

French bioproduction sector announces launch of world first: **immerscio.bio** – a platform for training the talent of tomorrow

An innovative campus helping professionals and young graduates develop their skills



Winner of 2030 Plan France

The French bioproduction sector – in the form of a top-tier industrial consortium led by bioMérieux, Novasep, Sanofi and Servier – announced the launch of **immerscio.bio** at the France Bioproduction 2022 Congress on April 7 and 8. **immerscio.bio** will cover the entire bioproduction chain, employing a range of innovative digital solutions to promote the understanding of processes and the ownership of professional practices.



Bioproduction: a major challenge for health systems

Biotherapies herald a genuine revolution in the field of medicine. Treatments are based on producing molecules (antibodies, proteins, etc.) via living micro-organisms together with drugs for cutting-edge therapies (viral vectors, gene and cell therapies, etc.). These can now be used to treat previously-incurable diseases – cancers, chronic inflammatory and rare diseases – and to combat pandemics while paving the way for a more personalised form of medicine. They represent a crucial opportunity for patients, and they are playing a growing role in the therapeutic solutions developed against these pathologies.

Making these biomedicines accessible to patients represents a two-fold challenge for all health actors. On the one hand, it is a question of prioritising their development and industrialising production in France, while ensuring they are available in the right quantities with the required quality, speed of production and affordable costs. On the other, it means helping to build France's health independence on the world stage to guarantee that the most innovative treatments are available to patients.

In response to these challenges, 30 to 40,000 jobs will be created in bioproduction in Europe over the next 10 years.

Mobilising public authorities and industry stakeholders to meet the challenges

The **immerscio.bio** platform is headed by a top-tier industrial consortium (Campus Biotech Digital, made up of bioMérieux, Novasep, Sanofi and Servier) brought together by the Strategic Committee for the Health Industry and Technology Sector (CSF ITS). The platform aims to develop breakthrough innovations that will boost productivity, be manufactured in France, create jobs and turn the country into a European leader in bioproduction by 2030. The **immerscio.bio** training programmes, which are the result of a partnership between industrialists

and public authorities, have been created with key players in biotechnology training (EASE, ENSTBB-Bordeaux INP, CPE Lyon, ESTBB, IFIS, the IMT Group, MabDesign and Sup'Biotech) and digital technology (Accenture, Atos, Bearing Point, Capgemini, Domoscio, IBM and Microsoft).

“As part of the work coordinated by the CSF ITS, the campus is one of the founding projects, reflecting the unprecedented mobilisation of private actors and public authorities based on the goal of making France a European leader in bioproduction by 2030,” explains Olivier Bogillot, president of the CSF-ITS. “The target is to create almost 10,000 direct jobs in France by 2030. Thanks to the immerscio.bio campus, the sector will be equipped with an ultra-innovative training and skills development resource that will strengthen our network of experts so they can put their talent to good use across the entire bioproduction value chain and in all regions. I’m also delighted with the role the campus will play in France's attractiveness on a global level, since the aim is to open the campus internationally very quickly.”

The project also draws on regional staging-posts (Auvergne-Rhône Alpes, Centre Val de Loire, Grand Est and Nouvelle Aquitaine) alongside a future educational resource centre on the Sanofi site in Vitry-sur-Seine (Île-de-France). It is financed by an exceptional public / private* partnership, including € 11.75 million under the Development of Vocational and Continuing Training and Innovative Offers scheme run by the Caisse des Dépôts, the “investment arm” of the French state. In addition, the project is supported by the Cross-Industry Skills Provider and the Île-de-France Region; it also enjoys strong backing from industrialists in the sector that have formed a consortium with an investment of over € 30 million.

“The production and availability of leading-edge biological medicines in France and Europe is now a major strategic challenge”, begins Karim Vissandjee, CEO of Campus Biotech Digital. “As we’ve seen over the last two years with the pandemic, today it is vital that we have the required production capacity to respond to health emergencies. So, in order to stimulate development, it was essential for the biotech players, supported by the state, to work hand-in-hand and team up with educational and digital partners to provide high-level training programmes. We’re particularly proud today to unveil this project, together with its name – at the crossroads of immersion, knowledge and bioproduction – and its tagline: Be the biotech next gen!”

immerscio.bio: an immersive educational approach

Immerscio.bio is unhesitatingly collaborative and immersive, drawing on the agile method of design process thinking so it can adjust to the innovations of a constantly-changing sector. Its range of initial and continuous training courses, which are comprehensive *and* personalised, is designed to back up the strong growth in the sector, which plans to create thousands of jobs over the next ten years. Thanks to its 100% digital format – which can also include a face-to-face component – immerscio.bio will make it possible to design the training programmes of tomorrow.

Immerscio.bio covers the entire bioproduction chain from design to delivering the product to the patient. It employs an array of digital tools that reproduce the key elements of production (digital twins, serious games, immersive reality, virtual reality and augmented reality) and uses cognitive approaches supported by artificial intelligence to promote the understanding of processes and the appropriation of professional practices.

