

Eliminating Risks by Stern Control System Integrations

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Cosylab at a glance



400+
successful projects



20+ years of
experience & know-how



300+
skilled engineers



5 locations
worldwide



50% of activity in
scientific and 50% in
the medical domain



30+ PhD
holders from
STEM fields



15% annual
growth rate
over 15 years



Certified with ISO
9001, 13485, compliant
with 14971, IEC62304

We do Control Systems ... obviously

COntrol SYstems LABoratory

~~COSY LABoratory~~

Integration of Control Systems

PLAYING
with software

(side task, hobby,
hacking, improvising)

or

PROCESS

(rules, discipline,
professionalism,
strictness, norms)

Stern?

Playing with Controls Software generates risks (fake simplicity)

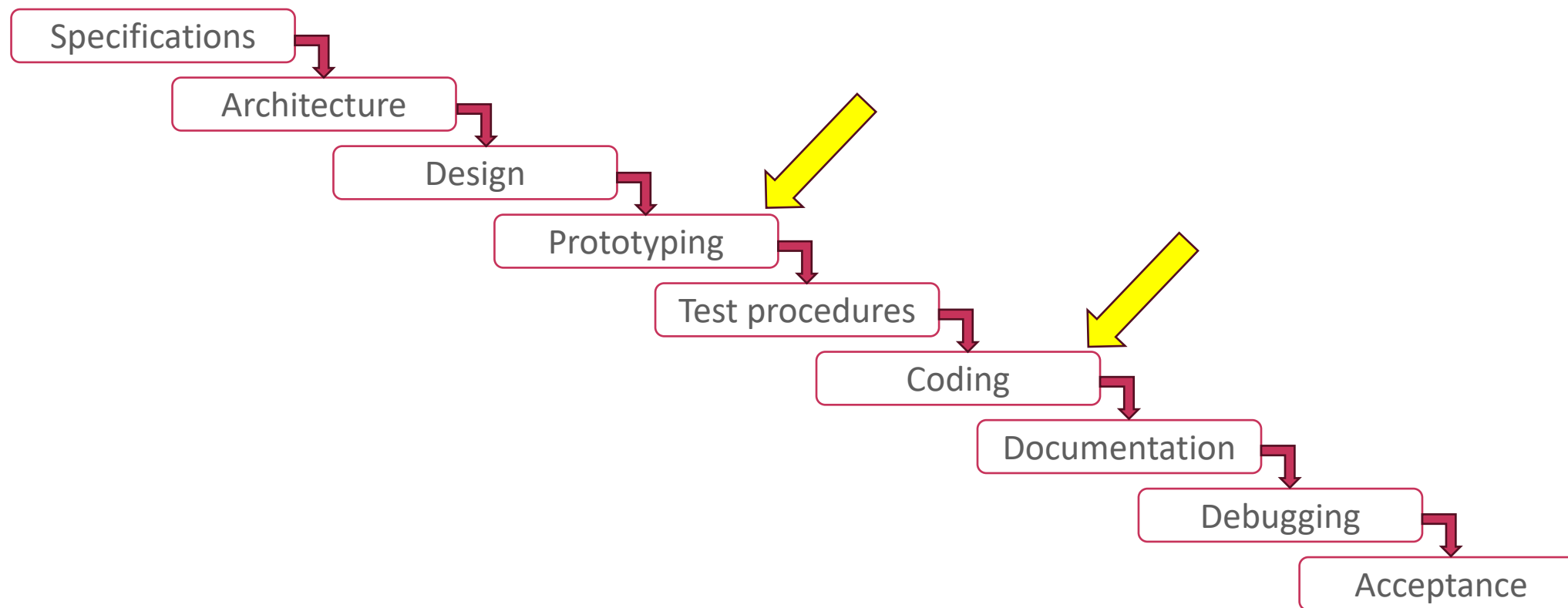
Result: Poor control system

Consequent hazards and risks:

- Damage
- Injuries
- Unfit for purpose
- Malfunctions
- Loss
- ...

