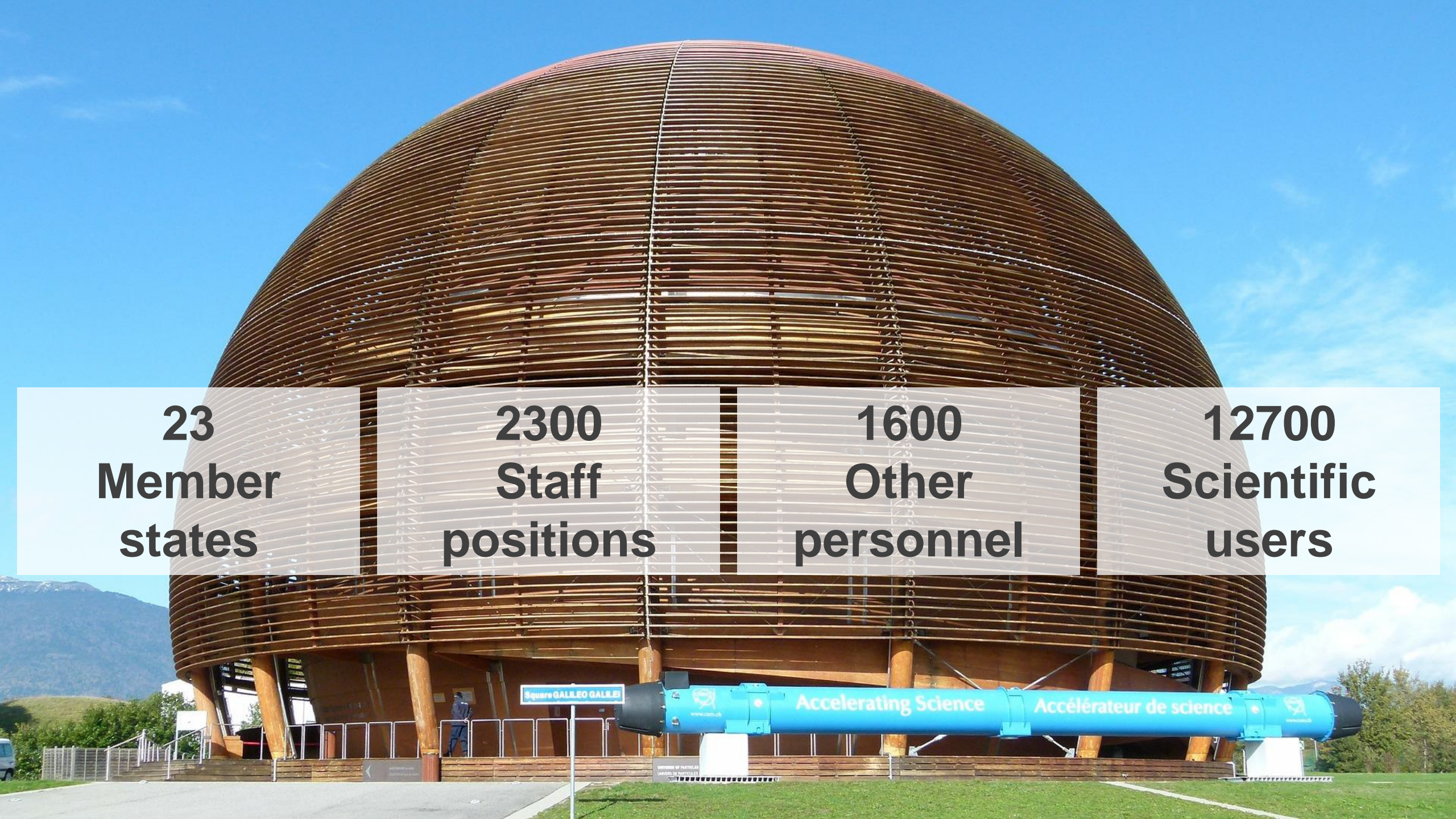


Knowledge Transfer @ CERN

Ash Ravikumar
Entrepreneurship Development Officer

Council meeting in
Amsterdam when the
CERN convention was
signed (1953).