The training programmes, which are inspired by the courses provided by flight simulators to train airplane pilots, will generate a form of added value that will be one-of-a-kind worldwide in terms of bioproduction on several levels:

- The acquisition of new skills by employees in the sector will have a positive impact on the performance of industrial players.
- Young graduates and employees undergoing retraining who are entering the job market will be operational more quickly.
- Experts will be trained who will become sources of breakthrough innovations thanks to special courses.
- The learning communities will promote the development of networks, the creation of start-ups and inter-company cooperation.

These new training courses are open to everyone, from Bac + 2 or + 3 levels (equivalent to two or three years of higher education) from recent graduates to employees undergoing vocational retraining. Each learner will receive personalised monitoring to provide better career support, boost their employability and even accelerate their integration into a company.

In training these talents, immerscio.bio aims to improve access to innovative therapies for as many patients as possible. In a society where the younger generations are constantly looking for a sense of purpose and are motivated by a desire to act, it is important to remember that bioproduction is in keeping with a social world that

is being constantly reinvented, and that is inclusive and cooperative, where communities of men and women work together to perform useful, joint endeavours.

The first training programmes

For its debut, immerscio.bio is opening 13 training courses defined as priorities that cover all the bioproduction and biotechnology professions:



- Bioproduction environment – available
- USP (UpstreamProcess) in cGMP (Good Manufacturing Practices) – available
- Fill & Finish in cGMP – July 2022
- DSP (Downstream Process) in cGMP – September 2022
- Microbiology Quality Control – September 2022
- Data Integrity – December 2022
- USP in Development – December 2022
- DSP in Development – December 2022
- Quality & Regulatory Assurance – December 2022
- Supply Chain: Cold Chain Management – 2023
- Biomedicine Delivery Systems – 2023
- Bioprocess Data Analyst – 2023

These different programmes mean it will be possible to adapt the training to the heterogeneous needs of different learners. They can also be customised and adjusted according to their plans. In this case, they take the form of a scenario for a comprehensive immersion and optimal engagement of the students.

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** This public-private partnership is supported by the French state as part of the Adaptation and Qualification of the Workforce action, the Development of Vocational Training and Innovative Support Offers scheme (IFPAI), and the national component of the Investing in the Future Programme, run by Caisse des Dépôts (Banque des Territoires).*



About bioMérieux

Pioneering Diagnostics

A world leader in the field of in vitro diagnostics for over 55 years, bioMérieux is a France based company. It is present in 44 countries and serves more than 160 countries with the support of a large network of distributors. In 2021, revenues reached €3.4 billion, with over 90% of sales outside of France.

bioMérieux provides diagnostic solutions (systems, reagents, software and services) which determine the source of disease and contamination to improve patient health and ensure consumer safety. Its products are mainly used for diagnosing infectious diseases. They are also used for detecting microorganisms in agri-food, pharmaceutical and cosmetic products.

www.biomerieux.com



bioMérieux is listed on the Euronext Paris stock market.
Symbol: BIM – ISIN Code: FR0013280286
Reuters: BIOX.PA/Bloomberg: BIM.FP

About Novasep

Novasep provides cost-effective solutions for the sustainable production of molecules for the life sciences. Novasep offers a comprehensive range of services including process development, turnkey purification systems and contract manufacturing. We specialize in challenging active molecules for pharmaceutical, biopharmaceutical, fine chemical, food and functional ingredients, as well as fermentation and chemical commodities industries.

<https://www.novasep.com/>

About Sanofi

We are an innovative global healthcare company, driven by one purpose: we chase the miracles of science to improve people's lives. Our team, across some 100 countries, is dedicated to transforming the practice of medicine by working to turn the impossible into the possible. We provide potentially life-changing treatment options and life-saving vaccine protection to millions of people globally, while putting sustainability and social responsibility at the center of our ambitions.

Sanofi is listed on EURONEXT: SAN and NASDAQ: SNY

<https://www.sanofi.com/>

About Servier

Servier is a global pharmaceutical group governed by a Foundation. With a strong international presence in 150 countries and a total revenue of 4.7 billion euros in 2021, Servier employs 21,800 people worldwide. Servier is an independent group that invests over 20% of its brand-name revenue in Research and Development every year. To accelerate therapeutic innovation for the benefit of patients, the Group is committed to open and collaborative innovation with academic partners, pharmaceutical groups, and biotech companies. It also integrates the patient's voice at the heart of its activities.

A leader in cardiology, the ambition of the Servier Group is to become a renowned and innovative player in oncology. Its growth is based on a sustained commitment to cardiovascular and metabolic diseases, oncology, neuroscience and immuno-inflammatory diseases. To promote access to healthcare for all, the Servier Group also offers a range of quality generic drugs covering most pathologies.

<https://www.servier.com>