



# EECS Staff meeting

12 October



# Agenda

- Communication manager Sturle Hauge Simonsen hosts the meeting.
- Head of School Ann Lantz presents general news about the school's activities.
- Director of First and Second Cycle Education Markus Hidell presents the admission statistics.
- Head of Administration Joakim Palestro shares news from the University administration.
- Rossen Apostolov from BioExcel presents the centre of excellence.
- David Olgart presents Cybercampus Sverige.
- Q & A.

# New employees

- Administrative officers: 16
- Affiliated professor: 1
- Promotion to professor: 2
- Lecturer (Adjunkt): 1
- Docent: 1
- Summer workers: 33
- Postdoc: 20
- Research engineers/assistants: 38
- Researchers: 8
- Doctoral students: 26
- Undergraduate assistants (Amanuens): 81



Number of hired employees: 211

- Women: 47

- Men: 158

- Other/not specified: 6

# New on the job

New Head of Department at the Department of  
Human Centred Technology

Jarmo Laasolahti



New Head of the Division of Media technology  
and interaction design

Cristian Bogdan



# JML group at EECS

Seminar on Accessible Digital Systems.

**Jan Gulliksen**, KTH EECS.

Stefan Johansson, KTH EECS and Begripsam AB.

Course on digital accessibility – create and publish content.

[Link to recorded seminar and presentation](#)



[Seminar on Reasonable accommodation for people with disabilities – what does the law say?](#)

**Sabina Hellborg**. Senior lecturer at Stockholm University.

**For all employees at EECS**

27 November, 12:00 - 13:00 at Digital Futures

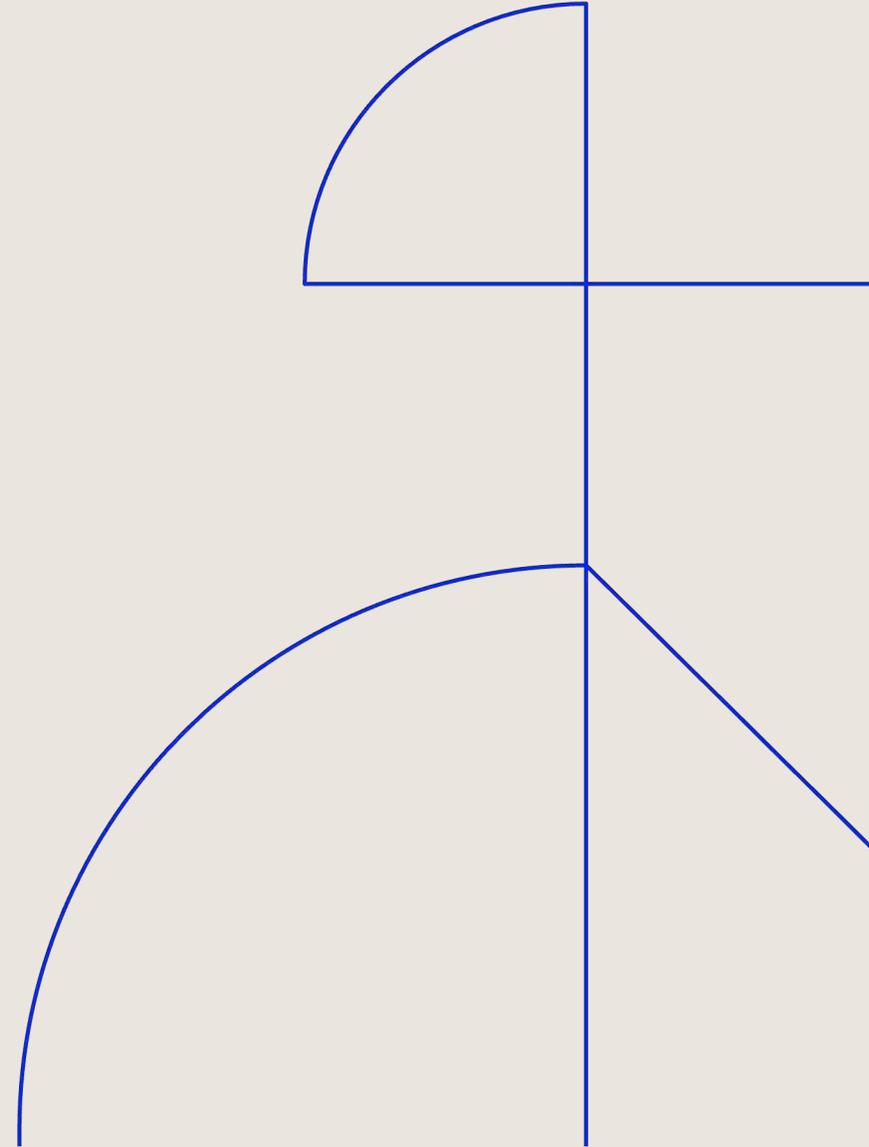
Osquars backe 5, floor 2 and via Zoom.