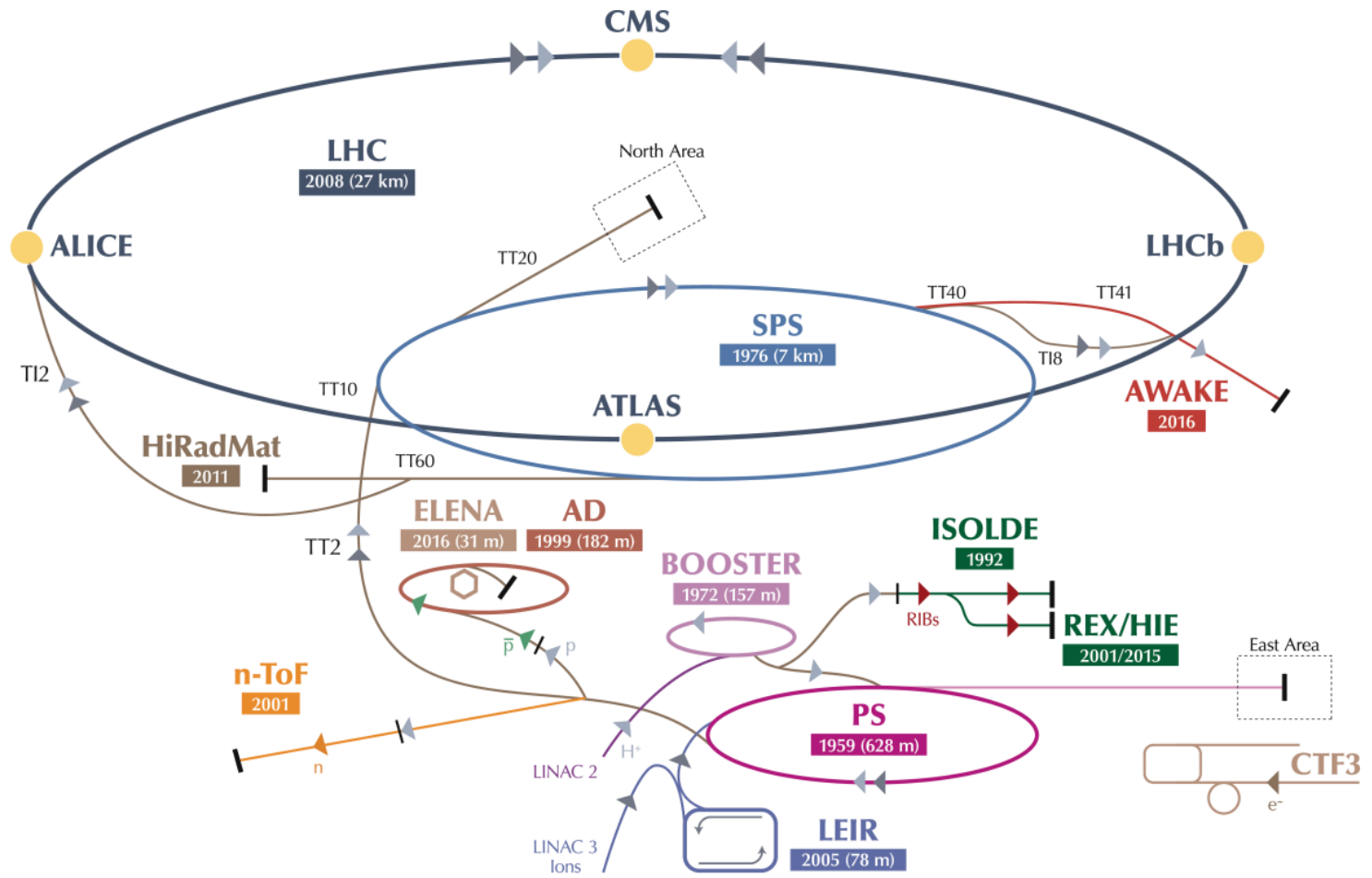


**23
Member
states**

**2300
Staff
positions**


**1600
Other
personnel**

**12700
Scientific
users**



▶ p (protons) ▶ ions ▶ RIBs (Radioactive Ion Beams) ▶ n (neutrons) ▶ \bar{p} (antiprotons) ▶ e^- (electrons)
 ↔↔↔ proton/antiproton conversion ↔↔↔ proton/RIB conversion

LHC Large Hadron Collider SPS Super Proton Synchrotron PS Proton Synchrotron AD Antiproton Decelerator CTF3 Clic Test Facility
 AWAKE Advanced WAKEfield Experiment ISOLDE Isotope Separator OnLine REX/HIE Radioactive EXperiment/High Intensity and Energy ISOLDE
 LEIR Low Energy Ion Ring LINAC LINear ACcelerator n-ToF Neutrons Time Of Flight HiRadMat High-Radiation to Materials

A long, dimly lit tunnel with a series of large, blue, cylindrical superconducting magnets lined up along the right side. The tunnel walls are white and curved. A fire extinguisher is mounted on the left wall. The floor is concrete with a yellow safety line. The perspective is from the end of the tunnel, looking down its length.

The Large Hadron Collider (LHC), 27km long, 100m deep.



