

FROM AUTOMATION AND CONTROL TRAINING TO THE OVERALL ROLL-OUT OF INDUSTRY 4.0 ACROSS SOUTHEAST ASIAN NATIONS



Summary





25 of February 2021 9 AM (Paris hour) Region AUVERGNE-RHONE-ALPES

- 1. Region Auvergne Rhône Alpes (RA): First industrial region in France
- 2. Industry & Innovation: Main Players of the RA
- 3. Industry 4.0: State and Impact for the RA society (Cloud, Big data, IA, IoT & IIoT, Vision & Robotic)
- 4. RA entreprise office: A commitment to professional development
- 5. The Industry 4.0 Regional RA programme

26 of February 2021 9 AM (Paris hour) Region AUVERGNE-RHONE-ALPES

- 1. The RA vision of Industry 4.0
- 2. Case study of RA: To enhance Factory development,
- 3. RA Innovative Platforms and Cluster Network to support Degree Programme & vocational training & SME development
- 4. Discussion





The RA* vision of Industry 4.0

- for training and education
- for industry

* Region Auvergne Rhône Alpes





The RA* vision of Industry 4.0

for training and education

* Region Auvergne Rhône Alpes

Feedback of experience

Creation of a training course in collaboration with industrialists and players in the Auvergne Rhône Alpes region

Case study

Analyst Programmer in Automation, Robotics and Industrial Computer Science

Creation of a training course

Employment specialists pôle emploi Employment statistics, evolution of jobs National and regional statistics - job classifications Exemple **Trade federations** Analyst Programmer in **UIMM** Automation, Robotics and **Industrial Computer Science MEDEF** Vision of the federations - interests for the industry **Competitiveness clusters** COBOTEAM **LEAGUE** Auvergne-Rhône-Alpes **Companies - SMEs and ETIs**

company vision - Job profiles
Reception of trainees and work-study students

Thinking about the evolution of trades industrial support strategies

Employment statistics, evolution of jobs - National and regional statistics - job classifications



Apec, the Association for the Employment of Professional and Managerial Staff (Association pour l'emploi des cadres), is a French association, private and paritarian, financed by contributions from professional and managerial staff and private sector companies, whose objective is to provide service and advice to companies, to professional and managerial staff on subjects relating to their employment and to young graduates from higher education.



Pôle emploi is a public administrative institution in charge of employment in France. Pôle emploi has three essential tasks: support in returning to work, compensation for jobseekers and putting companies and job-seekers in touch with each other.



The National Institute of Statistics and Economic Studies is responsible for the production, analysis and publication of official statistics in France.



Phar'éco is a partnership platform of economic information on the Auvergne-Rhône-Alpes region which aims to provide strategic information useful for action, for companies and territories in the region.

Vision of the federations - interests for the industry



The Mouvement des entreprises de France (Medef) is an employers' organisation founded in 1998, representing French companies.



The Confederation of Small and Medium-sized Enterprises is a French employers' organisation representing small and medium-sized enterprises.



The Union des industries et métiers de la métallurgie is the French employers' federation grouping together the main French companies in the field of metallurgy. UIMM is a member of the MEDEF

Thinking about the evolution of trades - industrial support strategies



Coboteam is the robotics and collaborative robotics cluster of the Auvergne-Rhône-Alpes Region



The government has labelled the new CIMES competitiveness cluster, which follows the merger of the Mont-Blanc Industries and Viaméca clusters in the Auvergne-Rhône-Alpes region. It responds to the challenges of the mechanical engineering sector.



