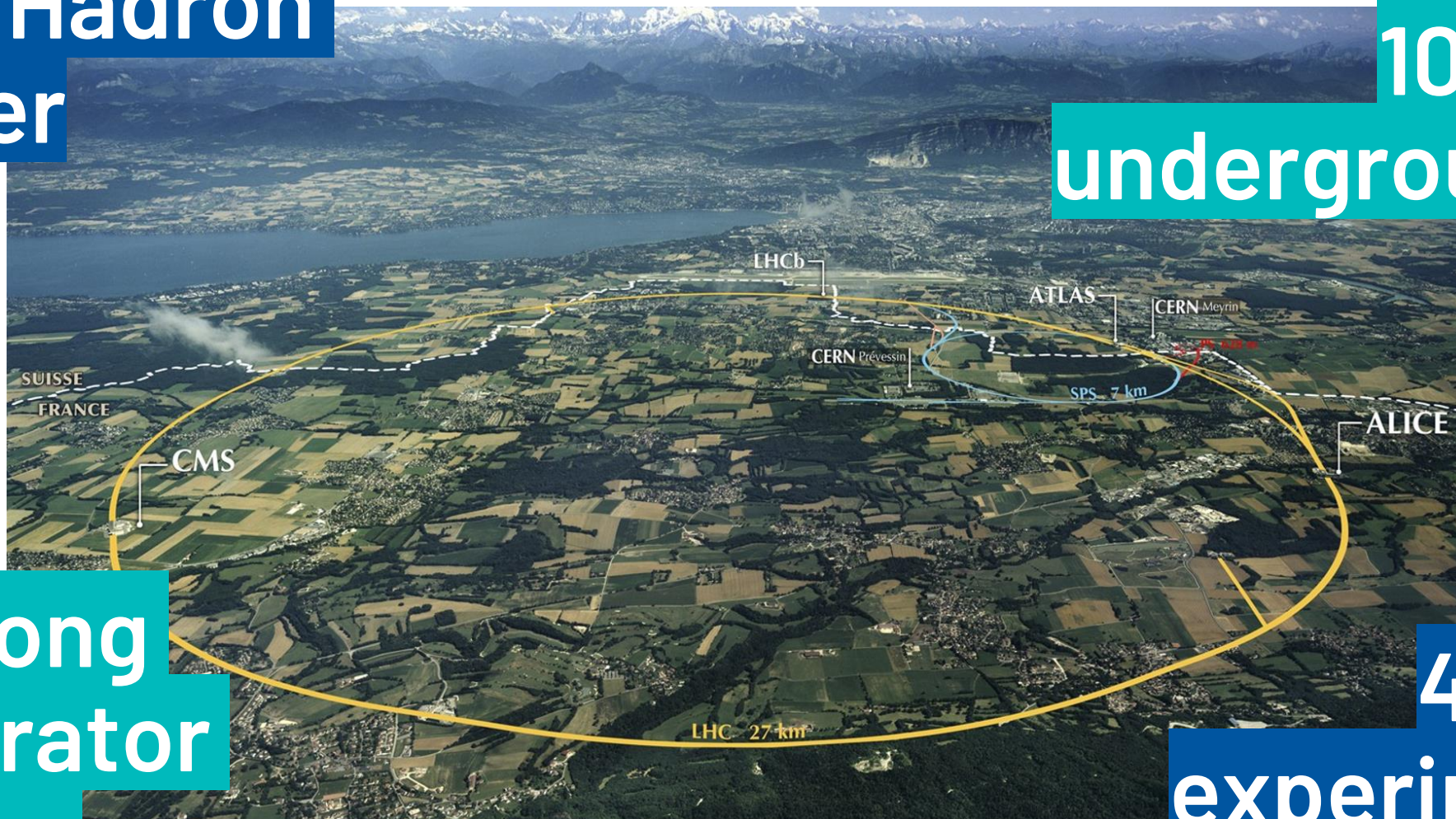# CERN Venture Connect

Entrepreneurship @ CERN

CERN is the home to the world's largest machine

Large Hadron Collider
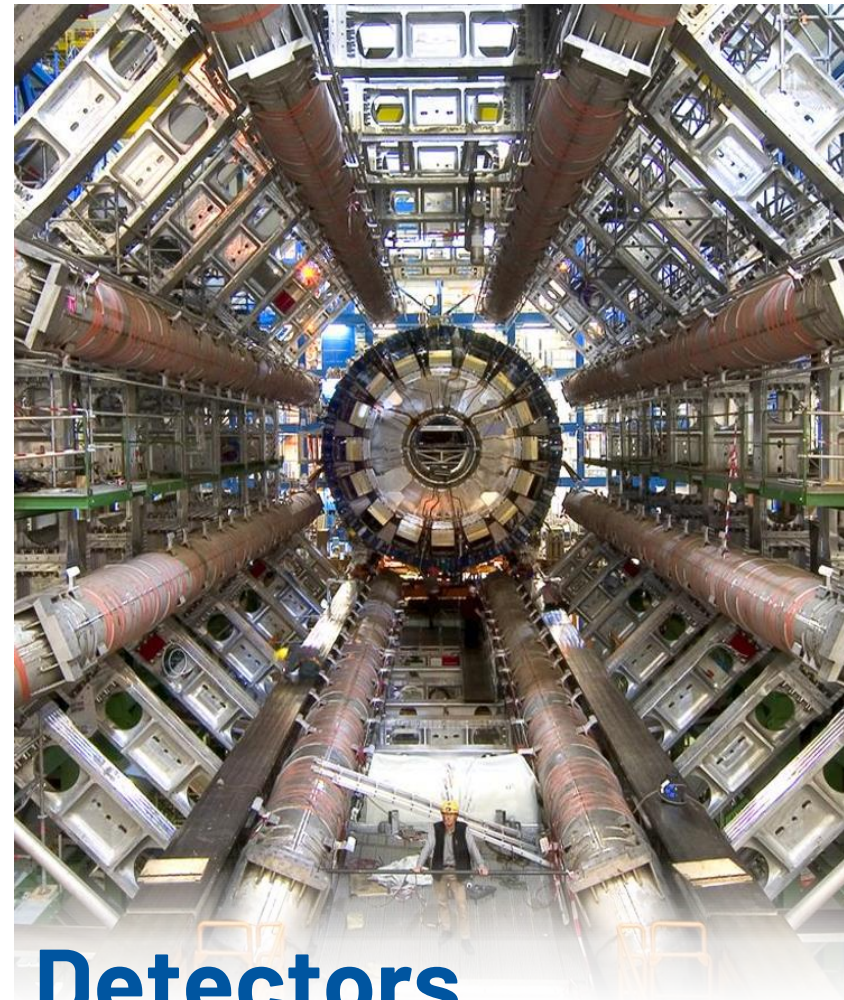
100m underground

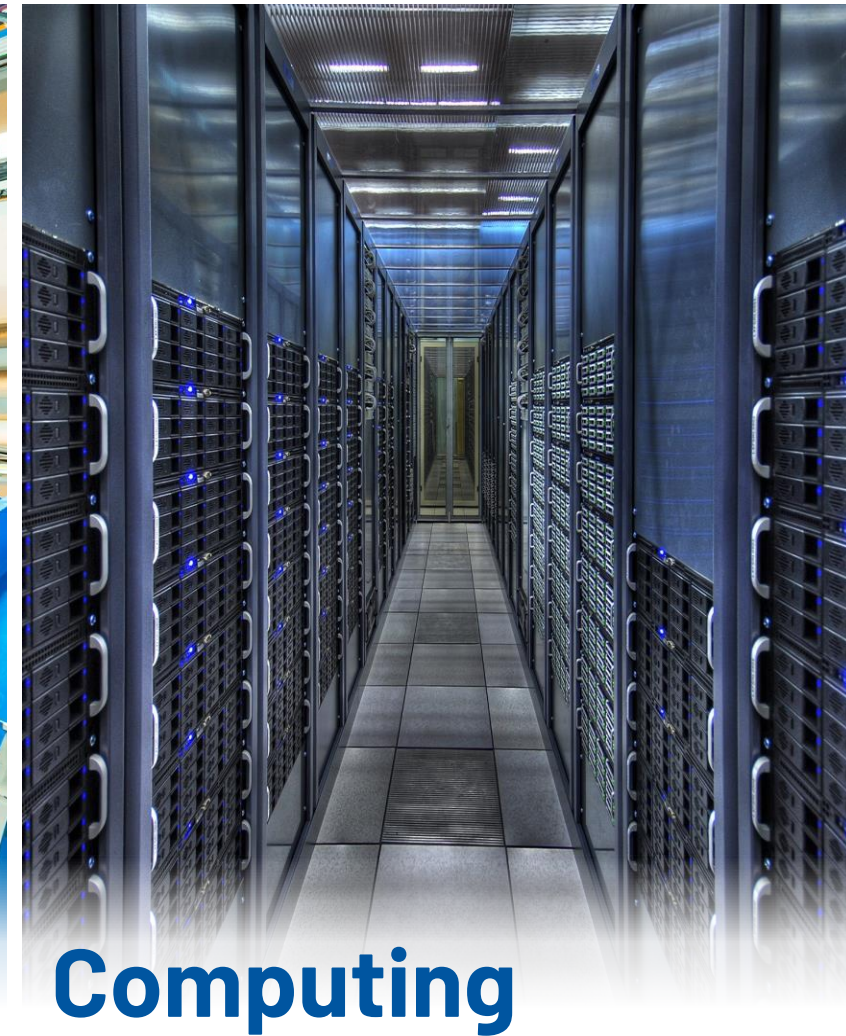27km long accelerator complex

4 large experiments

CERN Technologies come from three domains

Detectors

Accelerators

Computing

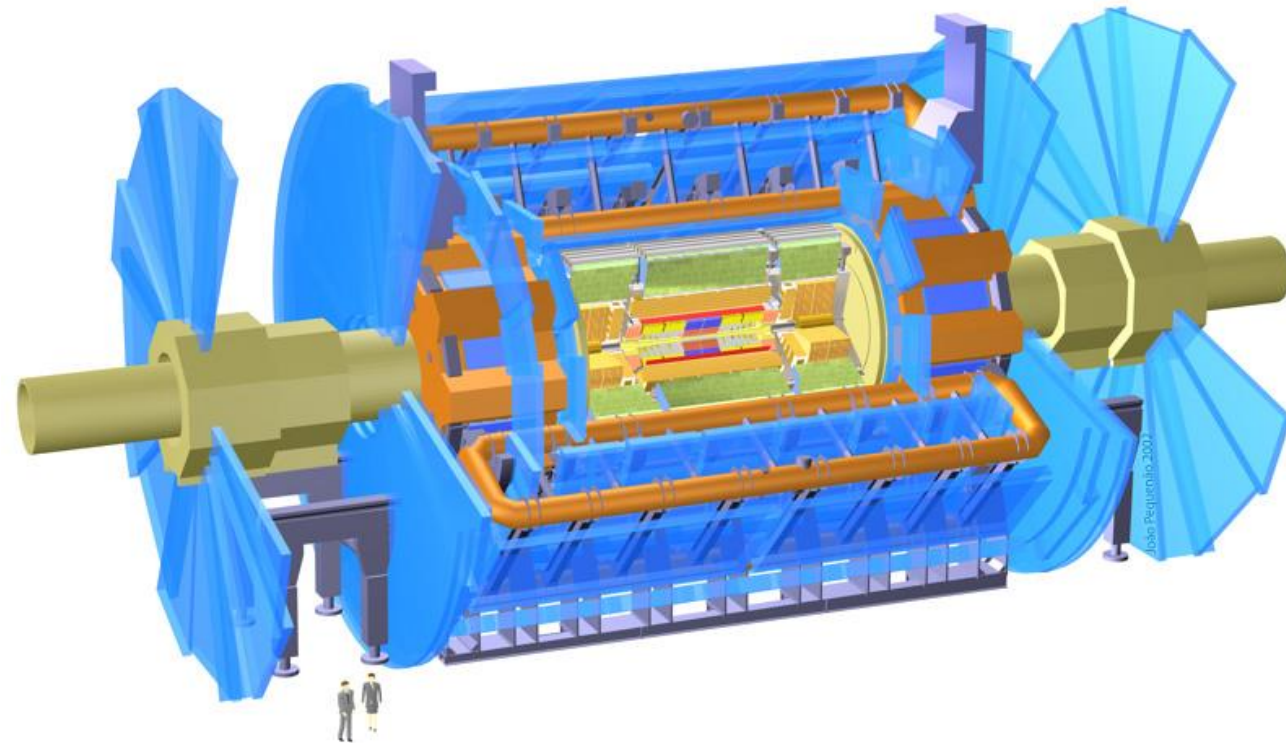# CERN hosts nine detector systems

