



CCUS STAKEHOLDER DIALOGUE

Interdisciplinary Teamwork
and Excellence:

Powering the Technologies for Net Zero

■ École
polytechnique
fédérale
de Lausanne

VENUE & DATE

L'Aula Energypolis – Sion
June 15th, 2026

PRESENTED BY

Anna Fontcuberta i Morral
EPFL President

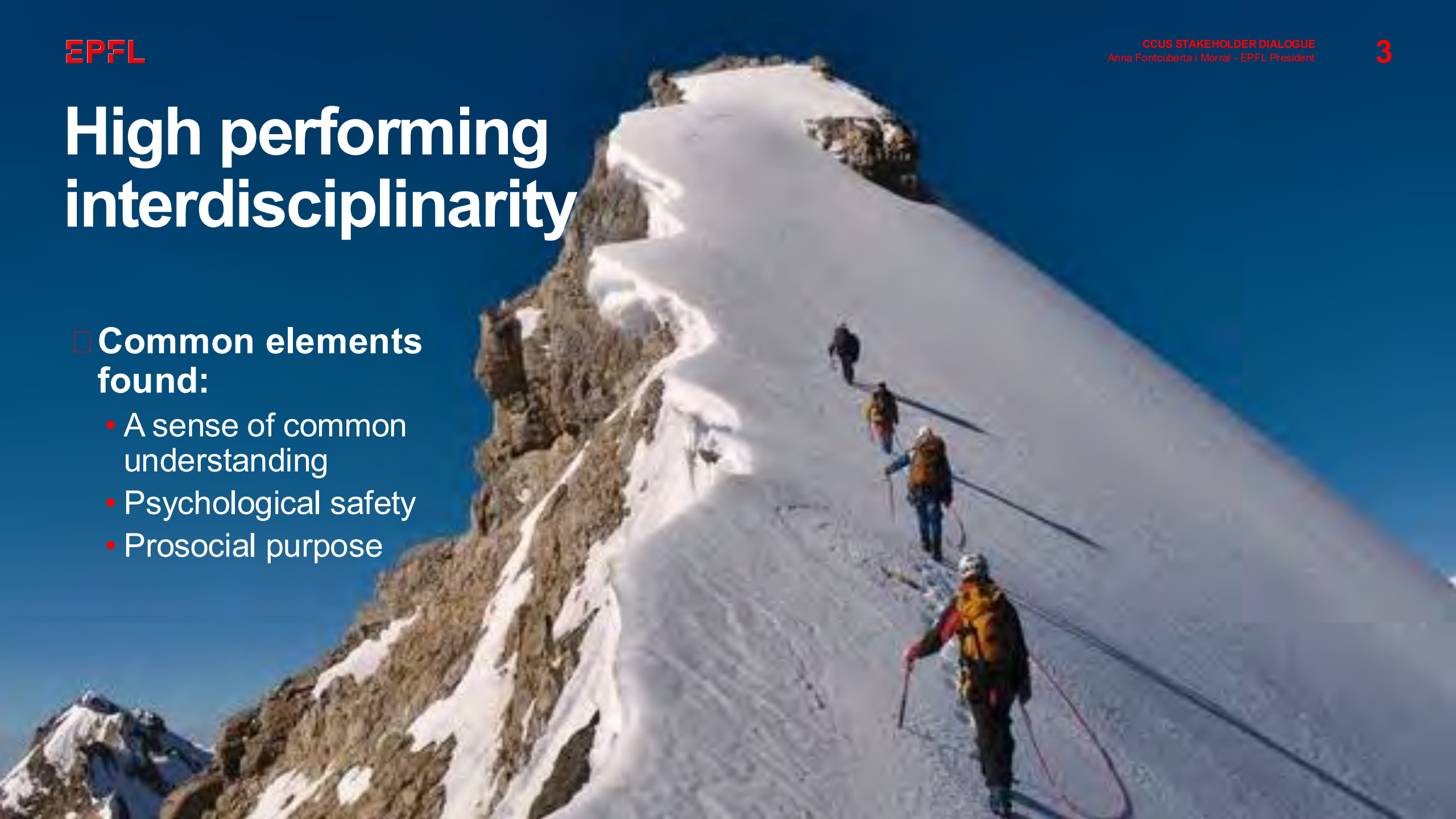
In a team: it is them & the impact

- Our collaborators and their ideas shine thanks to all of us
- Management provides support for collective missions