The digital observatory in the Auvergne Rhône Alpes region

Companies - SMEs and ETIs

Company vision - Job profiles - Reception of trainees and work-study students





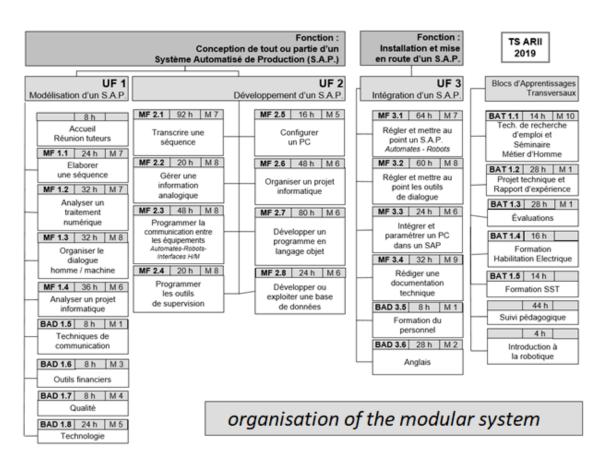








THE TRAINING REPOSITORY







The RA* vision of Industry 4.0 • for industry

* Region Auvergne Rhône Alpes

program for industry 4.0



BE ACCOMPANIED IN MY
"INDUSTRY OF THE FUTURE" PROJECT

INVESTMENT Solution









Research & Innovation

Evaluate

Transform

Invest

Exchanging, Discovering, Enhancing





PIA3









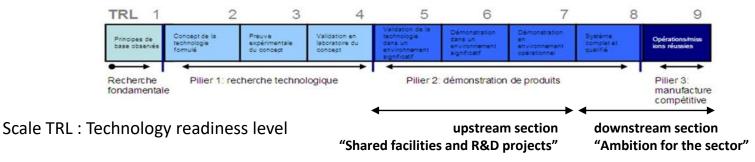
Research and innovation

Regionalised investment programme for the future Auvergne-Rhône-Alpes (PIA3)

Within the framework of the Future Investments Programme PIA3, the State and the Auvergne-Rhône-Alpes Region are mobilising to finance the innovation projects of SMEs through two complementary actions worth €54 million between 2018 and 2021:

This PIA 3 "sectors" action is divided into two complementary parts:

- The most upstream projects (Technology readiness level scale TRL : 5 to 7) come under the UPSTREAM section "Creation of shared facilities and R&D projects",
- The projects further downstream (TRL 8 to 9) come under the AVAL " Ambition for the sector " strand







PIA3

2









upstream section
"Shared facilities and R&D projects"

Innovation projects / Transformation of SMEs through innovation

18 M€ for the PIA 3 "Innovation projects / Transformation of SMEs through innovation": support for the design of innovations, in the feasibility or development study phase.

From €100,000 to €500,000 in aid for the development and mainstreaming of innovation in SMEs

PIA3 aims to prepare the future for the Nation. In a context marked by mutations such as digital transformation, artificial intelligence, modernisation of the industrial process, robotisation, development of new uses and services, etc., the call for projects "Transformation of SMEs through innovation" should encourage ambitious innovation in Auvergne-Rhône-Alpes. To this end, it will encourage projects that show boldness, integrating a dimension of business transformation through innovation in order to respond positively to these current mutations.

This call for projects therefore aims to support innovative projects with risk-taking based on innovation in the broadest sense.





PIA3

3









downstream section "Ambition for the sector"

Accompaniment and transformation of the sectors

36 M€ for PIA 3 "Support and transformation of sectors": support for the structuring of key regional sectors by financing pooled investment and R&D expenditure

From €500,000 in aid to strengthen the competitiveness of strategic sectors

A territorial variation of the Future Investment Programme (PIA), the scheme aims to strengthen the competitiveness of strategic sectors. This mechanism, which takes the form of a call for projects, supports their transformation and structuring by contributing to the financing of shared means of production or research infrastructures, technical skills, pooled collaborative tools, etc.



Research and innovation

collaborative portal funded by the Auvergne-Rhône-Alpes Region and the French State











https://hub-recherche.fr/

Welcome to the "research hub", free portal to connect researchers and companies



Bpifrance, the bank for entrepreneurs

Bpifrance is a public investment bank, a French organisation for financing and development of companies. It is particularly responsible for supporting small and medium-sized enterprises, mid-sized companies and innovative companies in support of the public policies of the State and the regions.