## KTH – University board agenda fall 2023, updates

- Economy in balance (ongoing).
- Model for resource allocation (ongoing).
- Collegial organisation (decision in November).
- Campus review (decision in November).
- Vision and goal (decision in November).



# The President and Deputy President visited the EE department on 11 October



# An update from 1<sup>st</sup> and 2<sup>nd</sup> Cycle Education

New registered students to EECS programmes 2023

Markus Hidell, Director of First and Second Cycle Education



# EECS programmes, fall 2023

Electrical Engineering

Computer Science

Electromagnetism, Fusion  
and Space Engineering

Electric Power Engineering

Nanotechnology

Information and Network  
Engineering

InnoEnergy (EIT)

Embedded Systems

Systems, Control, and  
Robotics

ICT Innovation (EIT+local)

Communication Systems

Computer Science

Software Engineering of  
Distributed Systems

Interactive Media  
Technology

Machine Learning

Cybersecurity

CELTE

TIELA

TIEDB

CINTE

TCOMK

TIDAB

CDATE

CMETE

# Registered students in EECS programmes 2023

Programme	#Students
MSc Eng Media technology	80
MSc Eng Computer science and engineering	223
MSc Eng Information and communication technology	67
MSc Eng Electrical engineering	104
BSc Eng Computer engineering	92
BSc Eng Electronics and computer engineering	43
BSc Eng Electrical engineering	60
BSc Information and communication technology	45
EECS Master's programmes	557
<b>Total registered 2023</b>	<b>1271</b>

# Increase in registered non-fee-paying students

President's decision "Economy in balance" as of 7 February 2023

- Investigate possibilities to increase admission numbers
- The numbers below are non-fee-paying registered students
  - Financed through governmental grants

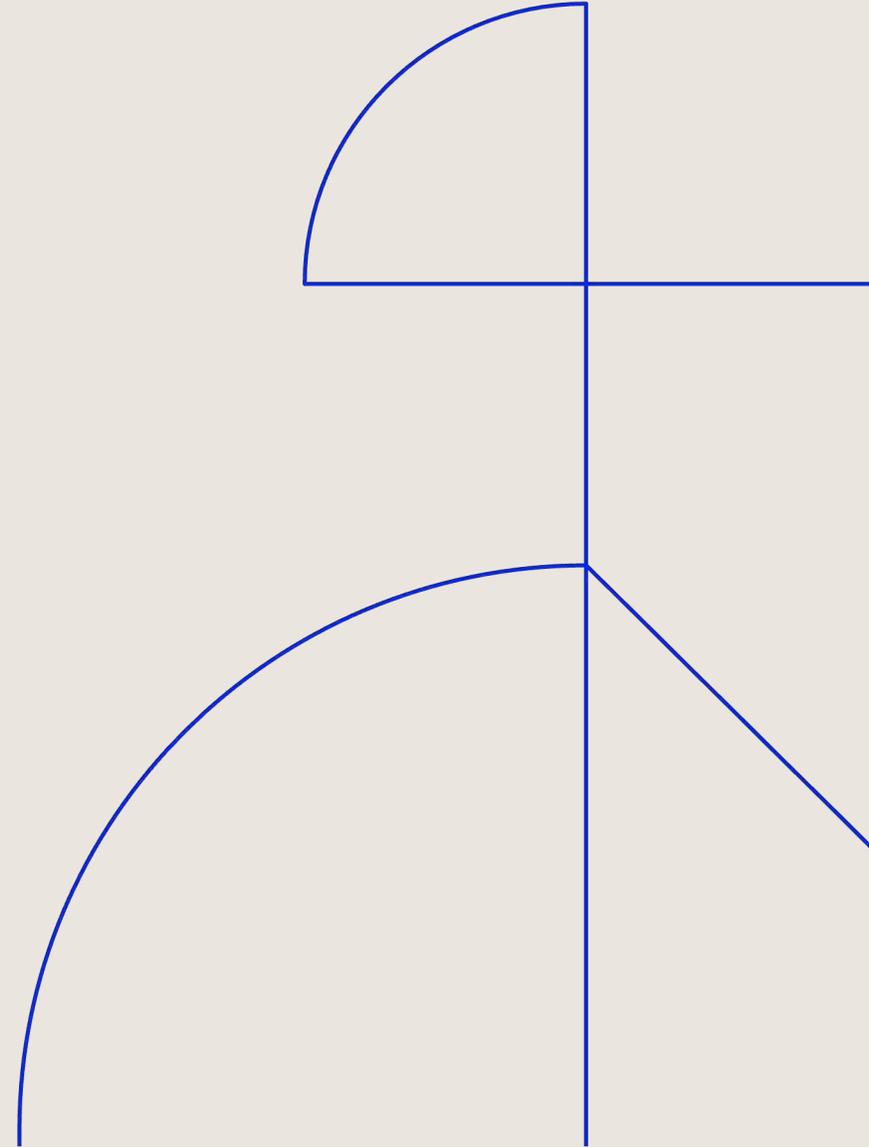
Programme categories	#Students (estimation)
Increase in EECS MSc programmes HT22→HT23	21 (30)
Increase in EECS MSc Eng programmes HT22→HT23	22 (10)
Increase in EECS BSc Eng and BSc programmes HT22→HT23	22 (10)
<b>Total increase non-fee paying HT22→HT23</b>	<b>65 (50)</b>

We have also increased the number of incoming exchange students with around 40



# University Administration 2024

Joakim Palestro, Head of Administration



# What's going on

- Coordination of the faculty board meetings.
- Enhancement of the financial unit.
- Economic savings on University administration for 2024.
- Organise new service functions.
- University administration development plan for 2024.

