



energypolis

CAMPUS

**Energypolis Campus  
Innovation at the heart  
of the Alps**

Innoday  
21 March 2024





## The Campus



The Energypolis Campus is an innovation ecosystem that brings together the skills of many players in the field of energy, health and environment. The main partners are:

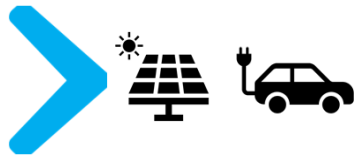


### The objectives

- Create a complete value chain for the development of innovative solutions;
- Responding to today's major energy, health and environmental challenges with cutting-edge technologies.



## Challenges of the 21 century



*Energy et mobility*



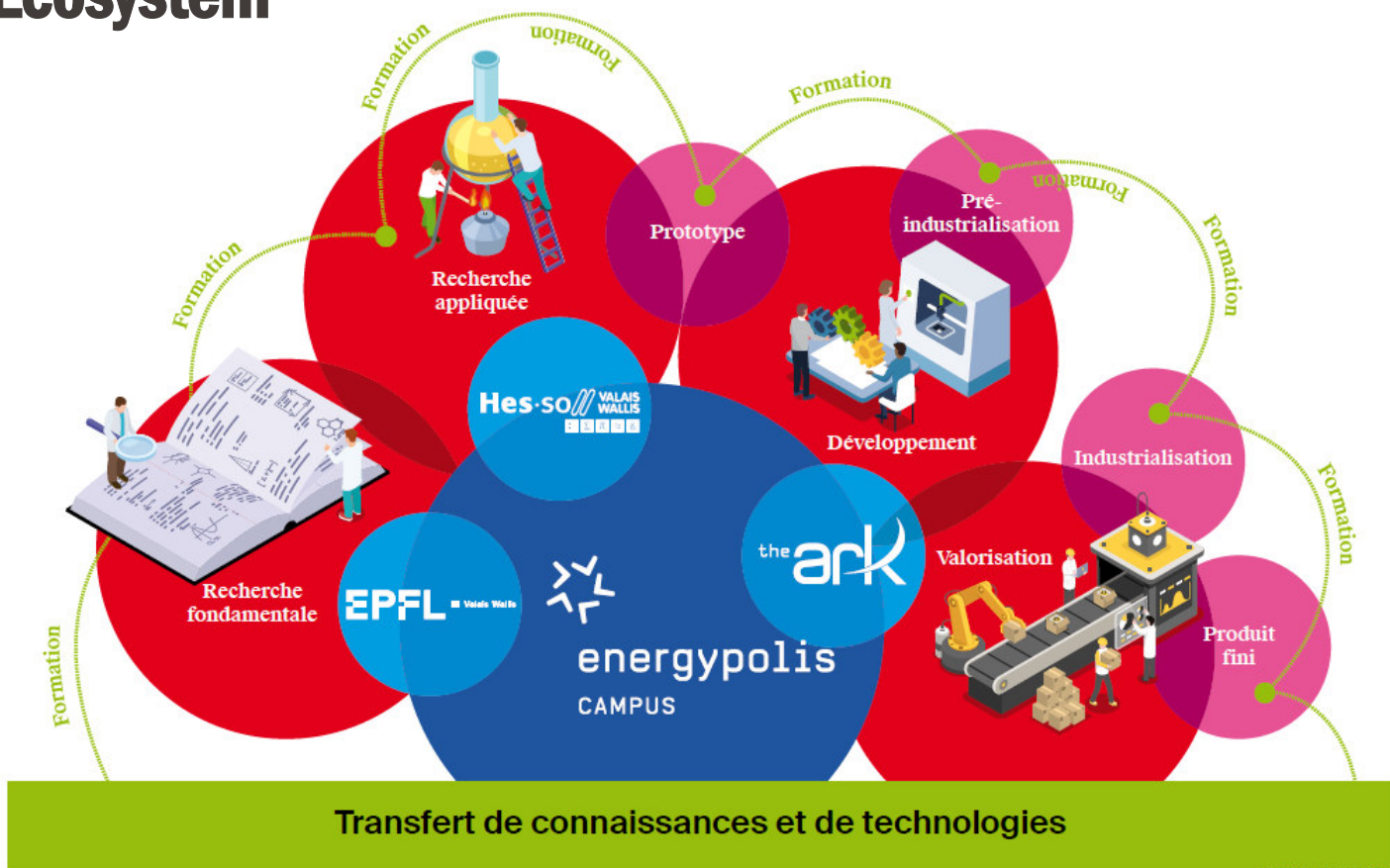
*Environment et climate change*



*Health and ageing of the population*



# Campus Energypolis Ecosystem





# Energypolis, more than a Campus



## 4 components :

EPFL Valais Wallis

Shared platforms

Switzerland Innovation Park and demonstrators

Public – private partnerships



## And also ...

A brand

A competitive cluster

An ecosystem of innovation

A network

...To highlight the potential for innovation, skills and know-how present in the Valais