SUISSE
FRANCE

CMS

LHCb

CERN Prévessin

ATLAS

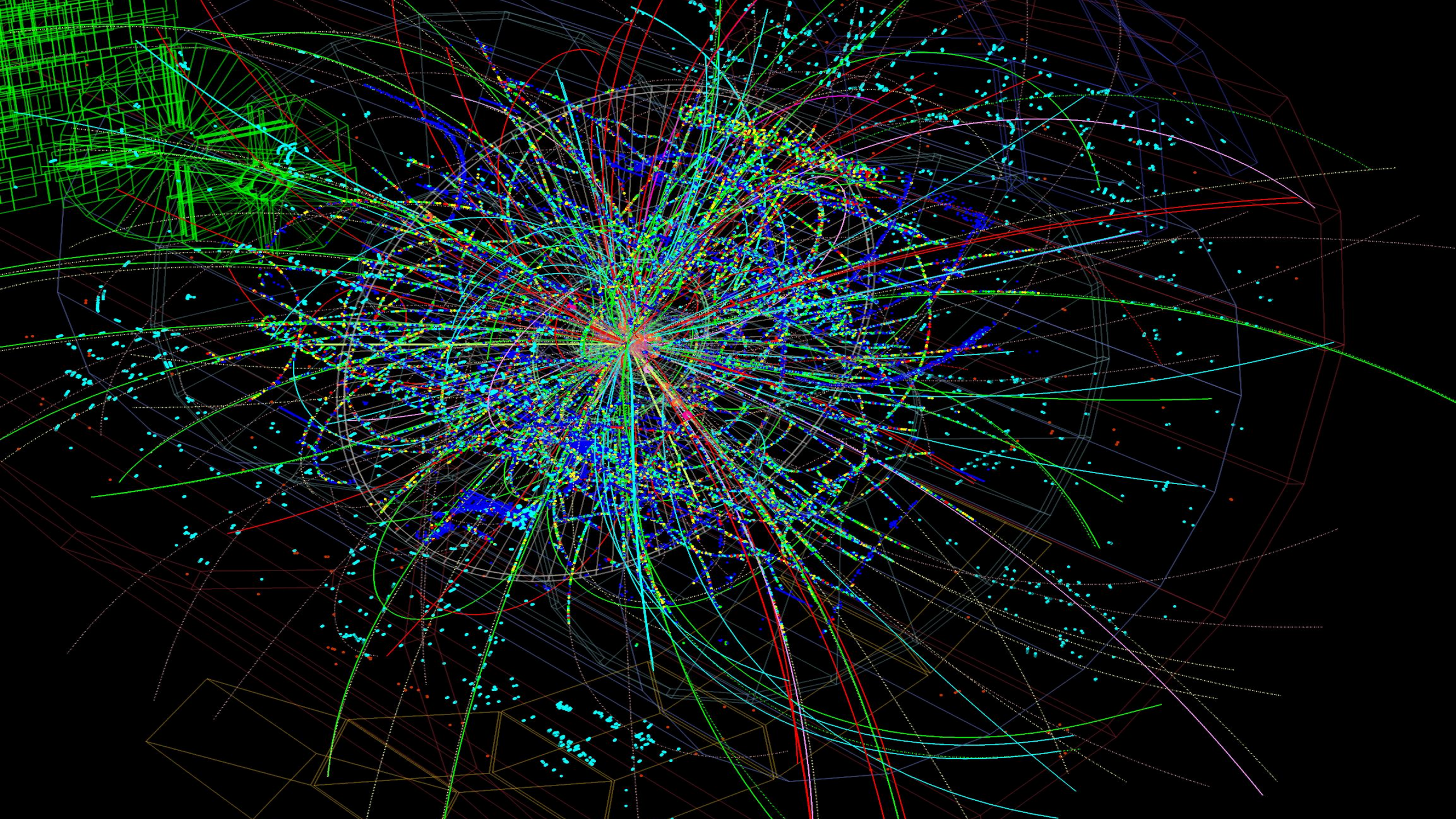
CERN Meyrin

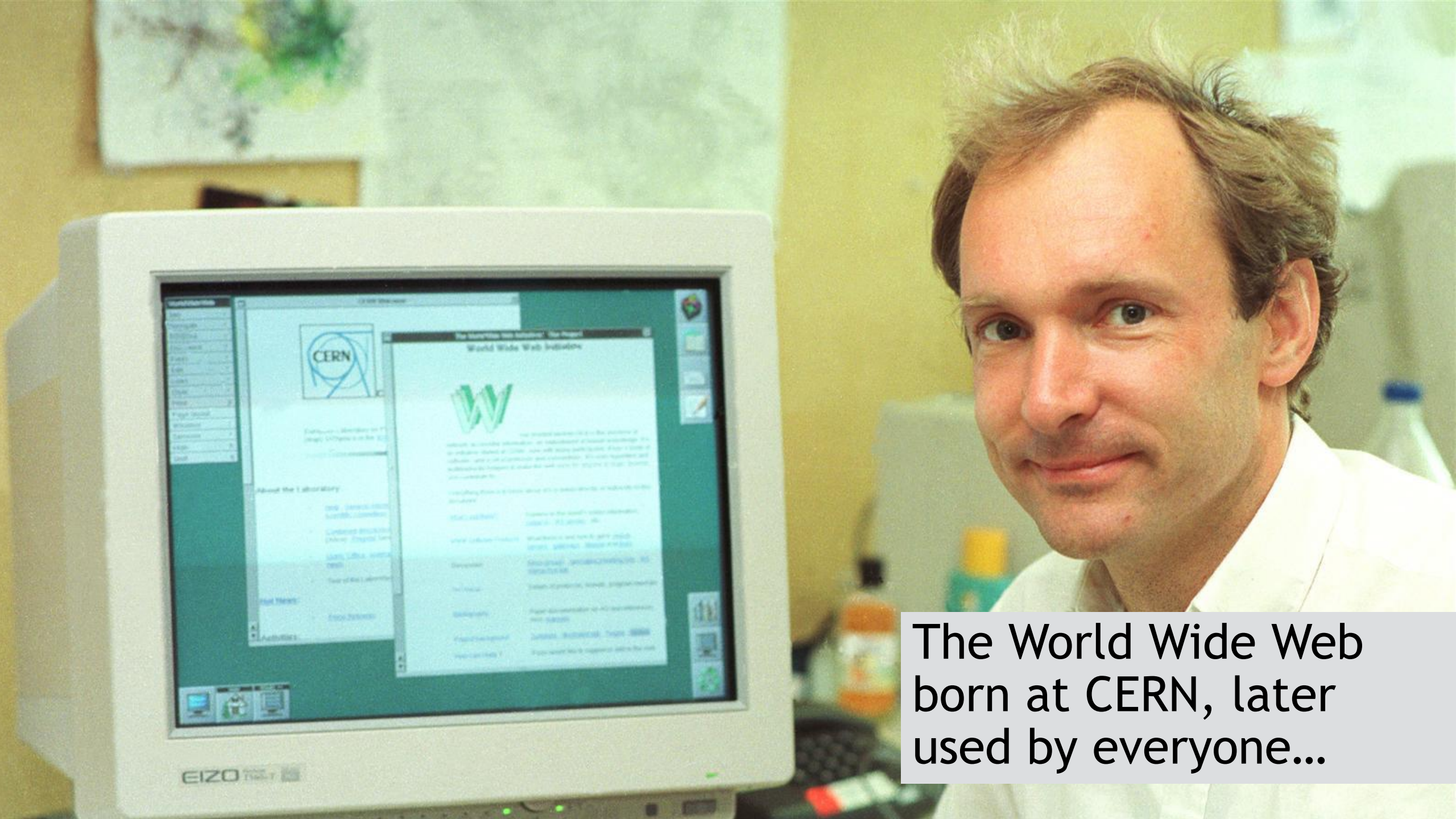
SPS 7 km

ALICE

