SPORT TECHNOLOGIES
An innovation domain of the canton of Vaud
A HUB FOR WORLD SPORTS

More than 60 international sports organizations are headquartered in the canton of Vaud, making it the undisputed nerve center of world sport. Cutting-edge scientific and technological research institutions and an environment that encourages innovative business ventures makes the region an ideal hub for the global sports industry.

Unmatched incentives
One business leader who credits his company’s recent successes to the many opportunities on offer in Switzerland is Josep Castellet, General Manager of Pomoca. The company is located just outside of Lausanne and currently enjoys one-third of the global market share for skins used in backcountry skiing. One business magazine recently ranked Pomoca as one of the 10 most innovative and successful small and medium-sized enterprises (SMEs) in the Lake Geneva region. Founded in the 1930s, the company was bought by the Italian group Oberalp in 2011, modernized and restructured like a startup. In 2015, Pomoca was forced to consider relocating abroad due to a strong Swiss Franc. “While looking at options in other countries, we quickly realized that Switzerland’s political stability, its incentives for innovation and the potential for talent attraction are unrivaled,” Castellet said, explaining why the company stayed in Vaud. “In addition, we received significant support through funds from Innosuisse and SPEI, which helped us not only to maintain, but to increase our production and improve the features of our products.”

Pomoca conducts research in close collaboration with local engineers, chemists, mountain guides and athletes to modify the surface properties of the different types of skins according to the specific use of each set of skis. One partnership is currently underway with the Laboratory for Processing of Advanced Composites (LPAC) at the Swiss Federal Institute of Technology Lausanne (EPFL), Europe’s most cosmopolitan university, with over 10,000 students representing 112 nationalities. LPAC is one of more than 350 EPFL-based labs and is highly specialized in establishing the scientific basis for the next generation of materials and processes in the fast-growing fields of polymers and composites.
AN IDEAL ENVIRONMENT FOR EXCELLENCE IN SPORTS

Often referred to as the “Silicon Valley of Sport”, the canton of Vaud has created an environment that is fertile for innovation and economic growth, supported by political goodwill.

It all started when the International Olympic Committee (IOC) established its headquarters in “The Olympic Capital” of Lausanne over 100 years ago. More than 60 international sports organizations now call Vaud home, as do a considerable number of leading academic institutions, corporations, associations, startups and individuals, all with a shared connection to, or interest in, sport.

Today, a dense ecosystem of international sports bodies, supportive public policies, world-class research and development centers and a very favorable business climate combine to offer a unique opportunity to companies wishing to make their mark in sports, or sport related activities.

Political stability
Whether companies settled in Vaud many decades ago or are relative newcomers, they all point to Switzerland’s political stability as a crucial component for the long-term future of their businesses. Located at the heart of Europe with direct access to hundreds of international destinations, Switzerland is one of the most business-friendly and competitive countries in the world.

Companies moving to the canton of Vaud will find a climate that is extremely favorable, driven by political goodwill that is supportive of newcomers to the region. Public authorities provide assistance to lessen bureaucratic burdens, speed up procedures and secure business spaces.

Public authorities - Cantonal, Federal and of the city of Lausanne - are committed to maintaining and developing the strong comparative advantages of the canton of Vaud as the hub of the sports world.

Olympic Capital team
Efforts to service international sports organizations and other related stakeholders go far beyond offering office space. A dedicated “Olympic Capital team”, located in the “Maison du Sport International” (MSI) and made up of representatives from both the city of Lausanne and the canton of Vaud, helps sports organizations in the area by offering, among other services, administrative assistance, topical seminars and event support.

ThinkSport – easy navigation and access to all sectors guaranteed!
Keeping stock of all the sports stakeholders in the region and bringing them together to collaborate is a more complex task than it may sound like. It doesn’t just happen by itself, but requires a strategic approach. That is why the canton of Vaud decided to become one of the co-founders of ThinkSport, the first network that brings together the full range of sports-related expertise and excellence in Lausanne, Vaud, Switzerland and beyond.

ThinkSport’s aim is to facilitate new partnerships, knowledge sharing, creative thinking and innovative projects, and in doing so, drive progress in sport.