Example of ATLAS detector

100+ million
sensors installed in LHC

weighs 7'000 t
Equivalent to the Eiffel tower

… and accelerators

One of them being the world's most powerful machine, the LHC

27 km

Circumference of the Large Hadron Collider

Particles travel at 99.9999991%

of the speed of light

1.9 K (–271°C)

Colder than deep outer space

... resulting in large data processing needs

Data storage, processing and analysis

600 million
collisions per second

40 TB/s
data produced by specialized sensors

170 sites in 42 countries
World's largest computing grid

CERN Venture Connect Program

Entrepreneurship support at CERN

Help deep tech startup founders succeed

A platform to connect with ambitious deep tech founders in all CERN member states

Bring together ecosystem partners that contribute with expertise and resources

Provide access to unique technologies and expertise developed at CERN

CVC Technologies
Startup-friendly portfolio with preselected technologies

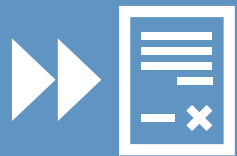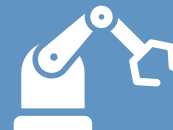## CVC offers access to CERN Technologies that

are unique

have a high TRL

are supported by
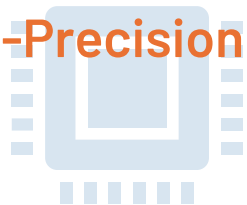CERN experts

Standard licensing terms

**Access to prototypes for
testing & validation**

CVC Tech Portfolio
Seven unique CERN technologies ready to use
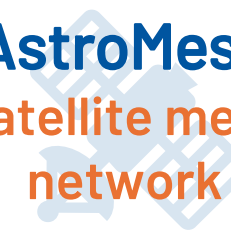
ACCURATE chip
High-Precision ASIC