LHC 27 km

PS 6.28 km



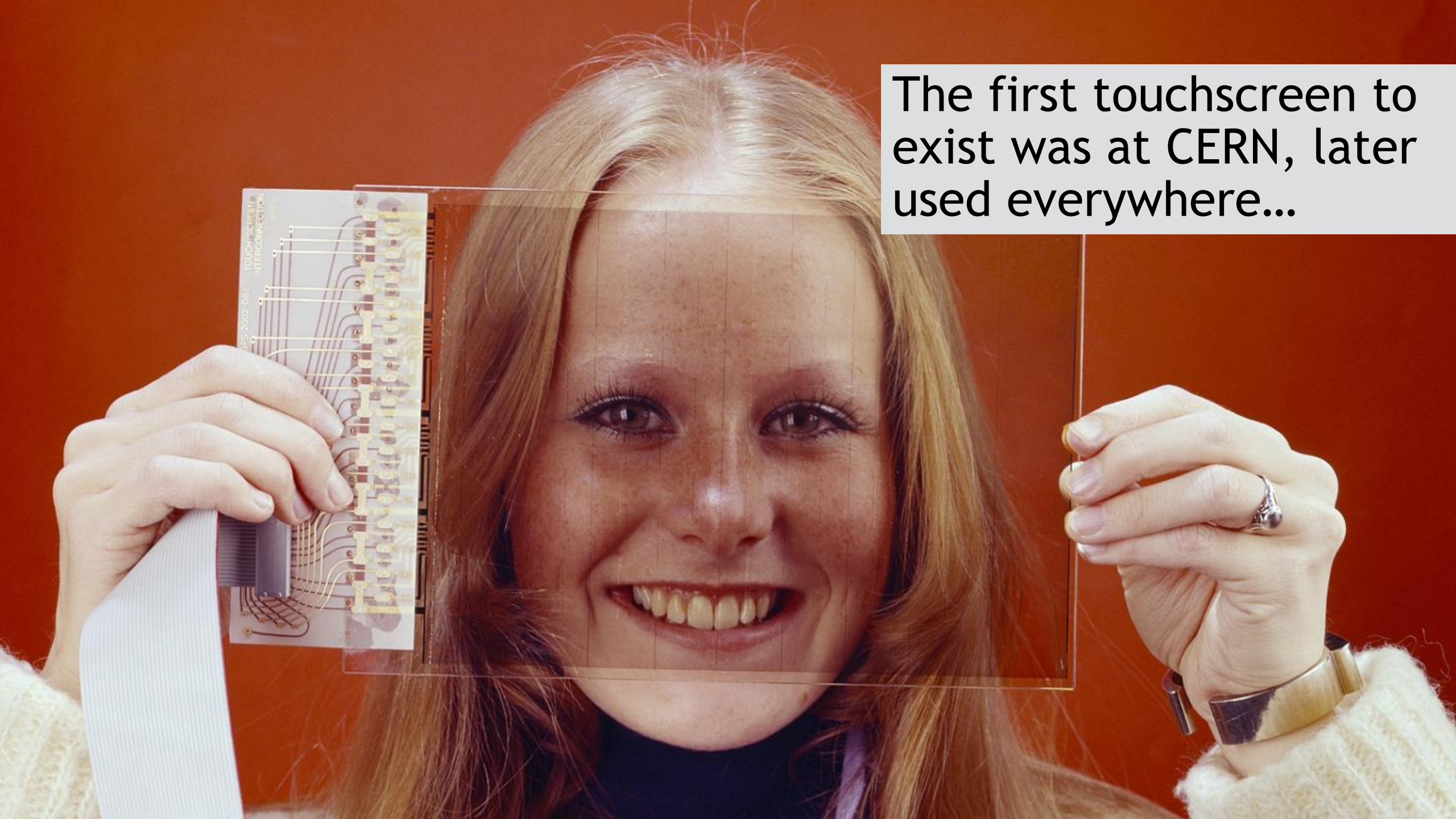


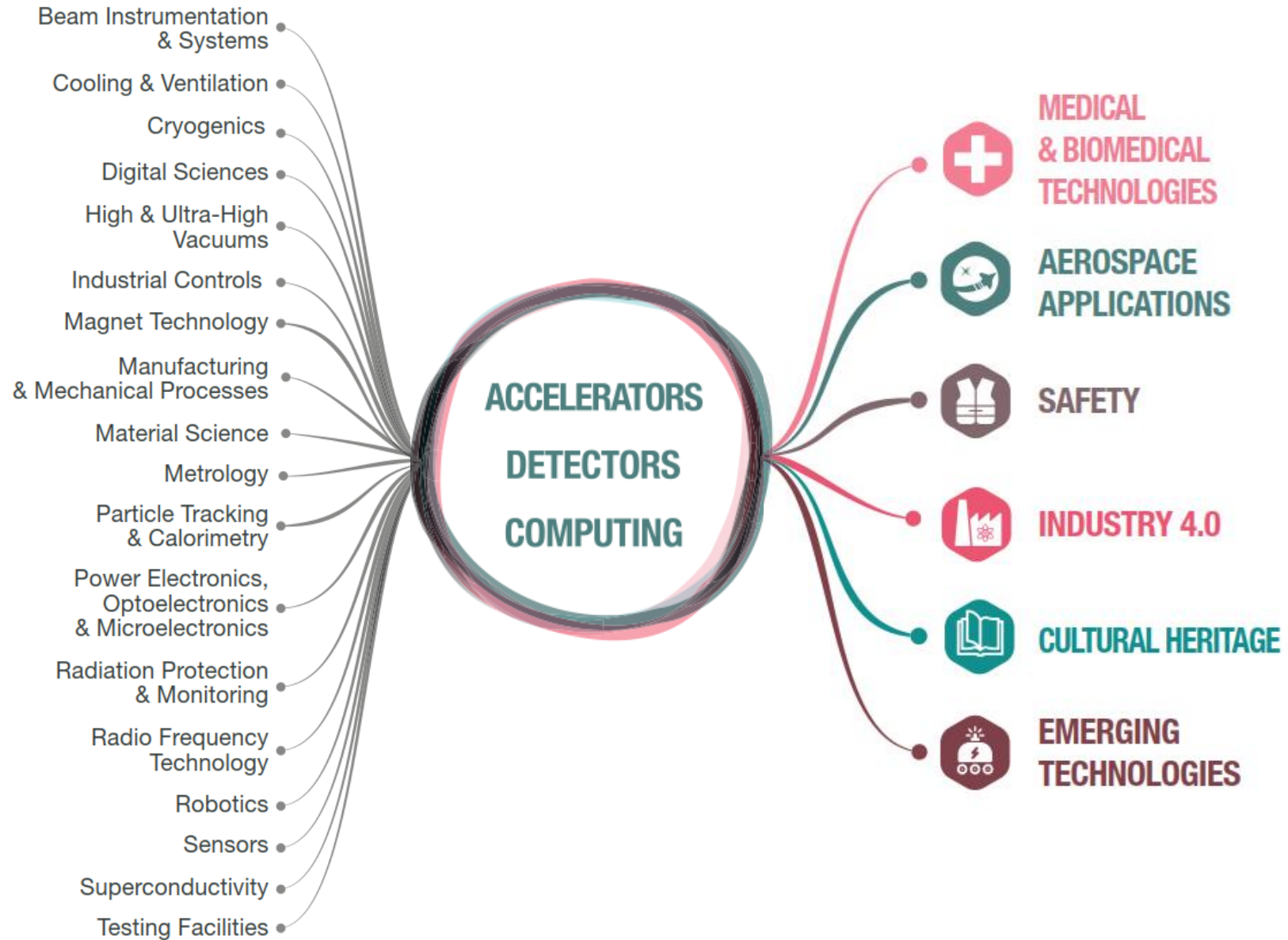
The World Wide Web born at CERN, later used by everyone...



Trackball with optical encoders, used later in the mouse of a PC...

The first touchscreen to exist was at CERN, later used everywhere...







