Equity

**92/100**

ITERG score calculated according to the Labor Code scale



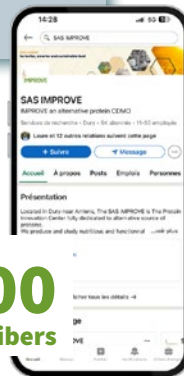
## Online Popularity



**+ 6 000**  
subscribers



**+ 5 000**  
subscribers



## Scientific expertise of staff



**34%**

PhDs, engineers, and holders of master's degrees in science

## Training Hours

**+1 500 h**  
total training hours



02

# COMMITMENT

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TAKING CONCRETE ACTION FOR RESPONSIBLE AND  
PEOPLE-CENTERED DEVELOPMENT

**40+**

---

Bilan Carbone®  
assessments

**€ 3.3 M**

---

in building  
investments

**9/10**

---

average customer  
satisfaction rating

**10**

---

golden rules for  
occupational health  
and safety



# 2

For the ITERG-IMPROVE Group, commitment means putting its expertise to work in the service of a broader responsibility, in line with its purpose and missions.

This commitment translates into concrete actions: strengthening technical capabilities, ensuring the quality and reliability of our work, managing environmental impacts, and fostering respectful and inclusive working conditions.

Driven by a CSR approach integrated into the Group's strategy, this dynamic guides all actions undertaken to serve industries and economic stakeholders.

It serves as an essential foundation for building partner trust, supporting transitions, and ensuring projects follow a sustainable path.

Acting with high standards, anticipating changes, and placing people at the heart of our priorities: these are the principles that underpin the commitments presented in this chapter.

- 
- 2.1 CSR as a framework for action and transformation
  - 2.2 Concrete means for sustainable action
  - 2.3 Taking action for the environment and the ecological transition
  - 2.4 Committing to women and men
  - 2.5 Quality, reliability, and operational excellence
-

## 2.1 CSR AS A FRAMEWORK FOR ACTION AND TRANSFORMATION

In 2025, ITERG continued and strengthened the implementation of its Corporate Social Responsibility (CSR) approach, with a clear ambition: to structure its actions in support of the oilseed and protein crop sectors in a sustainable manner and to align its activities with a responsible and long-term trajectory.

This approach is based on complementary pillars—environmental, social, and economic—that guide all actions undertaken by the Institute. They reflect a concrete commitment to the ecological transition, responsible governance, and the development of skills and working conditions.

2025 marks a phase of consolidation, with the implementation of visible and measurable actions. Reducing the carbon footprint, strengthening regulatory compliance, risk prevention, inclusion, and infrastructure modernization: these are all initiatives that reflect the gradual integration of CSR issues into the Group’s daily operations and projects.



View our CSR report online: <https://bit.ly/4srza42>

## 2.2 CONCRETE MEASURES FOR SUSTAINABLE ACTION

**Taking sustainable action to support industry sectors requires access to appropriate, high-performance, and scalable resources.**

To sustainably strengthen its scientific and technical capabilities and optimize the site’s organization, ITERG continued designing a new building in 2025 on its site. Construction is scheduled to begin in 2026, with the building set to open in 2027.

### A project serving research and industry

By reorganizing the spaces, the new building will enable ITERG to:

- expand research and formulation areas,
- extend technical facilities dedicated to lipochemistry and refining,
- improve working conditions and operational workflows.

### A project supported and included in the 2024-2027 Objectives and Performance Contract

Estimated at €3.3 million (excluding tax), the project is, at the time of writing this report, in the final stages of financial close, in order to finalize the last decisions and consolidate its overall structure.



## 2.3 ACTING FOR THE ENVIRONMENT AND THE ENVIRONMENTAL TRANSITION

The green transition is a key focus of the ITERG-IMPROVE Group's activities, based on a measurable, managed, and directly operational approach.

### MEASURING TO ACT: THE CARBON FOOTPRINT AS A MANAGEMENT TOOL

As part of its CSR initiative, ITERG conducted its Carbon Footprint® assessment in accordance with Version 9 of the methodology (developed by the Association for Low-Carbon Transition). Conducted in 2025 using 2024 data, this assessment is based on the collection and consolidation of data from all departments

Watch the video on the carbon footprint: <https://www.youtube.com/watch?v=SyZ1p31jbio>

#### Overall Results



3 600 tCO<sub>2</sub>e emitted in 2024



38 tCO<sub>2</sub>e / per employee

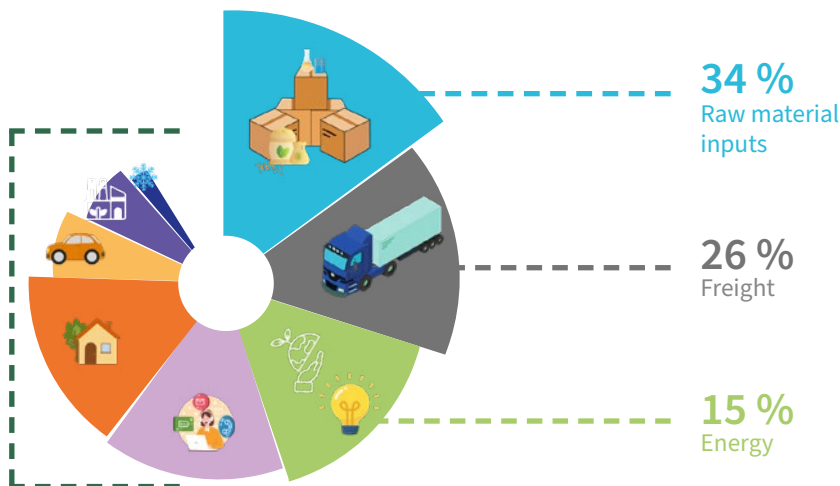


375 kgCO<sub>2</sub>e per €k of revenue



#### Breakdown of Emissions (2024)

- ▷ Refrigerants 1%
- ▷ Waste 4%
- ▷ Employee and visitor travel 5%
- ▷ Depreciation 8%
- ▷ Services 8%



Inputs, freight, and energy alone account for nearly three-quarters of our emissions.

#### 4-Year Goals

##### Targeted reductions

**-20 %** of total emissions.

**-40 %** of our direct and indirect energy-related emissions.

**-15 %** of our indirect non-energy emissions.



### WORKING TOWARD A MORE SUSTAINABLE INDUSTRY

Drawing on its extensive experience, ITERG offers its expertise in the Bilan Carbone® assessment expertise to businesses.

**+ 40 assessments completed**, using an approach tailored to the agri-food, bio-based, and industrial sectors.

The Bilan Carbone® serves as a management and support tool for a sustainable transition strategy that can be complemented by LCA and eco-design work.

Objective: to reduce the environmental footprint while maintaining performance.

Contacts: Cyntia Vialatte and Lou Bernard, ITERG.

## 2.4 COMMITMENT TO WOMEN AND MEN

For the ITERG-IMPROVE Group, a commitment to women and men means recognizing that collective performance and scientific excellence depend above all on the people who carry out the projects on a daily basis. This commitment to people is a cornerstone of the Group's responsible development, promoting workplace well-being, skills development, and internal cohesion.

### WELL-BEING AND SOCIAL DIALOGUE

#### Mobility Plan

A sustainable mobility allowance has been introduced to encourage employees to prioritize eco-friendly transportation. In addition to the bicycle mileage allowance, the program has been expanded to include carpooling and personal mobility devices not powered by internal combustion engines.

#### Quality of Life at Work and Social Dialogue

ITERG is actively pursuing an initiative focused on Quality of Life and Working Conditions (QVCT), based on listening, social dialogue, and continuous improvement.

In 2025, work on QVCT continued with the dedicated task force to advance the action plan and review the key challenges at the end of the year.

This collective approach ensures that QVCT is embedded in a process of continuous improvement, closely aligned with the teams' needs.



### DIVERSITY AND SKILLS

#### Diversity, workplace equality, and inclusion

Our commitment to diversity and workplace equality is reflected in measurable results.

ITERG continues to update its professional equality plan as part of the European Gender Equality Plan. The institute is also participating in the national pilot program led by AGEFIPH: *"Disability: A Catalyst for Progress in Social Dialogue."*

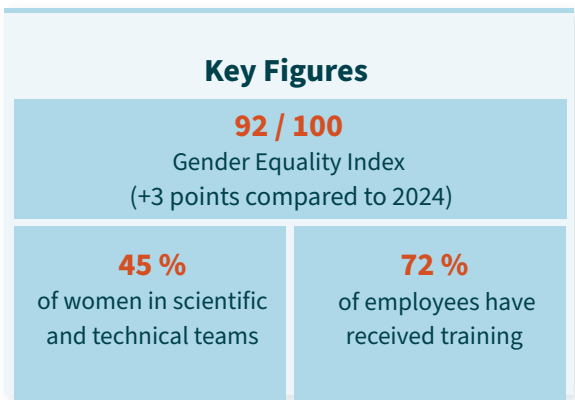
#### Skills

In 2025:

- 72% of employees received technical training
  - 38% on core job skills
  - 39% on safety training
- a program dedicated to budget management and economic steering has also been rolled out to strengthen the managerial skills of supervisors.

### ETHICS CHARTER

To share the principles that guide the Institute's missions and the behaviors expected of employees, ITERG has formalized an Ethics Charter. It reaffirms the values that underpin the Institute's work: scientific rigor, integrity and independence, respect for individuals, and responsibility in innovation. This charter serves as a common framework for teams and a guide in relations with partners and stakeholders.



Read the ethics charter: <https://tinyurl.com/4c2esrt7>



## SAFETY OF PEOPLE, FACILITIES, AND OPERATIONS

In demanding scientific, analytical, and pilot environments, safety is essential to the quality of operations and the protection of human capital.

In 2025, the Group reached a new milestone in its risk prevention approach with the support of an external partner dedicated to improving safety performance. This initiative aims to strengthen the safety culture and collective commitment in daily practices.

Today, the organization is in a consolidation phase: rules, procedures, and training are well established. The goal is now to move toward a shared safety culture, where everyone feels responsible for their own safety and that of others.



- In 2025, this evolution was notably supported by:
  - employee involvement in behavioral audits,
  - the rollout of e-learning modules focused on safety reflexes,
  - continuous improvement of workplace layouts and signage.

### Health & Safety – Key Highlights of 2025

- **100 %** of employees completed a behavioral audit,
- **12** H&S training sessions for new hires,
- Establishment of the **10** Golden Rules of Safety (see below).



### The 10 golden rules of health & safety

In 2025, ITERG's Executive Committee and business unit managers established 10 Golden Rules of Health & Safety. These rules define essential, non-negotiable behaviors in high-risk situations. They form a common foundation shared by all employees. Here are the topics:



Compliance with on-site traffic rules



Safe handling of chemicals



Use of equipment only after training



Safe work at heights



Verification of lockout/tagout procedures and absence of energy



Fire prevention



Work in ATEX zones only when authorized



Safe handling of biological and pharmacological samples



Access to confined spaces by permit only



Contributing to a respectful and responsible work environment

## 2.5 QUALITY, RELIABILITY, AND OPERATIONAL EXCELLENCE

The quality and reliability of results form a cornerstone of the ITERG-IMPROVE Group's operations. They are based on accredited analytical methods, controlled processes, and a continuous improvement approach, ensuring robust services and the satisfaction of our industrial partners.