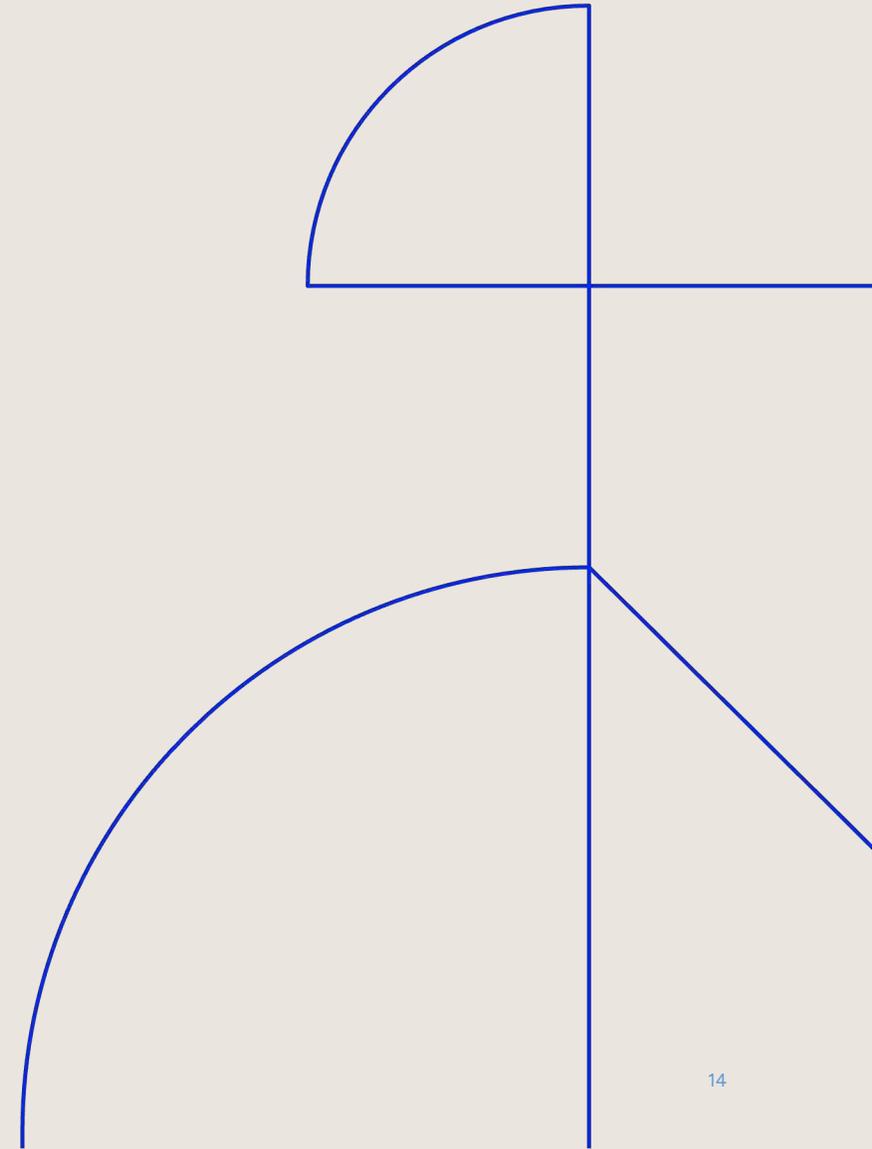


# BioExcel Centre of Excellence

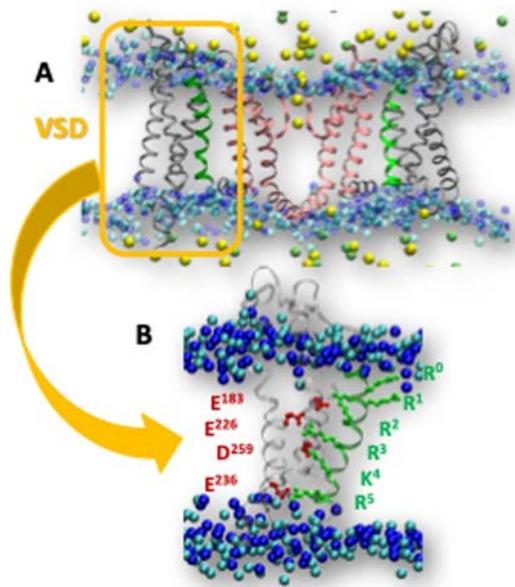
## Driving Computational Biomolecular Research in Europe

