

# INNOVATION BEHIND THE MOUNTAINS BEVOND "CHALET AND MOUNTAIN PASTURES" CLICHES, THE RHODANIEN CANTON STANDS OUT

3EYOND "CHALET AND MOUNTAIN PASTURES" CLICHE THE RHODANIEN CANTON STANDS OUT FOR ITS STRONG ECONOMIC GROWTH AND POPULATION BOOM. WITH EPFL AS PILLAR, THE ENERGYPOLIS CAMPUS IS LEADING GROWTH IN THE VALAIS. BY MARY VAKARIDIS

PRICOTS, raclette and skiers? Wrong: the Valaisian economy has nothing to do with this Epinal print. Instead, think startups, large-scale industrial innovation, trail-blazing ideas... At the forefront of research thanks to EPFL and the University of Applied Sciences Western Switzerland (HES-SO), the can-

ton of Valais-Wallis has moved far beyond traditional clichés in phase with the 21st century. "Do you know what they say about the Valais?" jokes Christophe Darbellay, State Councilor responsible for economy and training. "That outsiders are reluctant to come here to settle - but once they do, they never want to leave. Our canton is currently working to strengthen its high-

value-added segment. World-renowned researchers are developing projects right here at the EPFL campus in Valais-Wallis. We are delighted that they are happy in their new environment."

Examples of technological stars abound. DePuy Synthes in Raron and the Ibex project in Lonza (see box, page 40) have put the Valais on the map of innovation. Another

#### **REPORT //** VALAISIAN ECONOMY



Founded in Sion in 1963, Gotec has become world leader in high-end oscillating pumps.

Sion suggest what traffic will be like in the not so far-off future when all vehicles are driverless. The buses were developed by PostBus and NAVYA, specialists in the autonomous vehicle market, in partnership with the city of Sion, the Canton of Valais, EPFL, HES-SO and the Swiss Post. "The region is appreciated for its quality of life as well as its proximity to major airports. Employment is developing dynamically. This is most positive for Valaisan graduates who now find opportunities at the height of their skills in their place of origin," observes Jean-Pierre Bringhen, CEO of the construction supply company Bringhen Group.

#### **Engines of growth**

Powerful springboard for the Valaisian economy, EPFL (Federal Institute of Technology in Lausanne), which set up a campus here in 2012, employs over 230 scientists who have already attracted nearly 60 million in research contracts. The university helps drive CampusEnergypolis in Sion, bringing together in one center of research HES-SO and the start-up incubator, The Ark. "Energypolis has raised the entire value chain. Activities include both fundamental and applied research, the technology transfer and the development of applications," says Christophe

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The chemistry firm Lonza, the Migros Valais cooperative, Coop Group and Groupe Mutuel are, in decreasing order, the main employers in Valais, offering some 7500 jobs in all. But, over the past ten years, local start-ups have grown up, some of which stand out at the international level. The Ark incubator has, so far, produced some 20 companies, including Recapp, in the field of multilingual voice recognition, and KeyLemon, in biometric security (see box on page 40).

The emergence of startups in Valais is inseparable from an institution that plays a major role: the Idiap Research Institute (formerly, Institute of Artificial Intelligence Perceptive). Created in 1991 by the City of Martigny, the canton of Valais, EPFL, the University of Geneva and Swisscom, Idiap focuses its efforts on research, training and technology transfer. The center employs around 100 employees with an annual budget of 10 million francs (55%) funded by research projects and 45% from public funds). In 2002, Idiap received international attention when the institute was chosen to analyze the alleged recordings of Osama Ben Laden.

#### 40000 new residents in 10 years

"Training and innovation must allow Valais to succeed in shift to digitalization.

We need to prepare a new generation of professions that don't even exist yet. This is also true for the banking sector," says Pascal Perruchoud, CEO, Cantonal Bank of Valais (BCVs). Professor at the University of Management and tourism of Sierre, Marie-Françoise Perruchoud-Massy adds, "The Valais has experienced a catch-up effect with an economy that has diversified into financial services and insurance. These activities are in the digitization phase and we are witnessing a strengthening of added-value, for example in the area of viticulture."

Published in 2017, a study conducted by the Basel institute BAK on behalf of the Chamber of Commerce and Industry and the BCVs indicates that the expansion of the Valaisan economy is due to population growth. Long-term comparison (2005 to 2015) with similar Alpine regions in Europe shows that the Valais leads in terms of GDP growth compared to different mountain regions. In the past ten years, the canton has welcomed 40,000 new residents, an increase of 15% in population. "The study shows that our economy grew faster than that of comparable mountain regions in France, Italy and Austria. In this context, it is an ongoing challenge to foster innovation and to offer it a showcase of quality. It is for this purpose that we launched the BCVs Prix Créateurs challenge in partnership with the canton's Economic Promotion office over ten years ago," says Pascal Perruchoud.

