

# Cosylab - The World Leader in Accelerator and Particle Therapy System Integration

## STARTING-UP IN NIKŠIĆ

Nikšić 10<sup>th</sup> May 2018



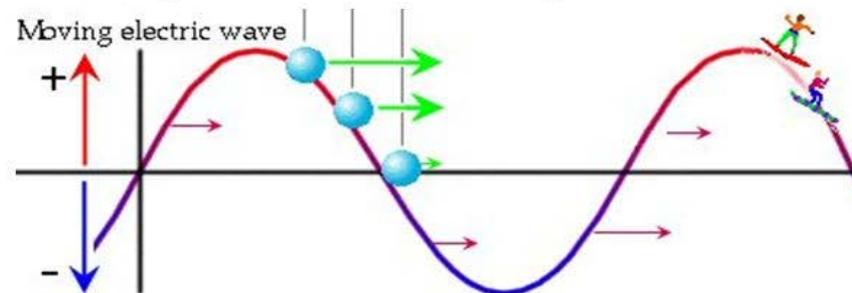


Your **TRUSTED** Control System Partner



## Accelerating Particles 2

- The particles can also be considered to be 'surfing' the electromagnetic wave...



1 | Positive particles just sitting there



- ❑ From Institute „Josef Stefan“...
- ❑ ...to the World leading Systems Integrator for Particle Accelerator Control Systems
- ❑ Engineering and Integration Services for Proton Therapy Systems

