MANUFACTURING
A flagship activity of the canton of Vaud
VAUD AND THE DIGITAL REVOLUTION

Driven by its tradition of innovation, Vaud-based industry is moving towards 4.0. A number of companies are developing digital solutions to make their production more competitive and continue to generate high added value in the canton.

Swiss watch, machine, tool and medicine manufacturers are leading the way. Their reputation for reliability has spread far beyond the country’s borders with the result that manufacturing in Switzerland is synonymous with quality and precision throughout the world. And whatever the challenges or state of the economy, Switzerland enjoys undeniable and permanent assets when it comes to the manufacturing of goods, namely: political stability, quality infrastructure and a highly skilled workforce.

Far from resting on its laurels, Switzerland has concluded mutual recognition agreements (MRAs) with more than 30 states, including the European Union. These countries recognize the conformity assessments already carried out in Switzerland. MRAs bring in around CHF 500 million a year for Swiss companies, which do not have to undergo inspection or certification tests every time they export a product to a new state.

Furthermore, a large number of initiatives are emerging on a national level to ensure the competitiveness of the Swiss market through the digitization and automation of factories. These include “Industry 2025” and “Digital Switzerland”, which are adaptations of Industry 4.0 to Swiss specifications.

In this innovative and industrial Swiss landscape, the canton of Vaud is at the forefront in many domains, ranging from watch manufacture to mechanics, via information technology and precision industry. Innovation is encouraged by the proximity and influence of reputed research centers, such as the world-renowned École Polytechnique Fédérale de Lausanne (EPFL) and the School of Engineering and Management Vaud (HEIG-VD). Thanks to the contributions of these institutes, the region has specialized in sectors with high added value: medical technologies, cybersecurity and precision instruments.

In addition to the R&D conducted in academic institutes and companies, industry in Vaud is now setting about 4.0. In other words, it is searching for ways to integrate new technologies to improve production and develop innovative solutions. With a large number of companies and research organizations active in information and communication technology (ICT), the canton of Vaud has all the assets to implement its digital transition.

AN IDEAL ENVIRONMENT FOR INVESTING

Located in the heart of Europe, Switzerland never ceases to amaze with its diversity and prosperity. Its political system is based on direct democracy and consensus, giving rise to productive stability that greatly benefits the economy. The country regularly ranks among the most competitive in the world.

Vaud, the largest of the French-speaking cantons, is also the most populated, with more than 800,000 inhabitants. An illustration of its openness is that nearly a third of its population hails from abroad. A significant proportion of these people are highly qualified and were attracted by the working conditions and excellence of the region’s institutions.

There are some 50,000 companies in the canton, mainly operating in the service sector, but they also lead the way in sectors with high added value such as precision instruments, medical equipment and information technology.
HIGH-TECH FACTORIES FOR ANYTHING FROM WATCHES TO ROCKETS

Manufacturing in the canton of Vaud stands out in a number of areas. Whether these are traditional or emerging sectors, they are all characterized by the high value-added products manufactured and the innovation of the infrastructures and methods employed. Here is a selection of them.

Microtechnology
In watch manufacture, robots assemble parts, completing the very minute operations carried out by watchmakers in an effective manner. Naturally, the process also saves time and increases productivity. The mechanical, electrical and metal (MEM) industry is also benefiting. BOBST, the Vaud-based manufacturer of packaging and labeling equipment, has been investing in Industry 4.0 for a number of years, for example by developing its own cameras and the connectivity of its machines. More generally, umbrella organizations such as the Federation of the Swiss Watch Industry, Swissmem and the Swiss Mechanical Industry Association (GIM) play an important role in promoting the modernization of production tools.

Agritech
In the agricultural sector, solutions are being developed to facilitate and increase production and improve the ecological impact of crops. For example, Vaud company ecoRobotix has devised a weeder robot that drastically reduces the use of chemical weed killers, and in some cases even eliminates it entirely. CombaGroup, based at the Agropôle, has developed a lettuce-growing system combining aeroponics and robotization which brings about impressive water savings, improves productivity, reduces losses and even enhances the quality of the final product.