Anna Hellman, Director of ThinkSport, explains: “When we started with ThinkSport in 2014, we first worked on an inventory of all stakeholders as a logical starting point in order to get a comprehensive understanding of our unique ecosystem. In a next step, we then provided useful services and support to our network members and created our international sport and innovation event The Spot, which offers an annual, physical meeting point for our ecosystem. The next step in our strategy is the creation of a new Sport Innovation Hub which will complement The Spot by offering a permanent, strong platform for sport and innovation in the region. It will be a permanent, reliable gateway to provide support and push innovation in different ways to the global sports industry.”
WORLD-CLASS SPORT AND BUSINESS DEVELOPMENT

With its unique concentration of international sports organizations, academic excellence and innovative businesses, the canton of Vaud in western Switzerland is the leading destination for any company wishing to make an impact in the world of sport.

Economic growth + innovation = expanding opportunities

Thanks to a fast-growing economy, Vaud has experienced one of the highest growths in GDP among all Swiss cantons, its real GDP having expanded nearly 40% between 2000 and 2015. This positive trend has been closely linked to robust investment in innovation. In 2016, Vaud-based companies raised more than CHF 460 million of external funding, a figure that represents more than 50% of all venture capital investments in Switzerland. The Global Innovation Index 2017 published by Cornell University, the INSEAD business school and the World Intellectual Property Organization (WIPO), ranked Switzerland the most innovative country for the seventh consecutive year. Moreover, Switzerland has ranked first on the World Economic Forum's Global Competitiveness Report for the ninth consecutive year. In the latest edition (2017/2018) the report underscored how Switzerland's people and businesses are good at absorbing new technologies.

In a recent study mandated by the IOC, city of Lausanne and canton of Vaud, it was estimated that the average yearly economic impact of international sports organizations on the local economy is CHF 500 million for Vaud and CHF 250 million for the Lausanne region. Nationwide the figure exceeds CHF 1 billion.

Incentives for innovation

A number of schemes are in place to boost innovative projects in the region.

SUPPORT SCHEMES FOR SWISS COMPANIES EXIST AT THE EUROPEAN, NATIONAL AND CANTONAL LEVELS:

› Companies in Switzerland can participate in certain EU programmes, such as Eurostars, Eureka and Horizon, which support R&D activities.
› Innovaud supports startups, scale-ups and SMEs with coaching, financing, hosting and promotion.
› All Swiss companies have access to Innosuisse, which can cover up to 50% of R&D projects performed in collaboration with a Swiss university.
› Various tax incentives are available to companies settling in Vaud.
› Vaud's Office for Economic Affairs and Innovation (SPEI) provides direct financial incentives for specific business projects to support the creation and establishment of enterprises.
› The PERL Awards recognize entrepreneurial activity, innovation and creativity that have an economic impact on the Lausanne region. In 2019, the startup Involi won the PERL Award, worth 50,000 francs. The company develops an air traffic management system that allows secure integration of drones to avoid collisions with aircraft or helicopters.
SPORTING INNOVATION THROUGH COLLABORATION

The sports ecosystem in the canton of Vaud is supported by world-class research and development institutes.

Having access to academic expertise is an important asset for sports-minded businesses and organizations aiming to take their products to the next level or relying on scientific knowledge in areas such as safety, health, coaching and new technologies. This unique ecosystem contributed to the success of the Swiss yacht Alinghi and its team under Ernesto Bertarelli, winner of the America's Cup in 2003 and 2007.

Another example is the recent collaboration between the EPFL-based Laboratory for the Processing of Advanced Composites (LPAC) with Stöckli, a well-established Swiss ski manufacturer that has been on the market for over 80 years. LPAC helped develop an alpine ski that changes stiffness in response to the pressure applied by the skier, based on the same process as the scales on a turtle.

Academic excellence
The LPAC has served as a scientific backbone for the development of innovative composite materials and equipment across various sports, in particular the sailing and skiing industries.

“Thanks to strong collaboration with EPFL and the Swiss Institute for Snow and Avalanche Research, Stöckli recently brought a very innovative ski technology to market, based on the model of a turtle shell. With precise laboratory and field measurements, as well as numerical simulations, we managed to develop and industrialize the new concept in a very short time. The enhanced ‘skiability’ of our new product made this technology very attractive and, consequently, boosted our sales.”