Strengthen the Canton's competitiveness, both nationally and internationally



## The Campus in figures

*More than 50'000 square meters for innovation*

*33'000 square meters for the HEI and 17'600 square meters for the EPFL*

*410 millions of swiss francs invested to create the ecosystem*

*610 employees are working on the site, with 250 of the EPFL*

*74 laboratories, with 58 of the HEI*

*130+ millions of Swiss francs raised since 2014 from third parties*

*MAS in Energy between EPFL and HEI*

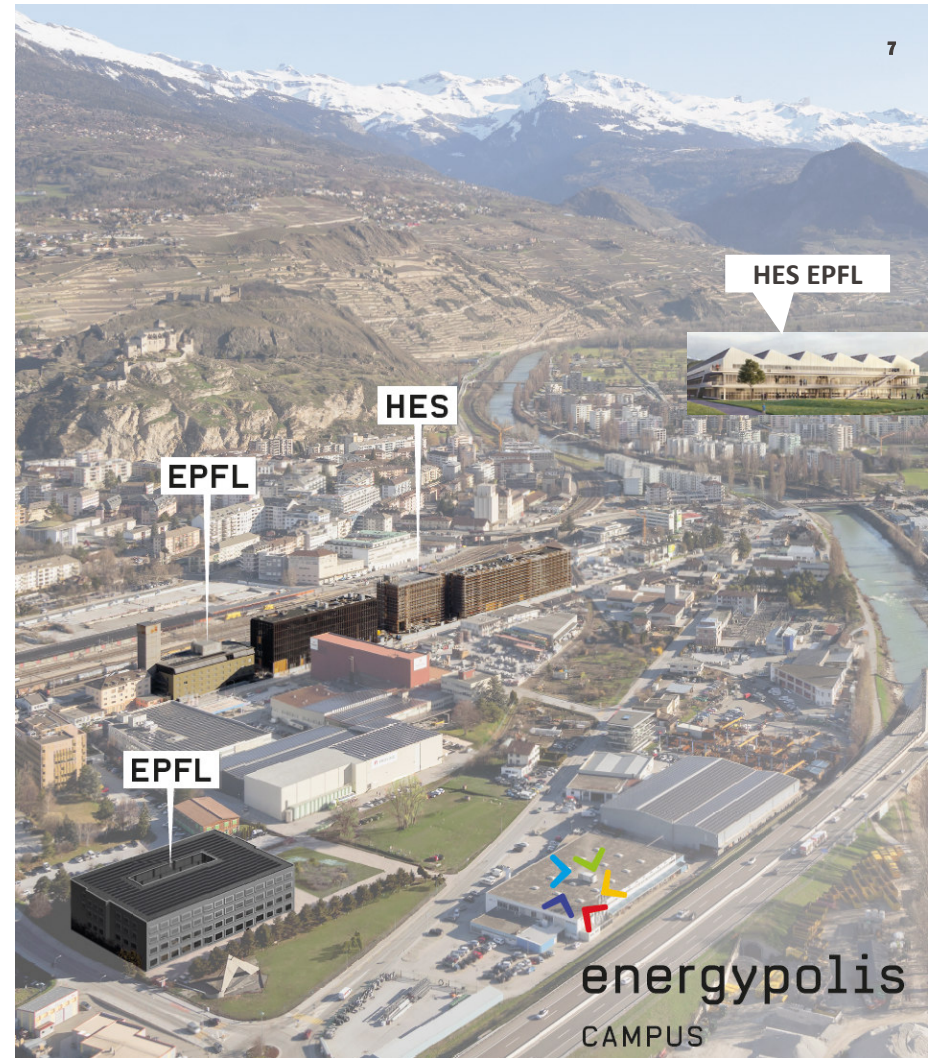
*0 joint projects between EPFL and HEI*



# Situation

**EPFL** - Valais Wallis **Hes**·so VALAIS WALLIS the **ark**

**BioArk Visp  
and Monthey**