### ENSURING QUALITY, RELIABILITY OF RESULTS, AND CUSTOMER SATISFACTION

#### ITERG - COFRAC Accreditation – Flexible Scope FLEX3 - New Analytical Methods

In 2025, the expansion of the FLEX3 scope of accreditation strengthened the laboratory's ability to rapidly develop and accredit new analytical methods within a framework recognized by COFRAC.

Thanks to this flexibility, the laboratory can respond more quickly to the needs of industry while maintaining high standards for method validation and result reliability.

Two new analytical methods were thus accredited in 2025:

- determination of metals and minerals in olive oils by ICP-OES (aluminum, arsenic, cadmium, chromium, copper, tin, iron, nickel, lead),
- technical hexane assay (sum of isomers), quantification range: 0.1–1000 mg/kg.

Scope available at [www.cofrac.fr](http://www.cofrac.fr).



#### Customer satisfaction



Customer satisfaction is a key indicator of the quality of the Group's services. Monitored as part of the ISO 9001 process, it enables us to assess the quality of our collaborations, the clarity of our communications, and the alignment of our deliverables with our clients' expectations.

Average satisfaction score for 2025: **9 / 10**

This result reflects the trust placed in ITERG's expertise and the quality of the projects carried out with its partners.

### IMPROVING WORKSPACE ORGANIZATION AND EFFICIENCY (5S)

In 2025, IMPROVE launched a 5S initiative to improve the organization and efficiency of workspaces—including technical halls, laboratories, storage areas, and offices.

The method is based on five key steps: sorting out unnecessary items, optimizing storage, cleaning workspaces, standardizing practices, and ensuring these improvements are sustained over time. It engages employees in on-site assessments and the identification of improvement actions.



It helps enhance safety, the clarity of workspaces, and operational efficiency, while embedding these practices within a culture of continuous improvement.



03

# INNOVATE

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GENERATING KNOWLEDGE, CREATING TOMORROW'S SOLUTIONS

7

---

projects selected  
through calls for  
proposals

19

---

collective research  
projects

25

---

oral presentations, posters, and  
scientific publications



# 03

Innovation is a key driver of the ITERG-IMPROVE Group's work. Research, experimentation, and development continuously feed projects conducted with bio-based sectors and industry. With the aim of transforming knowledge into concrete, operational solutions.

This dynamic is part of a clear ambition: to develop high-performance solutions tailored to economic, environmental, and societal challenges, in response to major transitions.

Present at every stage of the value chain, the Group is involved from the early scientific stages through to industrialization. It draws on multidisciplinary expertise to support the transition from innovation to its application on an industrial scale.

Valorization of plant resources, improvement of product quality, process evolution, and reduction of environmental impacts: these are all areas in which innovation serves as a key driver for companies and industries.

- 
- 3.1 From Innovation to Industrial Impact
  - 3.2 Innovating with the Carnot and Actia Networks
  - 3.3 Three pillars for meaningful innovation
    - Food transition
    - Ecological transition
    - Factory of the future
-

## 3.1 FROM INNOVATION TO INDUSTRIAL IMPACT

The ITERG-IMPROVE Group has developed a structured approach to innovation, based on the complementary nature of different research levels and close collaboration with industry stakeholders. This organizational structure ensures continuity between knowledge generation, technological development, and industrial application, with a focus on creating value for businesses.

### 3 Complementary Levels of Research:

#### → Collective Research

Generating shared knowledge to serve the broader interests of the oilseed and protein crop sectors.

#### → Collaborative Research

Co-developing innovative projects. Brings together research organizations, technical centers, and/or companies around innovative projects.

#### → B2B Research

Addressing specific needs. Applied research conducted for companies under a contractual framework.

### A tailored funding model

- industry contributions for collective research, notably through interprofessional contributions (CVO) from the vegetable oils and proteins sector managed by Terres Univia,
- public funding for collaborative projects,
- private contracts for applied research services.

### A dual source of funding

#### → Upstream

Academic collaborations (theses, multidisciplinary projects) and participation in structural initiatives (Carnot networks, CTI, UMT & RMT ACTIA), supported by the ANR, ADEME, the Regions—including the Nouvelle-Aquitaine Region—and the European Union through the ERDF.

#### → Downstream

Close ties to industrial realities: technology watch, exchanges with manufacturers and equipment suppliers, and collaborations with other technical institutes.

### Serving industry

By combining these levers, the ITERG-IMPROVE Group transforms scientific results into concrete, secure, and competitive industrial solutions.

This model ensures continuity between knowledge generation, technological maturation, and transfer to companies, with a focus on measurable impact for the sectors.



### Confidentiality and independence:

Regardless of the type of research, the ITERG-IMPROVE Group relies on contractual and/or institutional arrangements that guarantee the independence of the work, the confidentiality of data, and the protection of the interests of clients or partners.

#### DID YOU KNOW?

ITERG is CIR (Research Tax Credit) certified as a CTI conducting research and development on behalf of companies. This enables companies to include eligible R&D expenses subcontracted to ITERG in their CIR claims.



To learn more: <https://iterg.com/cir/>



## 3.2 INNOVATING WITH THE CARNOT AND ACTIA NETWORKS

The projects carried out within the Carnot and ACTIA networks demonstrate ITERG's involvement in major national collaborative research initiatives

They bring together academic researchers, technical institutes, and socio-economic stakeholders to address common challenges: advancing technological maturity, pooling expertise, and transferring knowledge to industry.



**FOLIBRASS**  
(2025-2026)

Utilization of brewery by-products for encapsulation applications

<https://3bcar.fr/projets/folibrass/>

**FORMULEBIO**  
(2025-2026)

Development of plant-based herbicidal biosolutions

<https://3bcar.fr/projets/formulbio/>

**PRICEPOX**  
(2024-2027)

Bio-based polymers derived from castor oil

<https://3bcar.fr/projets/pricepox/>



**RMT ECOVAL**  
(2026-2030)

Eco-design and Environmental Assessment

<https://www.actia-asso.eu/projets/ecoval-2026/>

**RMT JUSTE FORMULATION**  
(2026-2030)

Scientific formulation of foods

<https://urls.fr/-5KomY>

**UMT OLEODIGIT**  
(2025-2030)

Digitization of extraction processes

<https://www.actia-asso.eu/projets/oleodigit-2025/>

**UMT PROFEEL**  
(2023-2028)

Functional plant-based formulations

<https://www.actia-asso.eu/projets/profeel-2023/>

These initiatives strengthen the ties between public research and industry and help build collective expertise to support the sectors. In this way, they contribute to an innovation ecosystem in which scientific knowledge is transformed into concrete solutions.

## 3.3 THREE PILLARS FOR MEANINGFUL INNOVATION

### FOOD TRANSITION: INNOVATING FOR SAFER AND MORE SUSTAINABLE FOOD

Food-related issues are now at the heart of consumer expectations: better understanding products, ensuring their quality, and building trust. In this context, vegetable oils and proteins play a vital role. The Group is leveraging its expertise to characterize these raw materials, master their uses, and ensure their safe application, all in the service of reliable, compliant products with high nutritional value.



#### UNDERSTANDING NUTRITIONAL MECHANISMS

##### ASSO3: Optimizing the bioavailability of omega-3

The ASSO 3 project builds on our unique expertise, developed over nearly 20 years, in optimizing the bioavailability of omega-3s. It builds on previous work that identified an optimal level of ALA intake, improving its bioavailability in blood and tissues as well as its conversion to EPA/DHA. The study now aims to track the effect of ALA+EPA/DHA co-supplementation on their respective bioavailability.

Following major research in 2025 on the digestibility of omega-3-rich formulas, the study continues to understand how combining omega-3s optimizes absorption, conversion, and efficacy.

This integrated approach provides manufacturers with robust and transferable knowledge.

It enables the development of next-generation formulations, the optimization of nutritional claims, and the enhancement of health benefits, particularly cardiovascular, metabolic, and brain-related benefits.

**Contact:** Leslie Couédelo, ITERG.

*For this project, ITERG receives interprofessional contributions (CVO) from the vegetable oils and proteins sector as well as from the Lipides Nutrition Group (GLN; AAP 2025).*



#### Key Points

ALA + EPA/DHA co-supplementation optimizes the bioavailability of omega-3s.

#### Result

Improved absorption, conversion, and metabolic efficiency.

#### Impact

A tool for developing products with scientifically proven health benefits.



##### Pet food digestibility: toward more representative in vitro models

The research aims to develop an in vitro digestion protocol specific to cats and dogs, adapted from the INFOGEST method. The study examined the influence of several parameters: digestion temperature, duration of the intestinal phase, and concentrations of pancreatin and bile salts.

These adjustments allow for a clearer distinction between animal and human digestion and improve the representativeness of in vivo models.

These advances are a key driver for the development of formulations tailored to the specific nutritional needs of pet food. Remove this duplicate line, or keep only the Impact box. Better suited to the nutritional needs of pet food.



**Contact:** Frédéric Baudouin, IMPROVE.

#### Key Points

Appropriate digestion models are necessary to reflect animal physiology.

#### Result

Optimization of parameters: temperature, pancreatin, bile, and intestinal transit time.

#### Impact

Enables the development of formulations better suited to the nutritional needs of pet food.



### Accredited Hexane Analysis

The ITERG method for analyzing technical hexane (sum of isomers), covering a range from 0.1 to 1000 mg/kg, is now included in the COFRAC scope of accreditation, which can be viewed on the COFRAC website: [www.cofrac.fr](http://www.cofrac.fr). This accreditation enables the delivery of reliable and recognized results, contributing to:

- ensuring regulatory compliance,
- controlling solvent residues,
- enhancing quality and traceability.

The associated work has optimized Headspace GC-MS analytical methods (analytical conditions, calibration strategies, identification criteria), ensuring robustness, sensitivity, and reliability for the detection of traces of hexane.

Contact: Hugues Griffon, ITERG.

This project is funded by ITERG and Terres Univia with interprofessional contributions (CVO) from the vegetable oils and proteins sector.

Results presented by Hugues Griffon at the AOCS conference, New Orleans, May 5, 2026: <https://bit.ly/3QtUb0y>



#### Key Points

The ITERG method for technical hexane analysis is COFRAC-accredited. (available at [cofrac.fr](http://cofrac.fr)).

#### Results

Measurement range: 0.1 to 1000 mg/kg – optimized Headspace GC-MS method.

#### Impact

Ensures regulatory compliance and enhances control over industrial processes.