High performing interdisciplinarity

□ Common elements found:

- A sense of common understanding
- Psychological safety
- Prosocial purpose



THE IMPORTANCE OF **TEAM & HARD WORK**



Photo © Didem Dede, LMSC



LMSC © Maintenance operation

Challenges for a Sustainable Future



SOIL HEALTH

~1/3

of the world's soils
are degraded



ENERGY

+25%

of global energy demand
by 2050



POLLUTION

75Bt

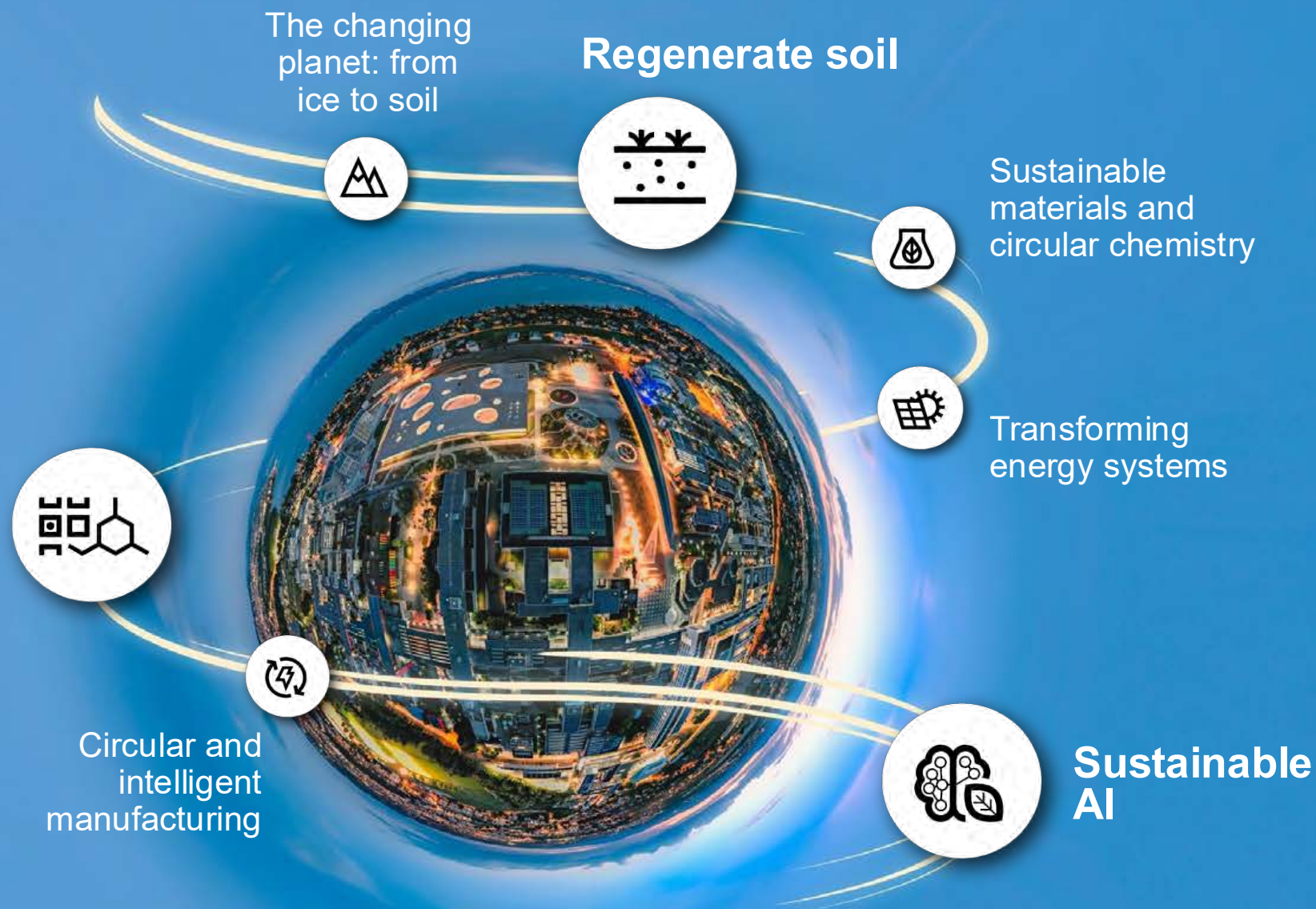
of CO₂ emission
by 2050



Strategic Initiative

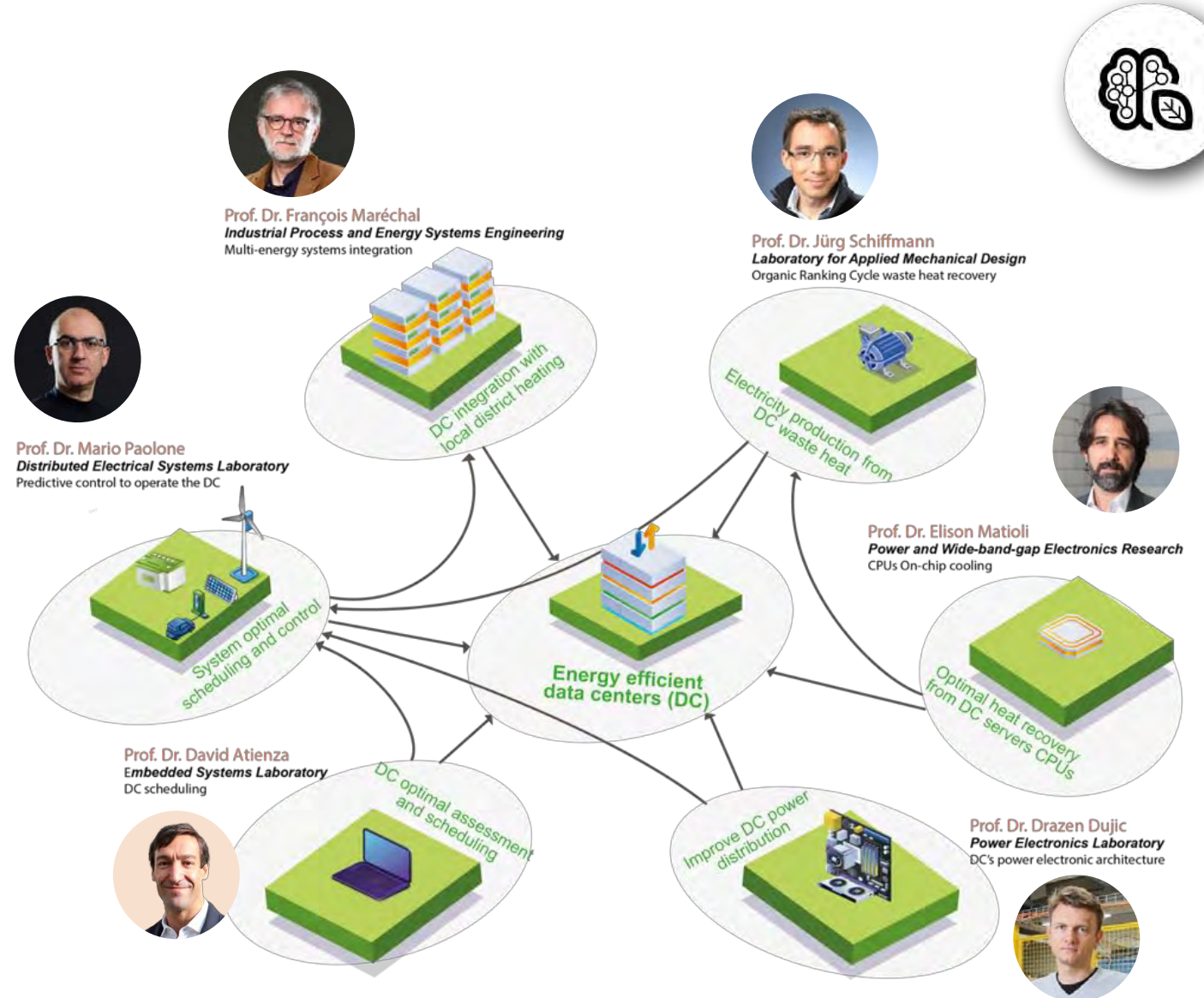
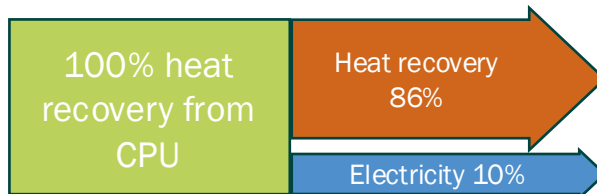
Solutions for a Sustainable Planet