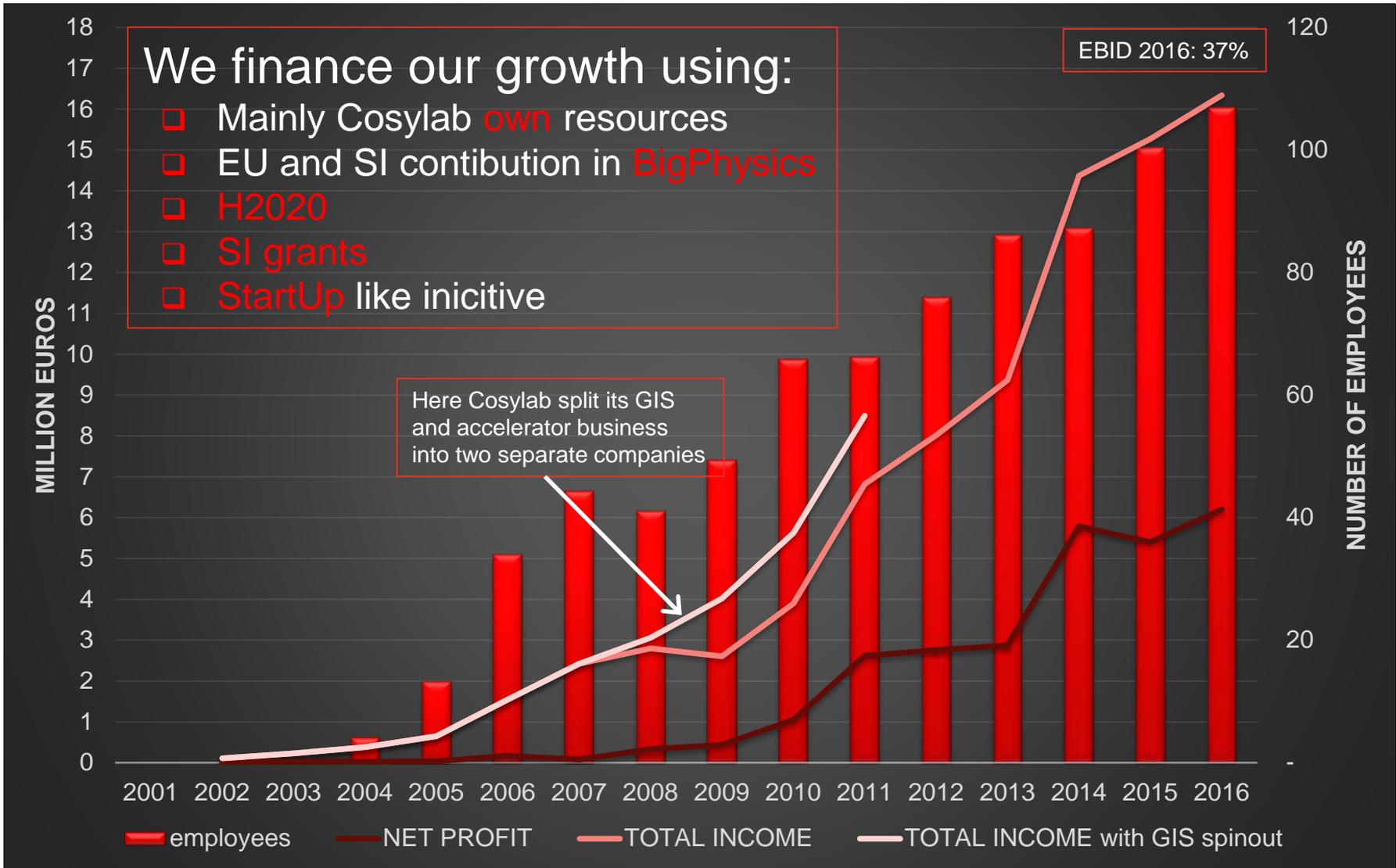


- ❑ Founded in 2001, >20% CAGR
- ❑ 180+ employees worldwide, local branches in USA, Japan, China, Switzerland, Sweden
- ❑ ISO9001, ISO13485, ISO14971, IEC62304

- ❑ Largest international Big Physics projects as customers (ITER, ESS, FAIR, SwissFEL, SLAC...) as well as over 10 PT projects, such as MedAustron, HIMM (China), etc.



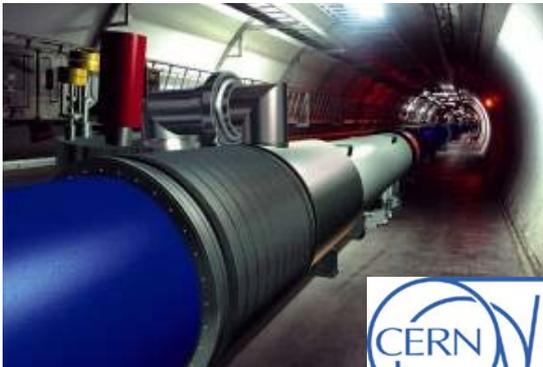
Your **TRUSTED** Control System Partner





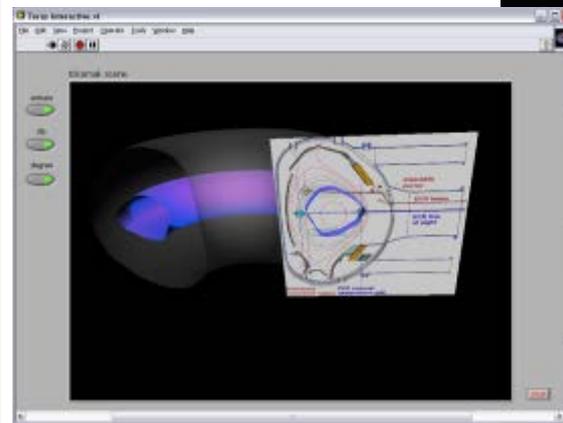
# The part in 6 of the 10 Largest Big Physics Global Projects

- ❑ Radiotelescope: ALMA (Munich, Atacama Desert)
- ❑ Neutron source: SNS (Oak Ridge), ESS (Lund)
- ❑ Nuclear physics: FAIR (Darmstadt), LHC (CERN)
- ❑ Fusion: ITER (Cadarache)



## CERN

Large Hadron Collider  
*“the most powerful instrument on earth”*

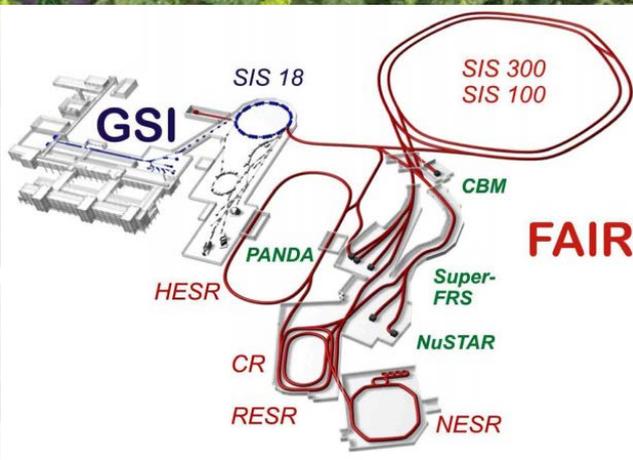


## ITER

*“one of the most challenging and innovative scientific projects in the world today”*

□ FAIR – Heavy Ion Research (Darmstadt, Germany)

- Heavy ion accelerator complex @ GSI, Darmstadt
- In kind Contribution of Slovenia: e.g. Cosylab
- The duration of the project: 2010 - 2018
- Work is ramping up in 2012 to peak in 2015
- On-site presence in Darmstadt, Germany → 1FTE
- The investment: ~1,55 GEUR