=> You can not do this AMATEURLY

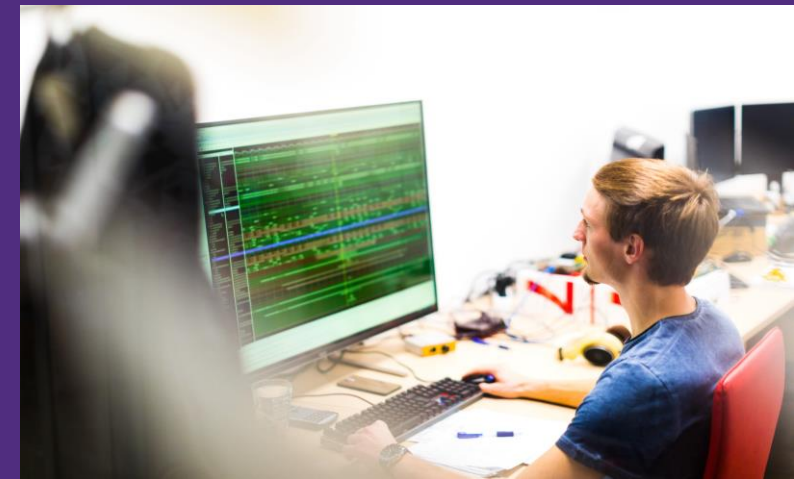
Integration must be systematic (and documented!)



Control System Integration is an **engineering discipline** like all the others, yet with an even more complicated cycle

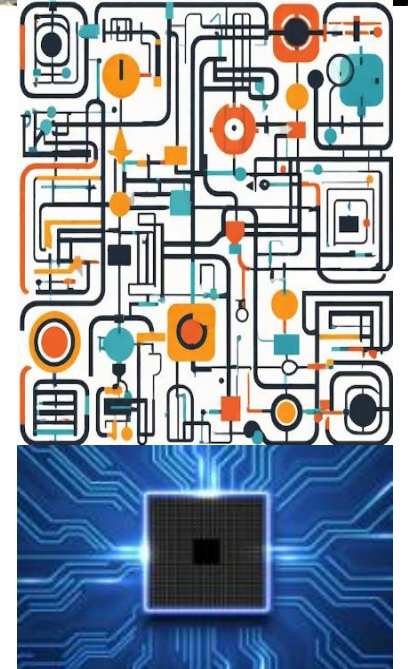
Much more than a software

- Understanding the entire process of operating highly complex systems.
- Active engagement in **project set-up, management and risk mitigation**
- ...during the entire **engineering lifecycle**
- **Complex subsystems must work harmoniously**
- **Delivery within-time and within budget**