Rossen Apostolov

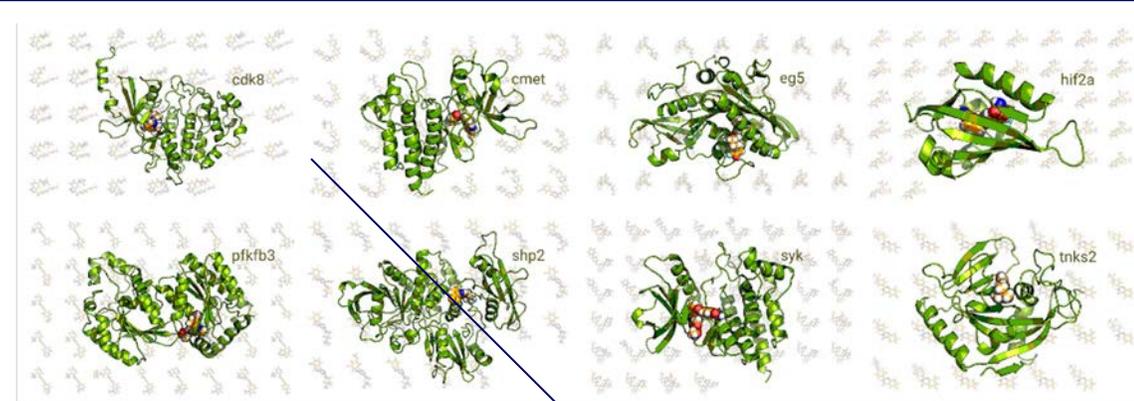
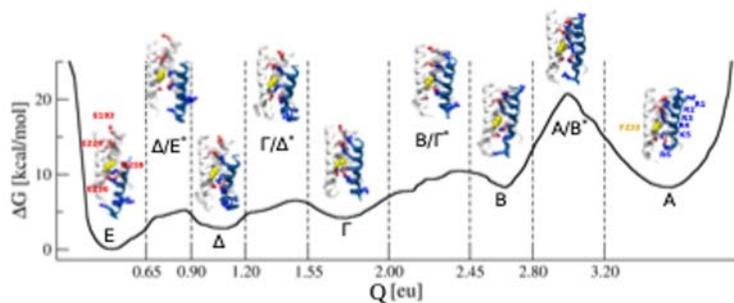
[rossen@kth.se](mailto:rossen@kth.se)



# Extreme-scale computing for Life Sciences



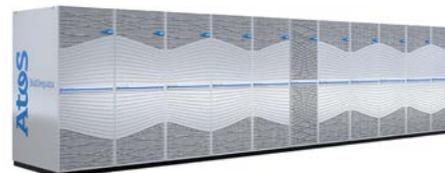
- Understanding proteins and drugs
- A 1  $\mu$ s simulation: 10 exaflop
- Many structural transition: many simulations needed
- Study effect of several bound drugs
- Study effect of mutations
- All this multiplies to >> zettaflop
- Question: how far can we parallelize?



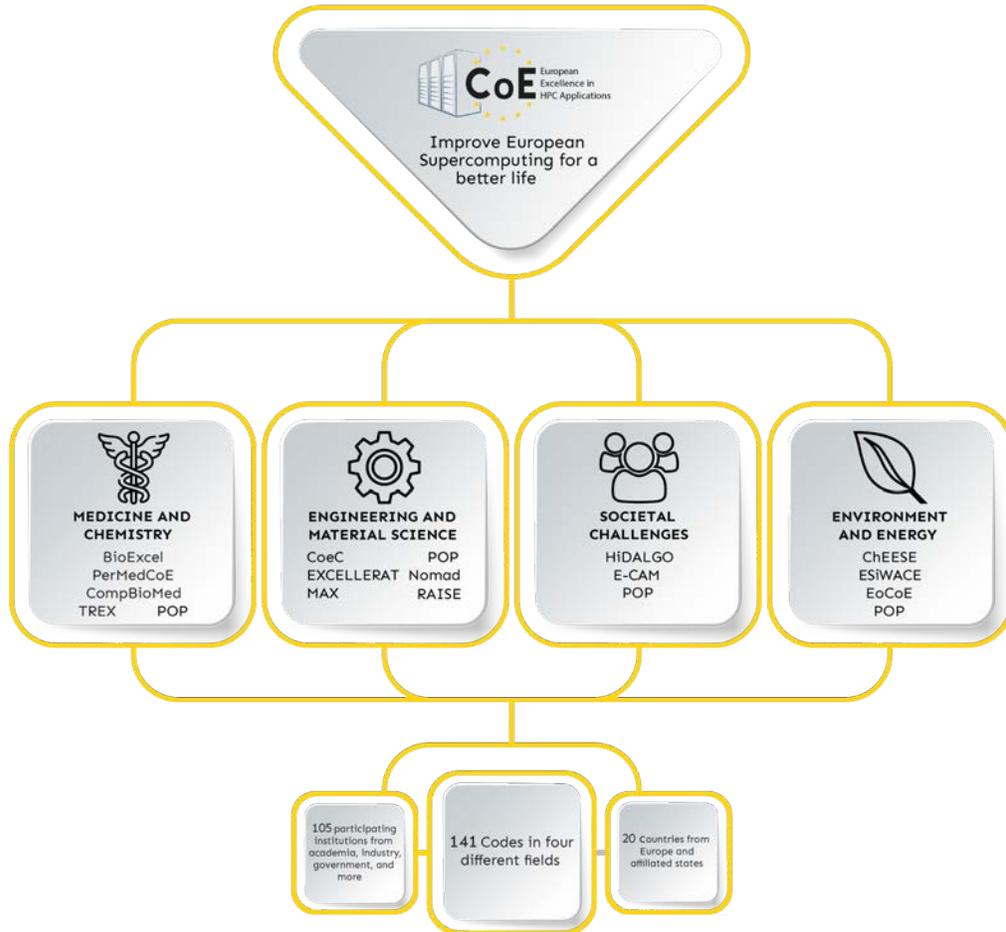
*Large-scale free-energy-based drug screening (GROMACS & PMX)*

