



# **Accelerating Innovation**

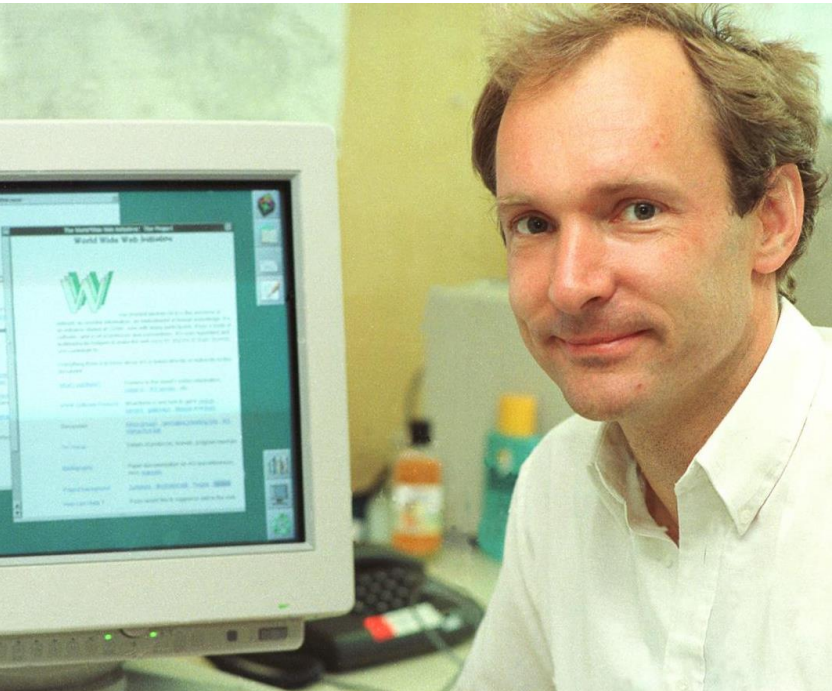
## **How CERN Technology Makes its Way into Society**

