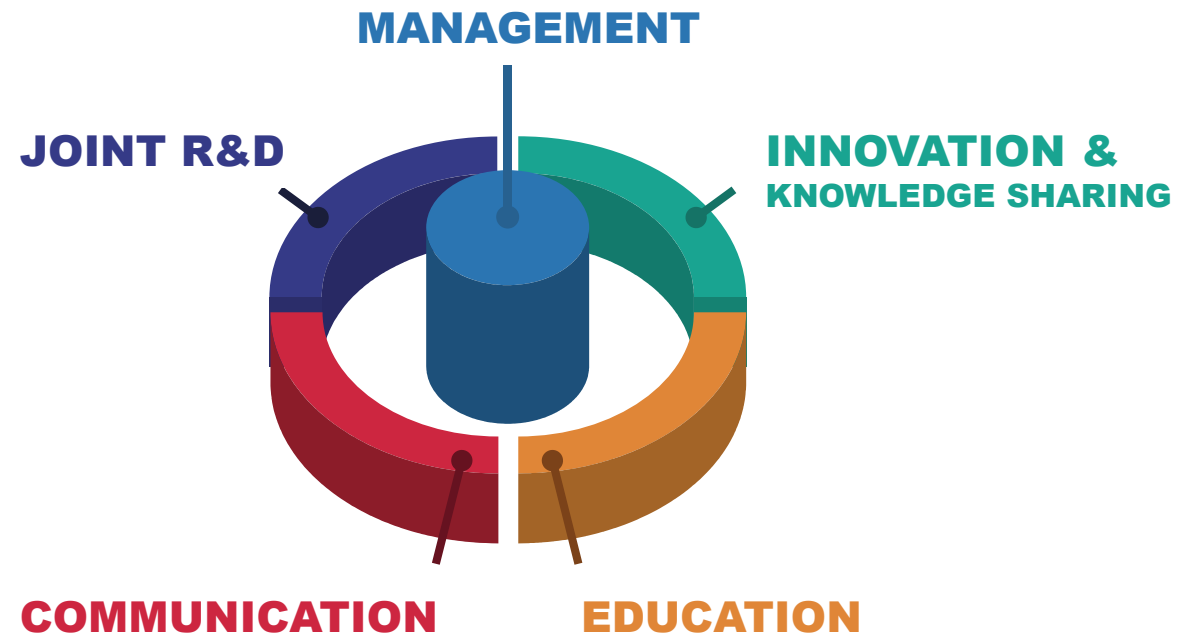# CERN openlab's mission

Our recipe for success

- **Evaluate** state-of-the-art technologies in a challenging environment and improve them.

- **Test** in a research environment today technologies that will be used in many business sectors tomorrow.

- **Train** the next generation of engineers/researchers.

- **Promote** education and cultural exchanges.

- **Communicate** results and reach new audiences.

- **Collaborate** and exchange ideas to create knowledge and innovation.

MANAGEMENT

JOINT R&D

INNOVATION & KNOWLEDGE SHARING

COMMUNICATION

EDUCATION

CERN openlab lecture programme

All students from all programmes are welcome to attend!

Computing in high-energy physics
Maria Girone
IT Amphitheatre (31-3-004)
13:30-14:30, 2 July

Computing Security in 2019
Sebastien Lopienski
IT Amphitheatre (31-3-004)
13:30-15:30, 4 July

Presentation by the CERN Director for Research and Computing
Eckhard Elsen
Main Auditorium (500-1-001)
11:30-12:20, 8 July

Quantum Computing for High Energy Physics Applications
Federico Carminati
IT Amphitheatre (31-3-004)
13:30-157:30, 9 July

DAQ-Filtering Data from 1 PB/s to 600 MB/s
Tommaso Colombo
IT Amphitheatre (31-3-004)
14:45-17:00, 2 July

Introduction to Machine Learning
Michael Aaron Kagan
IT Amphitheatre (31-3-004)
13:30-15:30, 5 July

Containers and Orchestration with Docker and Kubernetes
Ricardo Brito Da Rocha, Spyridon Trigazis
IT Amphitheatre (31-3-004)
13:30-15:30, 8 July

From raw data to physics results (1/3)
Paul James Laycock
Main Auditorium (500-1-001)
10:25-11:25, 15 July

CERN openlab

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From raw data to physics results (2/3)
Paul James Laycock
Main Auditorium (500-1-001)
10:25-11:25, 16 July

Evolution in Computing Hardware (1/2)
Sverre Jarp
IT Amphitheatre (31-3-004)
13:30-15:30, 16 July

Evolution in Computing Hardware (2/2)
Andrzej Nowak
IT Amphitheatre (31-3-004)
16:00-17:30, 16 July

From raw data to physics results (3/3)
Paul James Laycock
Main Auditorium (500-1-001)
10:25-11:25, 17 July

Intro to High Performance Computing with GPUs
Ahmad Siar Hesam
IT Amphitheatre (31-3-004)
13:30-16:30, 19 July

Deep Learning hands-on
Sofia Vallecorsa
IT Amphitheatre (31-3-004)
13:30-15:30, 22 July

Introduction to medical informatics
Taghi Aliyev
IT Amphitheatre (31-3-004)
13:30-14:30, 23 July

Medical informatics: Biodynamo project
Lukas Breitwieser
IT Amphitheatre (31-3-004)
14:30-16:30, 23 July

CERN openlab

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indico.cern.ch/category/11195

Lightning talks

- Students work on projects over nine weeks, gaining hands-on experience with latest ICT solutions.

- 5-minute presentations by each student, with prizes for best talks.

- Split into two sessions: 13 August at 14:00 and 15 August at 14:00.

- Both take place in IT Amphitheatre (31-3-004).

Webfest

- A weekend-long hackathon: run by students for students.

- Takes place 26-28 July here in Main Auditorium and R1.

- Collaborate on science-related projects using open-web technologies.

- Submit your ideas for projects or join exisitng ones.

- Full details on the event website: **webfest.web.cern.ch**.