Structured Laser Beam
Long-range laser

Single Frequency Laser
Ultra-narrow linewidth RAMAN laser

AstroMesh
Satellite mesh network

White Rabbit
Sub-nano second Time synchronization

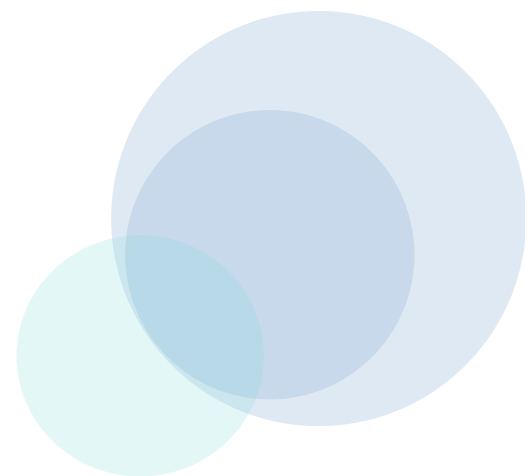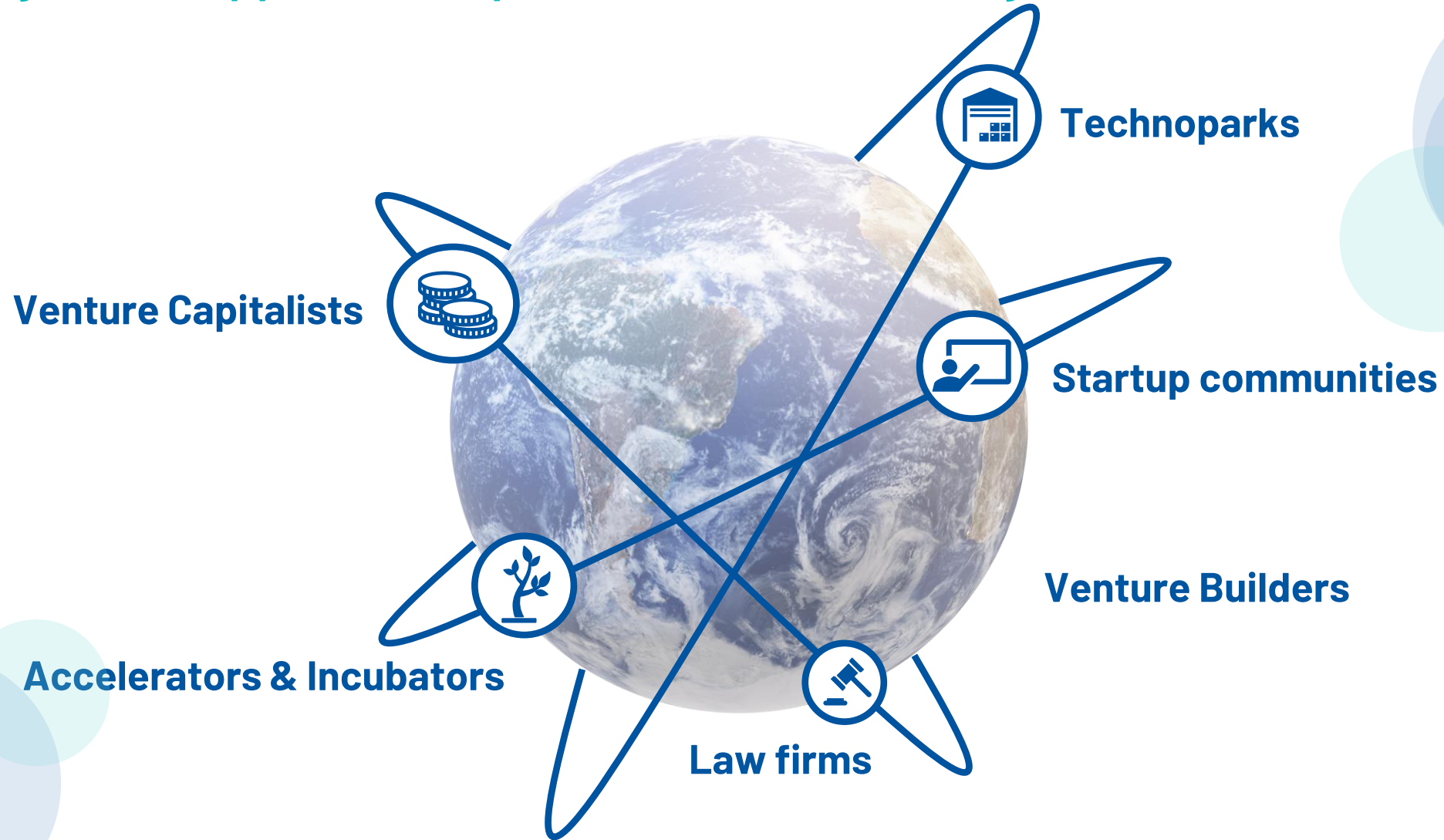**RUCIO**
Management of large datasets