Giovanni Anelli, Head of Knowledge Transfer Group, CERN

# Four pillars underpin CERN's mission



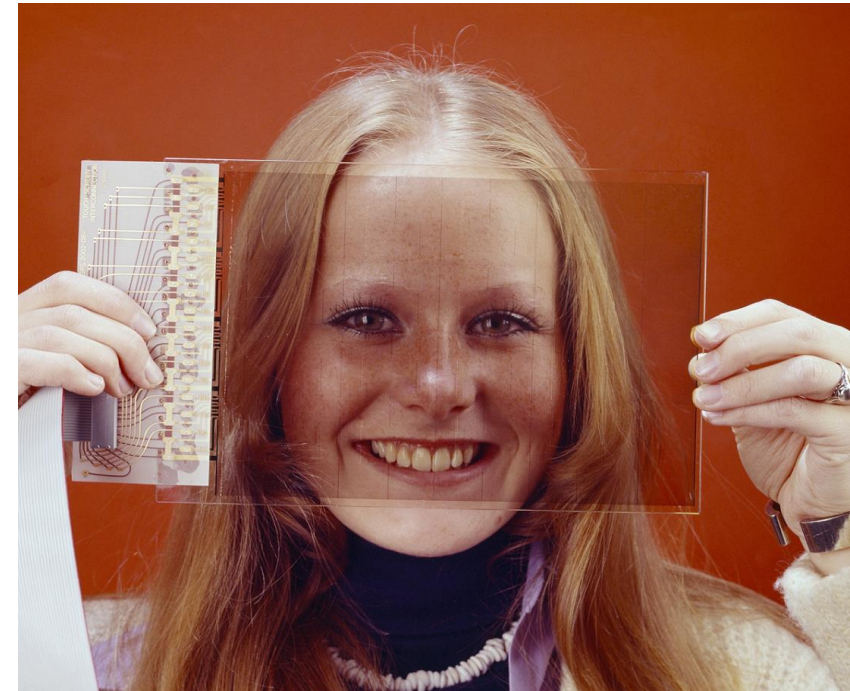
# Some historic examples



WWW

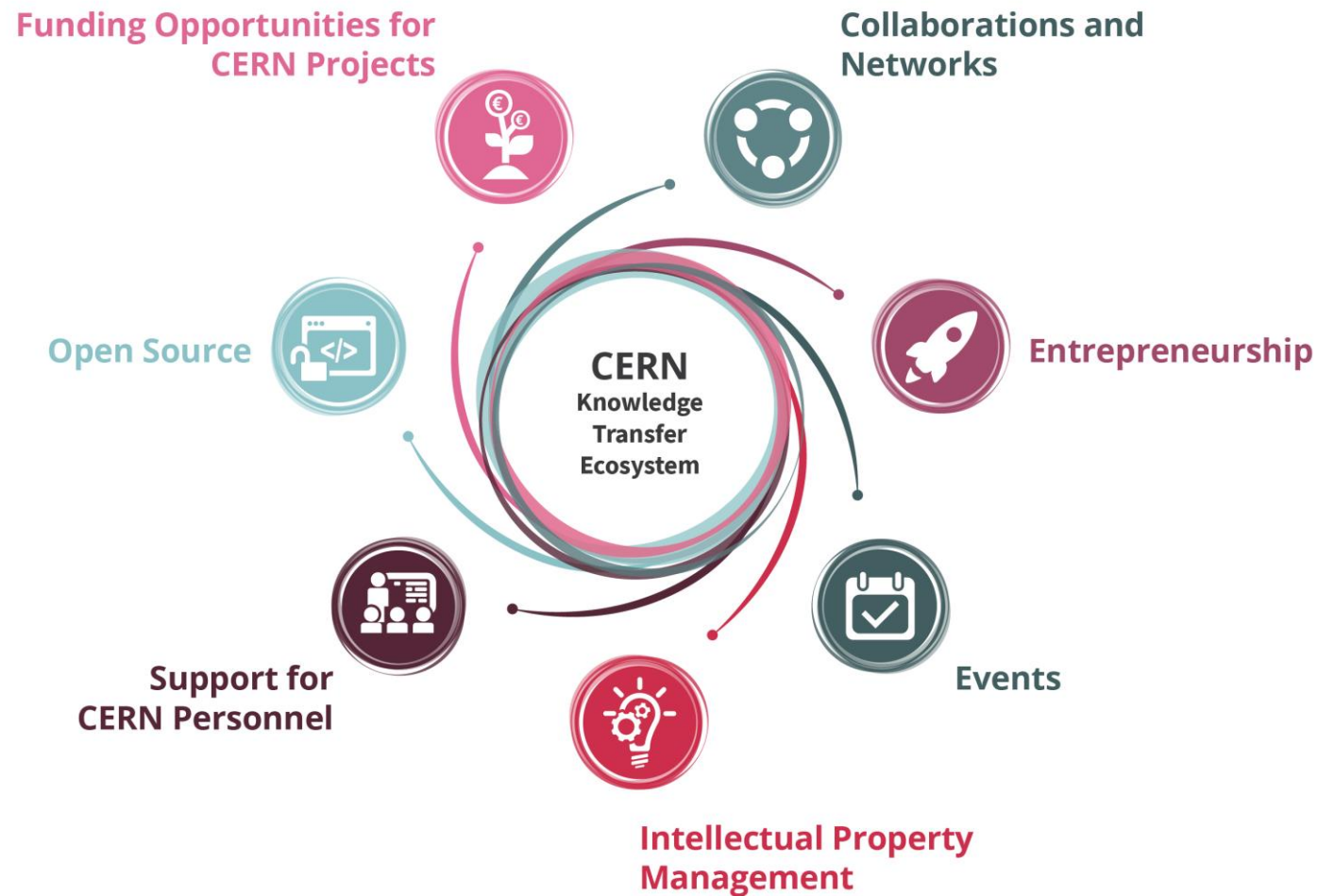


TRACKERBALL



TOUCHSCREEN

# Our toolbox to accelerate innovation



# CERN as trusted non-commercial innovation partner



HEALTHCARE

ENVIRONMENT

DIGITAL

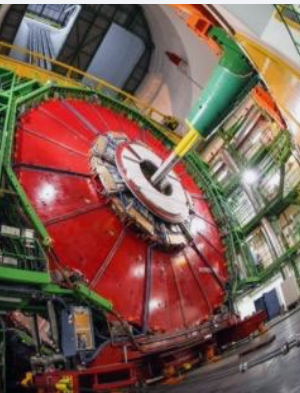
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# Hybrid strategy: tech push & market pull