# We are building the “pyramids” and look into the space

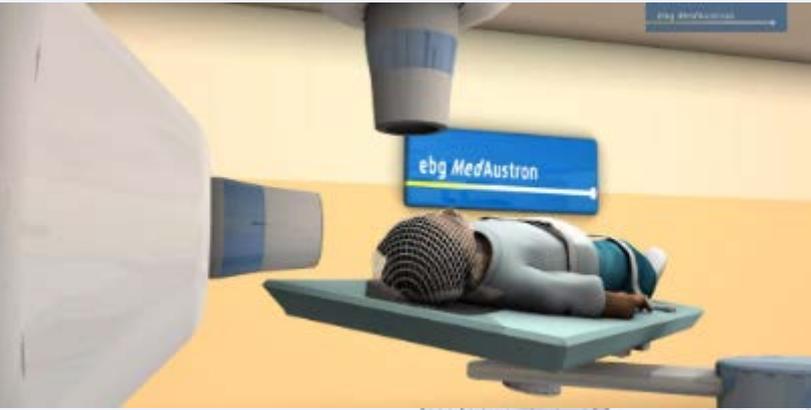


ALMA (Atacama Large Millimeter/submillimeter Array), (Chile)

- The largest, most complex and most expensive astronomical project - astronomical interferometer of the radio telescopes
- Investment: 1GEUR
- Komplex of 66 12-meters radio telescopes in Atacama desert
- Cosylab – developed the core of a control sistem
- An international partnership among Europe, the United States, Canada, East Asia and the Republic of Chile



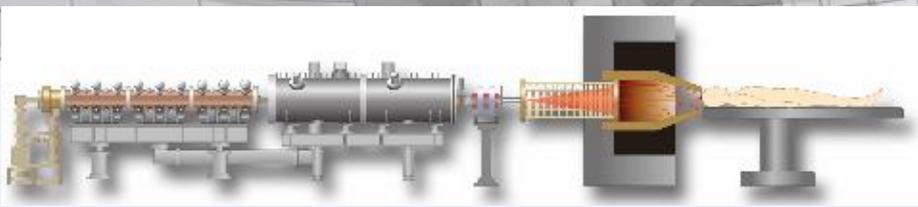
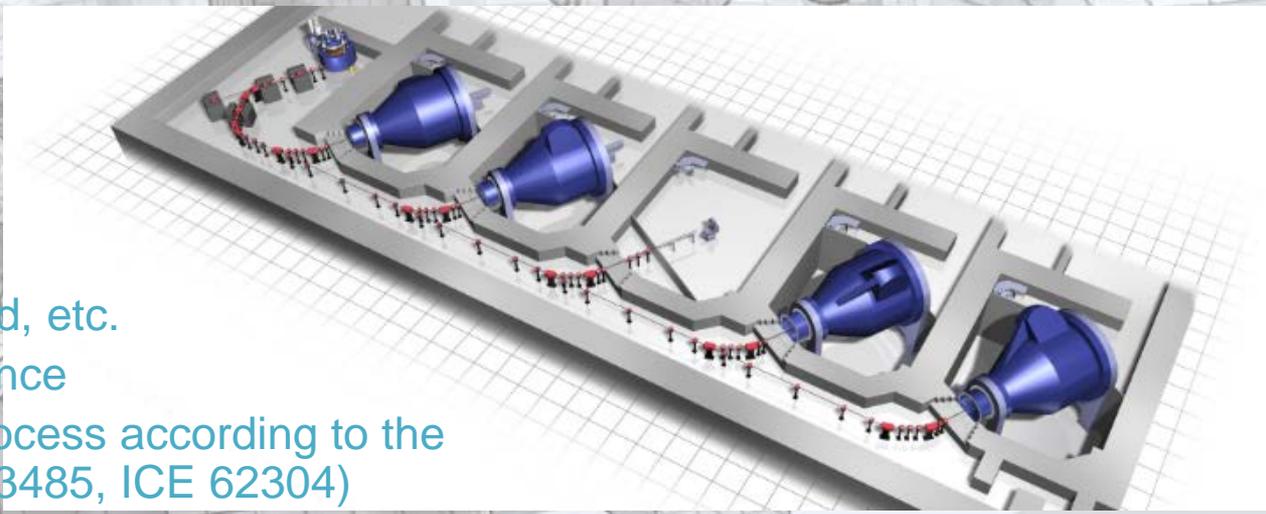
# 10 Particle Therapy for Cancer Treatment