Ultralight Coldplate
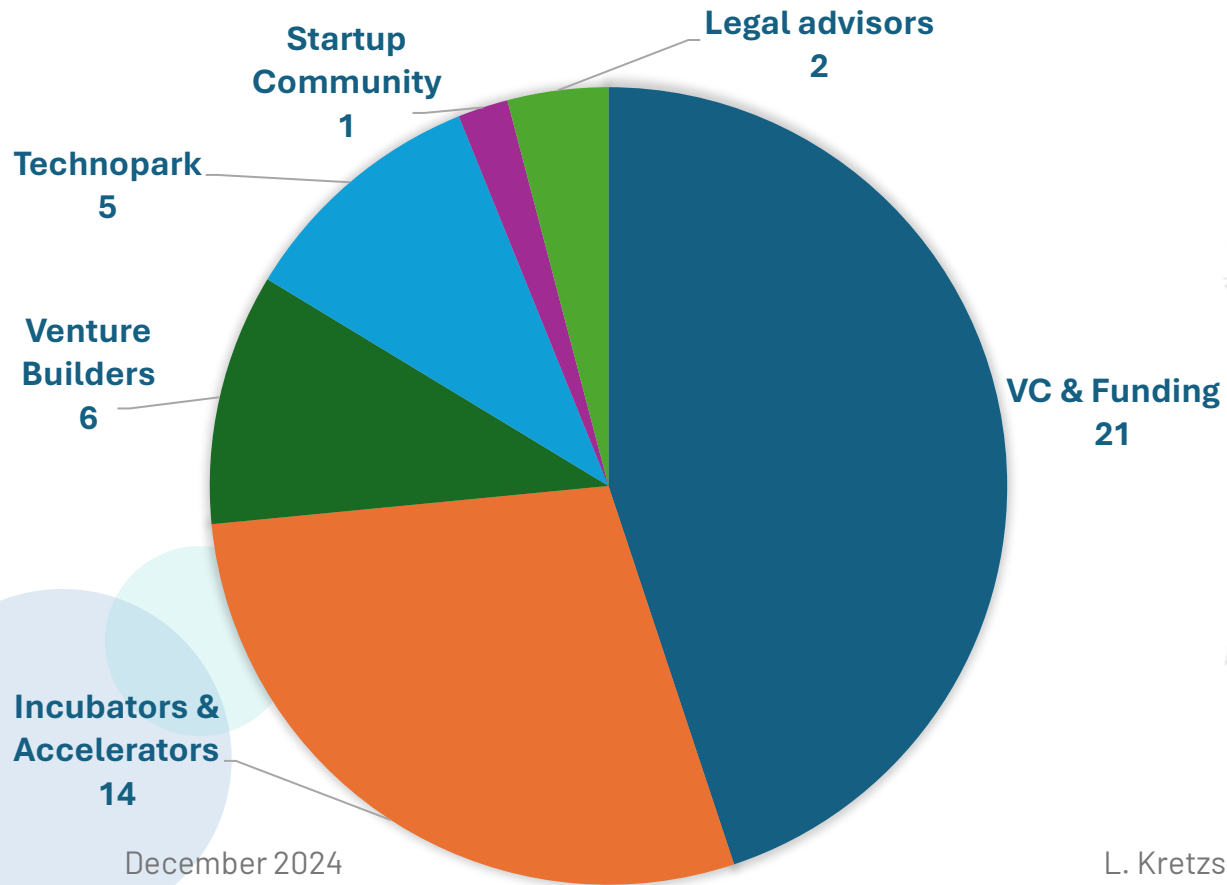cooling of heat dissipating elements