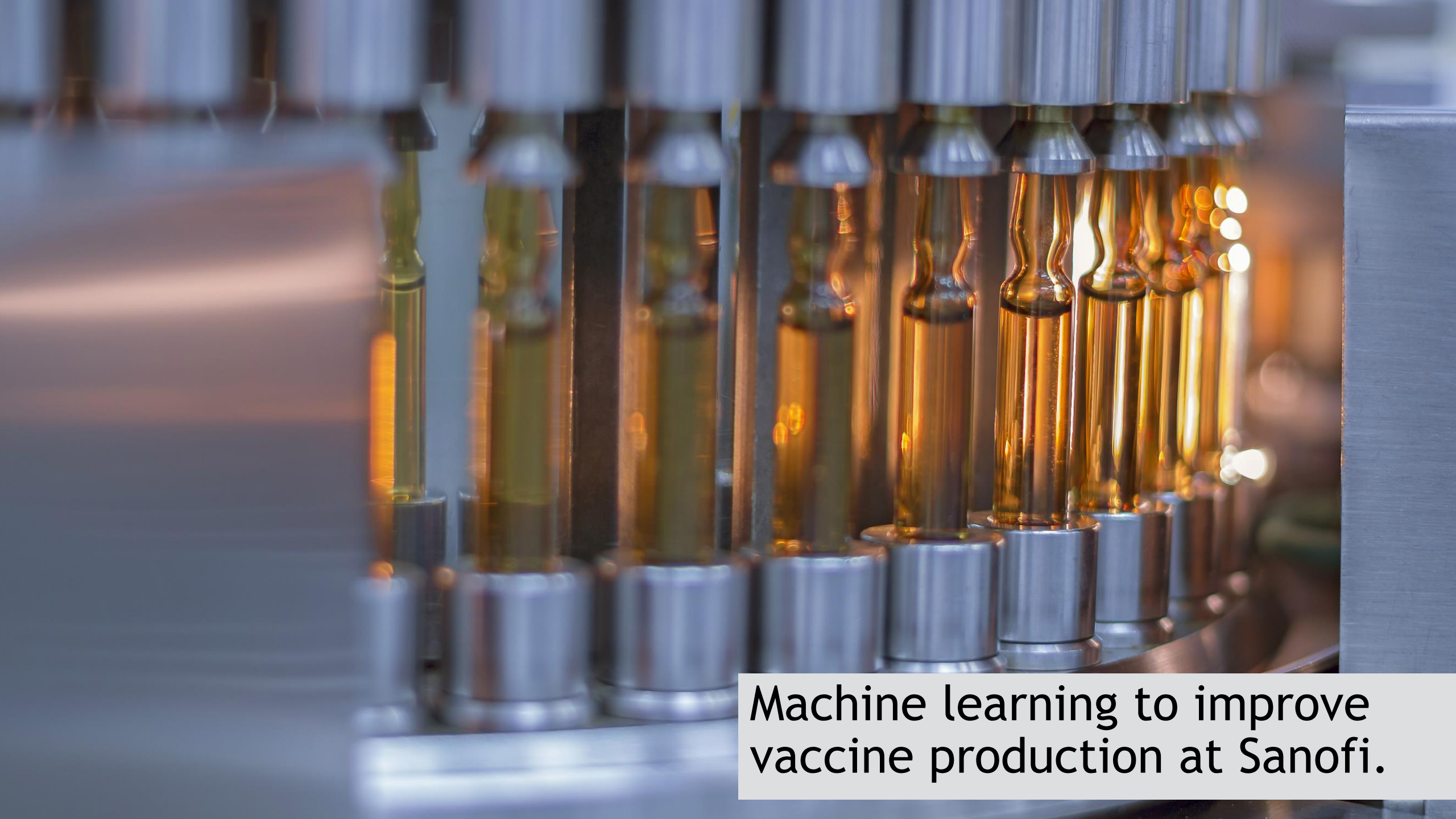
CERN tech used for monitoring radiation levels in space missions (courtesy of NASA ISS)



LG

CERN's Controls
middleware software
for worldwide factory
automation at LG.





Machine learning to improve vaccine production at Sanofi.