ACCELERATORS



DETECTORS



COMPUTING

Mobilize tech experts

Create tech and IP dossiers

Scout for technologies

Mobilize innovation partners

Create value propositions

Search unmet needs



HEALTHCARE



ENVIRONMENT



DIGITAL

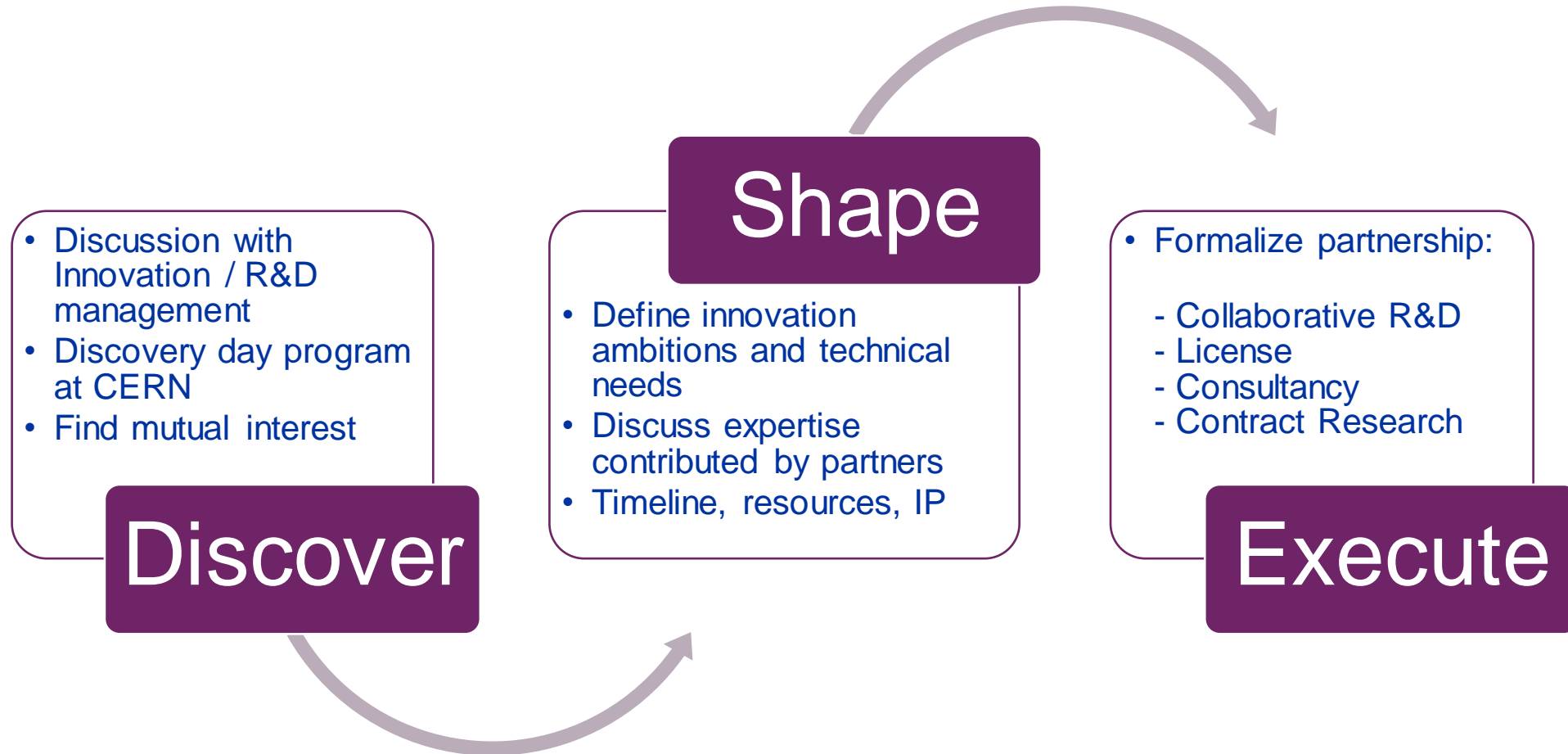


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# Shaping innovation partnerships








Collaborative R&D

MedAustron and CNAO offer hadron therapy using CERN technology.

Consultancy



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

ZENSEACT (Volvo Cars Company) teams up with CERN on extremely fast machine learning using FPGAs.