#### **Regional differences**

"The evolution of Valais shows very strong dynamism," says Christophe Darbellay. "By comparison, over the same period, the Canton of Grisons (Graubünden) remained static in both population and employment." Adds Pascal Perruchoud, "The weight of secondary cantonal GDP is 30%, a proportion very close to that observed in Fribourg. Our canton is also based on other areas of expertise, such as chemistry and the pharmaceutical industry – over 12%

### VALAISANS WHO DYNAMIZE THE ECONOMY



#### VINCENT CLAIVAZ President of FVS Group and the Valais Fair

Member of the Executive Board of Groupe Mutuel since 2002, Vincent Claivaz is a key player in the event sector as president of the FVS Group and the Valais Fair. Until Spring 2018, Vincent Claivaz led Agrovina, the exhibition dedicated to oenology and arboriculture. He was also on the committee of the Valais Fair, responsible for exhibitors. Pillar of Valaisan economic life, the Fair continues to develop. Specialized in event management, the FVS Group has added two new events: Epicuria (in November 2018. devoted to terroir and gastronomy) and 180° (coming in May 2019 to showcase habitat, well-being and the outdoors). Trained at EHL School of Hospitality, Vincent Claivaz leads the FVS Group. with CHF10 million turnover and employing 21 people.



#### ANNE LAURE COUCHEPIN VOUILLOZ President of Martigny

The first woman president of a city in Romandy Valais. Anne-Laure Couchepin Vouilloz has been watching over the development of Martigny since 2016. Deputy of the FDP/Liberal party, she spent eight years in her commune's executive branch with responsibility for schools. Trained first as a physiotherapist, she then became a lawyer. In her position as town president, she must rise to the challenge to redevelop Martigny's main road, Avenue de la Gare. She must also manage Martigny's new role as the canton's second largest city (after Sion), due to its merger in 2021 with the village of Charrat, giving Martigny a population of over 20.000 inhabitants. Economic engine for the canton, with a growth of 1.5% in 2012-2016, Martigny gets a boost from the activities of Groupe Mutuel and Debiopharm, both established on its territory.



#### MARIE THERESE CHAPPAZ Vinegrower

At the beginning of the year, Marie-Thérèse Chappaz reached new heights when Robert Parker's famous winemaking guide awarded two of her wines the score 99/100. The winemaker in Fully stands out as a leader of the renewal of Valaisanne vinevards, which has recently achieved a spectacular upselling, Trained in oenology at the Ecole de Changins, she worked six years in the cellar of the federal station before taking over her family's winemaking domaine, which she subsequently expanded. The Valaisanne also stands out as a pioneer in biodynamics, an agricultural method using natural agents that she has adapted for grapes and applies in a non-dogmatic way. Passionate about the world of the vineyard and nature, she has personally committed herself to a Switzerland free of synthetic products and a strong and viable agriculture.



#### HERVÉ BOURLARD Director of Idiap

Professor at EPFL, Hervé Bourlard has been director of the Idiap Research Center in Martigny since 1996. Specialized in the computerized processing of speech, vision and machine learning, this scientist of Belgian origin is sought out by the media on the promising theme of artificial intelligence. In this field, he is seen as a pioneer both in Switzerland and abroad. From his start in the research laboratories of Philips MBLE in Brussels in the 1980s, he has developed two parallel careers in the academic world at the University of Berkeley and in industry. He is the author of some 350 scientific articles, some of whose findings have been massively adopted by industry, sometimes even 20 years after publication. Recipient of many scientific and business awards, he is also Vice-President of the startup incubator, The Ark.

## COMPANIES INVESTING IN INNOVATION



#### H55 Energy and aeronautics, Sion

Under the direction of André Borschberg, co-founder with Bertrand Piccard of "Solar Impulse" (the solar plane that flew around the world), the company H55 aims to build electric propulsion systems for air transportation. The Sion startup has already raised CHF5 million, notably from a Silicon Valley venture capital company. The Federal Office of Civil Aviation and the Valais Foundation for Innovation. The Ark, created in 2004 by the State of Valais, are also participants. Two other veterans from the Solar Impulse adventure work alongside André Borschberg: Sébastien Demont, electrical engineer, and Gregory Blatt, economist. H55 is helping to launch the Green Fly project in partnership with HES-SO. Located in space once used by the Swiss army. Green Fly aims to make Sion Airport a hub of renewable energies.



#### **DEPUY SYNTHES** Medical technologies, Raron

According to its management, the workforce of DePuy Synthes in Raron is exceptiona for "qualities of reliability, openness to innovation and perseverance", characteristics essential to the manufacture of high quality products. In 2005. the DePuv Synthes unit in Valais was still called Techron and led by Patrick Z'Brun, who, with considerable effort, had revived "Apparatebau Raron" (the Raron appliance factory), a subcontractor of the Swiss army. In 2005, Patrick Z'Brun sold Techron to Synthes, multinational leader in medical technologies. Since then, its workforce in Valais has tripled to some 240 employees. Employing 12,000 persons around the world, Synthes has had a turbulent history. Born in 1999 from the merger of Stratec Medical and Synthes USA, the company was subsequently acquired by the American giant, Johnson & Johnson in 2012.