Preconditions to do it well and risk-free

Knowledge
Experience
Capability to adapt and innovate



Science

- Scalability
- Flexibility

Industry

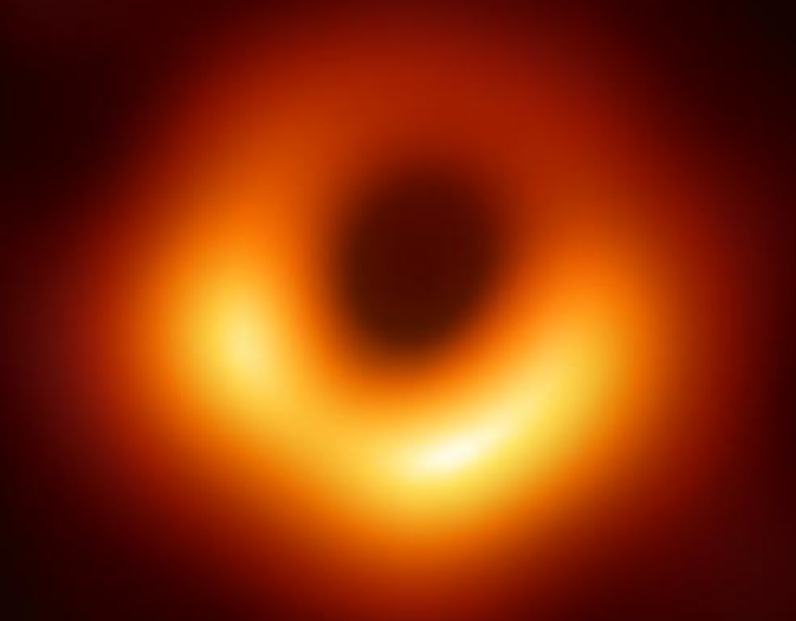
- Reliability
- High availability

Medical

- Safety
- Performance

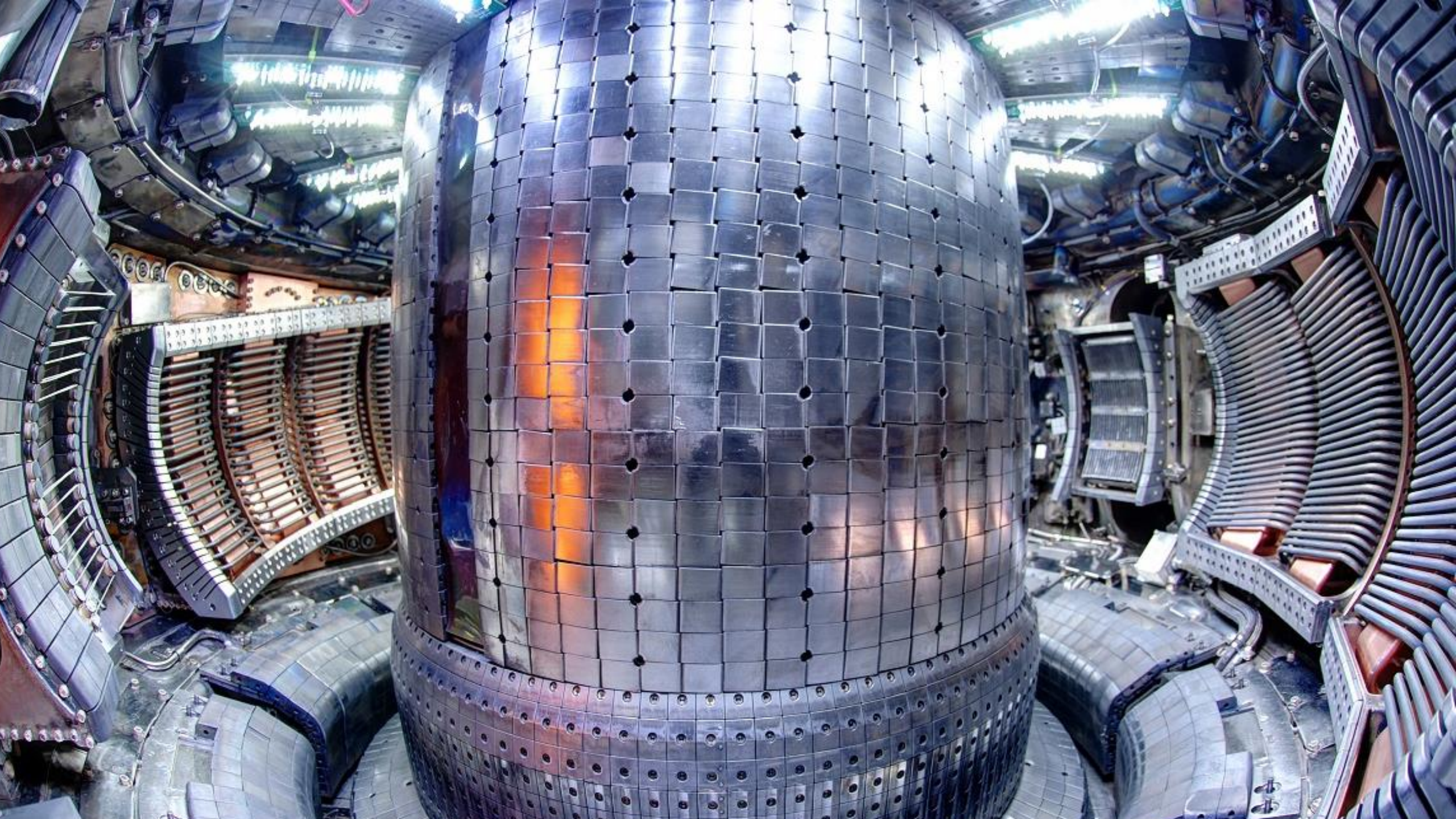
Our contribution to innovations