- Transformational turnaround
  - 3 months  $\Rightarrow$  3 days
  - Rapid computational exploration
  - Connection with experiment
- Accuracy  $\sim$  1kcal/mol - leading commercial software
- 500 ligand-receptor affinities in
- 3 state of the art force fields
- Routine multi-user production use  $\Rightarrow$  exascale

# EuroHPC Joint Undertaking



# 19 European Centres of Excellence



# bioexcel

Centre of Excellence for Computational Biomolecular Research



**First phase 2015-2018**



**Second phase 2019-2022**

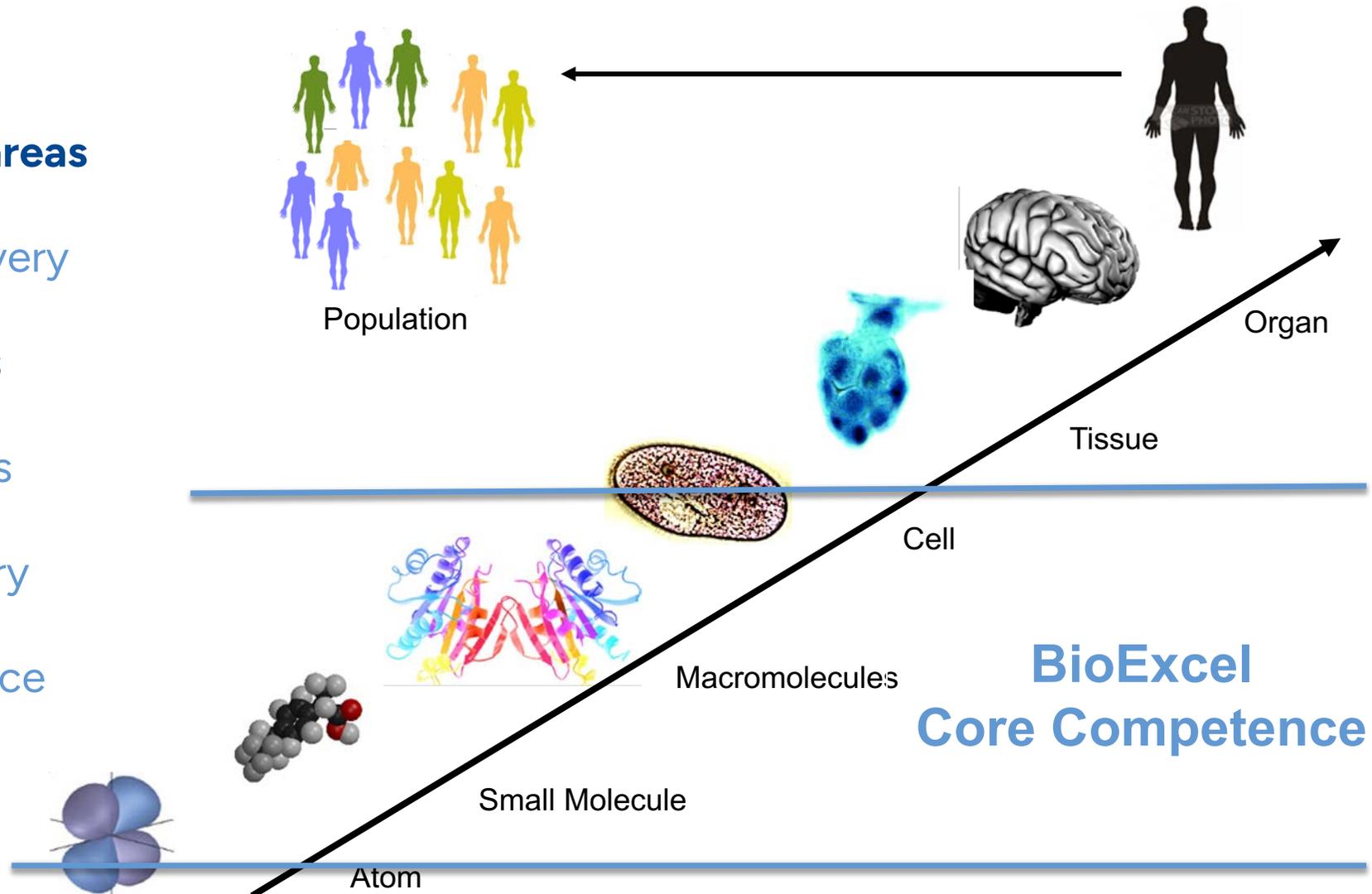