MATHIEU FAUVE
Ski Research and Development at Stöckli

source: lausanne.ch
Exceptional academic network
UNIL is just a short walk from EPFL and, since 2008, has hosted a dedicated sport sciences institute covering a large range of multidisciplinary topics, from anti-doping to ethics, exercise physiology, history, marketing and traumatology, to name just a few.

Recently, UNIL launched a new interdisciplinary research platform that will coordinate collaboration between 120 researchers from seven different faculties in 12 different research areas, all related to sport.

Other important academic institutions connected to sport in the region include the world’s leading hotel management school (EHL – hospitality in sport); the cantonal school of art (ECAL – design in sport); the Vaud School of Business and Engineering (HEIG-VD – new technologies); the University of Health Sciences (HESAV – impact of sport and physical activity); and the International Institute for Management Development (IMD – leadership in sport).

Generating startups
The powerful knowledge base in the canton of Vaud has resulted in the emergence of a raft of successful startups; many are EPFL spin-offs. EPFL Innovation Park hosts technology-driven companies, which have easy access to cutting-edge research provided by the highly specialized labs, as well as a large network of dynamic entrepreneurs and established companies.

One such company is Gait Up, which combines smart sensors and biomechanics to deliver wearable motion-analysis solutions for use in the sports and health industries. Its “Swiss made” products are trusted by academic customers, clinics, and industry in Europe, Canada, the US, South America, and Asia and are used by everyone from professional runners to medical patients and the elderly. Together with the Lausanne University Hospital (CHUV), Professor Grégoire Millet, a specialist in exercise physiology at UNIL, helps Gait Up on the scientific front. Professor Millet, himself a former professional athlete and triathlon coach for the French and British national teams, says: “Gait Up needs scientific validation to receive federal funds for research and development projects. This is where our knowledge comes in. In return, such startups provide an excellent opportunity for us to apply our scientific theories in the real world and see if they hold true.”

“The nature of our research is well suited to the development of sports equipment. The sports industry is looking for fast solutions and constant progress in high performance materials. We work with very motivated and dynamic academic and business partners who are keen to explore new opportunities when it comes to sporting material, in particular lightweight composites. This is great fun and stimulating for us as we often see solutions being turned around within a year – from the first scientific concept through to production.”

DR VÉRONIQUE MICHAUD
Head of the Laboratory for Processing of Advanced Composites (LPAC)
The more than 60 international sports organizations located in the canton and nearby add significant value to sports-related companies in Vaud. Two of the biggest names in sports, the International Olympic Committee and UEFA, are both headquartered in Vaud. FIFA, football’s world governing body, is only two hours away in Zurich.

Lausanne and its surrounding region host more than 30 International Federations, the world governing bodies for their respective Olympic or non-Olympic sports, and ANOC, the umbrella organization for the more than 200 National Olympic Committees. Most of the federations are located in the “Maison du Sport International” (MSI) in Lausanne, together with the European Office of the World Anti-Doping Agency (WADA) and some 20 sports-minded companies. This unique complex promotes collaboration and builds synergies among the different sports stakeholders. Officially inaugurated in 2006, the MSI complex has been expanded since 2011 to allow new federations to set up in Lausanne.

This high concentration of international sports organizations in the Lausanne area also explains the presence of the Court of Arbitration for Sport (CAS) in the Olympic Capital. An institution independent of all sports organizations, it facilitates the settlement of sports-related disputes through arbitration or mediation.

Two International Federations, the International Cycling Federation (UCI) and World Archery (WA) have invested heavily in training infrastructure in the canton of Vaud.

The World Cycling Center (WCC) in Agile is home to the UCI’s headquarters as well as an elite coaching and training center, including a 200m wooden indoor track and a 400m BMX Supercross track.

The World Archery Excellence center, which opened in December 2016 in Lausanne, is designed to host world-class archers and events, educate sports coaches and officials, and act as a development hub for the local population.