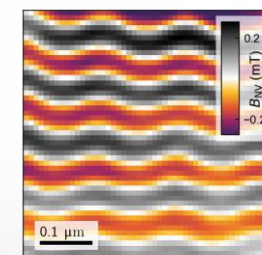
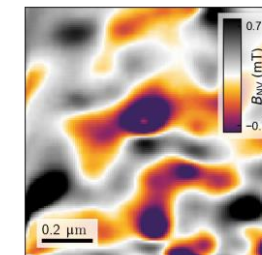
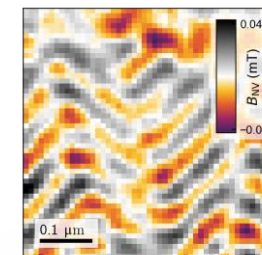
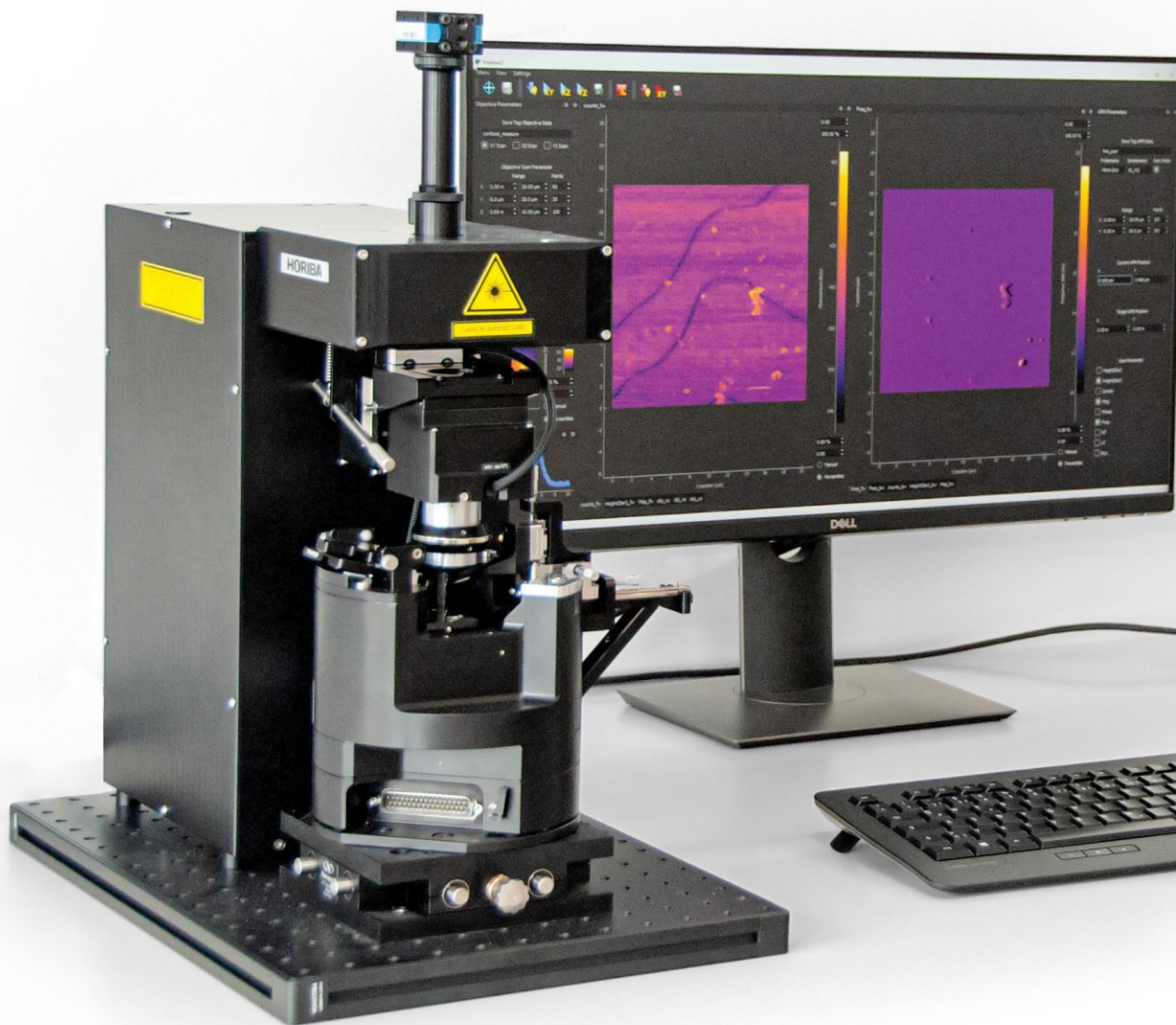
- Control
- Organization and systemization
- Discipline
- Reliability
- Tracking
- TRL increase
- Risk avoidance and risk mitigation