## EPFL Valais Wallis

**EPFL** Valais Wallis



**250**

Employees



**16**

Labs



**17'600**

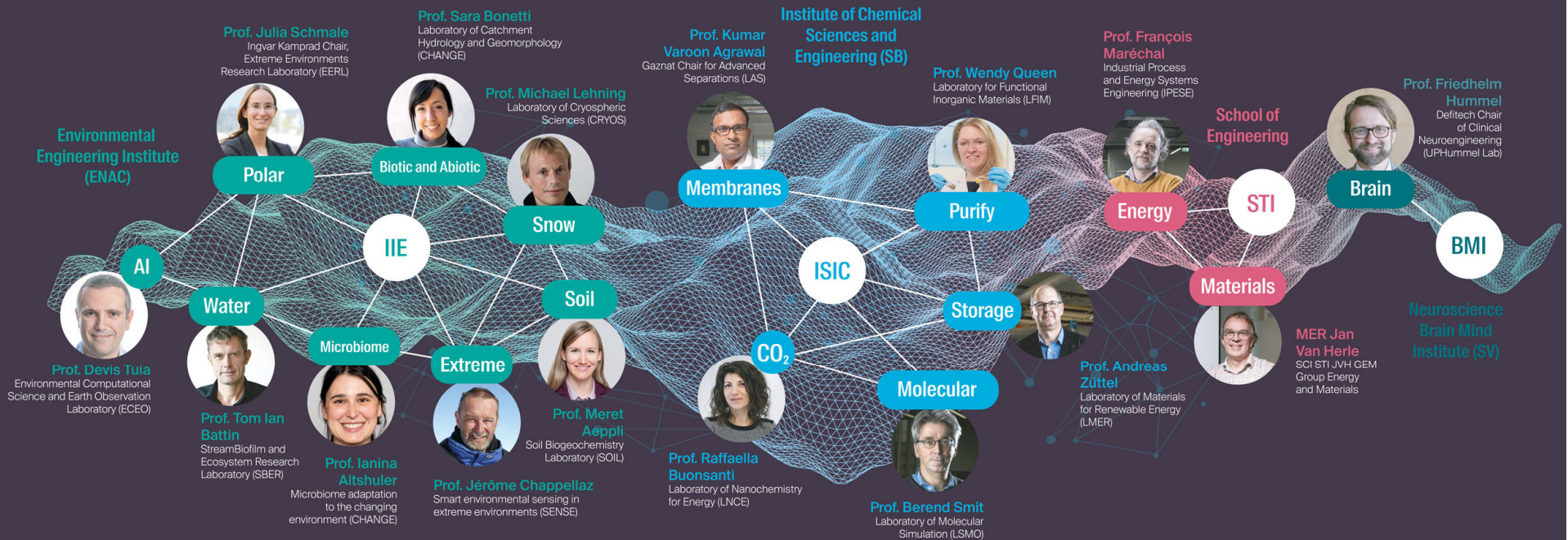
m<sup>2</sup>

**>** In Valais since 2013

**L** Research in Energy, environment and health

**└** 130+ millions of Swiss francs raised since 2014 from third parties (industrial partners, research programs, etc.)







## School of Engineering



- More than 470 HES/FH students, 260 researchers, professors and assistants
- ✓ Systems Engineering, Life Technologies, Sustainable Energy, Informatics
- ↳ Partnerships with main industrial companies such as Lonza, Debiopharm, Constellium, OIKEN, Novelis, Alpiq, FMV, Hydroexploitation



