

I FEEL
SLOVENIA



GREEN.
CREATIVE.
SMART

SLOVENIA@CERN

9. - 10. October, 2019



REPUBLIC OF SLOVENIA
MINISTRY OF EDUCATION,
SCIENCE AND SPORT



Slovenian Public Agency for
Entrepreneurship,
Internationalisation, Foreign
Investments and Technology



Gospodarska
zbornica
Slovenije

Chamber of Commerce
and Industry of Slovenia



REPUBLIC OF SLOVENIA
MINISTRY OF ECONOMIC DEVELOPMENT AND
TECHNOLOGY

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COSYLAB

Global Leader in Control Systems and Software for
Science and Proton Cancer Therapy



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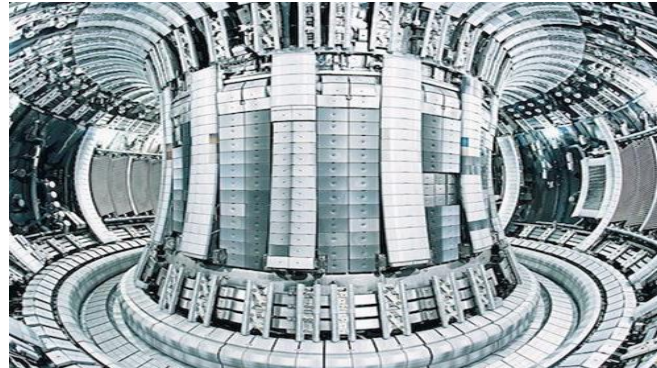
World Leader in Control Systems for Science and Particle Therapy

Building and integrating state-of-the-art software for the most complex, precise and advanced systems in the world.

BIG PHYSICS



NEW ENERGY



ROBOTICS and MANUFACTURING



SPACE AND ASTRONOMY



PARTICLE THERAPY



Cosylab in Numbers



Worldwide **market leader** in

- Control Systems for large scientific facilities (accelerators, telescopes, fusion, etc.)
- Control Systems for Particle Therapy Systems

6 branches

Switzerland, Slovenia, US, China, South Korea, Japan

150+

highly-skilled developers and engineers

250+

successfully delivered projects in 20 countries

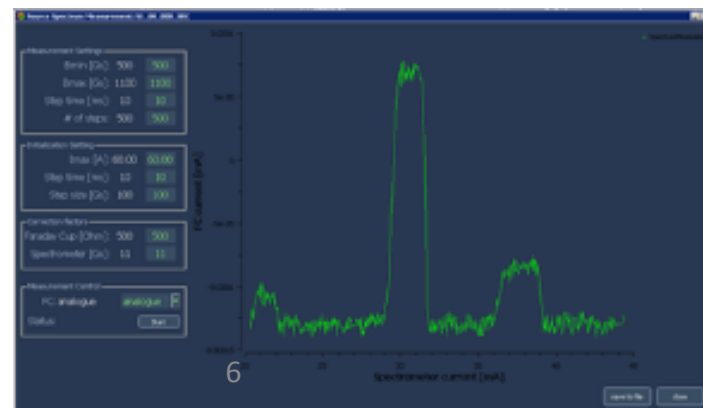
A few reference projects from Sci and PT

PROJECT / ORG.	COUNTRY	INDUSTRY	DESCRIPTION	CONTRACT
PSI <u>SwissFEL</u> & Swiss Light Source	Switzerland	Scientific Research	SwissFEL - Free electron laser SLS - Synchrotron radiation light source	2.6M CHF ~1M CHF
European Spallation Source (ESS)	Sweden	Scientific Research	Neutron source based on high-power proton linac	>5M EUR open contract
iBNCT	Japan	Particle Therapy	Boron Neutron Cancer Therapy (8MeV p-linac)	>1.5M EUR open contract
SLAC LCLS/LCLS-II	United States	Scientific Research	Free electron laser	5M USD
HIMM	China	Particle Therapy	Cyclotron + synchrotron for carbon cancer therapy	1M EUR
<u>MedAustron</u>	Austria	Particle Therapy	Proton/carbon synchrotron for cancer therapy	>6M EUR open contract
ELI-NP	Romania	Science	Laser and gamma beam facility	3.6M EUR



Technologies coverage

- Various **SW technologies**
 - Matlab, LabVIEW
 - C/C++, Java, Python, .net/C#, ...
 - Motion control, inverse kinematics
 - SCADA, EPICS, CSS, TANGO,
 - Real-time: Linux-RT, VxWorks, RTEMS
 - FPGA programming
 - PLC
- **Electronics / Hardware:**
 - Digital, analog
 - Nanoseconds timing
 - FPGA, DSP
 - PXI, PXIe, uTCA



Partnering with COSYLAB

Working flexibly with our partners from ideation to operations:

- Business analysis, requirements engineering
- System design
- SW and HW development
- System integration
- Installation and commissioning
- Documentation



Partnering with COSYLAB

Taking the risk away:

- Mitigate technical and financial risk
- Meet your project deadlines, shorten lead times
- Reduce your overall development investment
- Manage peak workloads
- Focus on your core competency, obtain IP, receive knowledge transfer

...delivering safe, secure, reliable, and compliant systems.

Familiar with- and recognized by CERN

- White Rabbit Timing System open HW initiative
- ARIES partnership (universal timing system)
- AVA antimatter physics research project
- In the making:
 - HITRI project (Proton Therapy in EE) - coordinated by CERN. WP8 (controls and safety) to be led by Cosylab.
 - ARIES 2 submission of preliminary proposals (e.g. ACC CS based on COTS components).
- Cosylab Switzerland is led by a former ATLAS MET trigger coordinator (+worked on various other projects)

Thank you!

