

T H E B E S T O F



PRODUCE ▸ DESIGN ▸ IMPROVE ▸ ORGANIZE

A WORLD IN TRANSITION

PARTNERSHIPS



IMT Mines Albi is future-oriented and committed to placing industry and companies at the heart of school activities. Through dynamic cooperative initiatives, the school places an emphasis on collaboration and contributes to strengthening the territorial network on a local, national and international levels.

► New professional opportunity for student placements in companies

As part of the educational reform implemented in 2021, the student pathway option is now offered from the second year of the engineering program. This makes the program more competitive. It offers companies the opportunity to host students in the second and third years on work/study programs, for more professional experience.

► The "Innov'athon": from research to the industrial market

During the "Innov'athon", the three research and training centers exposed students to technological innovations with industrial applications. This was an opportunity for them to test the possibilities for technology transfer and commercialization of their research. The range of solutions and topics presented attracted around fifty students, ready to take up the challenge. One of the most notable projects presented was from incubated start-up KITOZ, relating to solar energy transformation.

► More international opportunities with Campus France

This year, accompanied by Campus France, the school strengthened its connections with Malaysia and Nigeria. Two scholarship students from the Nigerian Petroleum Technology Development Fund began their PhD at the RAPSODEE center. The school also joined the consortium of French Grandes Ecoles and welcomed Malaysian students from Universiti Kuala Lumpur, supported by the travel agency MARA.

► 1st edition of Research Day

IMT Mines Albi organized a day dedicated to research and collaborative innovation for its three research and training centers. Over 70 private partners and local authorities participated in a rich, comprehensive program, showcasing various kinds of collaboration in digital technology applied to advanced production systems, health engineering, fluid networks and energy storage.

► At the center of the support and cooperation program with Togo

In late 2022, the École Polytechnique de Lomé (EPL) in Togo was created, as part of the IMPACT project. In partnership with the University of Technology of Troyes, University of Technology Belfort Montbéliard, University of Lomé and EPL, IMT Mines Albi contributed to this project, with its expertise on its technology incubator model and student entrepreneur courses. This special partnership with EPL will facilitate student mobility between the two institutions.

► New partnership on space accommodation with scientific network ARCHES

IMT Mines Albi has launched a new partnership with ARCHES, the scientific network specialized in architecture in extreme environments. With the goal of bringing engineering students and architects closer together, students in the Positive Energy Building (BE+) program and Advanced Master's had the opportunity to attend a week of workshops and conferences hosted by the network on the theme of housing design in extreme conditions.

► Research and training centers on board to design the first ultra-light autonomous train

The ECOTRAIN program aims to design a system of lightweight, battery-powered, driverless rail shuttles on light connected rails. The school's three research and training centers are contributing through three projects launched in 2022. Supported by multiple academic, institutional and industrial partners, IMT Mines Albi organized a launch day of plenaries and workshops, aiming to create a common vision, identify technological and scientific obstacles, and understand future sociological and economic needs.

Continuing collaboration with Georgia Institute of Technology and the Industrial Engineering Center (CGI)

The IMT "Global Campus" project with Georgia Institute of Technology (GT), which began in 2021, is continuing in a concrete form. This will complement the research dynamic created by the **SIReN Associate International Laboratory**, primarily supported by the long-term secondment of Professor Frédéric Benaben. Work is progressing to implement the first three pilot classes in the Master of Science in "Physical Internet Engineering" on the theme of **supply chain engineering at the unique immersive teaching platform, HITeC** (Hybrid Immersive Teaching Campus) by the end of 2023.