World Archery recently started collaborating with EPFL to test target material as well as to look at brain activity that takes place during the practice of archery and examine factors that influence performance.
Linking Switzerland and the world
A good example of a company leveraging the proximity of the IOC and International Federations is Shankai Sports. It specializes in developing and delivering China’s strategies for international sports organizations in the fields of sponsorship, media rights, hospitality, event operations and licensing. Shankai Sports’ headquarters are in Beijing, but the company opened an office in Lausanne at the end of 2015 due to its increasing collaboration with UEFA, the IOC and other International Sports Federations. Shankai introduced Hisense, a Chinese electronics manufacturer, as a global sponsor for the UEFA European Championship in France in 2016, making it the only Chinese sponsor in the 56-year history of the tournament. More recently, Shankai facilitated a 12-year partnership deal between the Alibaba Group and the IOC. Shankai will help Alibaba manage the high-profile partnership, and the physical proximity to the IOC is expected to aid the process. Projects with other sports organizations are in the pipeline.

The world is watching the canton of Vaud
The high concentration of international sports organizations in Vaud has also resulted in growing business opportunities stemming from the organization of major sports events in the region, both competitions and conferences. For instance, Lausanne is set to host the 2020 Winter Youth Such large-scale events are the perfect platforms to roll out new products and business models, such as new technologies, hospitality models and health programs.

People power
UNIL, EPFL and the many other specialized schools in Vaud not only provide their knowledge to the sports industry; they are also important incubators for a qualified workforce that ensures the sports ecosystem in Vaud continues to flourish. In addition, there are a number of highly specialized masters programs, tailored for people looking to pursue careers in the sports world. One of them is offered by the International Academy of Sports Science and Technology (AISTS) created in 2000. As a center specializing in sports management, AISTS provides postgraduate and executive education, as well as applied research, by developing, integrating and delivering knowledge from human sciences, life sciences and engineering sciences. The academy also conducts studies and provides consulting services to a wide variety of clients, including academia, businesses and sports federations.

The international human resources agency Sports Recruitment International discovered the potential of Vaud’s qualified workforce and opened a dedicated office in Lausanne.

“Our very good collaboration with the city and the canton, the central location in Europe, the vicinity of the IOC and other federations and the possible synergies with universities and specialized schools around us were important factors.”

TOM DIELEN
World Archery Secretary General
Quality of life
Last but not least, sports businesses and organizations that settle in Vaud can take advantage of Switzerland’s well-known natural beauty and high standard of living. A popular destination among expatriates, one in four people living in the country holds a non-Swiss passport. Foreign companies and workers make a significant contribution to Switzerland’s prosperity. Its linguistic and cultural diversity coupled with the high concentration of foreign residents make Switzerland a country of tolerance and openness.

“This one-stop-shop will make it easier for other sectors seeking collaboration with the academic world to be introduced to the right experts, labs and faculties – both at the UNIL campus and beyond. It will facilitate the recruitment of the best experts for a given specific project, which may require expertise from different scientific areas.”

PROFESSOR FABIEN OHL
Professor of Sociology of Sport
at UNIL’s Sport Sciences Institute

creation of the ThinkSport cluster.

Source: ThinkSport | Photo: L. Nesvadba/CIO
MAIN ACTORS OF THE SPORT TECHNOLOGIES ECOSYSTEM

Alliance of Independent recognized Members of Sport (AIMS)
Umbrella organization for 21 non-IOC recognized members of SportAccord.
aimsisf.org

Association of IOC Recognized International Sports Federations (ARISF)
Umbrella organization for 37 sports not on the Olympic Program but recognized by the IOC.
arisf.org

Association of National Olympic Committees (ANOC)
Umbrella organization for the more than 200 National Olympic Committees (NOCs).
anoclympic.org

Association of Summer Olympic International Federations (ASOIF)
Umbrella organization for the 28 Summer Olympic sports.
asoif.com

Court of Arbitration for Sport (CAS)
Independent institution facilitating the settlement of sports-related disputes through arbitration or mediation.
tas-cas.org

International Olympic Committee (IOC)
Leader of the Olympic Movement and owner of the Olympic Games.
olympic.org

SportAccord
Umbrella organization for all (Olympic and non-Olympic) international federations and organizer of SportAccord Convention.
sportaccord.com

Union of European Football Associations (UEFA)
One of the six continental confederations of FIFA, consisting of 55 national association members.
uefa.com