- ❑ Ion Beam Therapy: Cancer treatment with **Carbon Ions**
- ❑ Wiener Neustadt, Austria
- ❑ One of 4 such facilities in the world

## Proton Therapy

- ❑ For Varian, Inc.
  - RT market leader (70%)
  - Stock: VAR (NYSE)
- ❑ industrial customer
- ❑ Köln, San Diego, Maryland, etc.
- ❑ Strategic partnership alliance
- ❑ Rigorous development process according to the medical standards (ISO 13485, ICE 62304)



BNCT – Boron **Neutron Therapy**  
Ibaraki Neutron Medical Research Center,  
Tokai, Japan



# The name of the the game in one sentence



**Value** of a modern company = **People**

□ Trust them...

- Rules must to enable not to limit people
- Invest in their Talents and Knowledge

□ ... and let them trust you too.

- Empover people and “open book management”

**Cosylab started as a team of students in 1996.**



**Think bold..**



**Live full life.**



**Work with passion.**



**Cultivate modesty.**

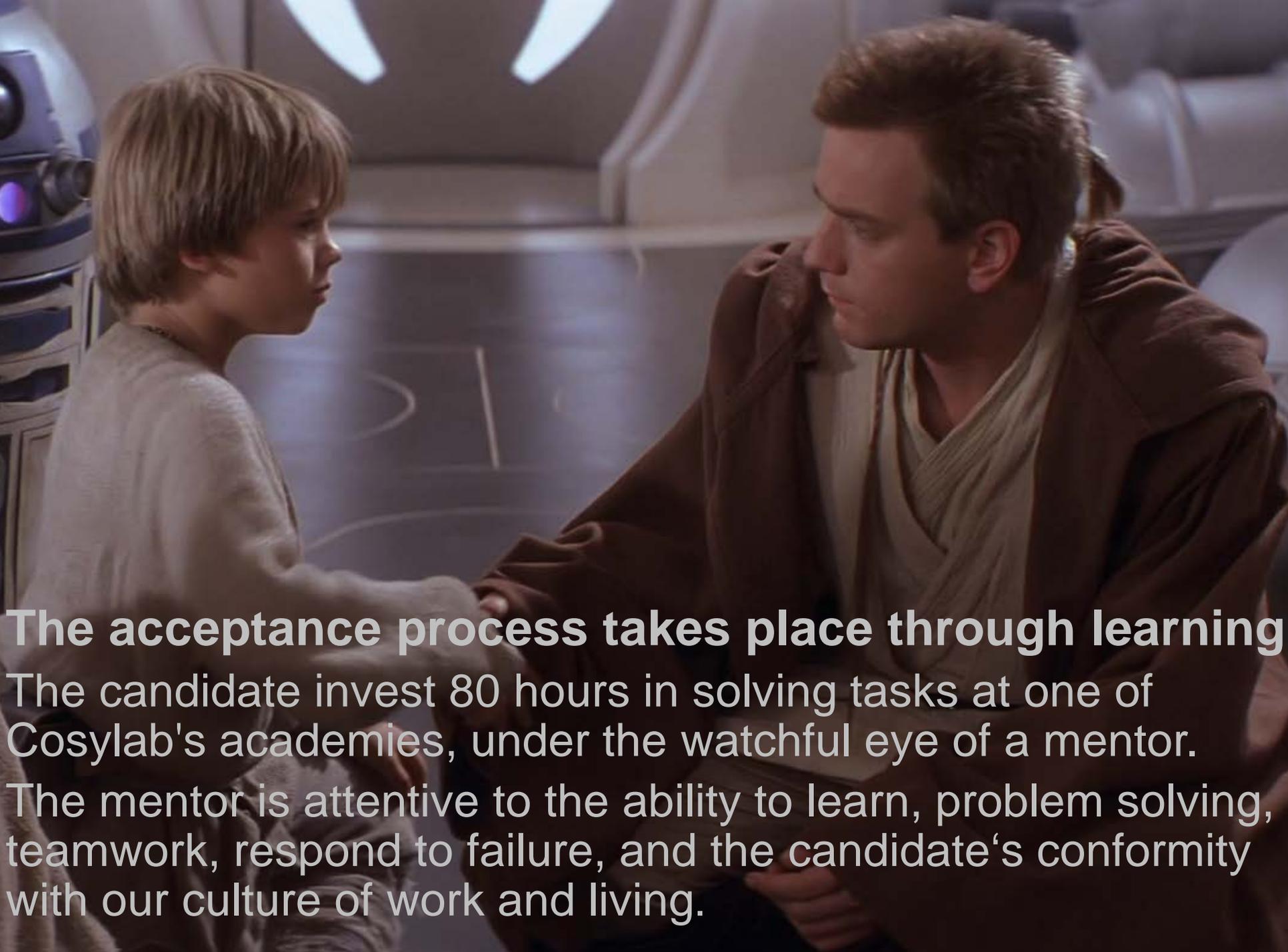
**It all started as a sort of Summer School 20 years ago.**