# The Ark Foundation

Foundation for Innovation in Valais, created in 2004

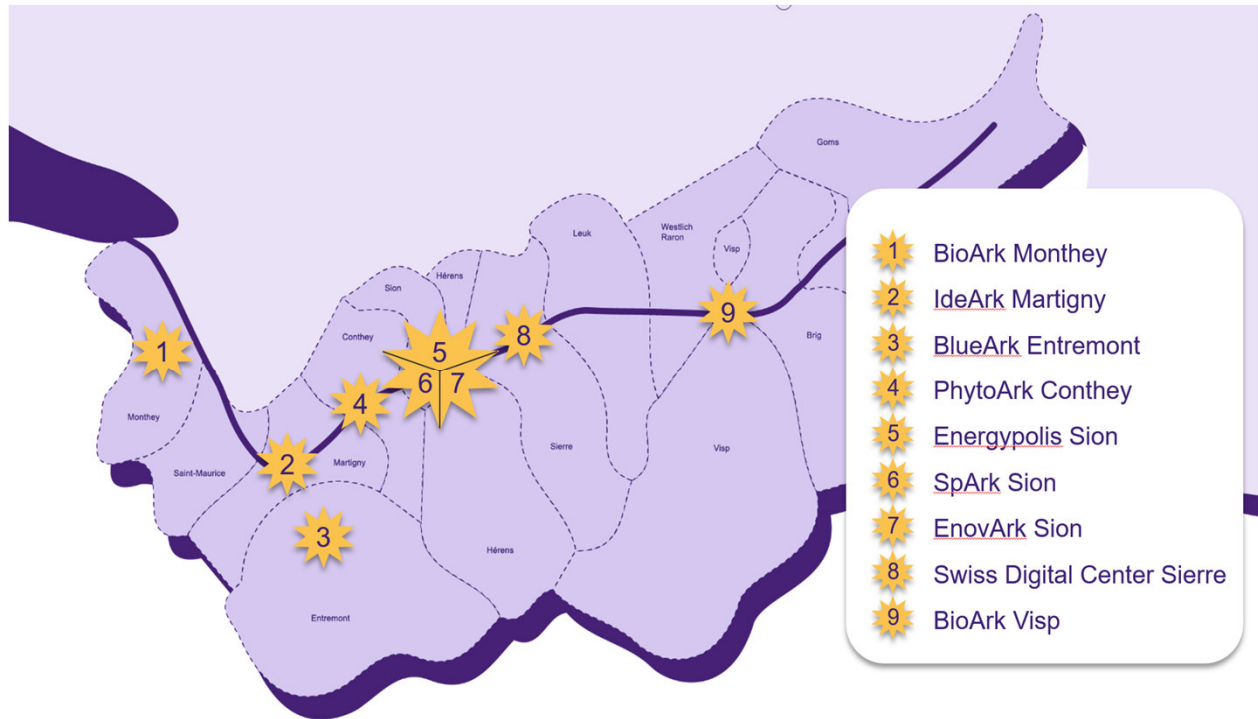


The Ark organizes and coordinates activities that enable innovative companies to be created and to grow.

## 163

companies localized on the technology sites of The Ark (end of 2023)

And many more everywhere in Valais!





## An attractive Campus

The Energypolis Campus consolidates the creation of high value-added jobs in Valais

- 9 spin-off have been created since the first lab of the EPFL Valais Wallis was installed
- 2/3 of these start-up create direct jobs in Valais in key sectors of the economy
- On average, more than 10 employees per start-up
- Spin-off have also been created from HEI research institutes
- an ecosystem that allows labs, institutes and innovative companies to collaborate