Bpifrance acts most of the time in partnership with private players, both in financing and investment

- innovation financing mainly in the form of bank loans (innovation loans, seed loans) and to a lesser extent in the form of subsidies (State/Regions);
- the guarantee of bank loans
- co-financing, alongside banks, of medium and long-term bank loans
- financing of short-term needs
- investment in equity and quasi-equity capital
- directly and via partner funds, in SMEs, ETIs and large companies
- the distribution of all financial support for exports





1. Evaluate

2. Designing

3. Produce

4. Driving

5. Mobilising

Rated factory

Transformation **EVALUATION**

Issue: new business models to respond to new issues and uses. Definition of a 4.0 maturity and an action plan for the digitalisation of the company

Innovative factory

Transformation TECHNOLOGICAL

<u>Issue</u>: design of complex products

Agile and automated factory

Transformation TECHNOLOGICAL & ORGANISATION

<u>Issue</u>: modernisation of the industry, efficient production and customisation

Digital and connected factory

Transformation DIGITAL

<u>Issue</u>: guarantee traceability, create value from data and control risks.

Open factory

Transformation MANAGERIAL & PARTNERSHIP

<u>Issue</u>: Collaborative value creation

To be accompanied to integrate solutions or approaches related to the industry of the future. More specifically, help to finance the costs of consultancy services in the following areas





1. Evaluate

2. Designing

3. Produce

4. Driving

5. Mobilising

- Eval' Stratégie
- Eval' Digital

- Advanced simulation tools (digital twins)
- Additive manufacturing

- Robotics and Automation
- Operational Excellence
- Creation, Extension, Optimisation of industrial sites
- Flow simulation
- Improvement of processes and control of resource consumption
- Virtual reality, augmented reality, assistance to operators
- Advanced processes (machining, etc.)

- Data Production, Preventive and Predictive Maintenance
- Data storage, cloud
- Internal data management (ERP, PLM, MES,...)
- Intelligent system: IIOT, BIG Data, Data Structuring
- Data traceability, Blockchain
- Data security, cybersecurity
- Mapping its information system and data

- Human Capital: Secure project management by taking into account the human capital factor
- Subcontractors:
 Extended enterprise supply chain
 optimisation



The aid:

The Auvergne-Rhône-Alpes Region and the State co-finance the costs of the service. Consulting, proof of concept, expert opinions, studies up to 50% for a support capped at € 32,000 per company (39,000 \$)

This aid is intended for companies (VSEs, SMEs, ETIs) established in the Auvergne-Rhône-Alpes territory carrying out manufacturing activities. The production establishment receiving the aid must be located in the region

Date of validity of the scheme: From 07/10/2019 to 31/12/2022











The players

TO BE SUPPORTED IN "INDUSTRY OF THE FUTURE" PROJECT



Regional Agency: Financed mainly by the Region, the Regional Agency is present in all the territories thanks to 11 local offices and 130 employees. The Regional Agency guides and supports industrial companies in their plans for the industry of the future.



ARACT is an association managed by the regional social partners and is a member of the Anact-Aract network. Aract Auvergne-Rhône-Alpes (Regional Association for the Improvement of Working Conditions) helps SMEs to improve working conditions through participatory approaches.



ENE Enterprise and Digital: ENE's mission is to improve the competitiveness and foster innovation of SMEs and VSEs in Auvergne-Rhône-Alpes by developing the use of digital technology. The Region has launched an ambitious € 36 million (\$ 43 million) plan to accelerate and massify the digital transformation of VSEs and SMEs.



CETIM: The **Technical centre for mechanical industries** was created in 1965, at the request of the mechanical engineering industry in order to provide companies with the means and skills to increase their competitiveness, participate in standardisation, act as a link between scientific research and industry, promote the progress of techniques, help improve performance and guarantee quality





Call for proposals "Investment Solution - Industry of the Future"

This call for projects aims to support the **productive investments of companies** that will be part of the **Industry of the Future approach**. Its objective is to

- To support particularly **innovative technological development projects** based on mastery of the digital chain and related organisational changes.
- To encourage development projects or the creation of industrial sites linked to the major challenges of modernising their production tool or industrialising new products by taking a global approach to a project.

