



UNIVERZITA
KARLOVA

Research at Charles University:

Why we are not as good as we
would like to be and what we
are trying to do with it



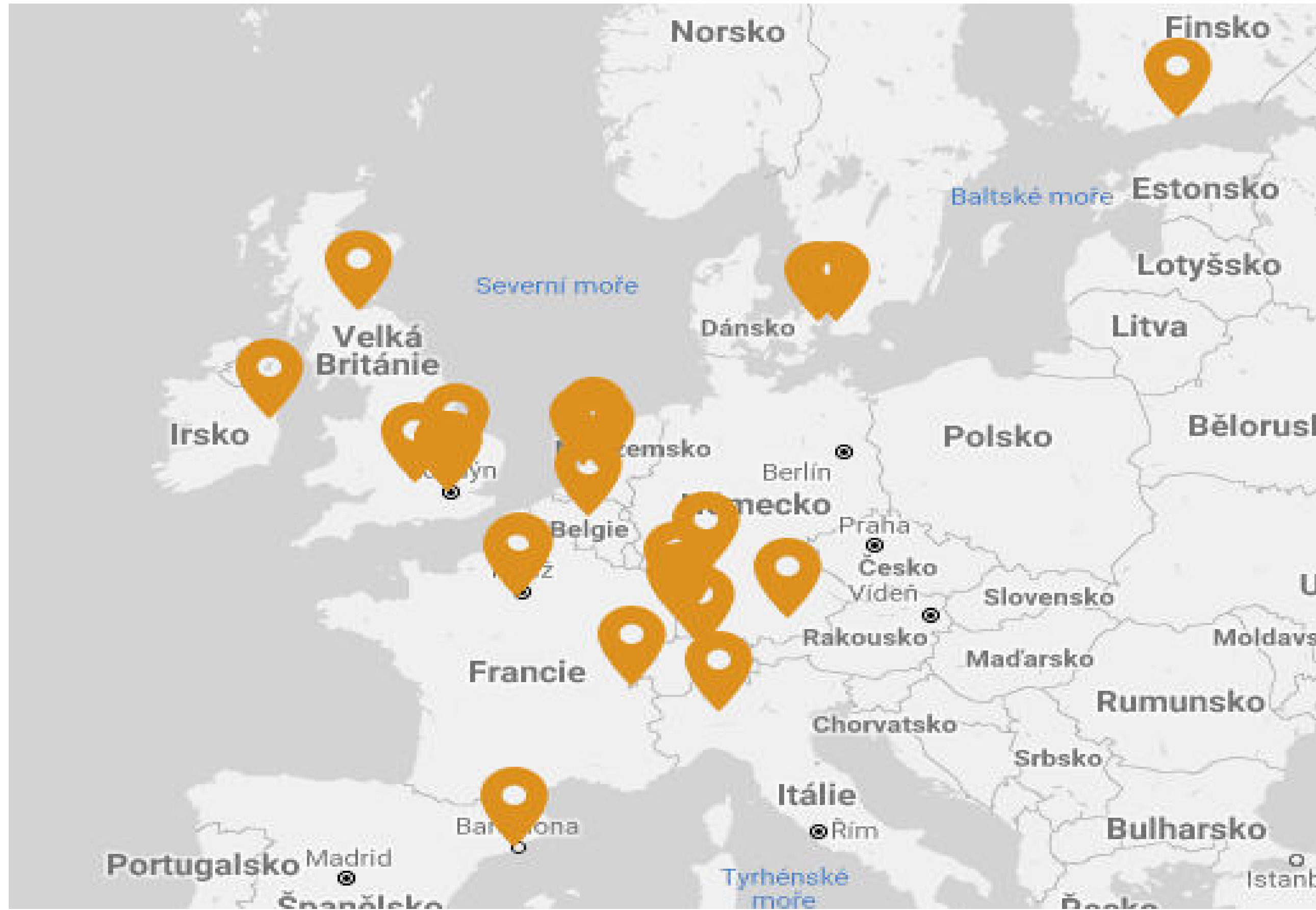
Three major problems of research at CUNI

1/ we are not good enough

2/ we are not good enough

3/ We are not good enough!!!