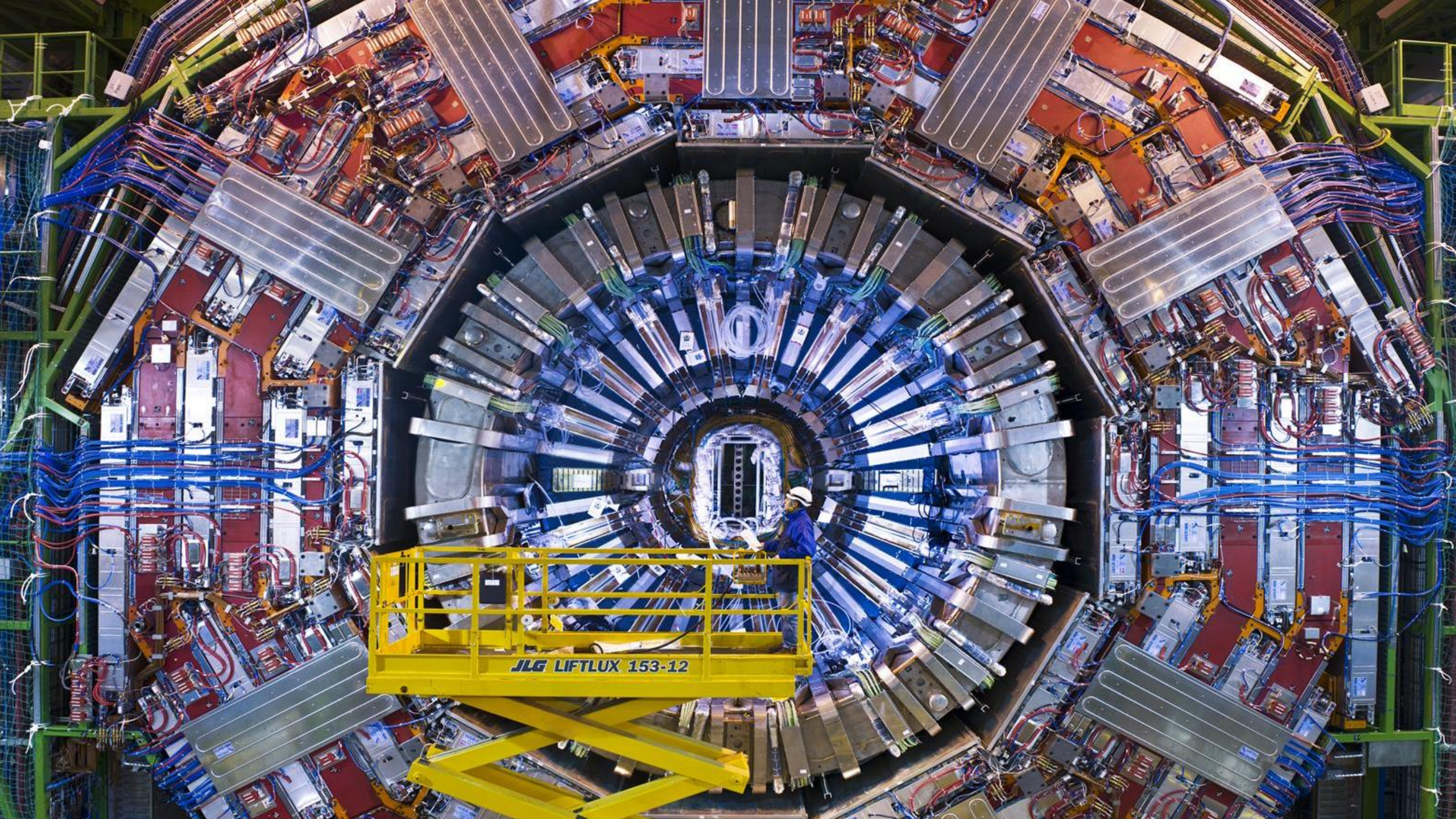






Obtained with a table-top
Scanning NV magnetometer

Credits: Quantum Sensing Group, Uni Basel



Renowned organisations from across the globe trust Cosylab



Thank you

Questions?

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