### Amino acid analysis: enhancing the characterization of plant proteins

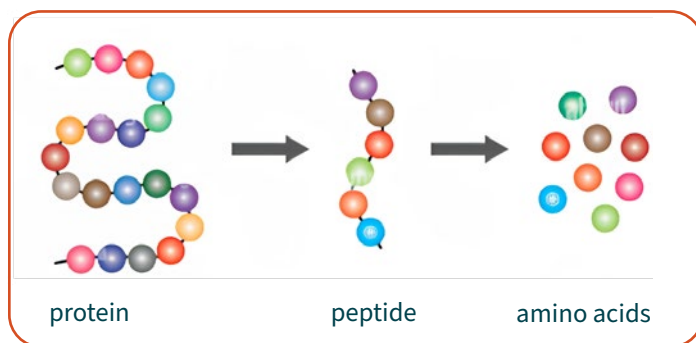
Against the backdrop of strong growth in the plant protein market, ITERG has developed an advanced analytical method to better characterize the amino acid composition of raw materials and co-products.

The approach is based on the quantification of free and total amino acids, including various hydrolysis steps tailored to the diversity of protein profiles. The method, based on HPLC analysis with fluorometric and UV detection following derivatization, enables precise and reliable characterization of samples.

Validated using certified reference materials (NIST®) and compared with interlaboratory results, the method developed by ITERG demonstrates high performance, with recovery rates ranging from 76% to 104% and consistency across all 20 amino acids analyzed.

Now deployed as a routine procedure, this method strengthens ITERG's analytical expertise and provides manufacturers with robust data to optimize the nutritional quality, formulation, and value of plant proteins.

Contact: Loïc Leitner, ITERG.



#### Key Points

ITERG has developed an advanced analytical method to precisely characterize the amino acid composition of raw materials and co-products.

#### Results

Analysis of 20 amino acids, validated by certified reference materials (NIST®).

#### Impact

Improves the nutritional quality, formulation, and use of plant proteins for reliable industrial applications.





## CHARACTERIZING AND MANAGING RAW MATERIALS

The variability of raw materials poses a major challenge for the plant-based protein sector. Varietal differences, growing conditions, and the environment directly influence the nutritional and functional properties of ingredients, affecting their processing and applications.

In this context, IMPROVE is developing complementary approaches aimed at better understanding and anticipating these variations at different scales.

### Legume Variety Study – Partnership with Agriculture Victoria

In partnership with the Australian institute Agriculture Victoria, IMPROVE conducted a two-year study focusing on six legumes (peas, fava beans, chickpeas, mung beans, lentils, and lupins).

The research highlights the impact of the variety × environment interaction on functional and nutritional quality, contributing to a better understanding and structuring of plant protein supply chains on an international scale. The results of this study will be presented in various publications in 2026.

As part of the PeaBoost project, conducted with

Contact: Frédéric Baudouin, IMPROVE.

### PeaBoost: Pea Protein Variability and Functional Performance

Terres Inovia, IMPROVE is studying the influence of varieties and growing conditions on the quality of pea proteins.

Analyses conducted on seeds, flours, and isolates reveal significant differences depending on the variety and seasonality. These differences pertain in particular to solubility, foaming ability, and the presence of antinutritional factors.

These results have direct applications in food matrices, particularly through application tests in plant-based beverages such as “pea milk.”



#### Key Points

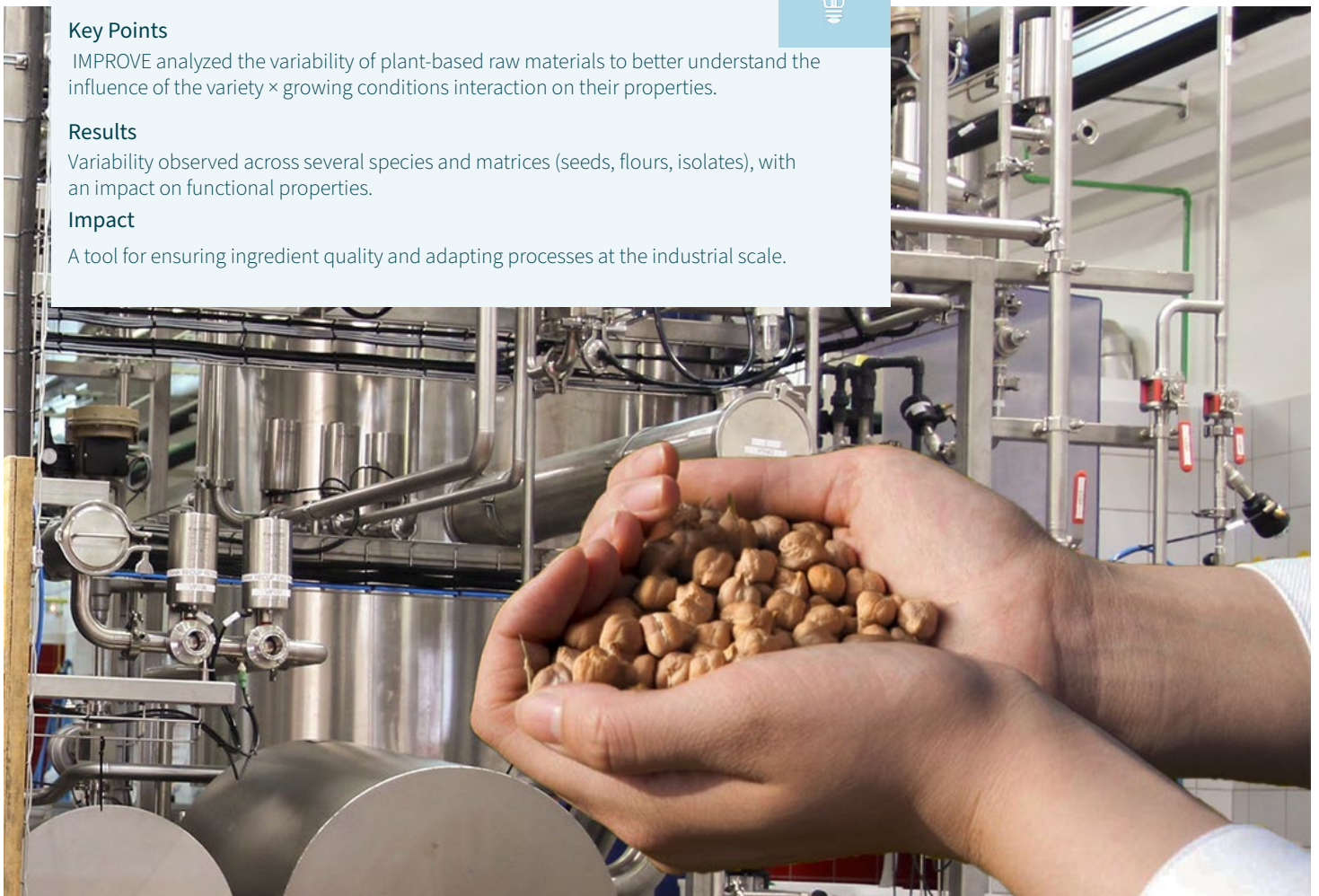
IMPROVE analyzed the variability of plant-based raw materials to better understand the influence of the variety × growing conditions interaction on their properties.

#### Results

Variability observed across several species and matrices (seeds, flours, isolates), with an impact on functional properties.

#### Impact

A tool for ensuring ingredient quality and adapting processes at the industrial scale.





## DEVELOPING NEW FOOD APPLICATIONS

### PROVÉAL: natural alternatives to food additives

ITERG is participating in the PROVÉAL project, carried out in collaboration with ACTALIA and supported by the ERDF and the Nouvelle-Aquitaine Region; the project aims to offer alternatives to controversial food additives (carrageenans, mono- and diglycerides, modified starches). The goal is to utilize byproducts from local oilseed and protein crops (flours, meal, fibers) as functional ingredients for stabilizing food products, particularly dairy products.

The project is structured around several stages:

- identification and selection of plant-based protein ingredients based on functional and regulatory criteria
- evaluation of their potential in model formulations and analysis of their organoleptic impact
- validation in dairy matrices at the pilot scale (creams, cheeses, desserts)
- process optimization for industrial transfer. The developed formulations are compared to conventional products to evaluate their performance in terms of stability, texture, rheology, and sensory quality.

PROVÉAL demonstrates the potential of plant proteins to develop more natural, safe, and sustainable products.

**Contact:** Cécile Joseph, ITERG.

*Project conducted within the framework of the PROFEEL UMT.*

#### Key Points

ITERG is helping to develop plant-based alternatives to controversial additives using oilseed and protein byproducts.

#### Results

Validation in dairy matrices at the pilot scale (creams, desserts, cheeses).

#### Impact

Enables manufacturers to reformulate products to be more natural without losing functionality.



## EXPLORING NEW RESOURCES

### Microalgae valorization: a new source of lipids

The Group explored the valorization of lipids derived from microalgae for human consumption, an innovative biomass with high nutritional potential.

Two processes were evaluated: a dry method using hot pressing and a wet method combining aqueous extraction and solid-liquid separation. The results obtained highlight differences in performance between the processes, both in terms of yield and the quality of the fractions.

This work opens up prospects for the development of new sustainable lipid sources.

**Contact:** Frédéric Baudouin, IMPROVE.



#### Key Points

The Group is exploring extraction processes to harness microalgal lipids for human consumption.

#### Results

Comparison of two methods: hot pressing vs. aqueous extraction.

#### Impact

Guides technological choices to develop new sustainable supply chains.



## ENVIRONMENTAL TRANSITION

The environmental transition relies on more efficient use of plant resources and the evolution of industrial processes. In this context, innovation enables us to provide concrete support for the transformation of these sectors.

The Group is taking action to better utilize biomass, limit environmental impacts, and develop solutions compatible with industrial constraints. This focus reflects the commitment to making the bioeconomy an operational reality, in the service of performance and sustainability.

ITERG is active in both the generation of environmental data and its integration into sector-specific databases.



### MEASURING AND QUANTIFYING IMPACTS

#### BI-BIOTECH:

##### Enriching LCA Data for Bioproduction

ITERG's LCA database is being expanded with new inventories dedicated to bioproduction processes.

As part of the BI-BIOTECH project, funded by the Carnot 3BCAR network, more than 30 Life Cycle Inventories (LCIs) have been developed to better represent the upstream (USP) and downstream (DSP) stages of lipase production by microorganisms such as *Aspergillus niger*, *Trichoderma reesei*, and *Bacillus licheniformis*.

This work improves the representativeness and accuracy of environmental assessments applied to industrial biotechnologies by incorporating process-specific data.

Contact: Lou Bernard, ITERG.

#### Environmental labeling & the InCyVie project

In 2025, ITERG confirmed its role as a key player in the development of environmental labeling for food products. As part of the national consultation on the calculation method, ITERG provided technical expertise to Terres Univia's contribution and coordinated the joint contribution of agricultural and agro-industrial technical institutes.

The InCyVie project collected data from 12 French oil mills to update LCA data representative of national production. This work strengthens the robustness of the AGRIBALYSE® database, the reference for the future environmental labeling system.

Contact: Cyntia Vialatte, ITERG.