#### KFYI FMON Facial recognition, Martigny

Founded in 2008, KeyLemon achieved international notoriety when it was acquired in 2018 by an Apple supplier, the Austrian group AMS, for an unspecified amount. The company develops facial recognition solutions for mobile phones. The fruit of collaboration between HES-SO Valais and Idiap, the startup founded by Gilles Florey and Yann Rodriguez enjoys financial support from programs like Venture Kick, as well as The Ark Foundation, associated with the CCF SA (Centre de cautionnement et de financement). A recent new milestone: Technological TechCrunch featured KeyLemon on its blog, attracting the attention of the world's biggest players to the firm. With 3 million customers before its acquisition, the startup had already signed contracts with Swiss Post. Swisscom and Toshiba. As part of its integration into the AMS group, the Valais site must transform itself into a department for research and development.



#### I ON7A-IBFX Pharma-Biotech, Visp

The pharmaceutical company Lonza is investing heavily in a project called lbex at its site in Visp. Devoted to the creation of new molecules, the process should cut the time of arrival of a new drug on the market by at least 12 months. The Swiss group has teamed up with the French giant Sanofi to set up this factory of mammal cell cultures on a large scale for the production of monoclonal antibodies. The partners plan to build up to five new buildings, construction of which began in 2017. Investment in the first phase amounts to CHF290million and could reach CHF1billion over the long term. The factory should be operational by 2020, adding some 200 new jobs. Lonza, which had an excellent fiscal year 2017, employs over 10,000 employees around the world, including 2700 in Visp.

- and the production and distribution of electricity - nearly 4.7%."

The BAK study also points to strong regional differences. Martigny is champion for economic development. Sion ranks highest in "quality of life". Monthey leads in population growth. The most urbanized regions have the greatest impact on the evolution of the canton's economy, generating 62% of cantonal GDP.

Over the last three years, however, the canton has suffered from the strong Swiss franc, the low cost of energy and a drop in ski tourism due to global warming. "So many factors weigh on forecasts of growth. According to the forecasts, the canton will not benefit from the same momentum as the rest of Romandy. This is regrettable because we feel a real dynamism, I would even say a sense of renewal," says Emmanuel Fragnière, professor at HES-SO Valais-Wallis. He calls for a change in thinking. "Valaisans must open up more to the rest of Switzerland and the world as a whole to build, whatever the cost, opportunities on the outside." The professor calls for a move upmarket in all areas: "Agriculture, energy and tourism must be built on innovation, as well as on solid know-how."

#### **Create four-season tourism**

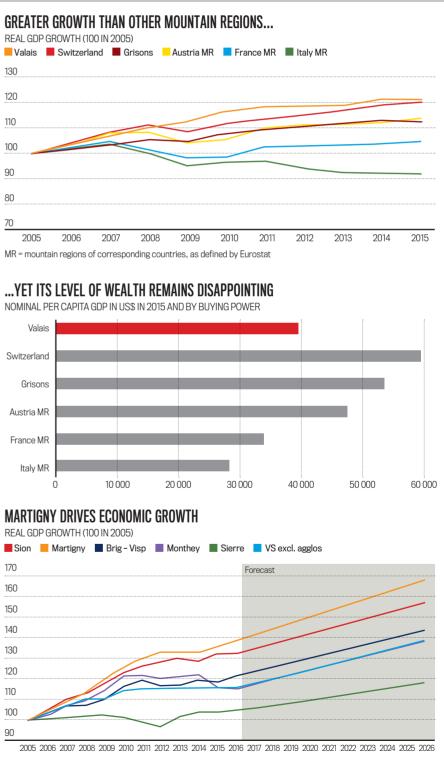
How to revitalize tourism is an issue of primary importance. "Tourism is a sector that cannot be restricted to three months of activity per year," insists Christopher Derbellay. "We need to expand our offer." Professor at HES-SO, Roland Schegg observes, "The goal is to create a tourism for all four seasons. Tourist destinations seek to build a 'smart' brand by emphasing digitalization and the number of events and activities are growing with 'escape rooms', theme evenings, new hiking trails, culinary activities... Tourism professionals want to offer a maximum of experiences to guests." One track with high potential is the over-

50 age group, a growing demographic who skiless and seek other sources of fulfillment. "South Tyrol attracts a lot of German and Austrian seniors with an offer addressed to that clientele," notes Roland Schegg. "There is certainly a lot there to inspire us." B

## THE VALAIS. A CANTON DEVELOPING FAST

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Valais Switzerland Grisons



Source: BAK Economics