The following themes are particularly concerned: additive manufacturing, robotics and intelligent production line, digital chain, virtual and augmented reality, new materials and composites.



La Région Auvergne-Rhône-Alpes

Investment

Eligible are industrialisation projects in the following areas in particular:

- ✓ Manufacturing process,
- ✓ Non-destructive testing,
- ✓ Digital Channel, AET, Big Data,
- ✓ Industrial organisation,
- ✓ Robotisation and intelligent production line.
- For <u>VSEs</u>, investments must lead to **a technological advance**, consist of a **technological progression** and be analysed in the light of the gap between what the company does and what it plans to achieve by integrating new technologies.
- For <u>SMEs</u>, investments must **generate a technological leap**, consist of **a technical innovation** or is the combination of existing technologies and represent a major advance in the design of a product or process.
- For <u>large and medium-sized enterprises</u>, investments linked to the axes of progress must generate a **real technological breakthrough**, a technological innovation on a product or service that aims to replace a dominant technology on the market.





Amount of aid:

The grant is capped at €490,000.

The rate of intervention varies according to the size of the company:

- for VSEs: **30**% maximum with a minimum threshold of eligible investments: €100,000
- for SMEs: **20**% maximum with a minimum threshold of eligible investments: €100,000
- for Large Companies and Intermediate-sized Companies: **10**% maximum with a minimum threshold of eligible investments: €500,000





Case study of RA*: To enhance Factory development

* Region Auvergne Rhône Alpes





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- Human Capital: Secure project management by taking into account the human capital factor
- Subcontractors:
 Extended enterprise supply chain
 optimisation







- **Eval' Stratégie**
- **Eval' Digital**

Eval' Strategy and Eval' Digital are diagnostics to assess the level of maturity of companies and support them in their transformation.



Case of **strategic transformation**: digital evolution













2. Designing

- Advanced simulation tools (digital twins)
- Additive manufacturing







Case of Advanced simulation tools (digital twins)







Case of Additing manufacturing





3. Produce

- Robotics and Automation
- Operational Excellence
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cases of industrial, collaborative and mobile robots



Case of flow simulation and virtual reality











4. Driving

- Data Production, Preventive and Predictive Maintenance
- Data storage, cloud
- Internal data management (ERP, PLM, MES,...)
- Intelligent system:
 IIOT, BIG Data, Data
 Structuring
- Data traceability, Blockchain
- Data security, cybersecurity
- Mapping its information system and data



cases of industrial predictive maintenance



Case of IIoT: productivity improvement

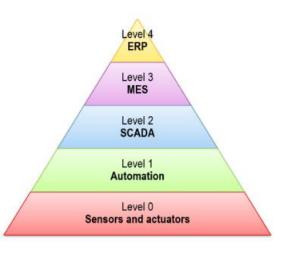


Case of internal data management Link with production



Cybersecurity cases for industrial connected objects











5. Mobilising

- Human Capital: Secure project management by taking into account the human capital factor
- Subcontractors

 Extended
 enterprise supply chain
 optimisation



cases of improved production conditions for staff

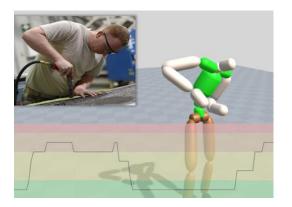


cases of robotic implants to combat musculoskeletal disorders



cases of support for staff training







RA* Innovative Platforms and Cluster Network to support Degree Programme & vocational training & SME development

* Region Auvergne Rhône Alpes



Campus digital region



Train, transform, innovate!

The **Campus digital Region** is a physical place for training and exchanges, and the tool of a whole ecosystem. A catalyst for innovation, it is also a service offer that is essential for employment and the **digital transformation of companies and industries**.



The Campus will be spread over **10,000** m² of usable area, in a **3-hectare park**, entirely reforested. Built for a total of 28 million €, half of the site will be devoted to **vocational training**, a quarter will be dedicated to **professional structures**, clusters, competitiveness clusters and the last quarter will be open to projects from the **research and innovation** plant.