KEY FIGURES

RESEARCH AND INNOVATION



- 6,6M€** > research contracts (CNRS, Armines, school)
- 159** > publications including
 - 120 A-ranking**
- 39** > HDR (Accreditation to supervise research)
- 14** > chairs and joint laboratories
- 4** > R&D platforms

INCUBATOR



- 8** > number of startups incubated in 2022
- 100%** > 3-year survival rate of business created with the support of the school

RESOURCES



- 375** > staff including
 - 42%** women
 - 21%** researchers (except PhD students)
 - 12%** R&D engineers
- 31M€** > annual revenue including
 - 9,3M€** own resources

SCIENTIFIC AND TECHNICAL CULTURE



- 1126** > external visitors to school events including
 - 250** schoolchildren

COMMITMENT AND SOLIDARITY



Committed to the environmental and societal transitions, IMT Mines Albi is helping to train the responsible engineers of the future, to be the driving force behind these transitions; to support research in respect of the environment and focused on the challenges of tomorrow; and to invest in solidarity initiatives in support of inclusion, the environment and international development.

➤ A boost for the hydrogen sector at IMT Mines Albi

A number of players involved in Albi courses and interested in the hydrogen sector have launched the development of 'Campus H2 Albi', with the aim of pooling skills and facilities for providing training in hydrogen in the local area. As part of its commitment to the environmental transition, the school already includes classes on this topic in its engineering program and hosts multiple research projects on the different levels of the hydrogen value chain. *"Contributing to the Campus H2 Albi initiative is therefore perfectly aligned with our goals,"* says Lionel Luquin, Director of IMT Mines Albi.

➤ The school's energy efficiency plan

As part of its commitment to reducing energy consumption, IMT Mines Albi has rolled out an energy efficiency plan, adapted to the institution. Various measures and collective efforts have led to a considerable reduction in energy consumption of 13% for gas and electricity combined across the four months of winter.

➤ French Summer School in support of Ukrainians

In support of the Ukrainian people, and in collaboration with the association ARALIA, IMT Mines Albi welcomed a group of 18 Ukrainian students for the 2022 edition of the French Summer School. In all, more than fifty motivated students benefited from total French immersion during this year's program, which returned to a face-to-face format.

➤ ICA-Albi takes action for the circular economy

Institut Clément Ader-Albi (ICA-Albi) and the 'Institut Français du Textile de l'Habillement' (IFTH) are working together to support a new French industrial sector of the circular economy, focused on reusing recycled carbon fiber. This research represents the next phase of the joint laboratory MARVAPOL, launched with the RAPSODEE center (UMR CNRS 5302), ICA-Albi and company Alpha Recyclage in 2015.

➤ Student solidarity to improve living conditions on campus

Each year, students take action for various causes, such as the environment, the fight against precarity and efforts to develop solidarity. This year, they mobilized to address the lack of access to menstrual products on campus, distributing a pair of period underwear to each student. The association I2D (French acronym for Engineers for Sustainable Development) also received the "Cultivating Equity" Grand Prize, to develop an equitable grocery store on campus, set to open in early 2023.

Decarbonizing mobilities: an area of strength for ICA-Albi

ICA-Albi is supporting operators in the aeronautical transport sector, to **develop storage reservoirs and hydrogen technology**. In 2022, it undertook remarkable research, testing experimental tools in liquid hydrogen environments at cryogenic temperatures, at the microscopic and nanometric scale, almost unique in France. It is also working in the area of rail transport, **creating rails using lightweight structures** made from thermoplastic composites.

➤ RAPSODEE center involved in different types of recycling

After a joint laboratory and a project bringing together multiple researchers from the M.I.N.E.S. Carnot Institute, this year the RAPSODEE center (UMR CNRS 5302) launched a thesis funded by the Region on characterizing carbon black recovered from tires, to optimize its dispersion in rubber. A multi-party ANR project was also set up, on end-of-life for electronic components printed on packaging, magazines, and labels, and particularly their recyclability and impact on the environment and health.

➤ Incubated start-ups invested for the planet

The IMT Mines Albi technology incubator accompanies start-ups, based on the three fundamental values of deep tech - the company proposes a product or service that contributes high added-value to its market; it develops a product that exploits a significant engineering innovation in direct connection with research teams; and at the same time, it responds to today's transitions and major challenges, to try to make a positive impact.