# Cosylab = people



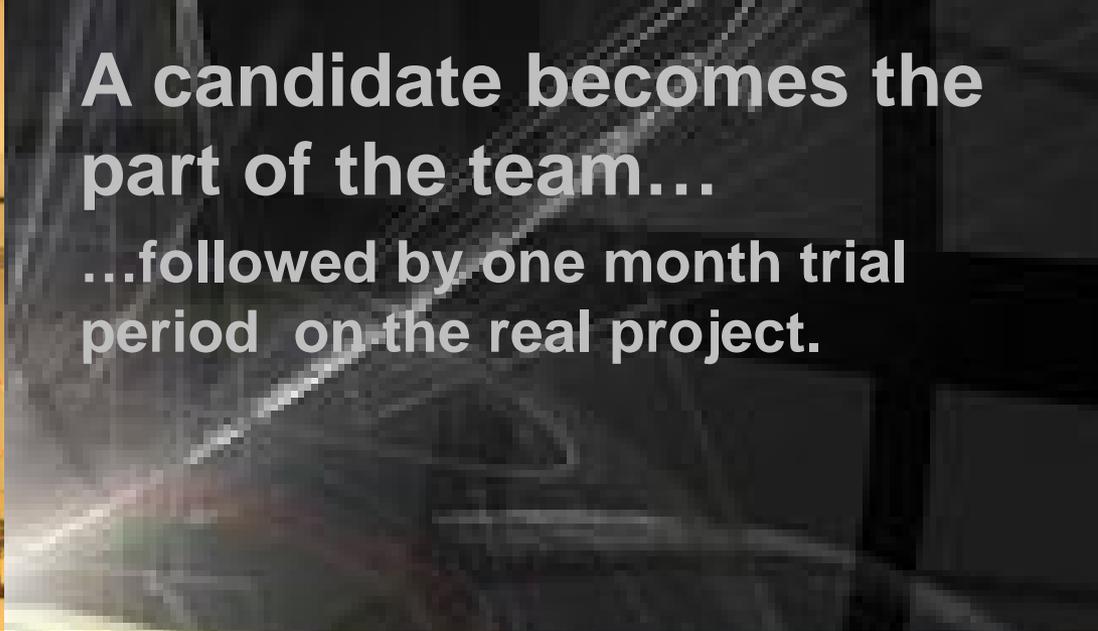
- ❑ 1/3 physicists, 1/3 software engineers, 1/3 electronic engineers
  - 1/3 non-geeks 😊
  
- ❑ We hire systematically, standard procedure
  - 1) interview + initial test, 2) academy, 3) final task
  - Working with students while they are still studying
  
- ❑ Seeking and hiring only the best !
  - Just working hard is not enough
  - We need bright and responsible people
  
- ❑ Team
  - cooperation, knowledge transfer, responsibility

A young boy with short brown hair, wearing a white tunic, is shaking hands with a man in a brown robe. They are in a futuristic, metallic environment with blue lighting. A droid is partially visible on the left. The scene is from Star Wars: The Force Awakens.