The Digital Campus will become one of the largest regional campuses in France, which in six months' time will welcome some **2,000 people**, including **1,300 students** (800 in initial training and 500 in continuing education) who will work in the **digital sector** with clusters and centres linked to all the regional companies in the sector. Researchers, young business creators, young students, company directors, academics and prestigious schools, employees looking for retraining, industrialists will animate and cross ideas and projects in this unique and very innovative site.



Concretely, the Digital Campus aims to:

- Develop the employability of young people and working people, whether employed or in retraining, in initial or continuing training.
- Attracting talent and retaining our human capital on our territory
- Promoting entrepreneurship and ensuring the excellence of companies in the digital sector
- Supporting the digital transition of companies in other sectors and facilitating their dynamics of the digital revolution



The first school in the region @auvergnerhalpes, offering free IT developer training, open to all, no diploma requirements!



Open since September 2017, "42 Lyon" is a computer science school with no diploma requirements. Housed on the "Campus Région du Numérique", it welcomes nearly 120 new learners every year, in the commune of Charbonnières-les-bains.

The establishment of the "42 Lyon" Auvergne-Rhône-Alpes school is one of the answers to the in-depth transformations that digital technology imposes on our society: economy, employment, education, art, communication, all sectors are concerned ! 60% of today's students will tomorrow be working in a job that does not yet exist

No course, no teacher: at "42 Lyon" Auvergne-Rhône-Alpes, it is the learners themselves who are responsible for their own success and that of their classmates, around a 100% practical and project-based curriculum. In order to progress on the projects proposed to them, they must rely on the strength of the group, give and receive information, be in turn trainer and learner. This mode of peer-to-peer learning removes the bonds of subordination between students. Each person is the guarantor of a part of the success of the project carried out together



An innovation accelerator, a centre of excellence in the industry of the future

SWARM is a human and digital operational platform, a real industrial accelerator, to support transformation, boost innovation and reduce the skills deficit of industrial companies. It will be a physical platform for collaborative innovation and sharing of physical and digital production resources.

SWARM will **serve five pillars** which are :

- **Evaluation**: ideation, diagnosis and advice
- **Design**: CAD, Simulation, digital twin, VR/AR
- **Production**: additive manufacturing, functional POC, integration of technological bricks
- Skills transfer: Awareness and Training
- Demonstration: showroom of uses.



SWARM will be **structured** around four tools:

- **Creative Lab** to support the definition of projects
- Lab transformation to support innovation and transformation projects
- Learning Lab, a training and awareness-raising centre
- **Production Lab** to support industrial projects from prototyping to small series production.

Industrialists of the **Arve valley**, and their representatives, have championed the **Technocentre project** since it was initiated almost ten years ago. The many encounters and exchanges held between stakeholders in the project have shed light on the expectations of tomorrow's users of this hub of technology and expertise. Discussions have yielded a plan of action structured around four cornerstones: innovation (in all its aspects: technological, managerial, process-related, etc.), attractiveness (of the area, the professions and the customer base), operationality (in terms of the responses offered and solutions provided), and sharing (pooling, co-construction, feedback, etc.).



Industry 4.0





















Objectives & ambitions

TO SHOWCASE OUR INDUSTRIAL FIRMS AND GIVE THEM A SPRINGBOARD FOR DEVELOPMENT

The stated aims of **ID Center** are to promote the skills of our mechanical engineering and machining industries, to help them grow and to provide the tools that will hone their competitive edge and make them more attractive to customers and budding talent, at home and around the world. ID Center is both a **shop window** for know-how and a **hub for operational R&D**, offering the technocentre's beneficiaries significant material and human support and providing an insight into the innovativeness and the value chain created.

EXHIBITION



The 2021 edition of **Global Industrie** will take place from 7 to 10 September 2021 at Eurexpo Lyon.

The only major industrial event of this scale in France, GLOBAL INDUSTRIE brings together the entire industrial ecosystem, from startups to large groups, including subcontractors, incubators, equipment or industrial solution manufacturers... but also the entire value chain (R&D, design, production, maintenance, training services...) and all user markets (transport, energy, food processing, chemicals, cosmetics, pharmaceuticals, mechanics...).