le dauphiné libéré

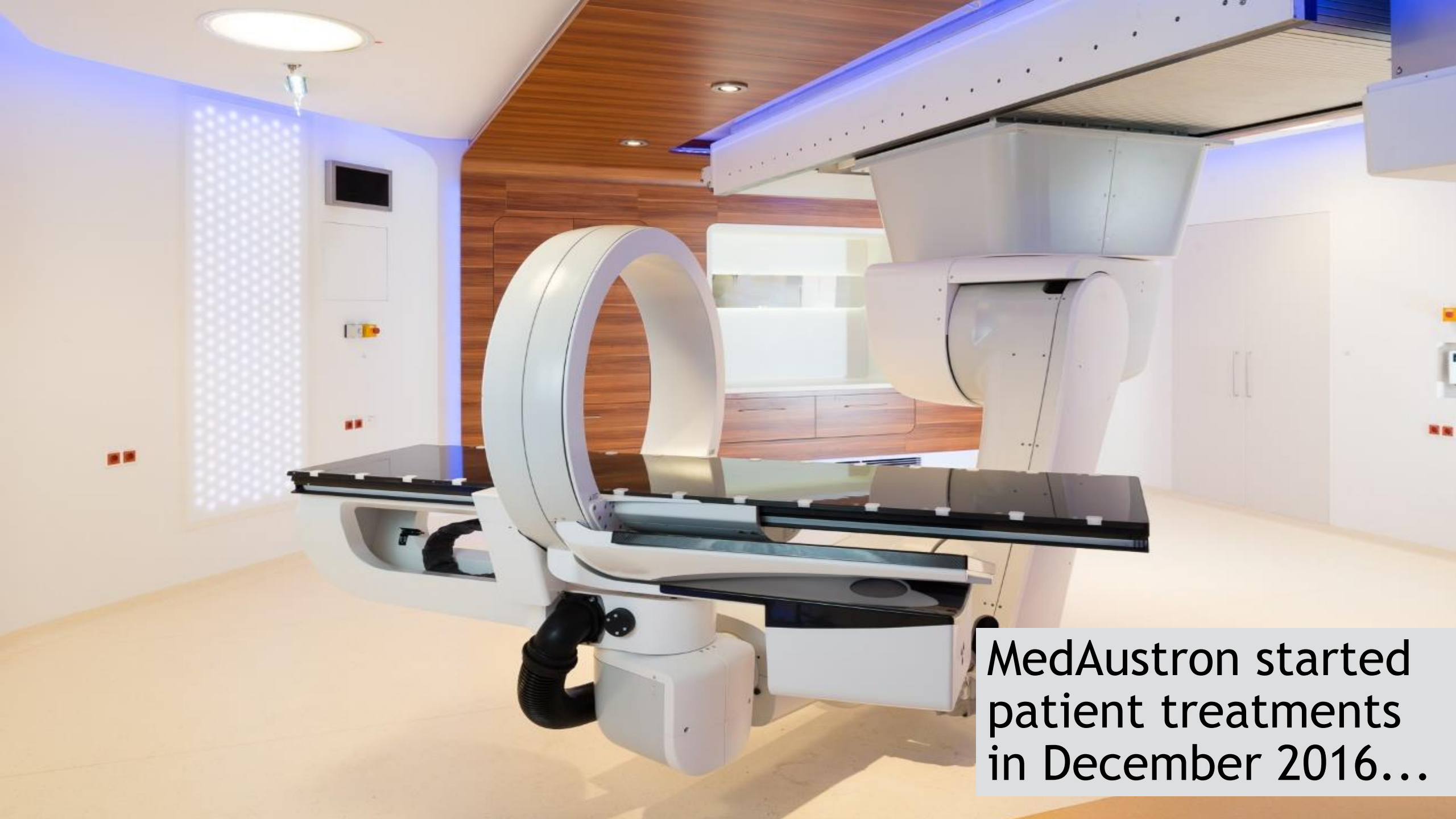
1,00€ - 1,50 FS | JEUDI 30 NOVEMBRE 2017 | G 01