*For this project, ITERG receives interprofessional contributions (CVO) from the vegetable oils and proteins sector.*



#### Key Points

ITERG strengthens LCA data, from bioproduction to their integration into sectoral databases

#### Results

More than 50 LCIs developed and data from 12 French oil mills.

#### Impact

More reliable environmental assessments to guide industrial decisions and structure environmental labeling for food products.



### BIOMATMECA: Bio-based polymers for the markets of tomorrow

In response to the need to reduce dependence on fossil fuels, ITERG is collaborating with the LCPO (Laboratory of Organic Polymer Chemistry in Bordeaux) to develop new bio-based polymers.

These materials are based on synthons derived from plant resources (notably lignin) and enable the design of novel semi-crystalline polymers: polyamides, polyesters, and isocyanate-free polyurethanes.

In-depth characterization allows for the establishment of robust structure–property relationships, which are essential for evaluating their mechanical performance, suitability for industrial processing, and recyclability.

Contact: Guillaume Chollet, ITERG.

**Key Points**  
ITERG is helping to develop bio-based polymers as alternatives to fossil-based materials.

**Results**  
New families of isocyanate-free semi-crystalline polymers.

**Impact**  
Durable materials designed to withstand industrial conditions.

### EstoLight-1E: a bio-based polymer for cosmetics

ITERG has developed EstoLight-1E, a bio-based polymer derived from fatty acids for pigmented cosmetic formulations.

Tests show improved pigment dispersion, reduced sedimentation, and enhanced emulsion stability, thanks to optimized interfacial interactions.

These performance benefits have been confirmed in real-world applications (sunscreens, pigmented formulations), with sensory advantages: ease of spreading, no white cast, and improved application comfort.

Contact: Didier Pintori, ITERG.

**Key Points**  
ITERG is developing a high-performance bio-based polymer to stabilize cosmetic formulations.

**Results**  
Effective at low concentrations (1–5%), with a significant reduction in sedimentation.

**Impact**  
A sustainable alternative that combines technical performance with sensory quality.

Results presented by Didier Pintori at the Lipids & Cosmetics Conference in Bordeaux January 28–29, 2026. Watch the recording: <https://iterg.com/estolight-replay/>



## LINKING TECHNICAL PERFORMANCE AND SENSORY PERCEPTION

### Cosmetic sensory analysis

The year 2025 marked a significant milestone with the operational structuring of cosmetic sensory analysis. An internal panel of 30 panelists was formed and trained, enabling the implementation of robust protocols, including triangular tests designed to distinguish subtle differences between formulations. This work identified significant differences between lipids and guided the optimization of several prototypes.

The creation of specific sensory descriptors, focused on lipid properties (spread, feel, residue), enriched the evaluation tools and better characterized perceived performance. These data provide direct support for internal development and technical arguments by offering sensory validation of measured performance.

**Contact:** Cécile Joseph, ITERG.



#### Key Points

ITERG is building an in-house capacity for cosmetic sensory analysis.

#### Results

Panel of 30 evaluators and discriminant protocols.

#### Impact

A stronger link between technical performance and user perception.



## HARNESSING PLANT RESOURCES

### Together, we are unlocking the full potential of the sunflower.

The ITERG-IMPROVE Group contributes to the development of sunflower proteins by leveraging its expertise in the lipid fraction. This approach improves the overall characterization of the raw material by integrating both protein and lipid properties, which are often studied separately. It thus paves the way for a better understanding of the interactions between fractions and their impact on applications.

By drawing on local and sustainable agriculture, this work contributes to the emergence of new opportunities for the industry, fostering the development of innovative, high-value-added ingredients.

This collaborative dynamic illustrates an integrated approach aimed at transforming plant resources into concrete solutions for industry.

**Contact:** Simone Scussat, IMPROVE.

#### Key Points

The Group is implementing an integrated protein/lipid approach to valorize sunflowers.

#### Results

Valorization of a sustainable local resource.

#### Impact

Development of new applications and creation of value for the sector.



## FACTORY OF THE FUTURE

Production tools are evolving to meet the challenges of performance, resource efficiency, and adaptation to new resources. The work being carried out has a tangible impact on processes and their management: integration of new biomass sources, optimization of operations, and development of digital approaches.

These efforts enable sustainable improvements in plant performance and enhance reliability in a changing industrial landscape.



### EXTRACTION OF BIOTECHNOLOGY-DERIVED OILS

#### Adapting processes to new types of biomass

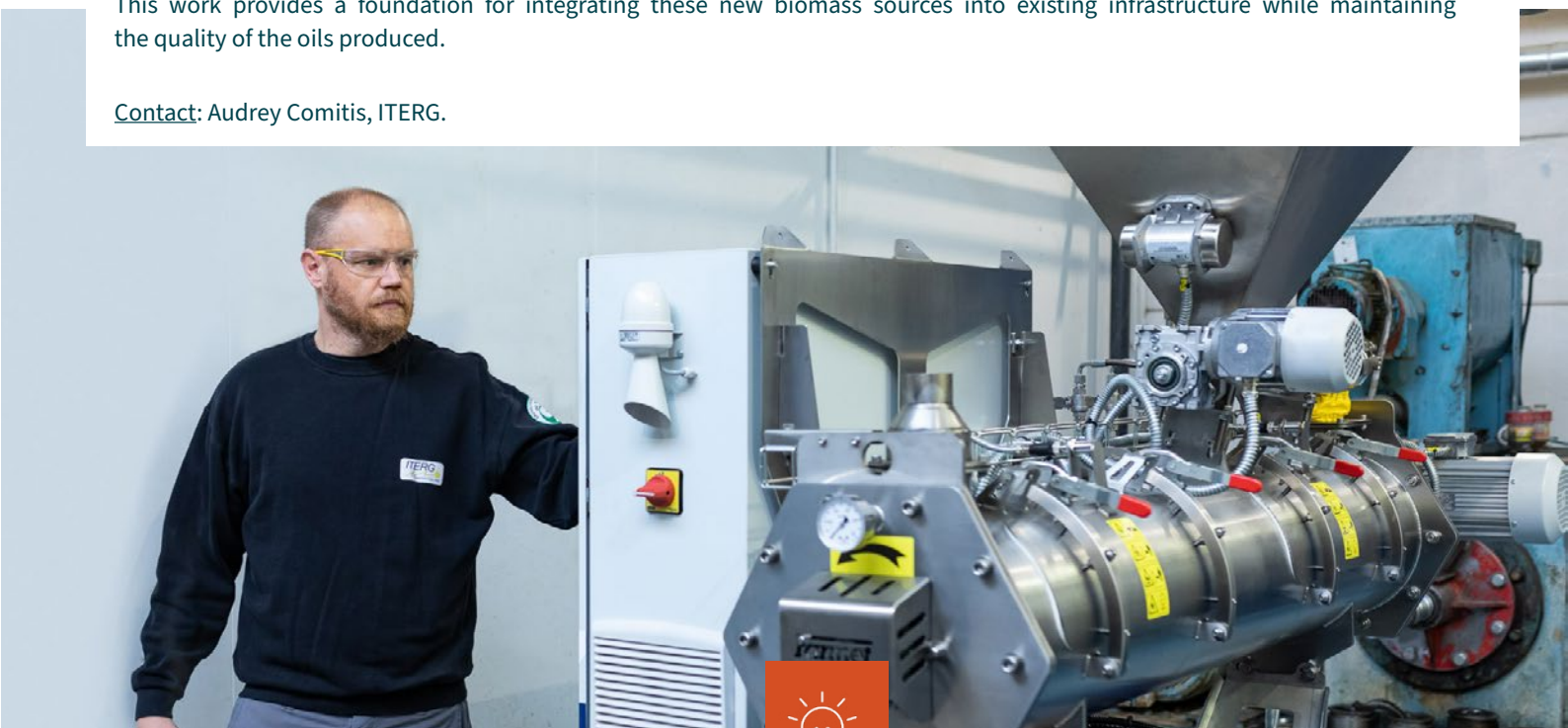
Biomass derived from biotechnology is attracting growing interest due to its lipid profiles and physicochemical properties, which are attractive to the food, oleochemical, and specialty applications sectors.

However, these matrices have specific characteristics (morphology, high lipid content) that differ from conventional oilseeds, creating new challenges for processing methods.

ITERG has conducted research aimed at adapting mechanical extraction processes by focusing on two key stages: raw material preparation and pressing conditions. Adjusting parameters such as composition, moisture content, or operating conditions proved critical to achieving satisfactory yields.

This work provides a foundation for integrating these new biomass sources into existing infrastructure while maintaining the quality of the oils produced.

**Contact:** Audrey Comitis, ITERG.



#### Key Points

Adapting extraction processes to biotechnology-derived biomass.

#### Results

Optimization of preparation and pressing parameters.

#### Impact

Integration of new resources without compromising performance or quality.

Presentation by Didier Pintori at the AOCs conference in New Orleans on May 5, 2026: <https://bit.ly/4cmD0pj>





**| Accelerating the Digitalization of Processes for a More Efficient and Sustainable Industry**

OLEODIGIT is an ambitious program dedicated to developing digital twins for the oilseed and protein crop sector. Led by the Actia UMT, it is based on a three-way partnership between ITERG, the IMS (Integration of Materials into Systems) laboratory, and Terres Inovia.

The goal is to digitize and optimize the extraction and processing of vegetable oils and proteins, in order to provide manufacturers with next-generation predictive tools.

In a context marked by the challenges of decarbonization, industrial efficiency, and protein sovereignty, the sector must now strengthen its control over its processes. Historically based on empirical know-how, these practices are now evolving toward data-driven approaches.

OLEODIGIT is part of this transformation by leveraging digital technologies, particularly artificial intelligence and digital twins.

The project is based on structuring databases derived from sensors deployed on key processes (seed preparation, mechanical extraction, deodorization), enabling the modeling of the physicochemical phenomena at play.

These models will enable the development of decision-support tools and the creation of digital twins capable of simulating and optimizing processes based on multiple criteria: product quality, economic performance, and environmental impact.

Ultimately, this approach will transform ITERG's pilot plants into true industrial demonstrators and support the sector in moving toward an oil mill of the future that is more efficient, sustainable, and competitive.

**Contact:** Boris Bizet, ITERG.

*For this project, ITERG receives interprofessional contributions (CVO) from the vegetable oils and proteins sector.*

For more information: <https://bit.ly/3PSIO2f>



**Key Points**  
Development of a digital twin to model and control oil mill processes.

**Results**  
Structuring of sensor-based databases and development of models integrating AI and physicochemical phenomena.