World Anti-Doping Agency (WADA), European Office
One of WADA’s four regional offices.
wada-ama.org/en/regional-offices#Europe
École cantonale d’art de Lausanne (ECAL)
Renowned university of art and design, works on design in sport.
ecal.ch

Glion Institute of Higher Education
Hospitality school, offering bachelor’s degrees in event and sports management.
glion.edu

International Academy of Sports Science and Technology (AISTS)
Specialized in sports management and provider of postgraduate and executive education.
aists.org

International Institute for Management Development (IMD)
Renowned business school, with a focus on leadership in sport.
imd.org

Lausanne University Hospital (CHUV)
Dedicated sports medicine center and Swiss Laboratory for Doping Analyses.
chuv.ch

School of Engineering and Management Vaud (HEIG-VD)
Technology for sport.
heig-VD.ch

Smart Move
Network of academic institutions related to sport.
thesmartmove.ch

Sports Management School (SMS)
Different diplomas and degrees in sports marketing and communication.
sawi.com/romand

Swiss Federal Institute of Technology (EPFL)
Renowned university in engineering and technology, also dedicated to technology in sport.
epfl.ch

Swiss Hospitality Management School in Lausanne (EHL)
Renowned hotel management school, addresses hospitality and event management in sport.
ehl.edu/en

University of Health Sciences (HESAV)
Dedicated Skills Center for Health, Physical activity and Sports.
hesav.ch

University of Lausanne (UNIL)
Sport sciences institute (ISSUL) with a new interdisciplinary sport research platform.
unil.ch

World Academy of Sport (WAoS)
Learning programs for sports and event participants – athletes, managers, administrators, officials and coaches.
worldacademysport.com

RESEARCH AND DEVELOPMENT
MAIN PUBLIC SECTOR STAKEHOLDERS

Lake Geneva Region
Tourist office of the canton of Vaud, which supports and develops the tourist economy of the region.
region-du-leman.ch/en

Lausanne Olympic Capital
Offers a service desk at the MSI to international sports organizations and other sports-related stakeholders.
olympiccapital.ch

Lausanne Region
Promotes and serves the 27 communes of the wider Lausanne region.
lausanneregion.ch

Service des Sports, Lausanne
Sports department of the City of Lausanne which manages sports infrastructure, organizes sports events and extracurricular sports activities.
lausanne.ch

Service of Physical Education and Sport of the Canton of Vaud (SEPS)
Leads the sports policy for the canton of Vaud, including physical education in schools.
vd.ch/seps

ThinkSport
Network bringing together all sports-related sectors to stimulate progress and innovation, founded by the Swiss Confederation, the canton of Vaud, the city of Lausanne and the International Olympic Committee.
thinksport.org
## ESTABLISHED BUSINESSES AND STARTUPS

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Description</th>
<th>Website</th>
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</thead>
<tbody>
<tr>
<td>Advanced Sport Instruments</td>
<td>Sensors linked to software to improve athlete performance.</td>
<td>asi.swiss</td>
</tr>
<tr>
<td>be.care</td>
<td>Non-invasive sensors that generate clinical and predictive information for therapeutic use and health promotion.</td>
<td>becare.me</td>
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<tr>
<td>Compex</td>
<td>Portable muscle stimulators for improved performance and recovery in sports.</td>
<td>compex.ch</td>
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<tr>
<td>Décision</td>
<td>Innovative composite structures used in sports industry, e.g. for boatbuilding and aeronautics.</td>
<td>decision.ch</td>
</tr>
<tr>
<td>Forward Sailing</td>
<td>Sails and other equipment for catamarans.</td>
<td>forward-sailing.ch/en</td>
</tr>
<tr>
<td>Gait Up</td>
<td>Smart sensors and biomechanics for wearable motion-analysis solutions.</td>
<td>gaitup.com</td>
</tr>
<tr>
<td>Genius Sports</td>
<td>Technology for the control of sports data.</td>
<td>geniussports.com</td>
</tr>
<tr>
<td>Kudelski</td>
<td>Digital security and convergent media solutions for the delivery of digital and interactive content, owner of SKIDATA.</td>
<td>nagra.com</td>
</tr>
<tr>
<td>Lagardère</td>
<td>Sports and entertainment agency.</td>
<td>lagardere-se.com</td>
</tr>
<tr>
<td>MyNextMatch</td>
<td>Free data management software for sports professionals.</td>
<td>mynextmatch.com</td>
</tr>
<tr>
<td>Nestlé Institute of Health Science</td>
<td>Nutrition to change the course of health management for consumers, patients etc.</td>
<td>nestlehealthscience.com</td>
</tr>
<tr>
<td>North Thin Ply Technology</td>
<td>3D™ technology for North Sails’ grand prix yacht racing sails, thin ply prepreg products.</td>
<td>thinplytechnology.com</td>
</tr>
</tbody>
</table>
OC Sport
Sports marketing and events company specialized in professional sailing and outdoor events.
ocsport.com