Global Industrie has 45,000 visitors:

- 85 countries represented by its visitors
- 40% of foreign exhibitors from 40 countries

The International Industry Exhibition







EXHIBITION



The 6th edition of **SIDO** will be held on 22 and 23 September 2021 at the Cité Internationale de Lyon.

With 25% annual growth in attendance, SIDO has become the leading European Solutions and Technologies event **for IoT, Artificial Intelligence, Robotics and XR** for strategic decision-makers in innovation and business operations.

- +320 exhibitors gathered
- +70 talks & workshops animés by 200 top-notch speakers
- +9,000 visitors: Most of french blue chips companies' decision-makers attending (Thales, AirFrance, Airbus, Renault Trucks, PSA Group, Sanofi Pasteur, Total, Safran...)







Innovation



COMPETITIVENESS CLUSTERS



























REGIONAL LABELED CLUSTERS











































EUROPEAN CLUSTER FOR MOBILITY SOLUTIONS

With more than 200 members, CARA mobilises the entire sector and skills to support changes in **urban mobility** and **passenger** and **freight transport** systems and to **create the vehicles of tomorrow**.

CARA European Cluster for Mobility Solutions has been awarded the Auvergne-Rhône-Alpes Region's Cluster and Competitiveness Cluster label.

The Auvergne-Rhône-Alpes Region is a territory rich in high-performance suppliers of technologies and know-how for the vehicle of tomorrow. Of the 4000 companies in the French sector, **900** are located in Auvergne-Rhône-Alpes. CARA federates and animates the automotive and industrial vehicle sector to make it more visible and more competitive.



The association is structured around three axes:

- **INNOVATE** to anticipate and develop tomorrow's solutions
- **DEMONSTRATE** to evaluate innovation in real-life situations
- **DEVELOP** to accelerate growth and market access



Urban mobility and road equipment



TRANSPOLIS is the only laboratory city in Europe dedicated to sustainable urban mobility and road equipment, with 80 hectares of urban environment on a scale of 1:1 to reinvent **new urban mobility solutions** with strategic partners. Historically incubated within the CARA competitiveness cluster, TRANSPOLIS is a unique site dedicated to urban mobility and transportation systems to accelerate the **implementation of major innovations in a multidisciplinary way**, taking into account future.







Urban mobility and road equipment

Vehicles, energy, networks and telecoms, road equipment, infrastructures, Internet of Things, and street furniture can be tested in real conditions.



Located in the Ain plain, on a former military base of more than 80 hectares, TRANSPOLIS is organized in several flexible and modular zones, configured to adapt to different tests. This is a major first in Europe, since no other site similar in terms of size and complementary offers currently exists.

The objective of TRANSPOLIS is to become the undisputed leader in innovation and experimentation of disruptive solutions in the field of urban mobility.



Coboteam: robotics and cobotics cluster

(collaborative robotics)

https://www.coboteam.fr

Labelled by the Auvergne-Rhône-Alpes Region in 2015, the main objectives of the **Coboteam** cluster are to animate and help structure its **robotics sector** in partnership with all the players in economic and technological development. Coboteam is a co-founding member of the French Federation of Robotics Clusters.

The regional robotics sector is made up of **nearly 500 players** involved in robotics projects: manufacturers of robots and robotics solutions, integrators, component and sub-assembly manufacturers, expert users, teaching and research establishments and technical centres.

This sector generates a cumulative turnover of more than 3 billion euros and involves nearly 19,000 people.



Coboteam aims to

- structure and dynamise the regional robotics sector,
- promote collaboration between the actors of the robotic ecosystem,
- to **encourage and detect projects** and contribute to their support in conjunction with clusters in other sectors, competitiveness clusters and development and innovation support organisations.



CIMES competitiveness cluster located in the Auvergne-Rhône-Alpes region federates all the resources within a single entity to meet the challenges of the industry of the future. The ambition is to create the first European cluster dedicated to the engineering and manufacture of **intelligent mechanical systems**, recognised as a major player in the new organisation of the mechanical engineering sector in France and for its contribution to the performance of the Region's industrial ecosystems.