**Impact**  
Predictive processes to optimize quality, performance, and environmental impact.



# HIGHLIGHTS OF 2025



JANUARY

**JANUARY 22, 2025 - AOCSS Session (Webinar)**  
Frédéric Baudouin (IMPROVE)



FEBRUARY

**FEBRUARY 4-6, 2025 - 3BCAR Researchers Seminar**  
Cécile Joseph (ITERG) - Toulouse

**FEBRUARY 6, 2025 - Agri Sud-Ouest Innovation**  
Hugues Griffon (ITERG)

**FEBRUARY 2025 - New ACTIA OLEODIGIT UMT**



MARCH

**MARCH 13, 2025 - ANIA - ECOVAL RMT**

Fabrice Bosque (ITERG), ECOVAL RMT coordinator

**MARCH 25, 2025 - GIRACT**

Marwa Kadi (IMPROVE)

**MARCH 24, 2025 - Bioeconomy for Change (B4C): digestibility applied to animal feed**

Carole Vaysse (ITERG)

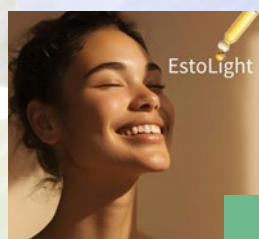


APRIL

**APRIL 16, 2025 - INNO'VIN, Cosmetic Valley, ALLISNA, POLYMERIS, and SOLTENA (Bordeaux)**  
Marie Reulier (ITERG)

**APRIL 27-30, 2025 - AOCSS Annual Meeting**

Frédéric Baudouin (IMPROVE) - United States



MAY

**MAY 12-13, 2025 - ISGC: International Symposium on Green Chemistry (La Rochelle)**

Boris Bizet (ITERG) - Cécile Joeph (ITERG)

**MAY 12-13, 2025 - ITERG hosts MP**

Sébastien Saint-Pasteur

**MAY 2025 - EstoLight: ITERG opens a new chapter in the cosmetics market**

Didier Pintori



JUNE

**JUNE 3-5, 2025 - BRIDGE2FOOD (The Hague, Netherlands)** Amadou Sidibe (IMPROVE)

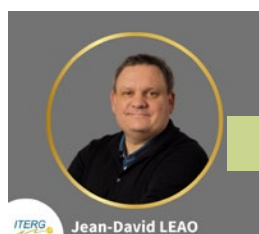
**JUNE 18-19, 2025 - CT AGIR: INNO'SWEET**

Rose Gazeau (ITERG/CNRS PhD student) - Bordeaux

**JUNE 2025 - New ITERG Director**

Jean-David Leao

**JUNE 2025 - ITERG publishes its first CSR report**





JULY

AUGUST

SEPTEMBER

OCTOBER

NOVEMBER

DECEMBER

**SEPTEMBER 17–19, 2025 – VITAFOODS ASIA (Bangkok)**  
Jean-David Leao (ITERG), Denis Chereau, and Frédéric Bredon (IMPROVE)

**30 TECH DAY: Accelerating Innovation in Biotechnology: Keys to Scale-up (Pomacle)**  
Didier Pintori (ITERG)

**OCTOBER 20–22, 2025 - ABIM Conference (Annual Biocontrol Industry Meeting) - (Switzerland)**  
Cécile Joseph (ITERG)

**OCTOBER 21–23, 2025 - BRIDGE2FOOD (Minneapolis)** Frédéric Baudouin (IMPROVE)

**OCTOBER 25–26, 2025 - Pink October (Bordeaux)**

**OCTOBER 2025 - New website: ITERG Group – IMPROVE**

**OCTOBER 2025 - New Director at IMPROVE: Frédéric Bredon**

**NOVEMBER 6–7, 2025 - Chevreur Days**  
Carole Vaysse (ITERG)

**NOVEMBER 18–19, 2025 - Life Cycle Management (LCM) Conference – (Bordeaux)**  
Lou Bernard (ITERG)

**NOVEMBER 26, 2025 - OLEOPRO Meetings (Montrouge)**  
Jean-David Leao (ITERG)

**NOVEMBER 2025 - 20th Anniversary of the Oilseed and Protein Crop Monitoring Plan (PSO)**  
Led by Terres Univia, Terres Inovia, ITERG

**DECEMBER 2–4, 2025 - FOOD INGREDIENTS EUROPE (FIE)**  
Jean-David Leao – Laura Brunsart – Patrick le Runigo (ITERG)

**DECEMBER 17, 2025 - Appointment of the new President of ITERG and IMPROVE Paul-Joël Derian**





04

# TRANSFER & VALUE

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SHARING KNOWLEDGE, CREATING VALUE

**+53 %**

---

growth in  
international business

**20**

---

conference  
presentations

**8**

---

new services

**30+**

---

partner countries/  
clients



# MA

Transferring and leveraging knowledge means taking it out of the laboratory and making it useful to businesses and industries.

The Group operates through a range of complementary initiatives: pilot testing, auditing, consulting, training, skills development, and support for industrialization.

At the same time, knowledge circulates. It is exchanged, shared, and tested through collaborations, publications, events, and scientific and professional networks, both in France and internationally.

It is within this dynamic, between supporting stakeholders and disseminating knowledge, that the Group builds its impact in service of industries and economic actors.

To structure this implementation, the Group relies on a set of platforms and facilities that enable it to operate at various scales, from initial trials to industrial validation.

At each stage, the work delivers concrete results for manufacturers: validating feasibility, producing initial volumes, mastering key parameters, and providing reliable data to guide decision-making.

- 
- 4.1 Deploying solutions for industry
  - 4.2 Supporting stakeholders and projects
  - 4.3 Sharing knowledge
  - 4.4 Making an impact through science and expertise
-

# 4.1

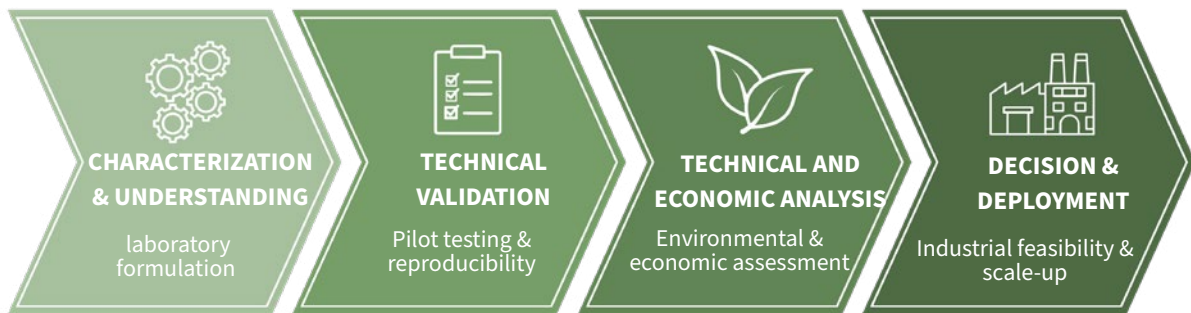
## DEPLOYING SOLUTIONS FOR INDUSTRY

### FROM LAB TO FACTORY: BRINGING INNOVATION TO LIFE

Deploying solutions for industry means transforming innovation into concrete applications. Through its technology platforms, the Group operates at various scales, from initial trials to industrial validation, to ensure process reliability, control key parameters, and reduce risks associated with market launch.

From proof of concept to industrialization, this approach enables bio-based innovations to be integrated into robust industrial pathways.

#### From data to industrial decision-making



#### Platforms for Innovation



**6 PLATFORMS**  
for experimentation, validation,  
and industrialization

- Analytics & functional/sensory performance Canéjan Dury
- Application-specific formulation using oils and proteins Canéjan Dury
- Dry/wet extraction and protein functionalization Dury
- Health Nutrition Canéjan
- Plant Chemistry Canéjan
- Oil extraction and refining Canéjan

## STRENGTHENING PILOT FACILITIES TO ACCELERATE INDUSTRIAL TRANSFER

### New pilot skid at ITERG's pilot plant

As part of its efforts to strengthen its capabilities in plant chemistry and lipochemistry, ITERG acquired a new pilot skid in 2025. This strategic investment enhances the existing platform and addresses the growing needs for process development, optimization, and scale-up.

This skid consists of several glass-lined units, offering excellent chemical compatibility and direct visualization of operations. The units can operate independently, in parallel, or in series, providing great experimental flexibility. The entire system is temperature-controlled and designed to operate under vacuum, allowing for precise control of operating parameters (temperature, pressure, residence time).

#### Available equipment:

- a 50L double-jacketed decanter,
- two double-jacketed reactors (5L and 50L),
- a 25-L temperature-controlled closed filter equipped with a filter bottom
- a washing column,



#### Applications and Prospects

This new facility enables the implementation of a wide variety of processes, including:

- chemical and lipochemical synthesis,
- filtration and purification,
- extraction,
- crystallization,
- concentration, and product finishing steps.

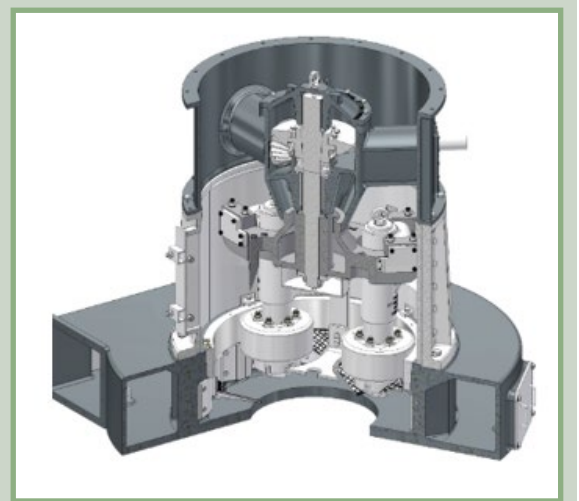
With this acquisition, the pilot platform consolidates its technological expertise, enhances its ability to support applied R&D projects, and paves the way for an expanded service offering, ranging from proof of concept to pre-industrial pilot testing.

### Installation of a POITTEMILL pendulum mill at IMPROVE

The installation of a pendulum mill has enabled the integration of innovative grinding technology dedicated to the processing of raw materials.

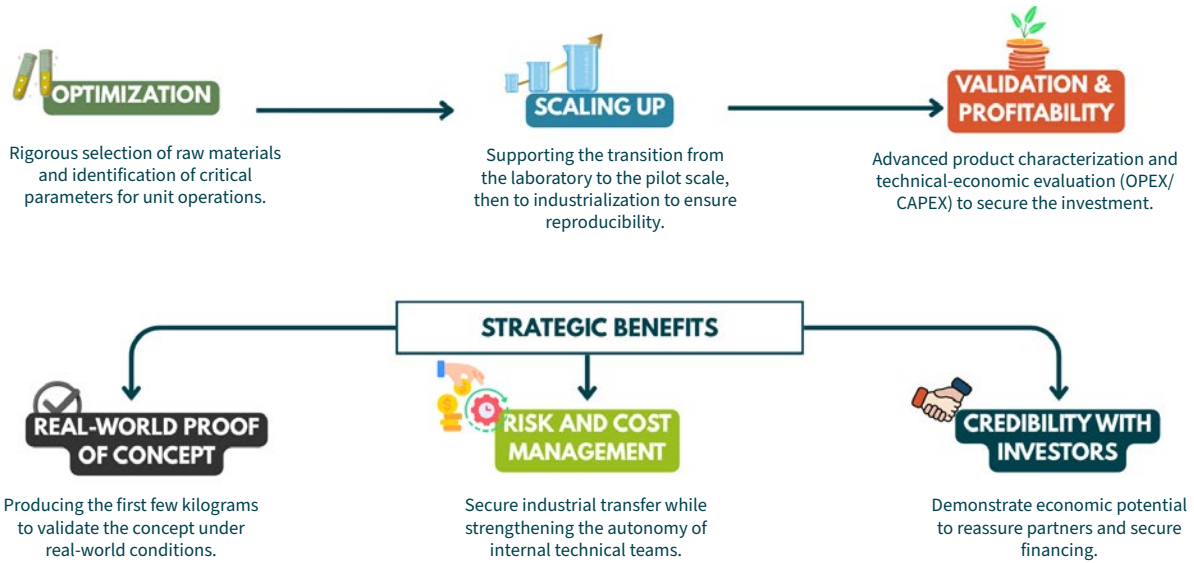
This initiative aims to strengthen experimental capabilities and explore new avenues for resource recovery, while optimizing grinding performance and the energy efficiency of processes.