Breaking the forever cycle of PFAS



Heating Bits

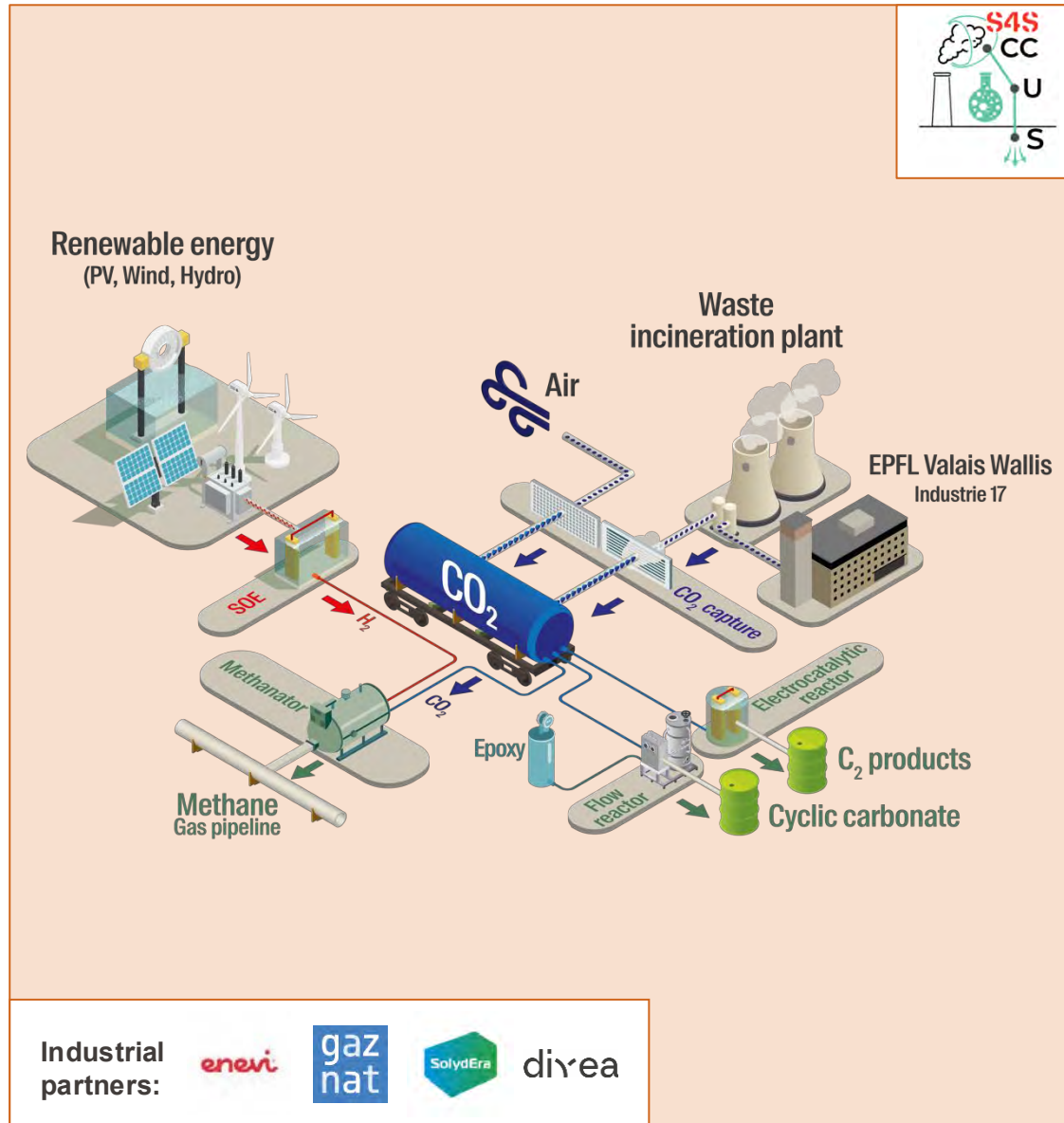
- Renewable-supplied Data Centers integrating heating and cooling supply of local districts
- **Main results:**
 - Optimal cooling and heat recovery:
 - Cooling of CPUs, including demonstration of microfluidic-cooled devices in server blade prototype
 - Waste heat to electricity :