EVOLIUM

VEETAMINE



DePoly



imperix

WattAnyWhere

PROseed

QAPTIS

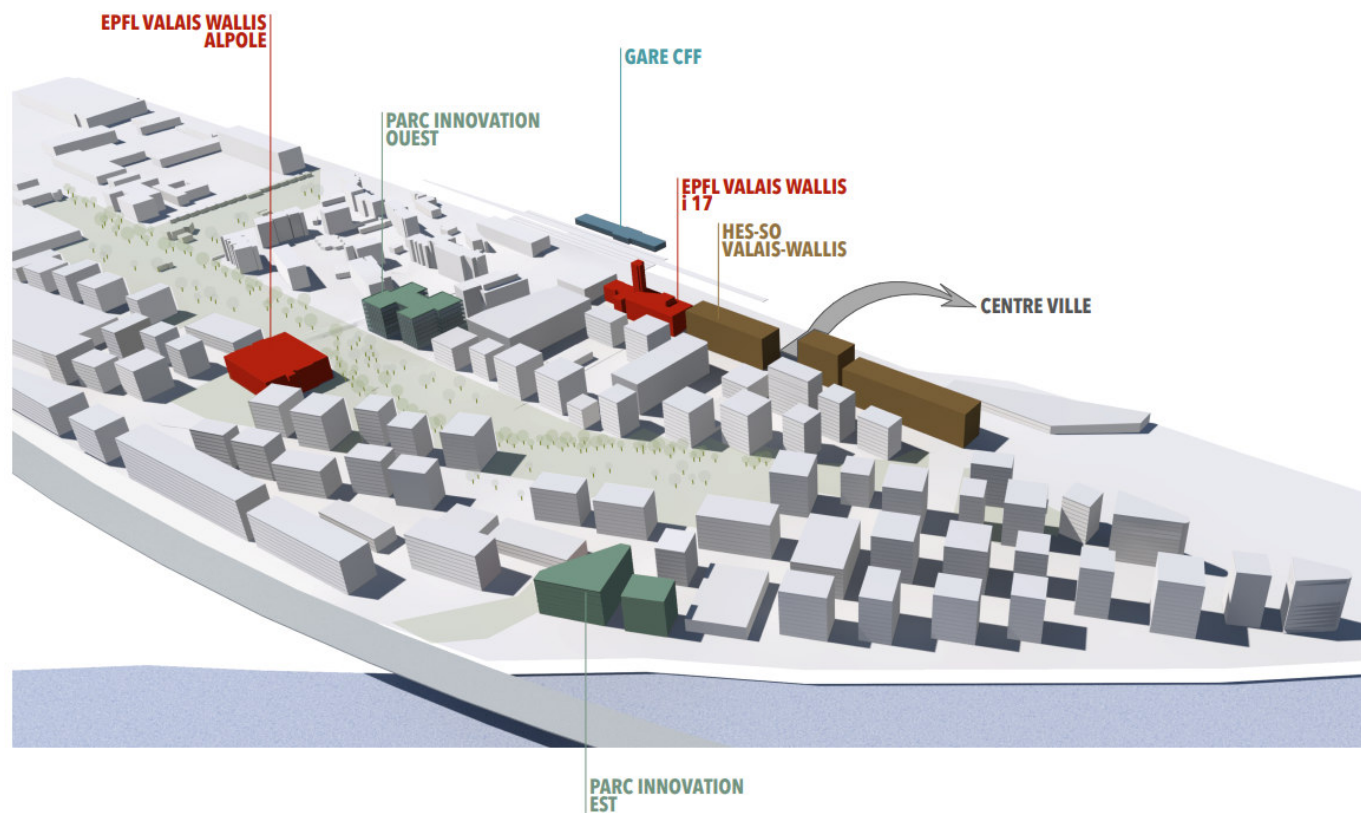
urbio

fishlab

CELECTIS



# Innovation Park Energypolis





# EPFL Valais expertise



## Systems integration:

- Valais:
- Prof. F. Marechal
- Lausanne:
- Prof. M. Paolone

## Photo-voltaics:

- Neuchâtel et Lausanne
- Prof. C. Ballif

## Solar to H<sub>2</sub>:

- Lausanne:
- Prof. S. Haussener

## Hydro:

- Lausanne:
- Succession Avellan
  - G. De Cesare

## Wind:

- Lausanne:
- Prof. F. Porté-Agel



## CO<sub>2</sub> Capture:

- Valais:
- Prof. W. Queen
  - Prof. K. V. Agrawal



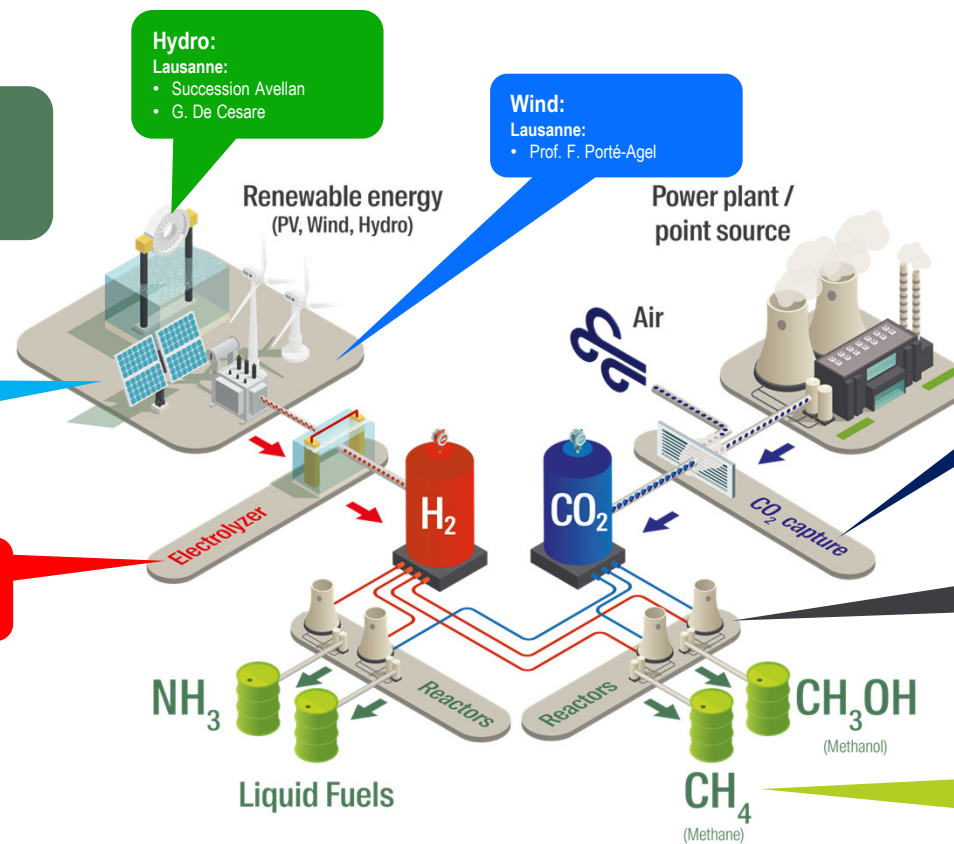
## Catalyst development:

- Valais:
- Prof. R. Buonsanti
  - Prof. B. Smit



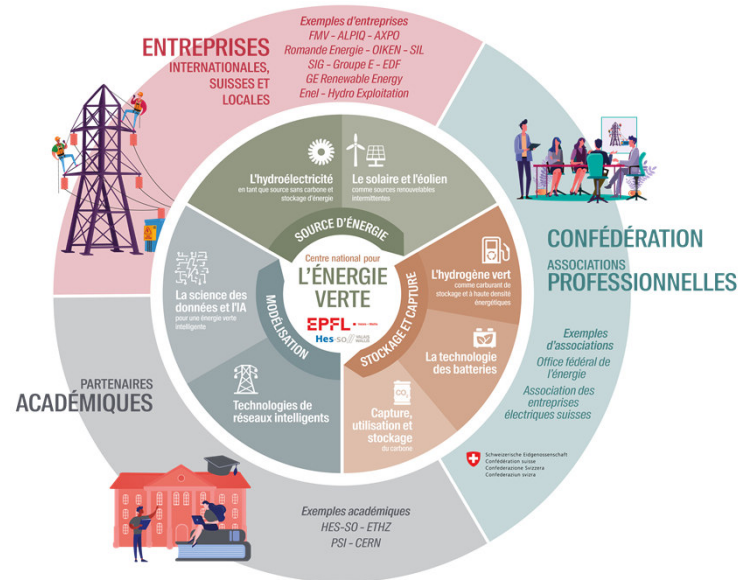
## Methanation

- Valais:
- Prof. J. Van Herle
  - Prof. A. Züttel





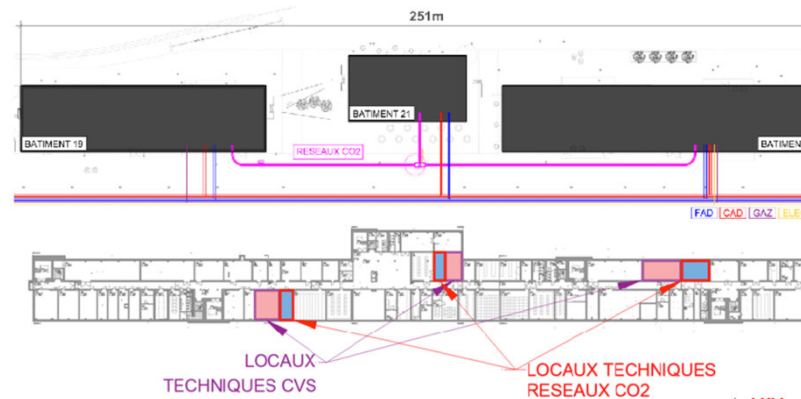
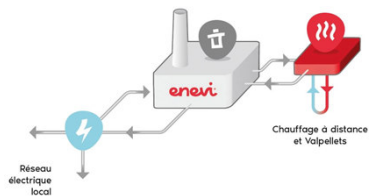
# Center for Green Energy





# Demonstrators

- Energy-efficient **carbon capture, usage and storage** for sustainable and circular economy
- The demonstrators will advance the Technology Readiness Level (TRL) of critical technologies, such as Direct Air Capture (DAC) and conversion of CO<sub>2</sub> to value-added chemicals,
- At least 9 MCHF in funding granted by EPFL





**Valais the place to be sustainable**





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Questions