These investments reinforce the Group's ability to develop, test, and transfer industrial solutions.



## SECURING PROCESSES AND INFORMING DECISIONS

Producing initial batches, validating performance, and demonstrating economic viability: the Group provides manufacturers with the necessary tools to secure their projects and win over their partners.



In 2025, this methodology enabled the Group to support companies of all sizes—start-ups, SMEs, mid-market companies, and large corporations—in projects to structure, optimize, or diversify their processes.

Technology transfer thus becomes a strategic lever: it accelerates time-to-market, strengthens competitiveness, and prepares for industrial transitions.

## 4.2 SUPPORTING STAKEHOLDERS AND PROJECTS

Supporting stakeholders and projects means providing structured assistance at every stage of development, from defining needs to operational implementation.

The Group draws on complementary areas of expertise—auditing, consulting, and training—to tailor solutions to the specific contexts of each business.

### AUDIT AND CONSULTING

Audit and consulting services enable us to analyze situations, identify areas for improvement, and develop operational solutions.

These services include:

- analysis of existing processes and identification of critical points,
- evaluation of technological scenarios (process evolution, solvent conversion, equipment adaptation),
- support for industrialization and scaling up,
- characterization and control of processes and products;
- technical and economic evaluation.

These services provide companies with concrete information to guide their decisions, secure their investments, and accelerate the implementation of their projects.

In 2025, audits focused in particular on:

- supporting the transition from a hexane-based extraction process to an ethanol-based one, with a view to ensuring regulatory compliance and moving toward more sustainable solutions,
- follow-up on an audit conducted in 2024 regarding biodiesel processing, to consolidate technical recommendations and optimize process performance,
- frying processes for various products.

Through these projects, ITERG demonstrates its ability to work on a wide range of industrial processes, adapting to the equipment, raw materials, and specific constraints of each site.

Contact: Didier Pintori, ITERG.

## FOCUS ON FRYING AUDITS

### Mastering the complexity of processes to improve performance

#### → Audits tailored to the diversity of processes

In 2025, ITERG conducted frying audits on a variety of products—meat, seafood, and grain-based items. This diversity of matrices (composition, moisture content, thermal behavior) requires diagnostics tailored to each production line, taking into account raw materials, operating conditions, and equipment.

#### → Better control of frying parameters

Frying processes rely on complex interactions. Mastering these processes helps limit common issues: oil degradation, deterioration of sensory qualities, excessive oil consumption, and equipment fouling.

#### → Tangible benefits for manufacturers

- improved product quality and consistency,
- reduced oil consumption,
- extended service life of frying oil baths,
- better risk management and compliance,
- support for teams in implementing best practices.

#### → Operational support

The frying audit is a practical tool for analyzing, adjusting, and improving the reliability of processes, closely aligned with industrial realities.



Learn more: <https://iterg.com/audits-friture-iterg/>



## TRAIN, SUPPORT, PROFESSIONALIZE

Training has long been a cornerstone of ITERG’s mission.

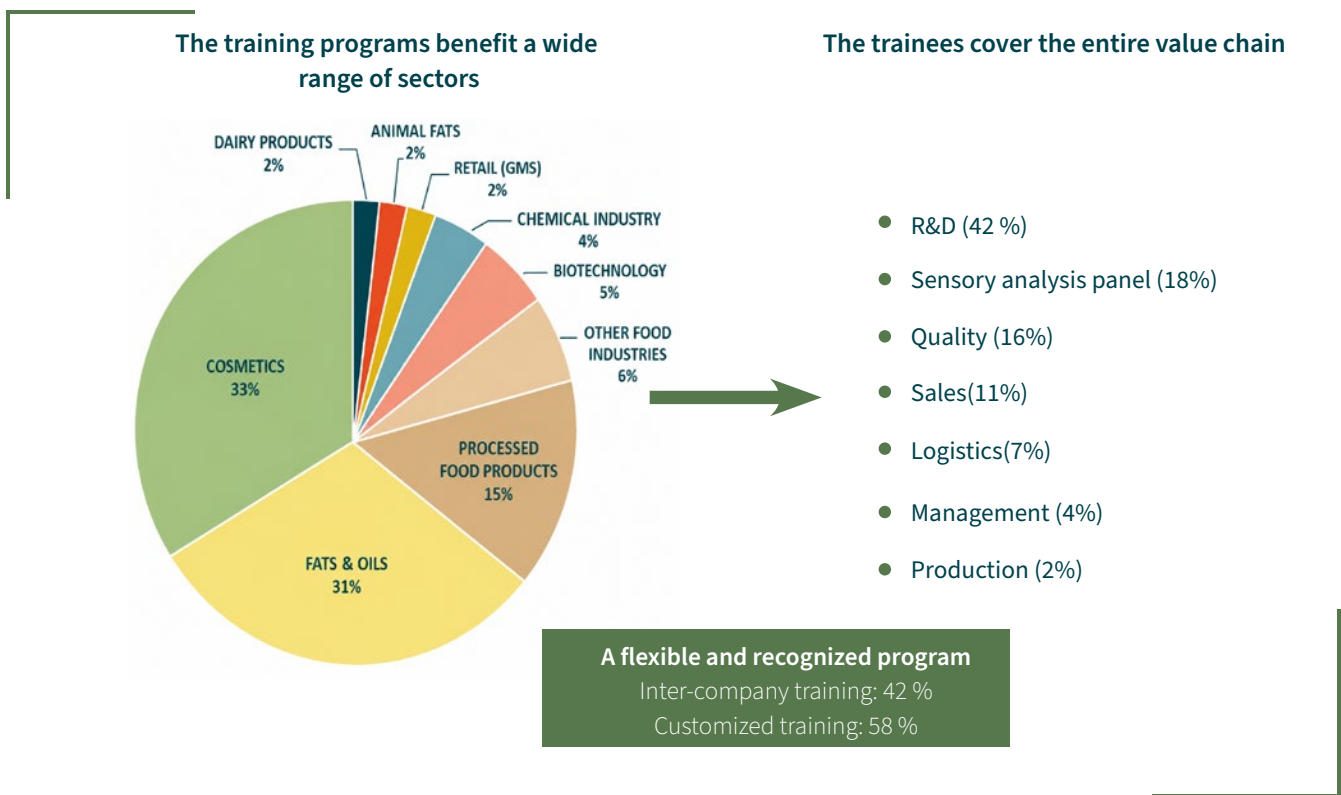
It extends technology transfer by enabling companies to sustainably acquire knowledge and strengthen their mastery of processes related to vegetable oils and proteins.

In 2025, the arrival of a new training manager helped further structure the program and align it more closely with the needs of industry.

The Group’s training activities rely on a team of about **twenty trainers** to support professionals from various sectors. This diversity of expertise allows us to offer training tailored to the specific challenges of the industry sectors and the varied profiles of participants.

### A Recognized and Certified Program

The renewal of Qualiopi certification (2025–2028) confirms the quality of the training program and the structure of the training processes.



### A flexible program tailored to specific needs

Our training offering is characterized by its flexibility:

- open enrollment courses (42%)
- customized training (58%)

This structure allows us to adapt content, formats, and teaching methods to the specific needs of companies.

### Training thus serves as a key driver for:

- strengthening technical skills,
- disseminating best practices,
- supporting process evolution,
- and bolstering business competitiveness.

Contact: Marianne Trichard, ITERG.




Learn more about our training programs: <https://iterg.com/formations/>

## INNOVATING IN SERVICES AND EXPERTISE


In 2025, the Group is strengthening and expanding its expertise to meet the emerging needs of industries and businesses.

These new capabilities, which can be directly applied to projects, aim to provide concrete solutions to challenges in formulation, characterization, analysis, and environmental assessment, in line with requirements for performance, sustainability, and market launch




**Developing and refining formulations**

- “Professional” formulation prototypes, designed to closely mirror industrial conditions and market expectations,
- cosmetic panel, incorporating sensory evaluation from the early stages of development.




**Characterizing nutritional & biological performance**

- analysis of lipoxygenase activity in legumes,
- measurement of LPL activity in milk,
- assay of ceramides for nutritional and cosmetic applications,
- assay of carotenoids in milk.



**Analyze and quantify**

- Amino acid analysis in various matrices (plasma, digestates, etc.).



**Assess environmental impacts**

- Bilan Carbone® (version 9), incorporating the latest methodological developments.

## 4.4 EXCELLENCE THROUGH SCIENCE AND EXPERTISE

Excellence is not merely about visibility.

It involves disseminating knowledge, fostering dialogue, and exerting a lasting influence to benefit the sectors.

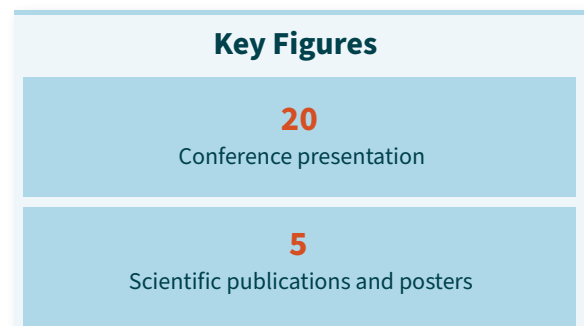
In 2025, the Group consolidated its position as a leading player by combining scientific output, international presence, enhanced communication, and institutional recognition.

### SCIENTIFIC COMMUNICATION

In 2025, the Group strengthened its presence in key scientific and technical forums, both in France and internationally.

Through its publications and presentations, the Group:

- contributes to the advancement of knowledge,
- disseminates robust and validated results,
- fosters dialogue between research and industry,
- consolidates its position as a leading scientific player.