Leading European research universities: the iron curtain still in place



Charles University - Towards the Excellence in Research

„what - to - do“ list

- Increase international character of the University
 - Establishment of the International Advisory Board
- Prevent „inbreeding“
- Wisely use newly build university centers as centers for international research
- Create long term support for excellent research team
- Establish system of support for new scientific teams, formed by excellent young scientists
- Establish system of science evaluation at the CU

Charles University – Institutional Research Budget

- **The institutional budget for science** allocated to the University by the Ministry of Education represents approx. 1.4 bil. Czech crowns (approx 50 mil EUR)
- **Major part** (approx. 40 mil EUR) is distributed to the individual faculties under the Charles University Research Development Schemes (known under the Czech acronym „PROGRES“), following the **ministry evaluation scheme**
- The rest of the budget is used for the financing of the **Centres of Excellence (acronym „UNCE“)**
- On top of this, research is funded by domestic and international **research grants**
- **Special program from the Ministry of Education** supports **research performed by students** (approx. 11 mil EUR). These sources are used to run Internal Grant Agency of the Charles University (projects of under- and graduate students) and to cover student conferences etc.

- The main aim: to encourage young researchers with international experience to establish new research groups and laboratories;
- Selected young scientists are enabled to run their own independent projects during a period of 3-5 years;
- One of the long-term goals is to increase the success rate of the University in attracting major international grants (e.g. ERC grants)
- Currently approx. 17- 28 junior scientists in all branches of research selected in a competitive manner are awarded annually (approx. 3 mil EUR p.a.)
- up to 4 mil Czk/yr, up to 75% contribution from the University for excellent outside applicants
- Very successful “Primus Day” presenting research of awardees at the university for the academic public

Primus Project: Selection Process

- The Faculty (=dean) pledges to provide the cofinancing if the application is successful
- When the selection is completed, the dean confirms the co-financing
- Selection process based on panels with possible external reviews
- Major selection criteria:
 - scientific excellence (3 major papers/contributions)
 - Contribution to the faculty/university (*is there anything new that we get ?*)
- Members of IAB potentially asked for opinion
- Three years duration, potential extension for 2 more years
 - PI expected to apply for ERC or other major grant
 - International Advisory Board Decides about potential extension for additional 2 years

Primus project 2017-2020 overview

round	begining	total		according to sub-committee		
		submitted proposals	accepted proposals	sub-committee	submitted proposals	accepted proposals
1.	2017	75	24	HUM	19	8
				SCI	35	10
				MED	21	6
2.	2018	49	28	HUM	16	10
				SCI	20	10
				MED	13	8
3.	2019	28	17	HUM	10	5
				SCI	11	7
				MED	7	5
4.	2020	47	22	HUM	17	5
				SCI	17	11
				MED	13	6

ERC grants beneficiaries

- **ERC grants: currently 9 running Starting, Consolidator and Synergy grants at CUNI**
 - *Faculty of Science*
 - CoG, Vladimír Hampl (Life without mitochondrion)
 - **StG, Matyáš Fendrych (Unraveling the molecular network that drives cell growth in plants)**
 - **StG, Filip Kolář (Double Adapt)**
 - *Faculty of Mathematics and Physics*
 - StG, Jana Kalbáčová Vejpravová (Trans-Spin NanoArchitectures: from birth to functionalities in magnetic field)
 - **StG, Jiří Klimeš (Accuracy and precision for molecular solids)**
 - **StG, Ondřej Pejcha (Catastrophic Interactions of Binary Stars and the Associated Transients)**
 - CoG, Michal Koucký, (Combinatorial algorithms and dynamic problems)
 - CoG, Libor Barto, (Symmetry in Computational Complexity)
 - SyG, Jaroslav Nešetřil (Dynamics and Structure of Networks)

Primus 2020+: what to change?

- How to recruit more highly qualified applicants ?
 - using 4EU+ partnership
 - Better advertisement abroad and at home
- How to change/improve the call
 - ✓ Enlarge the selection panel (informatics, computer science!)
 - ✓ Keep the current „age“ limit for applicants (8 year after PhD excluding maternity leaves or military service)?
 - ✓ Co-financing from the faculties seems to be a hurdle for smaller schools – attempt to increase CUNI share?
 - Other incentives for international scholars and for the faculties to actively search for them?
- Decrease the numbers, increase the quality?

Inspired by Primus (?)

- **Experientia Foundation**
 - start-up program inspired by Primus
 - scholarship programs
 - foreign internships
 - <https://www.experientia.cz/>
- **Czech Academy of Science Lumina quaeruntur**
 - Start-ups, up to 4 mil Czk/year, 10years after PhD
 - Required to apply for ERC grant (sounds familiar?)
 - Only internal applicants supported
- **Palacký University in Olomouc**
 - Start ups, up to 37 years of age, up to 4 mil Czk
 - Only internal applicants supported
- **Grant Agency of the Czech Republic**
 - Junior Star Project
 - Start-up program for young researchers, transferrable among institutions

Cross fingers for us!



www.cuni.cz

Charles University