Materials
The production of materials in the canton of Vaud is characterized by its innovation. Companies like Décision and NTPT (integrators of composite materials used in shipbuilding, the space industry, sports and telecommunications) and Del West (watch casings) push the boundaries to create unique materials, parts and structures. To this end, their factories boast the latest equipment and the workforce, from the technicians through to the engineers, are trained in the region’s vocational schools and universities. The most notable example is the Institute of Materials at the EPFL (IMX) which covers around 20 laboratories.

Aeronautics
Some 50 Swiss companies are active in the space sector. At the EPFL, the Swiss Space Center runs a network for industry and institutions. APCO Technologies is one of the leading Vaud companies in the aeronautics industry. In particular, it designs the nose cone and the lower connectors for the Ariane 6 auxiliary rockets. Around 250 people work in its state-of-the-art production halls. Aeronautics is also a stand-out in the canton of Vaud with the presence of Bombardier, RUAG Space, Safran and Colibrys in Yverdon-les-Bains and Honeywell in Rolle.

Pharma.medtech
Companies in the sector have equipped themselves extensively with automated devices for the purpose of optimizing production. There is also “Healthcare 4.0”, which represents the fact that the pharmaceutical and medical equipment sectors also want to branch out into the networking, analysis and exploitation of digital data. The Vaud production site of multinational company Medtronic is exemplary in this respect. "Swiss Manufacturing Operations", as it is called, is one of the most sophisticated pacemaker factories in the world. By way of another example, German pharmaceutical group Merck boasts state-of-the-art assembly lines in the canton for the production of its biotech medicines.

Laboratory and diagnostic technologies
Thanks to the collaboration between the fields of nanotechnology and diagnostic analysis, state-of-the-art tools and applications are being developed in the canton of Vaud, where around 20 research laboratories and a dozen companies are active, particularly in medical imaging. A startup by the name of Abionic has constructed an automated production line in the Vaud capital of Lausanne to display the “Swiss Made” label on its products, which is synonymous with quality and sophistication. It markets a small device that enables the detection of respiratory allergies, iron-deficiency anemia and sepsis from a drop of blood. It is based on patented nanofluidic technology.

Nutrition
The canton of Vaud is home to the headquarters of global food giant Nestlé and boasts several factories with modern manufacturing lines in this sector. These include Cornu (crackers), Hilcona Gourmet (pizzas, sandwiches), Eckes-Granini (fruit juice), Hugo Reitzel (gherkins, pickled vegetables) and Nespresso. Productivity, quality and connectivity are the key words in Nespresso’s production halls. At its site in Avenches, for example, some 10 billion capsules are produced each year.
WHEN INDUSTRY AND THE WORLD OF RESEARCH UNITE

Industry in the canton of Vaud can count on the region’s academic and research institutes. This exchange works both ways: companies benefit from the latest advances in technology and young people in training are given practical cases that often allow them to find a job after their studies.

École Polytechnique Federale de Lausanne (EPFL)
The École Polytechnique Fédérale de Lausanne has a reputation that goes far beyond Swiss borders. It has three main missions: teaching, research and technology transfer. Its links with Swiss industry are important. Some companies collaborate in a comprehensive manner in the EPFL’s fields of competence, particularly in transdisciplinary centers. Others do this more specifically, for example by working around a technical skill with a particular laboratory or by financing the project of a spin-off with high potential. With regard to digitization and Industry 4.0, a multitude of partnerships are being established, particularly within the School of Computer and Communication Sciences. Nearly 30 international companies have concluded partnerships, such as Pierre Fabre, SICPA, Saint-Gobain Packaging Verallia and ABB.

epfl.ch

School of Engineering and Management of the canton of Vaud (HEIG-VD)
The School of Engineering and Management of the canton of Vaud (HEIG-VD) is dedicated to transforming knowledge into products and services with high added value. Its aim is to promote innovation and the competitiveness of companies through three areas of action: teaching, continuous training and applied research and development. In terms of digitization and Industry 4.0, several institutes of the school conduct R&D activities, and offer direct services to the economic fabric (advisory mandates and turnkey solutions) as well as ongoing training. These include the Institute for Industrial Automation (iAi), the Institute of Information and Communication Technologies (IICT) and the Institute of Reconfigurable and Embedded Digital Systems (REDS), COMATEC, MecatronYx and AddiPole.