CVC Partner Network

Key players to support startups in their national ecosystems

Technoparks

Venture Capitalists

Startup communities

Venture Builders

Accelerators & Incubators
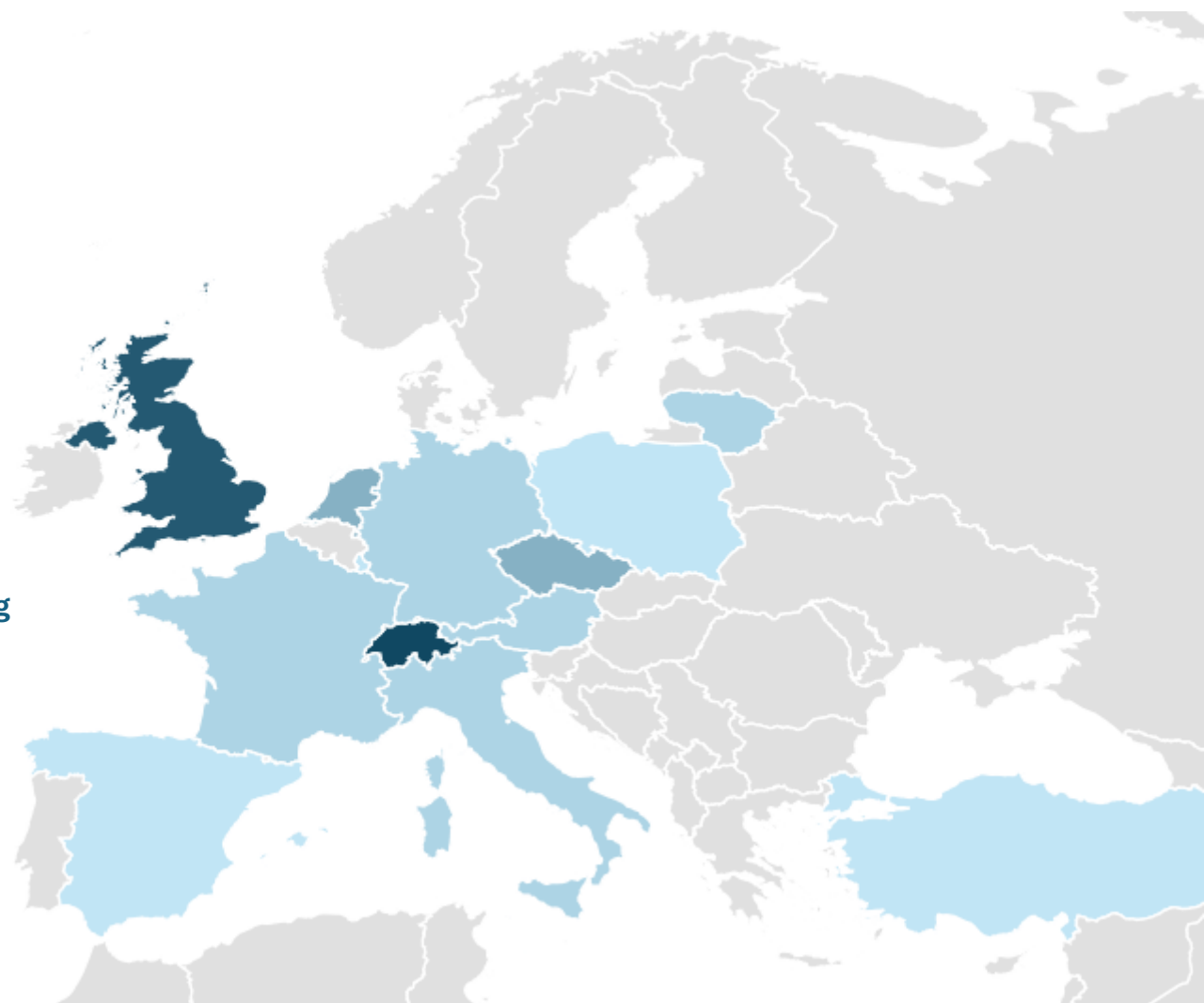
Law firms

CVC Partner Network

50 partners across 15 CERN member states and associated member states

Since its launch in October 2023, our program's network has expanded rapidly.