**Third phase 2023-2026**

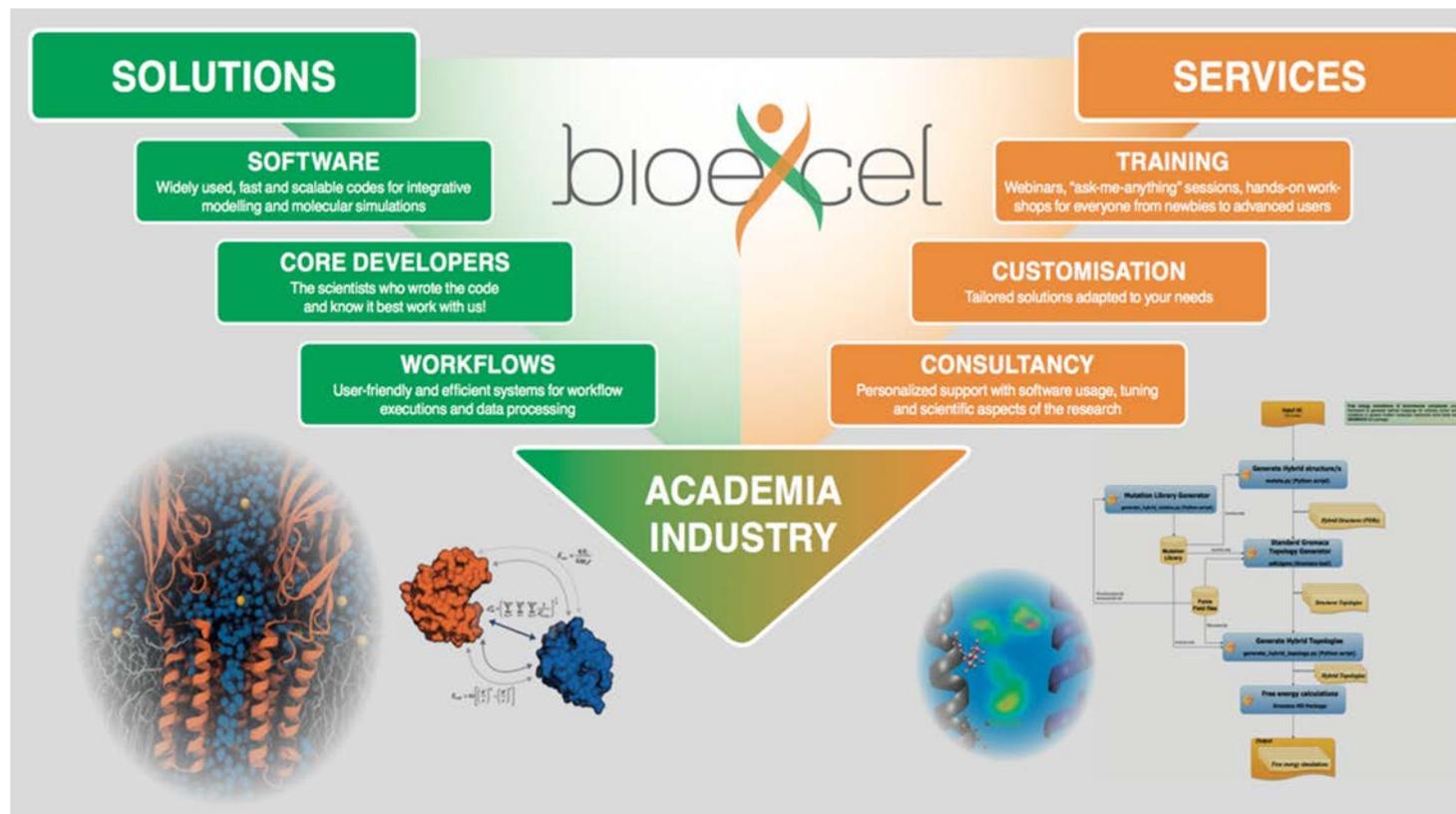
*BioExcel is funded by the European Union Horizon 2020 program under grant agreements 675728 and 823830 and Horizon Europe program under grant agreement 101093290*

## Application areas

- Drug discovery
- Lipids & Membranes
- Biomarkers
- Biomaterials
- Biophysics
- Biochemistry
- Genomics
- Neuroscience



# Mission of the centre



- Provide Life Science researchers with high-quality, user-friendly software
- Increase their expertise and skills
- Strengthen the community