heig-vd.ch

École Polytechnique Federale de Lausanne (EPFL)

School of Engineering and Management of the canton of Vaud (HEIG-VD)

5 faculties
2 colleges
23 institutes
353 laboratories
14,300 students and employees
10 HES bachelor study programs
250 R&D projects
20 startups originating from the university

COMPETENCE CENTER FOR MATERIALS SCIENCE AND TECHNOLOGY (CCMX)
Based in the Vaud capital of Lausanne, the Competence Center for Materials Science and Technology (CCMX) is shared by the two Swiss Federal Institutes of Technology and funds essential research projects for Swiss industry. This ranges from materials capable of adapting to their environment to metallic microstructures in the field of additive manufacturing. In all, some 60 companies and federal entities are involved in CCMX projects.

THE INSTITUTE FOR INDUSTRIAL AUTOMATION
With its multidisciplinary technological competencies, the Institute for Industrial Automation (iAi) has been involved in the transfer of technology between the School of Engineering and Management of the canton of Vaud and Swiss companies since 1999. It conducts R&D projects in the fields of automation, robotics and mechatronics. In the area of Industry 4.0, the iAi is equipped with skills related to application development on the cloud, the networking of data flows, the Internet of Things and human-machine interfaces.
A WIDE ARRAY OF STATE-OF-THE-ART PLANTS

A large number of technology companies, including Lamina Technologies, have chosen to manufacture in the canton of Vaud, attracted by its skilled workforce, excellent services and political stability. Here is a selection of around 50 Vaud-based manufacturers.

APCO Technologies
High quality mechanical and electromechanical equipment in space and nuclear industries.
apco-technologies.com

Audemars Piguet
In 1972, the watch manufacture Audemars Piguet produced the world’s thinnest automatic central rotor movement, and in 2015, the first chronograph with consecutive time measurement.
audemarspiguet.com

B. Braun Medical
The pharmaceutical company B. Braun Medical works on products and systems for medicine. They created volumetric substitution solutions and flexible pouch systems for parenteral nutrition and drip therapy.
bbraun.ch

Biosafe/GE Healthcare
Specialised in cell therapies, Biosafe/GE Healthcare automated cell processing systems.
biosafe.ch

Blancpain
The watch manufacture Blancpain produced pieces with original movements and new complications.
blancpain.com

Breguet
The watchmaking company launched the first automatic watches as early as 1780, the regulator at tourbillon in 1801, the first keyless winding watch in 1830 and the invention of the mobile magnetic regulator of ringing in 2011.
breguet.com

Cellap Laboratoire
The cosmetic group Cellap Laboratoire produces creams containing active stabilized bio-integral cells, liquid stabilizer for maintaining cell material in the active state.
cellap.ch

CRB/Intercos Group
The cosmetic group CRB/Intercos Group produces and invents make-up, manicure and skincare products on behalf of major international brands.
crbcosmetics.ch

CLA-VAL
Cla-Val was founded in California in the 1930s and boasts unique expertise in the design of automatic control valves and the casting of special alloys. It is active in industry, fire protection, maritime, aviation, fuels and water systems. Cla-Val was set up in Lausanne in 1983 as a European center for the production and sale of the group’s products.

In the canton of Vaud, the company has established partnerships with 30 subcontractors and suppliers active in particular in the manufacture of control valve parts and in electronic development. Furthermore, the company has received support from the SPEI for three specific projects: two electronic products derived from one of its controllers and the development of a platform connecting its various equipment.
cla-val.ch
Décision
Décision is active in shipbuilding, the space industry and telecommunications, with its headquarters and production site located in Ecublens. It works with composite materials for projects such as the D35 catamaran and the Solar Impulse solar aircraft structure.
decision.ch

Del West
The company produces parts for watch covers in the United States unique properties (case, middle, back, bezel, push-button, (e.g. crown protector, slip rings, collar).
delwest.ch

Dentsply Sirona
Dentsply Sirona’s aim is to enable oral health professionals to provide faster, safer and more effective care. corporate.dentsplysirona.com