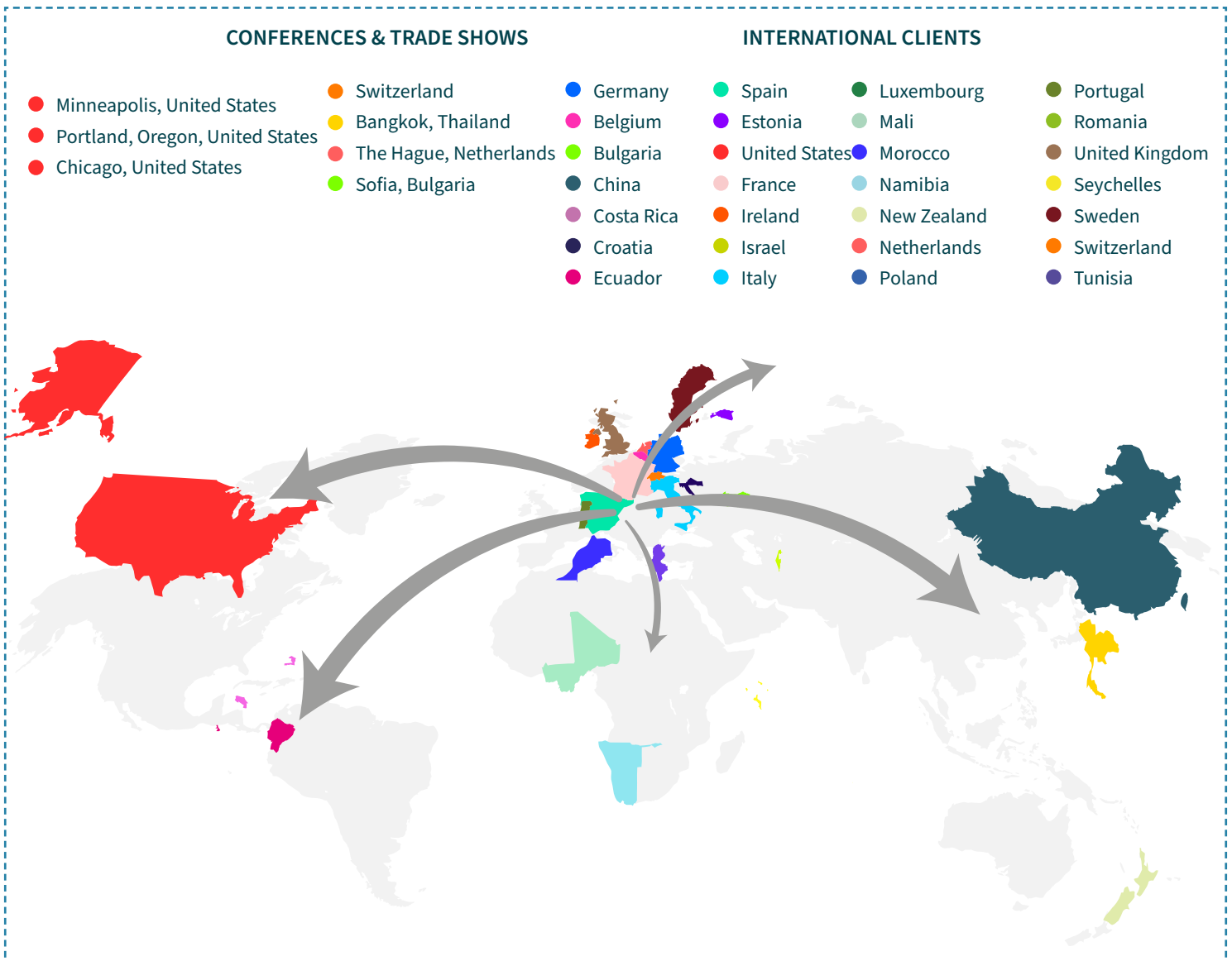
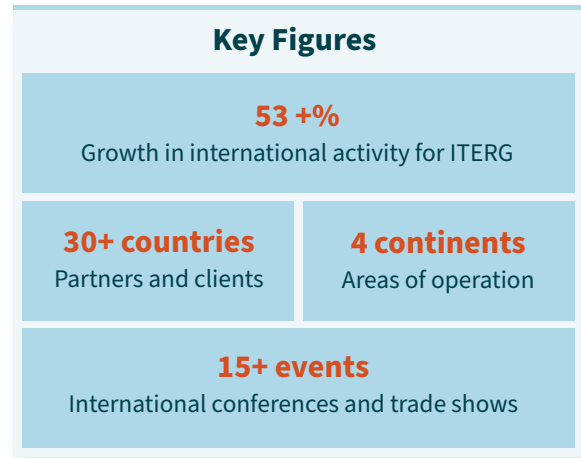
## RAPIDLY GROWING INTERNATIONAL PRESENCE

The ITERG-IMPROVE Group's international presence is driven by both scientific and economic factors.

With a presence on four continents, the Group operates in a variety of environments, ranging from European markets to high-growth regions in the Americas, Africa, and Asia.

Europe serves as a solid foundation from which international collaborations and activities are deployed. This presence is reflected in particular by active participation in major scientific conferences, helping to disseminate the Group's expertise and support the evolution of bio-based industries on a global scale.

By 2025, this momentum will result in significant growth in international business (+53% for ITERG), driven by diversification across markets and partners.



## ENHANCING VISIBILITY AND INFLUENCE

In 2025, the Group strengthened its communications efforts to increase clarity and impact among its stakeholders.

This initiative resulted in:

Launch of the new joint ITERG-IMPROVE visual identity guidelines.

Standardization of communication materials (reports, presentations, newsletters).

Subscribe to our newsletter!

Launch of new websites.



### Recognition from public stakeholders

The Group's influence is also reflected in increased recognition among institutional and economic stakeholders.

In this regard, ITERG welcomed MP Sébastien Saint-Pasteur to its premises, where he met with the teams and learned about the Institute's activities, alongside Marie-Sabine Gavois, Secretary General of the CTI Network.

This visit highlighted the role of Industrial Technical Centers in innovation and supporting industry sectors, working closely with industrial realities.

### A recognized commitment to serving industry

At the end of this visit, the MP praised the expertise that directly benefits businesses and ITERG's contribution to transforming innovations into concrete solutions.

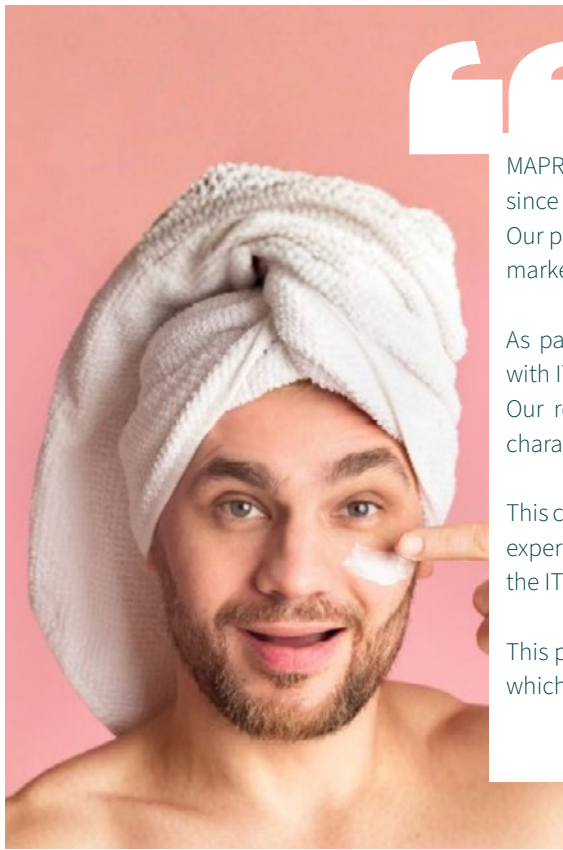


“Reindustrializing France isn’t just a slogan. It means supporting organizations like ITERG that innovate, provide support, and experiment. They are the ones making a difference.”

# TESTIMONIALS



# TESTIMONIALS



MAPRECOS has been the exclusive distributor of cosmetic raw materials in the French market since 1978.

Our product range, which combines colorants and skincare actives, enables us to respond to market developments and trends.

As part of the development and positioning of the EstoLight-1E material, we collaborated with ITERG to evaluate its potential as a dispersant.

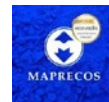
Our respective teams conducted comparative laboratory tests to identify its performance characteristics and areas of application.

This collaboration proved particularly constructive, thanks to the complementary nature of our expertise and the quality of our exchanges throughout the project. We particularly appreciated the ITERG teams' commitment to this diversification initiative, as well as their adaptability.

This partnership also provided an opportunity to strengthen local collaboration, an aspect to which we are particularly committed.



**MAPRECOS SAS**  
**Pauline EDORH TOSSA**  
Technical Sales Engineer



I had the opportunity to collaborate with ITERG on a project to evaluate raw materials, with the goal of testing their performance, understanding their specific characteristics, and positioning them relative to market benchmarks. What I particularly appreciate about working with ITERG is their highly scientific and structured approach.

The teams know how to ask the right questions, develop relevant protocols, and analyze results with great rigor. This allows us to look beyond marketing hype to truly understand the strengths and limitations of a raw material.

Communication has always been straightforward, direct, and constructive, making the work both efficient and enjoyable. This collaboration has allowed us to clearly identify the key areas for leveraging the materials studied and to better guide their development in their target markets.



**COSMOYA**  
**Marie-Odile HECHT**  
CEO





Verley is a biotechnology company specializing in the production of dairy proteins using precision fermentation. Our mission is to develop functional and sustainable protein ingredients for the food industry.

Four ingredients are currently under development at Verley: FermWhey Native, FermWhey Native 100, FermWhey MicroStab, and FermWhey Gel. These proteins are designed to integrate easily into existing dairy product lines, providing advanced functionalities in terms of taste, texture, and nutritional quality—essential for industrial applications.

In this context, our collaboration with ITERG’s Nutrition-Life Sciences Team has enabled us to validate the digestibility of our ingredients and their ability to replicate the nutritional benefits of conventional dairy products. Thanks to their analytical platform, we were able to precisely characterize proteolysis during the gastric phase and throughout digestion, as well as calculate key indicators such as IVPDCAAS, in order to assess the nutritional quality of our proteins.

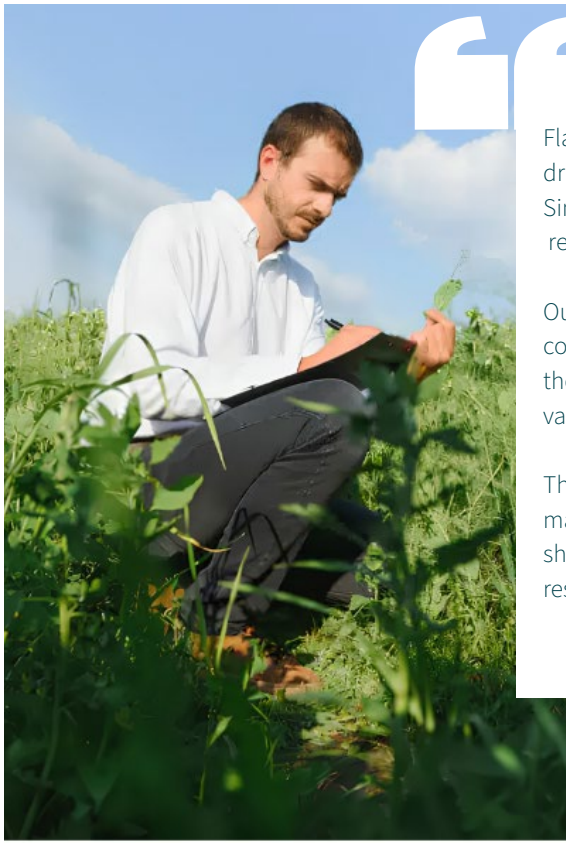
This collaboration is strategic for Verley: it allows us to better characterize our products, optimize our production processes, and strengthen the scientific robustness of our approach in a constantly evolving market.