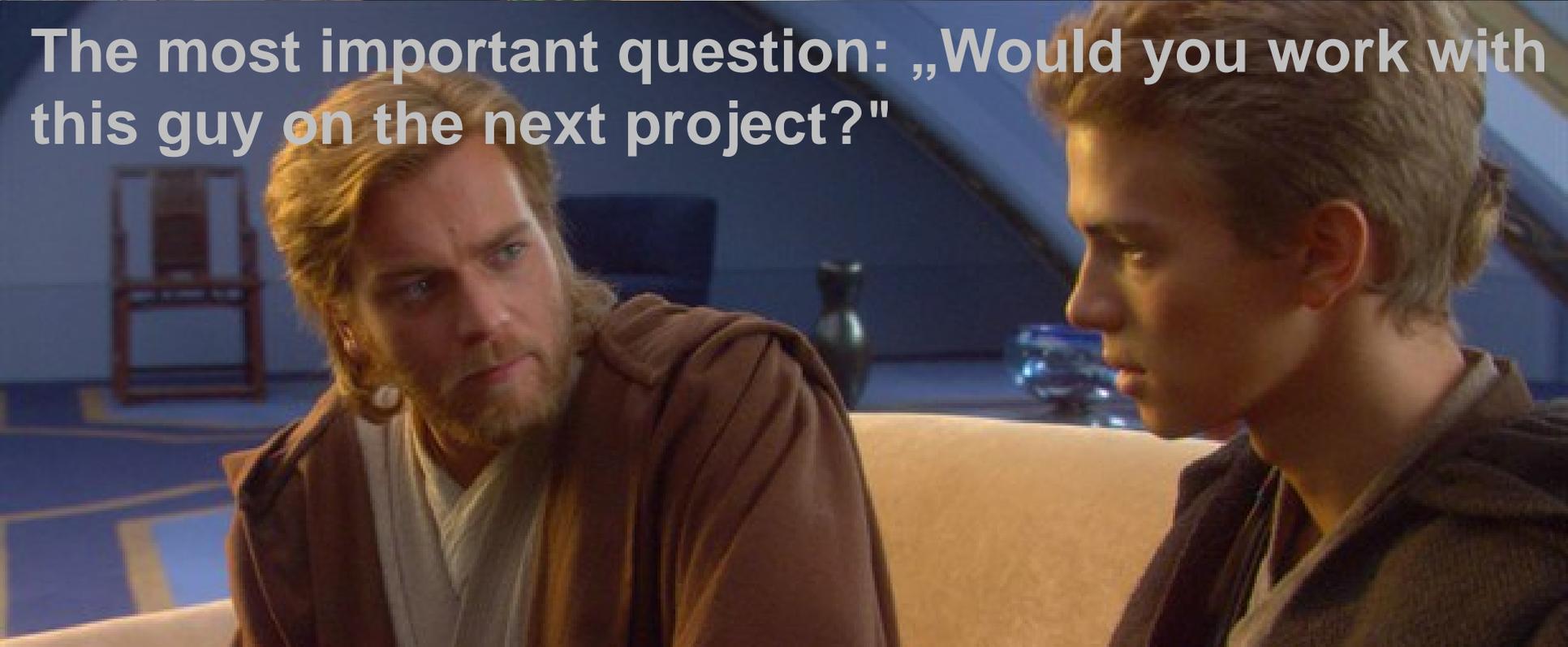
**The acceptance process takes place through learning**

The candidate invest 80 hours in solving tasks at one of Cosylab's academies, under the watchful eye of a mentor.

The mentor is attentive to the ability to learn, problem solving, teamwork, respond to failure, and the candidate's conformity with our culture of work and living.