Eckes-Granini Suisse
Eckes-Granini is the leading Swiss fruit juice producer with its two brands, Granini and Hohes C. It has a partnership with Nestlé Waters Suisse SA for distribution and marketing in Switzerland. The company’s production site is located in Henniez. eckes-granini.ch

Elite
Elite, a Swiss manufacturer of beds since 1895, has enjoyed solid growth following several technological innovations. One of these is SmartLease, which allows hoteliers to change their business model and rent mattresses for use. elitebeds.ch

E.M.S Electro Medical Systems
This Swiss company has been developing a wide range of precision medical equipment (orthopedic, urological and dental prophylaxis instruments) for more than 30 years. ems-company.com

FAS/IMI Precision Engineering
FAS/IMI Precision Engineering is specialized in fluid control, with applications in life sciences, rail, agribusiness etc. They produce miniature solenoid valves and microfluidic technologies imi-precision.com

Ferring Pharmaceuticals
This biopharmaceutical company with international influence focuses above all on research. It identifies, develops and markets innovative products in the fields of reproductive and maternal health, urology, gastroenterology, endocrinology and orthopedics. ferring.com

Fischer Connectors
Based in Saint-Prex, Fischer Connectors manufactures connectors for some 20 different sectors, ranging from automobiles to robots and drones. fischerconnectors.com

Fondarex
This company specializes in pressure casting and plastic injection. Its main innovations are: vacuum systems, humidity sensors, vacuum valves and chill-blocks. fondarex.com

GSK
GSK is one of the 10 giants in the global pharmaceutical industry. It markets vaccines as well as a large number of prescription drugs. glaxosmithkline.ch

Heraeus Materials
Heraeus is the world’s leading supplier of precious metals. It is a German group based in Yverdon-les-Bains, which also develops medical technologies. heraeus.com

74 billion
worth of exports from Switzerland to the EU under the Mutual Recognition Agreements (MRAs) in 2017 (CHF).
**Hilcona Gourmet**
Initially established as a canning factory in the Principality of Liechtenstein in 1935, this manufacturer of ready-meals now employs over 2,000 people. One of its two production centers is based in Orbe in the canton of Vaud.
hilcona.ch

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**Hublot**
Watch manufacture Hublot’s headquarters and production site are located in Nyon. The company innovates in watch materials and creates unique alloys.
hublot.com

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**Jaeger-LeCoultre**
This innovative watch and jewelry company is based in Sentier in the Vallée de Joux. In 2006, it designed the first watch in history in which three dials are triggered by a single movement.
jaeger-lecoultre.com

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**KBA-NotaSys**
KBA-NotaSys offers high quality and secure printing solutions.
kba-notasys.com

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**Kudelski**
Kudelski Group works in digital security and solutions in the media field. They created the first portable audio recorders and television decoders.
nagra.com

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**Leclanché**
Leclanché produces batteries to store renewable energies (solar, wind) and for frequency regulation in energies, and environmental technologies.
leclanche.com

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**Lemo**
Lemo produces precision connectors and cabling solutions. Its main innovation: the self-latching push-pull connector.
lemo.com

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**Marcel Boschung**
Marcel Boschung is specialized in machinery and technologies for the maintenance of roads and airport runways.
boschung.com

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**Medtronic**
This American medical technology giant established its regional headquarters as well as a production unit in Tolochenaz in 1996. Medtronic made headlines with the development of the pacemaker.
medtronic.com

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**Merck**
This pharmaceutical and chemical company designs biotherapies for the treatment of cancer and multiple sclerosis as well as cutting-edge systems for scientific research and production.
merckgroup.com

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**Nespresso**
This world leader in coffee capsules, which is an offshoot of the Nestlé Group, has its headquarters in Lausanne. Its pods are marketed in over 60 countries worldwide.
nespresso.com

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**Nestlé**
The Nestlé Group, which is world No. 1 in agribusiness, opened its first offices in Vevey at the end of the 19th century. Its headquarters are still located there. Nestlé employs over 10,000 people in Switzerland, nearly a third of them in the canton of Vaud.
nestle.ch