Recently, two incubated companies, Hycco and Cobratex, which went through this process, were listed in the BPI France ranking of 300 companies and SMEs that will change the planet.



TRAININGS



923 > total number of pupils in different courses including

814 in engineering training

151 in apprenticeship

20 masters (DNM, MSc), Advanced Masters

89 PhD students

37% women

32% student grant recipients

16% foreign students

RECRUITEMENT

325 > students in all courses



GRADUATIONS



335 > diplomas awarded by the school including

32 double diplomas

RECOGNITION



IMT Mines Albi expresses its scientific and humanist DNA through a number of initiatives and programs. Its pedagogical, scientific and economic contributions make IMT Mines Albi a key actor in these areas. And this is proven by the multiple success stories and prizes obtained every year.

10 years of the GALA® platform

In the past 10 years, the GALA® platform (Advanced Galenics) at the RAPSODEE Center (UMR CNRS 5302) for training and research has become a privileged, international-level partner for **innovation for the biggest industrial actors** in the pharmaceutical and health food sector. A day-long event to showcase its innovative facilities and equipment was held.

Opening access to science, an ever-growing priority for the school

In 2022, according to the National Barometer of Open Science, results in this area were strong, with over 90% of scientific publications being open. A new working area, "Research Data", is being created to strengthen this process, led by various people at the school involved in the scientific process. The aim is to produce FAIR data: Findable, Accessible, Interoperable and Reusable.

An engineering program option labeled by the SIA

The school has received a label from the French Society of Automotive Engineers (SIA) for the "Automotive Techniques" course modules for the option "Advanced Materials and Processes for tomorrow's Transports". This confirms for companies that engineers trained by this course will respond to expectations from the industrial automotive sector.

International Staff Week: a look back at the first edition

As part of the traditional International Week, IMT Mines Albi organized its first Erasmus Staff Week, with support from Erasmus, on the theme of "Managing across culture in a world of transitions". Around ten partner European universities participated in workshops and seminars, discussing this theme, visiting the school and its laboratories, and discovering the region's heritage.

A strong finish for joint laboratory EGCERSIS

Joint laboratory EGCERSIS, launched in 2019 by CGI, Immersive Factory, Report One and the Occitanie Region, came to an end this year, with remarkable scientific and technical achievements. It was recognized as the best industry solution to help improve productivity, training or maintenance at the 2022 Laval Virtual Awards. The solution was also demonstrated at the summary seminar for the Sanctum Labo-Crise project held by the Ministry of Ecological Transition and Solidarity, and attended by the French Red Cross and National Gendarmerie.

New international recognition for Ange Nzihou

After receiving a Fulbright Scholarship for scientific excellence in 2021, Ange Nzihou, professor at the RAPSODEE center (UMR CNRS 5302), went to Princeton University, United States, for a long-term secondment. This visibility led to him being approached for a new committee for reflection on renewable energy, the Institute of Sustainability, at Stanford University. He was also named Chair of Sustainable Energy Materials, created by Nobel Prize winners, J.B. Goodenough, M.S. Whittingham and A. Yoshino, at Mahatma Gandhi University, India, for 2022-2025.

Three new "Eiffel scholarships" for international students

The "Eiffel Scholarship" program of excellence, coordinated by the Ministry for Europe and Foreign Affairs, rewards the best international students and encourages them to study at the most prestigious French universities. This year, once again, IMT Mines Albi will be welcoming three of the recipients, out of the 344 selected in France.

New IOMEGA platform for the Industrial Engineering Center (CGI)

A new building at the CGI was inaugurated in summer 2022, home to the new research and experimentation platform and two technical platforms, IOMEGA and IOMEGA VR. The first is dedicated to demonstrating expertise related to artificial intelligence and industrial engineering. The second is specialized in immersive technologies, such as virtual and augmented reality. In this way, the building offers partners of the center the possibility to expand their capacities for development and concretize their research programs in designing collaborative processes, by benefiting from state-of-the-art equipment and scientific support.