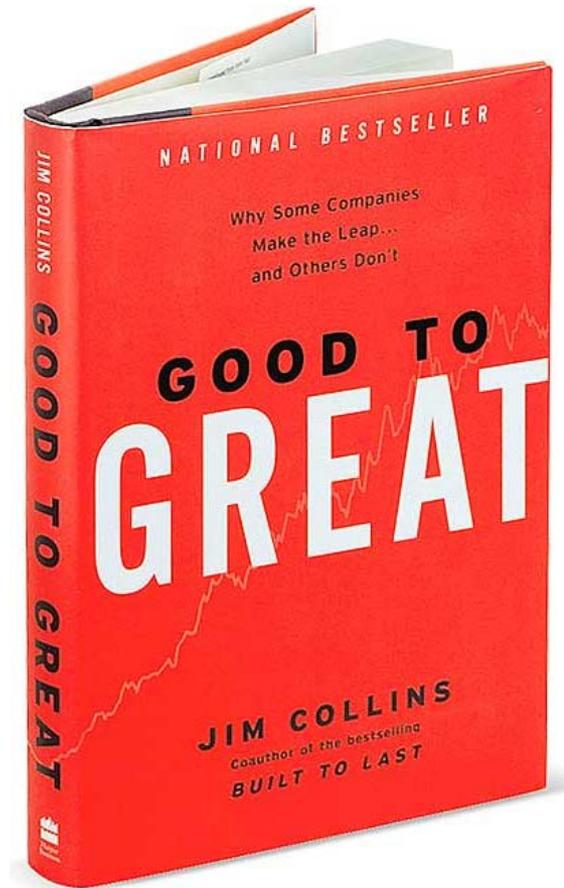


**A candidate becomes the part of the team...  
...followed by one month trial period on the real project.**



**The most important question: „Would you work with this guy on the next project?“**

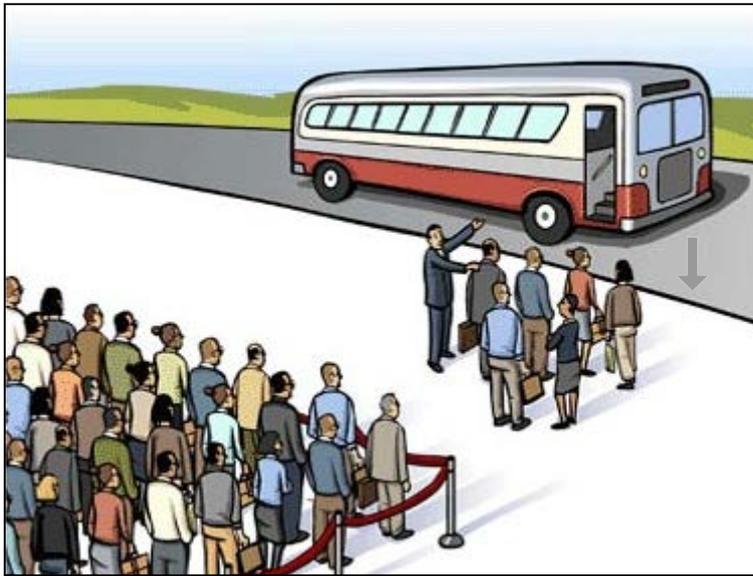
# How the Great companies Differs from the Good companies?



## Systematic and Objective Companies Study



# #2 : Firts People - Then Business



**LEVEL 5 +  
MANAGEMENT TEAM**  
(Good-to-Great Companies)

**A "GENIUS WITH A  
THOUSAND HELPERS"**  
(Comparison Companies)

LEVEL 5 LEADER

LEVEL 4 LEADER

**FIRST WHO**

Get the right people on the bus.  
Build a superior executive team.

**FIRST WHAT**

Set a vision for where to drive  
the bus. Develop a road map  
for driving the bus.

**THEN WHAT**

Once you have the right people  
in place, figure out the best path  
to greatness.

**THEN WHO**

Enlist a crew of highly capable  
"helpers" to make the vision  
happen.

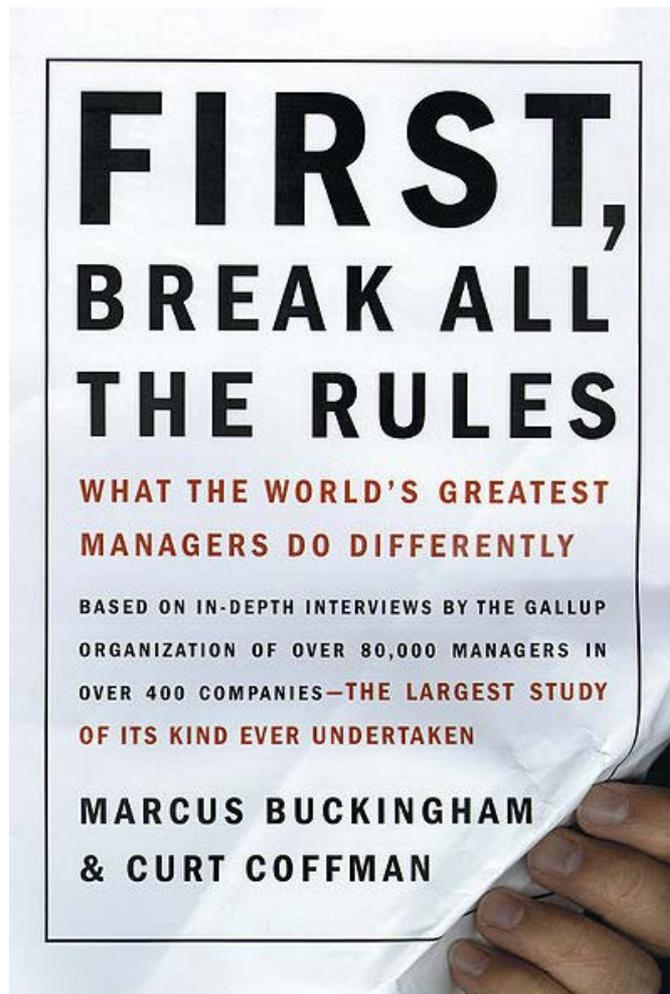
1. When in doubt, don't hire—keep looking. (*Corollary: A company should limit its growth based on its ability to attract enough of the right people.*)
2. When you know you need to make a people change, act. (*Corollary: First be sure you don't simply have someone in the wrong seat.*)
3. Put your best people on your biggest opportunities, not your biggest problems. (*Corollary: If you sell off your problems, don't sell off your best people.*)