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**Lamina Technologies**
Lamina Technologies specializes in the production of tungsten carbide cutting tools and is one of the greatest success stories in Vaud of recent years. It manufactures small milling and turning inserts for cutting metal. Several hundred thousand pieces are produced each month at its plant in Yverdon-les-Bains. While it was setting up business, the company benefited from the assistance of the DEV and the SPEI in the form of loan guarantees, among other things. The company values the presence of a qualified workforce, the significant availability of services and the political stability in the canton. It has also forged major research and development partnerships with the EPFL and the HEIG-VD.
lamina-tech.ch
North Thin Ply Technology
This Renens-based company produces composites for industry with ultra-light prepreg materials which are used in various fields such as automotive, aerospace and golf.
thinplytechnology.com

Plumettaz
Plumettaz is based in Bex and active in cabling (optical fiber, energy, rail).
plumettaz.com

Quotient
Quotient’s mission is to transform transfusion diagnostics by providing a comprehensive automated testing solution.
quotientbd.com

Regen Lab
This Vaud-based biotech company develops and produces medical devices for autologous cell therapies (PRP-BMC).
regenlab.com

Reitzel
Reitzel was founded in Aigle in 1909. It primarily produces and sells condiments in jars and today has three branches in France, India and Turkey.
hugoreitzel.ch

RUAG Space
Based in Nyon, this space industry company (space vehicles, electronics, launchers) manufactures lightweight structures for satellites and guidance systems for sounding rockets.
ruag.com

Rüeger
Rüeger designs and manufactures temperature measuring instruments in Crissier. The company produces electric temperature probes as well as gas and bimetallic thermometers.
rueger.website

Safran Colibrys
Active in the military, avionics, energy and industry sectors, Safran Colibrys is an innovator in the field of standard and semi-custom MEMS motion sensors.
colibrys.com

SCHOTT
SCHOTT – based in Yverdon-les-Bains – specializes in optics, with industrial applications in aeronautics, space and watchmaking.
schott.com

Sensient Imaging Technologies
Sensient Imaging Technologies, located in Morges, is active in inkjet printing (for fashion, interiors, architecture, sports equipment etc). In particular, it produces UV-curing printing inks and edible inks.
sensient.com

Socorex Isba
Socorex Isba specializes in precision instruments, particularly those used to measure, dose, transfer, dispense and inject liquids (micropipettes, dispensers etc.).
socorex.com

14,000
the number of new jobs created in the secondary sector between 2017 et 2018.

250,000
the added value accounted for by each job in the chemistry-pharmacy sector in the canton (CHF).

Source: CVCI
Sylvac
The company designs and manufactures digital measuring instruments used in industry, such as calipers, micrometers and measuring benches connected by Bluetooth.
sylvac.ch

Symbios
This Vaud-based medical technology company designs and markets hip and knee prosthetics.
symbios.ch

Synova
This Duillier-based company develops laser cutting systems, such as the water jet-guided laser.
synova.ch

TESA Technology
Specialized in metrology, TESA Technology produces precision measuring instruments to a tolerance of 0.001 mm or 1 μm.
tesatechnology.com

Thermo Fisher Scientific
This US company has set up a production site in Ecublens. It supplies research and analysis equipment to laboratories and specializes in optical emission and X-ray spectrometers.
thermofisher.com

Vacheron Constantin
This watch manufacture, established at Le Brassus, most notably designed a mechanical movement capable of indicating full and partial time zones in 2011, as well as a 57-complication watch in 2015.
vacheron-constantin.com

Valtronic Technologies
Valtronic is active in the design and industrialization of systems and implants for the medical industry.
valtronic.com

SICPA
Vaud-based company SICPA specializes in the development of solutions intended for the authentication and identification of products (tobacco, alcohol, luxury goods) as well as the protection of identity documents. The company also produces ultra-secure ink for banknotes in its Vaud plant which is accredited by the European Central Bank. In recent years, SICPA has also diversified into digital technologies, with cutting-edge solutions for digital product traceability. With its growth and reputation, this multinational has established partnerships with startups in the region and works closely with the EPFL, employing many former students. SICPA is also a sponsor of the EPFL Rolex Learning Center.
sicpa.com
NETWORk OF SUPPORTING PARTNERS

In the canton of Vaud, several aid agencies encourage companies in their establishment, development and implementation of innovative projects. These are the main ones:

Office for Economic Affairs and Innovation (SPEI)
The SPEI supports companies established in the canton of Vaud, in particular those involved in the sectors of advanced technologies and industry. The SPEI advises entrepreneurs and puts them in contact with the organizations suited to their specific needs. The service also provides direct financial support to companies which meet the criteria of the Swiss Law on Economic Development Support (funding for innovation, marketing and internationalization, investment and training). It also manages the Industry Support Fund (FSI). With a budget of 17.5 million francs, the support fund is designed to create and maintain industrial jobs in the canton.

invent-vaud.swiss

Economic Development – Canton of Vaud (DEV)
The DEV is the main contact for foreign companies looking to set up in the region. To fulfill its role, the DEV works with both private (banks, notaries, lawyers, etc.) and public partners (various government departments). It provides advice on administrative procedures and financing, and allows newly established companies to benefit from its vast network.

dev.ch

EPFL Innovation Park
Located next to the EPFL, the technological park of the same name hosts over 160 companies housed in 14 buildings – of which five are equipped with biological or chemical laboratories – covering an area of 55,000 m². Over 2,000 researchers, engineers, scientists and administrative staff work there.

epfl-innovation park.ch

GIM-CH
The Groupement suisse de l’industrie mécanique (GIM-CH) is the French-speaking branch of Swissmechanic, a national umbrella organization which covers 1,700 companies throughout the country. The GIM-CH offers its members various services such as the writing of articles for the trade press, providing templates for documents, organizing business visits and networking opportunities.

gim-ch.ch

Innovaud
As a gateway to innovation in the canton of Vaud, Innovaud supports and provides networking opportunities for startups and SMEs, particularly those in life sciences, to develop solutions with them in the area of hosting, promotion, funding and/or coaching. Innovaud is firmly established in a vast network of partners, enabling it to redirect requests to the organizations most suited to the needs of each party.

innovaud.ch

Micronarc
The Micronarc communication platform brings together all the cantons of Western Switzerland. Its aim is to develop and promote the micro- and nanotechnology cluster common to this region, from a scientific, technical and economic point of view. It thus highlights the infrastructures for training, R&D, technology transfer and hosting, as well as the companies located there.

micronarc.ch

Swiss Aeropole
This innovation park based in Payerne is wholly dedicated to the fields of aeronautics and aerospace. The park notably contributed to the success of the Solar Impulse and SolarStratos projects.

swiss-aeropole.com
Sainte-Croix Technology Park
The Sainte-Croix Technology Park is a national center of excellence in micro-welding and a reference center for additive manufacturing equipped with the latest technologies in digitization and 3D printing. Thanks to its international network, it provides opportunities for collaboration with leading qualified institutes in Europe and around the world. technopole1450.ch

TecOrbe
The TecOrbe comprises over 7,000 m² of offices, laboratories and industrial halls intended for cleantech companies, whether they are active in environmental protection, sustainable development, renewable energies or the improvement of manufacturing processes. It also boasts an incubator dedicated to business creation and supporting businesses during their first phase of growth. tecorbe.ch

Y-PARC
This technology park was created in 1991 in Yverdon-les-Bains and is the first of its kind in Switzerland. It is also one of the largest, covering an area of 50 hectares. It is a competence center which is home to more than 150 companies and startups. Y-PARC provides a complete and varied infrastructure – with land for sale, premises to rent and a business incubator – and support services tailored to all. Y-PARC benefits from an ideal location at the foot of the Jura mountains – a region where watch manufacture and microtechnology expertise have a long tradition. Forty-eight percent of jobs here (around 620 people) come from the precision industry. y-parc.ch

SWISSMEM
Swissmem is the Swiss umbrella company for the mechanical, electrical and metal (MEM) industry and has more than 1,050 members. The organization seeks to support the national and international competitiveness of these members. With this in mind, it launched the “Industry 2025” initiative in 2015. The goal: to embed the concept of “Industry 4.0” across the whole of Switzerland and encourage the digital transformation process in Swiss industry. swissmem.ch

“While a few years ago distributors were content to answer our requests, today the balance of power has reversed. Thanks to digitalization, they are now very responsive to market needs and we must therefore be able to respond to them.”