Collaborative R&D





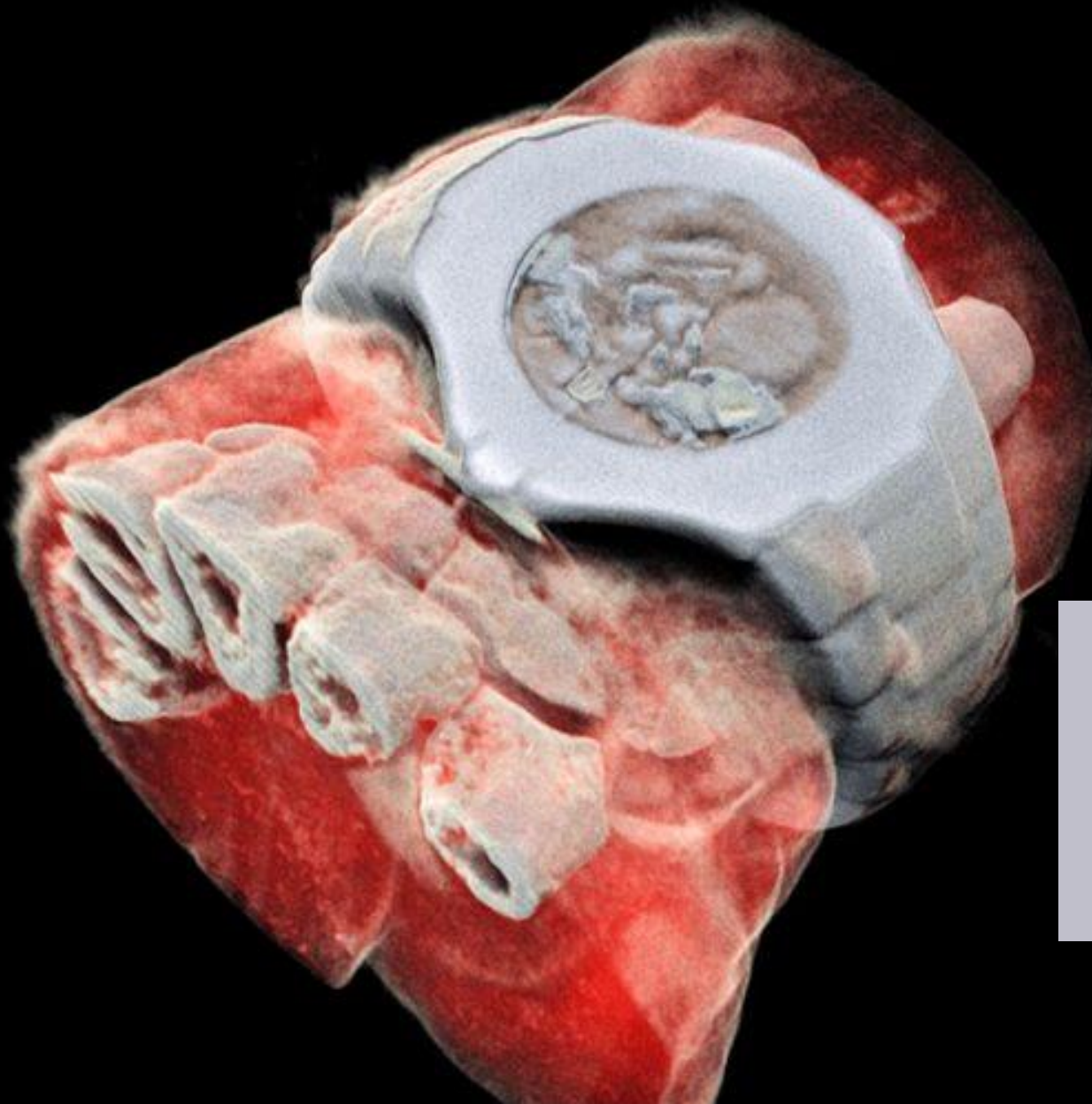
Collaborative R&D

CERN and ABB team up on reducing electricity in cooling and ventilation.



Collaborative R&D

Collaboration with CORMEC and WUR to support national banks and regulators to detect trading anomalies in stock market.



MARS Bio Imaging:  
next generation X ray  
finally in color using  
CERN chips

# Key lessons learned when innovating together

- CERN is strong in the 'extremes' of the technology scale
- You need passionate experts on both sides to succeed
- Start with a concrete project and clear business need
- Mind the gap – in language, 'clockspeed' and culture
- Driving deep tech innovation requires courage

## Key challenges

- CERN experts are busy
- Our technologies have low TRL
- What is our Unique Value Proposition?