Valais

The Heart of Powering the Technologies for Net Zero

To tackle the challenges for a Sustainable Future, the collaboration between **academia, industry and canton** is key.



CCUS

- Energy-efficient **Carbon Capture Usage & Storage** for Sustainable and Circular Economy
- **11 research groups** from Lausanne, Neuchâtel and Sion
- **8 work packages** accross disciplines

Eté  **+20 TWh***
Excédent de production renouvelable

Comment
récupérer
le surplus estival
pour l'utiliser
en hiver?

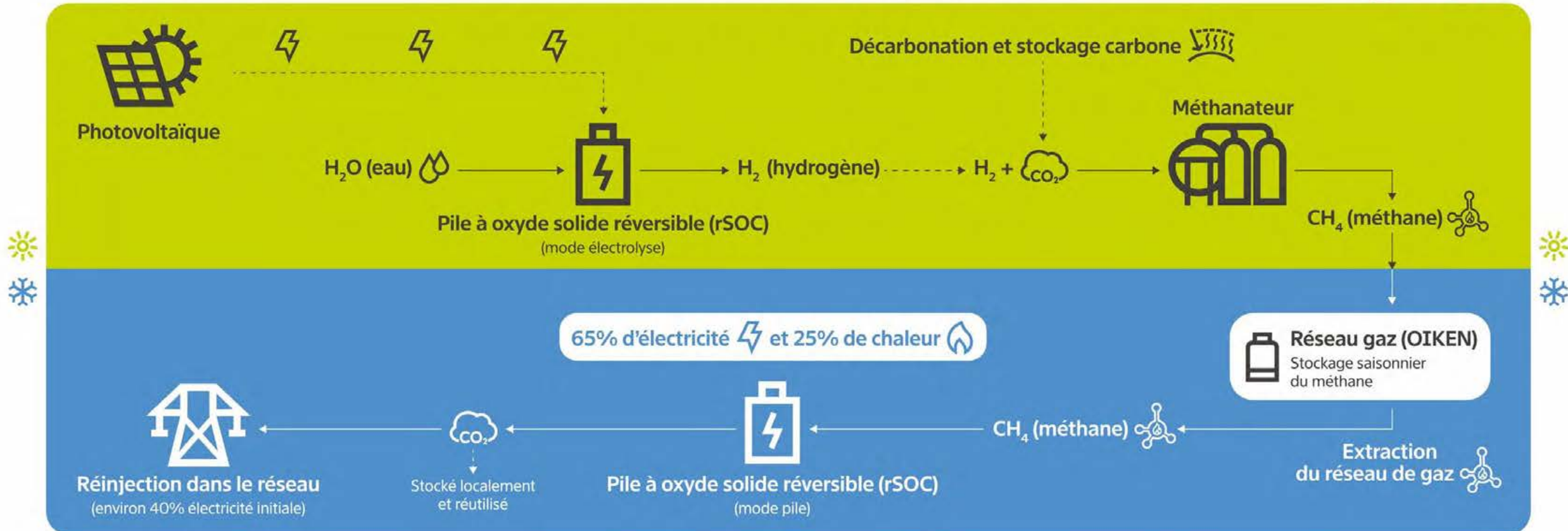
-7 TWh*
Énergie importée

 Hiver

EPFL • Valais Wallis

Démonstrateur «Power-to-Gas»

Hes-so VALAIS WALLIS
School of Engineering



A center on energy and environmental sustainability

NCCR Separations

Focus area:

Low-cost direct air capture, ammonia synthesis, critical metals from waste



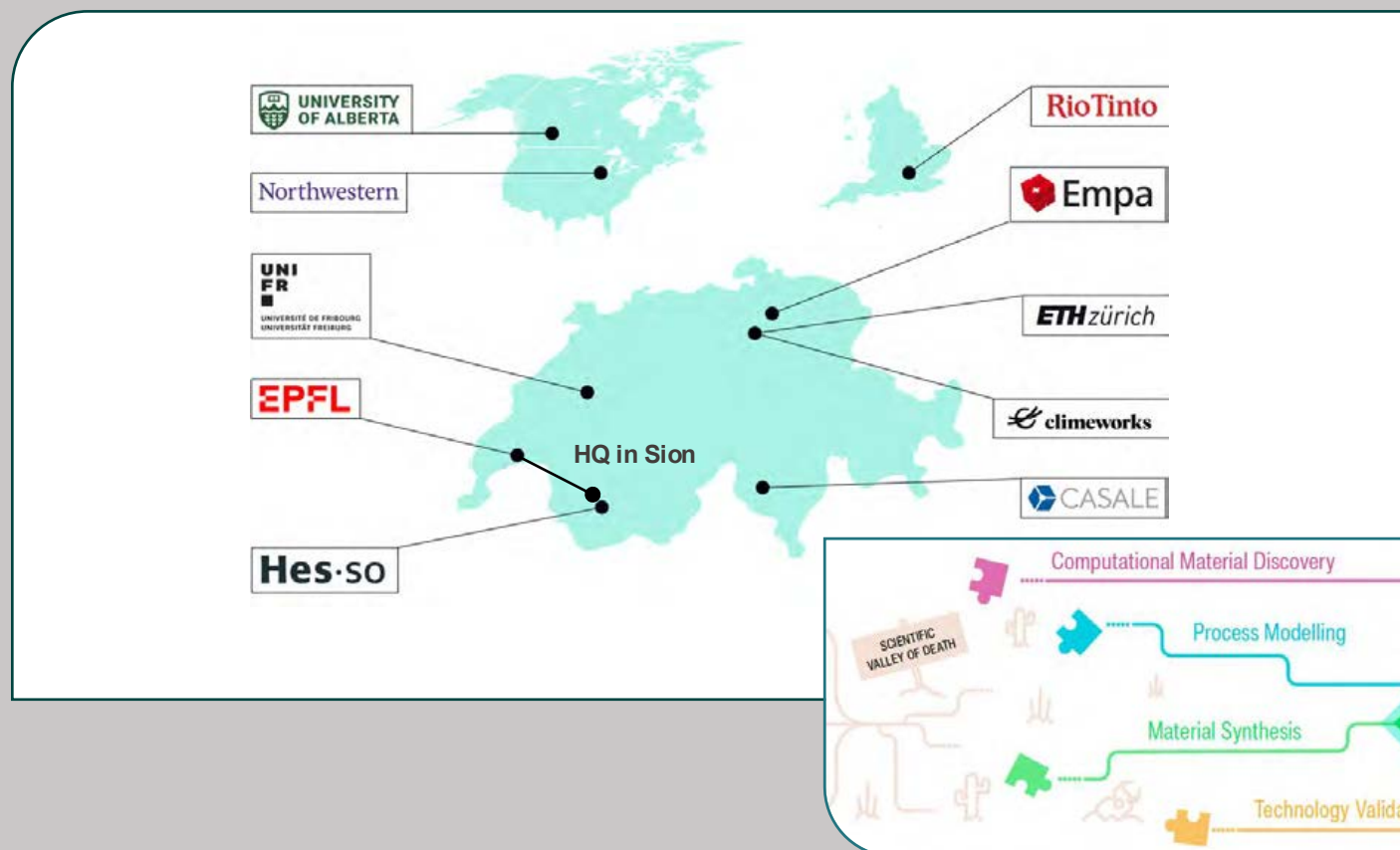
Wendy Queen
Director
EPFL



Kumar Agrawal
Co-director
EPFL



André Bardow
Deputy director
ETHZ





Let's make sure
our **progress**
embraces the
values of **humanity**
to make the world
a better place