Startup Community 1

Legal advisors 2

Technopark 5

Venture Builders 6

VC & Funding 21

Incubators & Accelerators 14

Our Partners

Two Key Resources

Deep tech Access & Network Support

Portfolio of unique
CERN Technologies

Explore funding
opportunities with VCs

FAST ACCESS TO CERN DEEP TECH

STRONG NETWORK OF CVC PARTNERS

Access to
prototypes &
technical support
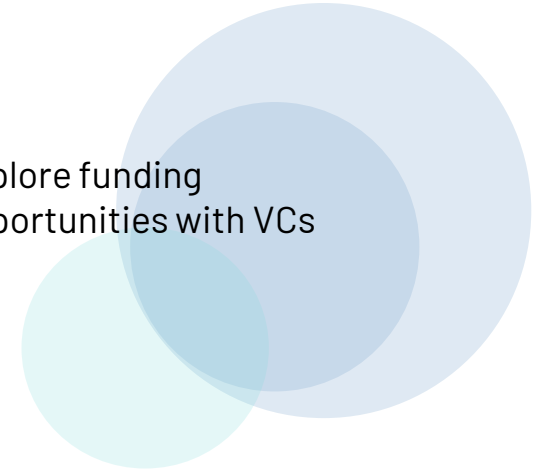
Accelerate deep
tech venture with
support of CVC
network

Standard licensing
agreement with 0% Equity

Participate in workshops & events
to grow network & skillset

L. Kretzschmar

CVC Startups
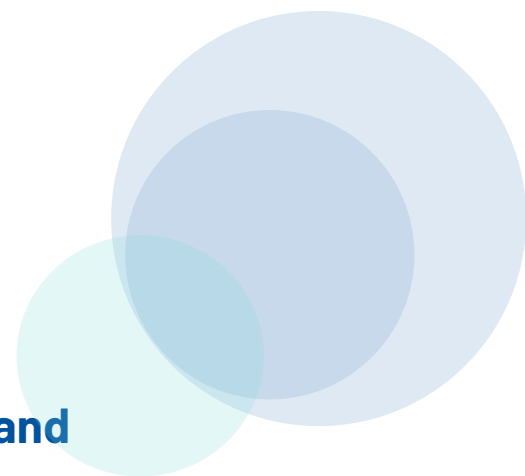## Startups are selected to maximize fit with our program

An emerging business leveraging CERN technology and/or founded by CERN alumni

Promising idea, team and vision

Operating in non-defense/ non-military domain

From CERN member state or associated member state

Startups

Five startups signed up in 2024

Product marking with structured laser beam

InPhocal aims to replace inkjet and laser printers in the food and beverages industry.

High speed Marking of products, even on curved surfaces

Wind LIDAR system for flight safety

Lighteye uses CERN's single frequency laser to detect clean air turbulences
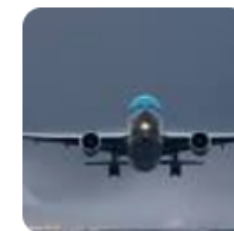
Invisibility of Clean Air Turbulences

The World Economic Forum

What is turbulence and why is it getting harder to predict?

Experts say that flights are getting bumpier as climate change affects weather patterns. Here's what you need to know about #turbulence.

Weed Control Robots for sustainable agriculture

Orbiba Robotics aims to use the structured laser beam for data collection and removal of weeds

Support organic agricultural approach by reducing use of pesticides

For more info, visit our website or reach out to us.

Hanaé Taxis

Entrepreneurship
Development Officer

Hanae.Taxis@cern.ch

Linn Kretzschmar

Entrepreneurship
Development Officer

Linn.Kretzschmar@cern.ch