# Why are CoEs important for EECS/KTH?

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Flagship European projects with long-term prospects

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Very high profile in the scientific HPC ecosystem

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As coordinators, we can ensure successful implementation of the program and build trust among partners and the community

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Raise the brand of KTH as a leading research and technology institution

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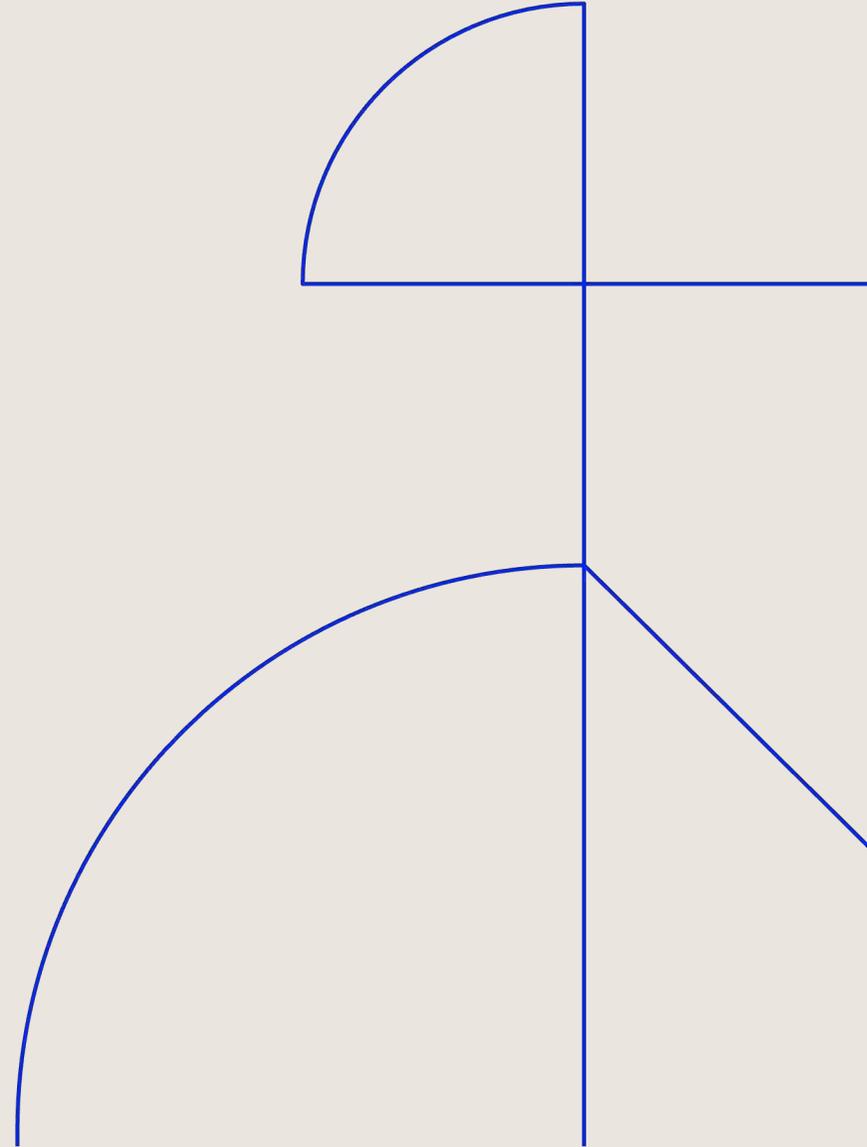
More collaboration opportunities, more funding (public and private), stronger research and technology developments



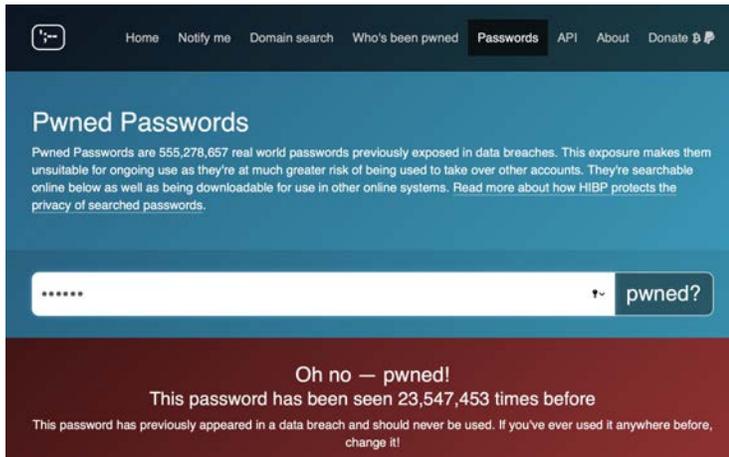
# Cybercampus Sverige | Sweden

David OLGART | Director

[olgart@kth.se](mailto:olgart@kth.se)



# The Never-Ending Story ... Cyber Insecurity



Home Notify me Domain search Who's been pwned **Passwords** API About Donate

## Pwned Passwords

Pwned Passwords are 555,278,657 real world passwords previously exposed in data breaches. This exposure makes them unsuitable for ongoing use as they're at much greater risk of being used to take over other accounts. They're searchable online below as well as being downloadable for use in other online systems. Read more about how HIBP protects the privacy of searched passwords.