Objectives

- Bringing together the leading innovation players in industry, research and training to design, develop
 and industrialise the processes, products and services that the industry of the future needs.
- **Supporting companies** in their progress, change and approach to make their region or employment area attractive to the Industry of the Future.



Mont-Blanc Industries is a network of industrial companies, a pillar of the CIMES competitiveness cluster in the two Savoie regions. The ecosystem federates more than 300 industrial companies in the field of intelligent precision mechanics around collaborative projects, services and communities of practice, with the aim of supporting them in improving their performance and transforming them towards the industry of the future.



AEROSPACE CLUSTER IS THE NETWORK OF AUVERGNE-RHÔNE-ALPES' AEROSPACE INDUSTRY PLAYERS

Mission: To accelerate aeronautics and space activities development in Auvergne-Rhône-Alpes by:

- Providing members with a wide range of tools that ease their businesses
- Promoting interactions between members and shared experiences
- Implementing collective actions on the regional territory and abroad
- Giving the Cluster a central place in Auvergne-Rhône-Alpes and nearby the regional and national institutions
- Increase the visibility of the sector to enhance the attractiveness of the region

Membership to Aerospace Cluster allows its members to

- Integrate a dynamic network of competitive players.
- Benefit from experience exchanges between members.
- Access to a network of experts and technical assistance.
- Take part in collective missions.
- Establish new partnerships.
- Secure their strategic decisions.
- Strengthen their brand image and reputation.





https://www.digital-league.org



Digital League is a cluster of IT companies in Auvergne-Rhône-Alpes. It currently brings together nearly 500 companies and academic partners in the IT sector.

The cluster offers a wide range of services and actions to its members, in order to respond to 4 missions: to federate, grow, expand and transform while aiming to increase the performance and competitiveness of its member companies. .

On a daily basis, Digital League encourages the exchange of best practices between entrepreneurs, schools, laboratories, investors and institutions to create winning synergies.



Axelera, a cluster operating at the crossroads of the **chemical**, **environmental**, **and energy sectors**, supports innovation and international development initiatives to enhance the competitiveness of industrial companies. Based in Lyon, France, a **global chemical-industry hub**, Axelera has built a strong foundation across France's Auvergne-Rhône-Alpes region.



health technologies

http://i-carecluster.org

The i-Care Cluster was created by the will and with the financial support of the Auvergne-Rhône-Alpes Region. The aim was to support the businesses and other actors in the regional eco-system of **health technologies** to design and roll out **innovative solutions** in the **field of healthcare**.







As a Cluster, **Lyonbiopole** is the gateway to healthcare innovation in the Auvergne-Rhône-Alpes region.

It's supporting ambitious projects and innovative companies in the **healthcare & life sciences' sector**. Its aim is to help innovators develop new technologies, products and services in a push toward a more personalized medicine and better treatments for patients.



Energy transition

https://www.tenerrdis.fr

The mission of the **Tenerrdis cluster** is to promote the growth of sustainable activity and the creation of lasting jobs in the **new energy technology sectors**, in line with the challenges of the **energy transition**, by mobilising all resources (industrial, institutional, academic and scientific).



French pole of the rubber and polymers sector

https://www.elastopole.com

Elastopôle, the French competitiveness cluster for the **rubber and polymers sector**, has set ambitious objectives for itself, particularly support for SMEs and medium size companies, to increase their **levels of innovation and employment**.

Elastopôles's objectives are to:

- show that rubbers and polymers are essential and effective materials for all sectors that use them,
- participate in the development of new materials, products, processes and innovative functions,
- promote innovation, the business growth and company competitiveness, particularly with regard to SMEs,
- establish a network between researchers and trainers on the one hand and the world of industry on the other,
- develop international and inter-cluster collaboration: plastics, composites, machinery, automotive, aeronautics...
- provide an anchor for employment in the centre's catchment areas.



Discussion

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