PIQ
New technology for measuring various sports performances.
piq.com

Playful Vision/Second Spectrum
Athlete tracking and analysis in augmented reality.
playfulvision.com
secondspectrum.com

Pomoca
Skins used in backcountry skiing.
pomoca.com

SF Tech
Specialized scuba diving suits manufacturer.
sftech.ch

Shankai Sports
China strategies for international sports organizations.
shankaisports.com

Skioo
Single keycard to access 55 resorts.
skioo.ch

Technis
Tactile sports fields able to recognize the activities occurring on the surface.
mytechnis.com

Voltitude
High-end folding e-bikes.
voltitude.com

Xsensio
Lab-on-Skin wearable devices that exploit biochemical information on the surface of the skin.
xsensio.com
INTERNATIONAL BODIES RELEVANT FOR SPORTS BASED NEARBY

International Labour Organization (ILO)
UN agency promoting rights at work, better employment opportunities, enhanced social protection and dialogue on work-related issues.
ilo.org

UN Office on Sport for Development and Peace (UNODSP)
Enter point to the UN system with regard to Sport for Development and Peace, bringing the worlds of sport and development closer together.
un.org/sport

World Federation of the Sporting Goods Industry (WFSGI)
The world body for the sporting goods industry, officially recognized by the IOC as the industry representative within the Olympic Family.
wfsgi.org
NETWORK OF SUPPORTING PARTNERS

Biopôle Digital Health Hub
Collaborative network that brings together companies and innovative minds to promote the integration of digital technologies in the life sciences sector.
dh2.ch

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

EHL Innovation Hub
This program of the EHL promotes the exchange of ideas and innovative thinking among students, alumni and partners from all over the world on the future of the hotel industry.
ehl.edu/en/about-ehl/innovation

EPFL Innovation Park
EPFL Innovation Park brings together innovative companies in an inspiring environment with privileged access to cutting-edge research, a vast network of dynamic entrepreneurs and established companies.
epfl-innovationpark.ch

Innovaud
As a gateway to innovation in the canton of Vaud, Innovaud supports and provides networking opportunities for start-ups 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

Les Ateliers de Renens
This innovation park focuses on design, such as by accommodating graduate talent from the Vaud School of Art and Design in Lausanne (ECAL). It features a MakerSpace and the startup accelerator Mass Challenge, a project that started in Boston before expanding to other countries around the world, such as Israel and Switzerland.
ateliersvdr.ch

Nano-Tera
The Nano-Tera program aims to bring Switzerland to the forefront of a new technological revolution: using engineering and information technology to improve health and security, the management of energy and the environment.
nano-tera.ch

Nestlé Institute Of Health Science
The Nestlé Institute of Health Sciences conducts fundamental research to understand health and develop targeted nutritional solutions.
nestleinstitutehealthsciences.com

Office for Economic Affairs and Innovation (SPEI)
The Office for Economic Affairs and Innovation is a public institution that deals with the creation, development and establishment of companies in the canton of Vaud.
invest-vaud.swiss

Cluster ThinkSport
Network bringing together all sectors working in sport to boost progress and innovation, founded by the Swiss Confederation, the canton of Vaud, the city of Lausanne and the IOC.
thinksport.org

Y-PARC
The technological park in Yverdon-les-Bains is the largest in Switzerland. It is home to companies of all sizes, creating an ecosystem rich in synergy and innovation.
y-parc.ch