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**Oh no — pwned!**  
This password has been seen 23,547,453 times before  
This password has previously appeared in a data breach and should never be used. If you've ever used it anywhere before, change it!



**Ooops, your files have been encrypted!** English

### What Happened to My Computer?

Your important files are encrypted. Many of your documents, photos, videos, databases and other files are no longer accessible because they have been encrypted. Maybe you are busy looking for a way to recover your files, but do not waste your time. Nobody can recover your files without our decryption service.

### Can I Recover My Files?

Sure. We guarantee that you can recover all your files safely and easily. But you have not so enough time. You can decrypt some of your files for free. Try now by clicking <Decrypt>. But if you want to decrypt all your files, you need to pay. You only have 3 days to submit the payment. After that the price will be doubled. Also, if you don't pay in 7 days, you won't be able to recover your files forever. We will have free events for users who are so poor that they couldn't pay in 6 months.

### How Do I Pay?

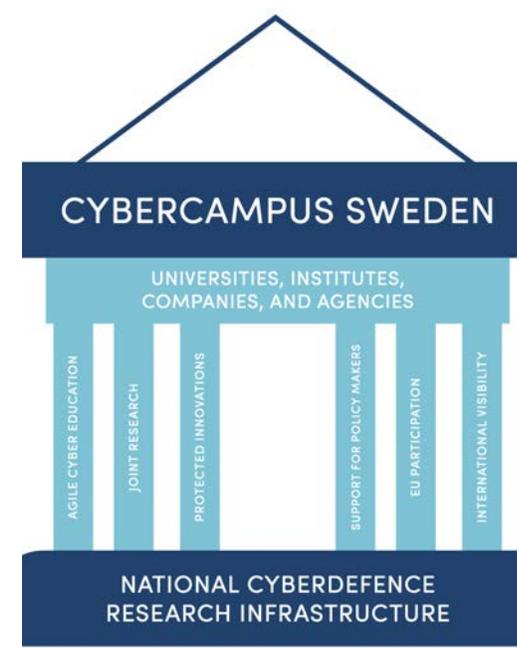
Payment is accepted in Bitcoin only. For more information, click <About bitcoin>. Please check the current price of Bitcoin and buy some bitcoins. For more information, click <How to buy bitcoins>. And send the correct amount to the address specified in this window. After your payment, click <Check Payment>. Best time to check: 9:00am - 11:00am GMT from Monday to Friday.

**Payment will be raised on**  
5/16/2017 11:58:59  
Time Left  
02:23:57:56

**Your files will be lost on**  
5/20/2017 11:58:59  
Time Left  
06:23:57:56

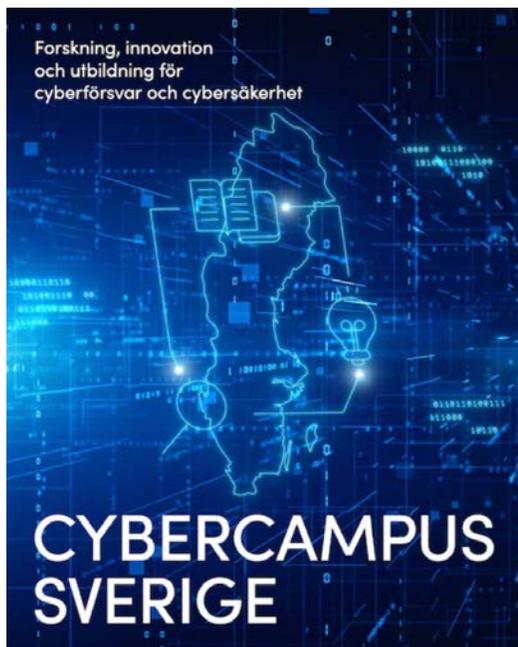
**Send \$300 worth of bitcoin to this address:**  
116p7UMMngo1pMvvpHjjeRdfJNXj6LrLn Copy

Check Payment Decrypt



**The How**

# Cybercampus Sverige | Sweden



The Initiative



Working Together



Support

# Mission Statement



- Carry out **agile** and **cutting-edge** cyber defence and security **research, education** and **innovation** vital for a **resilient Sweden**.
- **Beyond what is possible for any one organization.**
- Universities, institutes, authorities and industry, **together.**

## CYBERCAMPUS SWEDEN

UNIVERSITIES, INSTITUTES, BUSINESSES  
and AGENCIES

AGILE EDUCATION

JOINT RESEARCH

PROTECTED INNOVATION

EXPERTISE; ADVISORS

COORDINATED  
EU PARTICIPATION

INTERNATIONAL VISIBILITY

NATIONAL RESEARCH INFRASTRUCTURE



# Next meeting

11 December, Sal C, KTH Kista



# Questions?