BLAISE VUILLE
Former Sales and Marketing Director for TESA Technology
A few examples:
Well established in the regional economic fabric, watch manufacture **Audemars Piguet** works with the University of Applied Sciences of Western Switzerland (HES-SO), the Swiss Center for Electronics and Microtechnology (CSEM) in Neuchâtel and the EPFL for the technical aspects (materials, microtechnology and computer science) as well as with the École hôtelière de Lausanne (EHL). “We have learned to take care of our customers with the same level of excellence as the manufacturing of watch components,” explains Olivier Audemars, vice-president of the firm’s board of directors.

During its 20 years of activity in the canton, **Medtronic** has established partnerships with stakeholders in the local economic and scientific fabric which are as varied as its areas of activity: technical development projects with the EPFL and the School of Engineering at Yverdon-les-Bains, research collaborations with the University Hospital of Lausanne (CHUV), sponsorship of a chair at the EPFL, recruitment of engineers, not to mention its relations with many goods and services suppliers.
Industry 4.0
Some industrial sectors have quickly taken to the digital transition.

At the forefront of the 4.0 world
Cla-Val, a company whose European headquarters are located in Romanel, today manufactures the “Rolls Royce of valves”. While they previously responded to a purely mechanical logic, valves intended for various industrial applications are now connected. From the outskirts of Lausanne, the company can thus control its facilities remotely, anywhere in the world.

High-end mattress manufacturer Elite, based in Aubonne, has devised a billing system based on the use of beds for the hotel industry – a sector that can be reluctant to invest large amounts for a simple piece of furniture. The company has reinvented itself by harnessing the digital transition, with rental times recorded by sensors placed in the mattresses.

Production and added value
Other sectors have also reinvented themselves, creating added value where it did not exist before.

A few examples:
While the Vaud construction sector collapsed in the 1990s – with the number of employees falling by 33.6% between 1985 and 1998 – it experienced a period of stabilization, followed by a slight recovery in the early 2000s and more dynamic growth in the last 15 years. This encouraging progression can be explained by two factors: demographic change favorably geared towards economic diversification on the one hand, and the almost constant decline in borrowing costs since the technological bubble burst in 2001 on the other. The branch is also witnessing real growth of 1.7% per year in terms of its added value.

In pharma, it is estimated that the added value was multiplied 5.5 times in real terms between 1997 and 2014 (+469.1%, or +10.8% per year) in the canton of Vaud. With a handful of companies – just over 20 of them registered in the canton – this branch has overtaken the combined sectors of medical technologies, electronics and watch manufacture since 2007, strengthening its dominant position each year. The branch is characterized by high productivity: according to a study by the BAK Basel Economics institute published in 2015, this amounted to some 627,000 francs per job in 2014, which is four times higher than the average for the Swiss economy and more than twice that of banks.

COMPANIES THAT ARE ADAPTING OR THINKING AHEAD

Nespresso
The manufacturer of coffee pods and the machines that go with them has experienced very strong growth in a short time. Today it exports to 62 countries, mainly in Europe. Its unique concept of inserting individual capsules into a machine was initially aimed solely at professionals. The firm achieved great public success by creating its own sales network and swiftly establishing its web presence, with online sales of its products beginning in 1998. Two years later, it opened its first store in Paris. By 2014, it already had 410 of them. Nespresso is an example of the regeneration potential of Swiss industry, provided that it targets certain niche markets.

BOBST
BOBST is a world leader in equipment and services for packaging and label manufacturers of the folding box, corrugated board and flexible materials industries, and ranks among the most iconic industrial companies in Vaud. In 2014, the group invested 6% of its turnover in research and development. It holds nearly 1,400 patents. BOBST has long been at the forefront of international markets, exporting more than 90% of its production. The company became a multinational in the 1980s, acquiring several organizations in France, Germany and Italy. BOBST opened a site in Germany in 1990, then set up branches in Malaysia, Thailand, Taiwan, Indonesia and India. It also operates factories in China and Brazil.

62%
the percentage of Vaud companies surveyed that say they are “rather or very concerned by the digital transition”, according to a recent study by the Vaud Chamber of Commerce and Industry.