**VERLEY**  
**Gessica SILVEIRA**  
Head of SRC TEAM



**VERLEY**  
**Batoul SROUR**  
Senior Scientist



FlavaPulse transforms yellow peas into natural and functional ingredients, driven by a strong commitment to helping build a more sustainable food system. Since our founding, we have prioritized environmentally friendly production and responsible processing technologies.

Our long-standing collaboration with IMPROVE, a subsidiary of the ITERG Group, continues to play a strategic role in our development. Beyond process optimization, the recent exploratory life cycle analysis conducted by the ITERG team has provided valuable insights into the environmental footprint of our ingredients.

This work strengthens our sustainability roadmap and supports data-driven decision-making as we scale up our production. Together, we combine technical expertise and shared values to develop the next generation of protein-rich ingredients, produced through responsible and innovative processes.



**FLAVAPULSE**  
**Martin ROUSSEV**  
CEO



# APPENDICES

# ITERG SCIENTIFIC COMMITTEE

as of 17 Dec 2025

## PRESIDENT

**M. Olivier GALET**, Head of R&I Proteins, AVRIL Group

## REPRESENTATIVE OF THE PUBLIC AUTHORITIES

**Mme Maud IACOMELLI**, Ministry of Agriculture and Food, DGPE/SDFE/SDFA/BGC

**Mme Laure GRISAT**, Deputy Director of Chemistry, Materials and Eco-industries, Ministry of Economy and Finance - DGE

**M. François-Xavier TURQUET**, Project Manager biosourced chemistry and industrial biotechnologies, Ministry of Economy and Finance – DGE

## INDUSTRIAL MEMBERS

**M. Pieter VANDENBEMPT**, Innovation Projects and Portfolio Manager – Ag & Trading EMEA, CARGILL

**Mme Anne CHIVARD**, QSE Manager, La Tourangelle

**M. Edouard CASALA**, Head of Regulatory and Scientific Affairs, BUNGE

**M. Jean-Pierre LALLIER**, Head of Monitoring & External Relations Innovation, OLEON

**Mme Béatrice LEMOIS**, Quality R&D Director St HUBERT

**M. Frédéric CELHAY**, R&D Manager, LESIEUR

**Mme Julia RONNET**, R&D Development Manager, ADM SIO

**M. Maxime DEPUYDT**, Quality Director, SAIPOL

**Mme Amandine HENNOUQ**, Quality Manager R&D and Laboratory, DAUDRUY

## PROFESSIONAL BODIES

**M. Hubert BOCQUELET**, General Delegate, FEDALIM, FNCG, SYFAB

**Mme Elodie TORMO**, Head of Innovation and Monitoring, TERRES UNIVIA

## COMPETENT PERSONALITIES

**M. Frédéric FINE**, Director Oilseed Development, TERRES INOVIA

**M. Michel LAGARDE**, Emeritus Professor, INSA Lyon

**M. Didier MAJOU**, Director, ACTIA

**Mme Marie-Caroline MICHALSKI**, Research Director, INRAE, GIS IMBL

**M. Pierre VILLENEUVE**, CIRAD Research Officer

**M. Stéphane WALRAND**, University Professor - PH Université Clermont Auvergne and CHU Gabriel Montpied-UNH

**M. Frédéric CARRIERE**, Research Director, CNRS

**M. Frédéric BAUDOUIN**, Laboratory Manager, IMPROVE

## PERMANENT GUESTS

**Mme Anaïs BOEGLIN**, Regulatory and Scientific Affairs Manager – Nutrition, FNCG

**Mme Isabelle CHASSEDEIU**, Regulatory and Scientific Affairs Manager - Labeling, FNCG

**M. Tofike CHRIFI**, Regulatory and Scientific Affairs Manager - Contaminants / Environment, FNCG

**M. Yves DELAINE**, President, fncg, improve, iterg

**Mme Anne LE GUILLOU**, lipids senior team leader, r&i advanced techno ingredients team, danone – president of sfel

**M. Patrick CARRE**, oils, oilseed and pulses processing, terres inovia

## ANALYSIS

### Oral Presentations

**Mineral Oil Contamination (MOSH and MOAH): Understanding and Managing Risks in Vegetable Oil Production**  
Agri Sud-Ouest Innovation Webinar - February 6, 2025 - H. Griffon - ITERG

### Poster

**Development by collaborative study of 6 standardized methods for determination of protein, fat, sugars, mass loss after drying, and ash**  
AOAC, San Diego, California 2025 – 23./28. August 2025 – L. Lagardère – ITERG

## PLANT CHEMISTRY

### Publications

**Oligomers derived from vegetable oils: the PRIC range – 15 years of development at ITERG leading to successful industrialization**

IAA, January–February 2025 - G. Chollet

**Reductive Amination of Oligoxylans with Fatty Amide-Amines: Comparison of Picoline-Borane and Sodium Cyanoborohydride as Reductive Agents and Influence of the Synthetic Route on Surface Activity and Self-Assembly**

Industrial & Engineering Chemistry Research, Vol 64, n° 43, 2025 - M. Carré, M. Reulier, G. Chollet, B. Bizet, F. Ham-Pichavant, S. Grelier, H. Cramail

**Semi-Crystalline and Recyclable Pressure Sensitive Adhesives from Non Edible Rapeseed Oil-based Hyperbranched Polyester Vitrimers**

RSC Sustainability, 2025 - V. Ayzac, B. Bizet, M. Reulier, G. Chollet, C. Le Coz, E. Grau, H. Cramail

### Oral Presentations

**PRICEPOX Polyricinoleic acids (PRIC) functionalized via the synthesis of epoxidized synthons – Synthesis & Valorization**

3BCAR Plant2pro Researchers' Seminar, February 4–6, 2025, Toulouse - February 4, 2025 - B. Bizet - ITERG

**Vegetable oil-based hyperbranched materials – Synthesis and derivatization towards new properties**

ISGC, La Rochelle, May 12–16, 2025 – May 13, 2025 – B. Bizet – ITERG

## ENVIRONMENT AND SAFETY

### Oral Presentations

**Environmental labeling of food products: incorporating packaging into ECOBALYSE. What improvements are possible thanks to the PACK-AGB project?**

ADEME Webinar, September 19, 2025 - September 19, 2025 - C. Vialatte - ITERG

**How to Balance Quality, Local Roots, and Environmental Performance in Food Industry Sectors Under SIQO? - Lessons Learned from an Exemplary Eco-Design Approach**

ECOQUALINA Webinar, May 15, 2025 - May 15, 2025 - F. Bosque - ITERG

**Environmental Labeling of Food Products**

ANIA Webinar, March 13, 2025 - March 13, 2025 - F. Bosque - ITERG

**Contribution to improving packaging in the database Agribalyse@3.2**

PACK-AGB FOCUS WEBINAR, February 14, 2025 - C. Vialatte - ITERG

**Incorporating packaging recycling into product environmental assessments: the pack\_agb project as an example**

Cosmetic Environnement & Safety, July 1, 2025 - July 1, 2025 - C. vialatte - iterg

## FORMULATION

### Oral Presentations

**New amphiphilic structures from vegetable oil and properties evaluation**

ISGC, La Rochelle – May 12–16, 2025 – May 12, 2025 – C. Joseph – ITERG

**New amphiphilic structures derived from vegetable oil and evaluation of their properties (also presented at the ISGC Congress in La Rochelle, May 2025)**

Formula XII Congress, Sofia, June 16–18, 2025 – June 18, 2025 – C. Joseph – ITERG

**Alternative proteins: what choices are available between process, functionality and nutrition?**

GIRACT Webinar, March 25, 2025 - Mr. Kadi - IMPROVE

**how can the composition of plant-based proteins influence the stability and rheology of food formulations?**

INNO'SWEET, June 18–19, 2025 – The results presented may not be reproduced or reused without the permission of CRPP and ITERG – June 18, 2025 – R. Gazeau – ITERG

### Poster

**FORMULBIO: Development of bio-based solutions formulated with essential oils for weed management**

3BCAR Plant2Pro Research Seminar, February 4–6, 2025 – Toulouse – C. Joseph – ITERG

## NUTRITION

### Oral Presentations

**Impact of Lipids on Protein Digestibility in Oilseed Protein Ingredients**

Chevreul Days, November 6–7, 2025 – November 7, 2025 – C. Vaysse – ITERG

**In vitro Models of Lipid and Protein Digestibility—Relevance to Animal Nutrition**

B4C Webinar on Digestibility in Animal Nutrition, March 24, 2025—C. Vaysse—ITERG

## PROTEINS

### Oral Presentations

**Plant-based, insects, single-cell organisms, precision fermentation... what are the emerging sources of proteins?**

AOCS Inform Seminar - January 22, 2025 - F Baudouin - IMPROVE

**How to better valorise sustainable proteins and by-products?**

Bridge2Food North America, October 21–23, 2025 – October 22, 2025 – F Baudouin – IMPROVE

**Sustainable proteins: from extraction to applications**

Sustainable Proteins Day, December 5, 2025 - December 5, 2025 - F Baudouin - IMPROVE

## PRODUCT QUALITY AND SAFETY

### Oral Presentations

**Oxidation is destroying plant protein quality: this is how to prevent it**

Bridge2Food Europe, The Hague, June 3–5, 2025 - June 4, 2025 - A. Sidibé - IMPROVE

## TECHNOLOGY

### Oral Presentations

**Adaptation of mechanical extraction processes on biomass matrices**

Bioket, Brussels, March 11–13, 2025 – March 12, 2025 – A. Comitis – ITERG

**Adapting Conventional Oil Extraction Processes to Biotechnology-Derived Biomass?**

Tech Day, September 30, 2025, Pomacle - September 30, 2025 - D. Pintori - ITERG

### Publications

**Sunflower achene hulling ability: impact of water availability and genetic**

P. Carré, L. Gervais, M. Coque, J.P. Loison, V. Jauvion - OCL, Vol. 32, 2025

# EXECUTIVE TEAM AND OPERATIONAL LEADS

## GOUVERNANCE



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# FOR A HEALTHIER AND MORE SUSTAINABLE WORLD WITH VEGETABLE OILS AND PROTEINS

## INTEGRATED ANNUAL REPORT 2025



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