ALUMNI GRADUATED IN 2021

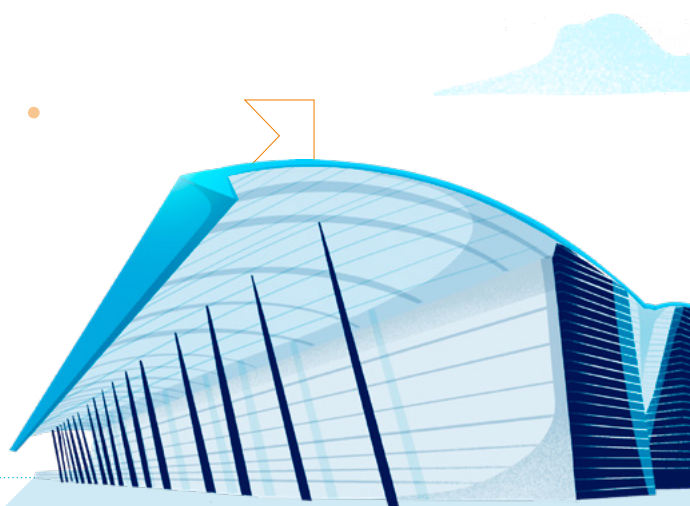


- 94%** > net employment rate within **6 months**
- 97%** > net employment rate within **18 months**
- 10%** > employed **abroad**
- 37 694€** > annual **gross salary** (with bonuses in France)
- 37 234 €** average salary - **women** (with bonuses in France)
- 38 060 €** average salary - **men** (with bonuses in France)

IMT FIGURES



- 13 606** > **students engineers and managers**
- 98%** > **net employment rate** (within 12-15 months)
- 86M€** > consolidated **budget receipts** for research, development and innovation
- 2 031** > **international publications** (SCOPUS database)
- 7 155** > **active partnerships** with SMEs and ETIs



OVERVIEW



January 11

Visit of Beena Paradin-Migotto, new sponsor of the students, class of 2022



March 25

Signature of a framework agreement between IMT Mines Albi and Veolia



April 25

SOLUTEC joint laboratory: signature of phase 2 of the consortium agreement between RAPSODEE and Eco-Tech Ceram



May 4

Development of access to higher education for all with the 'ForPro Sup' funding, in partnership with the Occitanie Region



June 1st

"Discover NASA Goddard Space flight center" conference hosted by Dr. Christyl Johnson, NASA's deputy director of technology and research investments



July 4

The 'Conférence des Grandes Écoles' awards a label to the new Advanced Master program PRINEC on materials for the circular economy, in partnership with IMT Mines Alès and supported by the eco-organization Valdélia



June 29

Presentation of the first results of the joint laboratory RE-S-EAU between the CGI and Veolia on intelligent water network management solutions



June 27-30

Co-organization of the international conference WasteEng, on the valorization of biomass and waste

June 24
IMT Mines Albi's outstanding progress in the U-Multirank 2022 ranking: 4th among French institutions



June 10-12

Alumni Birthday Campus, which brings together classes from 10 and 20 years ago



September 30

9th edition of the European Researchers' Night on "Unforeseen".



October 7-9

2nd 'Exception'Elles' Weekend to boost female entrepreneurship in partnership with IMT Mines Alès



October 10

9th Pépète Prize of the Occitanie Region for the incubated project KITOZ, after having won the first METHA Europe prize, pre-creation category



October 13

17th edition of the Business Forum which welcomes more than 50 partner companies



November 19

Graduation Ceremony for the 2022 Class and Student Gala



December 12

Grand Prix "Cultivating Equity" 2022 for its fair trade grocery store project for the student association 'Ingénieurs pour un Développement Durable'



December 1st

Renewal of the ISO:9001 quality certification





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