Values – Belonging  
to the team

+	✓	✓
-	✗	✗

- —————> +

Expertise



What the world's greatest managers do differently



# The 12 questions



1. Do I know what is expected of me at work?
  2. Do I have the materials and equipment I need to do my work right?
  3. At work, do I have the opportunity to do what I do best everyday?
  4. In the last seven days, have I received recognition or praise for doing good work?
  5. Does my supervisor or someone at work seem to care about me as a person?
  6. Is there someone at work who encourages my development?
  7. At work, do my opinions seem to count?
  8. Does the mission/purpose of my company make me feel my job is important?
  9. Are my co-workers committed to doing quality work?
  10. Do I have a best friend at work?
  11. In the last six months, has someone at work talked to me about my progress?
  12. This last year, have I had the opportunity at work to learn and grow?
- “What do I get” – q. 1-2
  - “What do I give” – q. 3-6
  - “Do I belong here” – q. 7-10
  - “How can we all grow” – q. 11-12



# The Four Keys



- 1. Select for talent...** based on his talents, not simply experience, intelligence or determination
- 2. Define the right outcomes...** not the right steps
- 3. Focus on strengths...** focus on using strengths not on improving weaknesses
- 4. Find the right fit...** help them find the right fit, not simply the next rung on the career ladder

# Recap



- ❑ We aim for long term relationship
  - Because selection, onboarding process and making people productive (and growing managers in-house) is a long and involving progress
  
- ❑ Employees are key element of Cosylab
  - Because our business model has been in the past that we were selling our work
    - And even with medical field, products etc. this is still true
  
- ❑ We want to make working at Cosylab enjoyable
  - Because motivated employees that understand where company is going is a baseline for growth (in the past, present and future)
  
- ❑ We want to be a great employer
  - And we get recognition from outside the company: Cosylab was awarded “Zlata nit” award for best employer in Slovenia in 2015
    - <https://www.dnevnik.si/1042732530>



# Cosylab = People



Received “Zlata nit” award for the best employer in Slovenia (category of medium sized companies)





# COSYLAB SUMMER SCHOOL



**Cosylab**

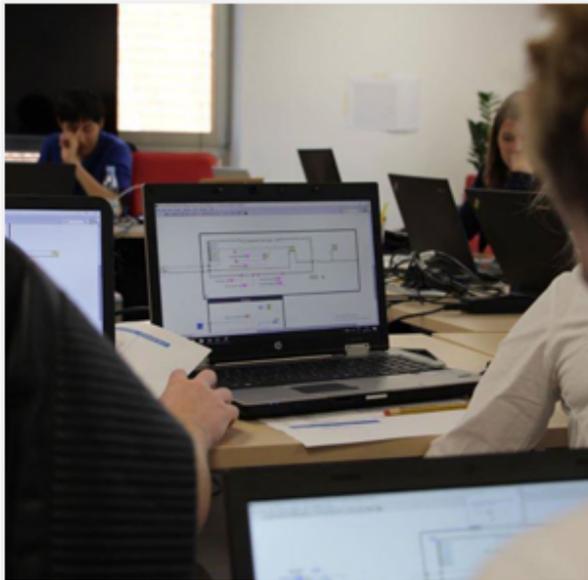
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👉🖥️[COSYLAB SUMMER SCHOOL 2018]😄 - APPLY NOW !

✅ Are you interested in programming and have a technical or natural sciences background? ➡️ Don't miss your chance to control particle accelerators, destroy cancer cells or help discover the universe. ⚠️ Join us at the Cosylab Summer School in Ljubljana, Slovenia, from July 10 to 13. 😊

To apply, visit <https://www.cosylab.com/news/summer-school/>. You will need a short motivational letter and a Europass CV. ... See More



Cosylab Summer School! | Cosylab, Control System Laboratory



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Like



Comment



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10. 7. - 13. 7. 2018



Ljubljana, Slovenia



Technical students

**APPLY\***

## More information

Are you interested in **programming** and have a **technical** or **natural sciences** background?

To apply, fill out the application form: you will need a short motivational letter and a Europass CV.

For more information or questions, contact us at [summer.school@cosylab.com](mailto:summer.school@cosylab.com)

Learn more about us:



.....SO START-UP.....

**Janko Burgar, M.Sc**

Senior Business Developer  
&  
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Management Board at CCIS

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THE BIGGEST  
**ROOM**  
IN THE WORLD  
IS ROOM FOR  
IMPROVEMENT

Unknown