BELLEGARDE & PAYS DE GEX

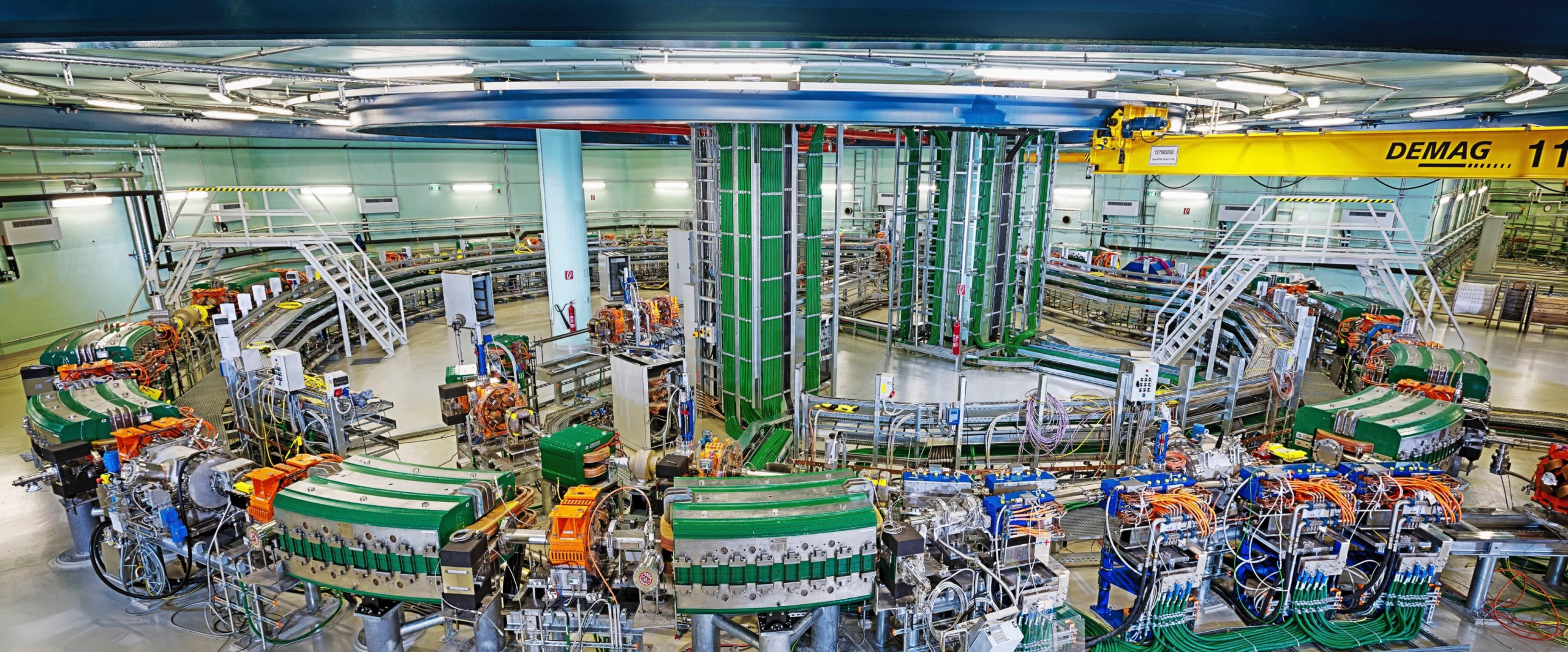
GENEVOIS LE SAVOIR DES PHYSICIENS AU SERVICE DE LA MÉDECINE DE DEMAIN

La lutte anti-cancer se prépare au Cern

CERN-MEDICIS
produces radioisotopes
for medical research



MedAustron started patient treatments in December 2016...

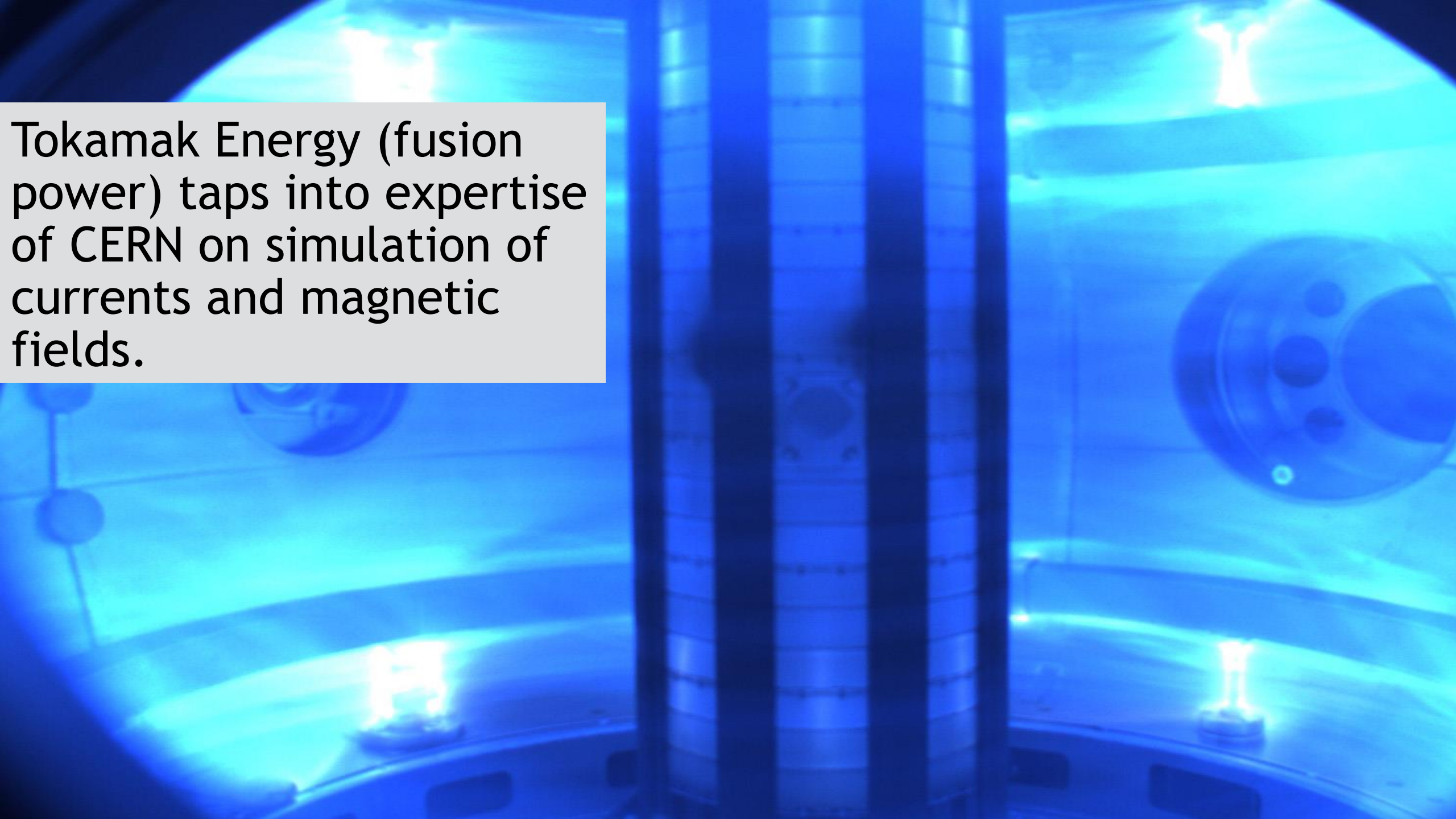


...and is using a lot of CERN technology for its proton acceleration



Bundesdruckerei (Berlin) works with CERN on next generation ideas for identity management and cryptography

Tokamak Energy (fusion power) taps into expertise of CERN on simulation of currents and magnetic fields.



Zenuity (Volvo Cars /
Veoneer) teams up with
CERN on fast machine
learning using FPGAs .





Next generation X ray finally in color (MARS Bio Imaging).



THANK YOU!

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