

Online Workshop on the commercialisation of Centres of Excellences' and Centres of Competences' projects results

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Brno, 12-13.11.2020

Session 1. Involvement of the business in the management of the centres:

Content:

- Contemporary business models for management of the CoEs and CoCs;
 - OP VaVpl : 2008-2015
 - Regional context
 - Two business cases 1. Netme CENTRE (CoC) and 2. CEITEC (CoE)
- Strengths and weaknesses of direct participation of the business' representatives in the management of the centres;
- Strengthening of the inter-institutional coordination and networking between the partner organizations and with other European centres.

OP VaVpl (CoE) – 2008-2015

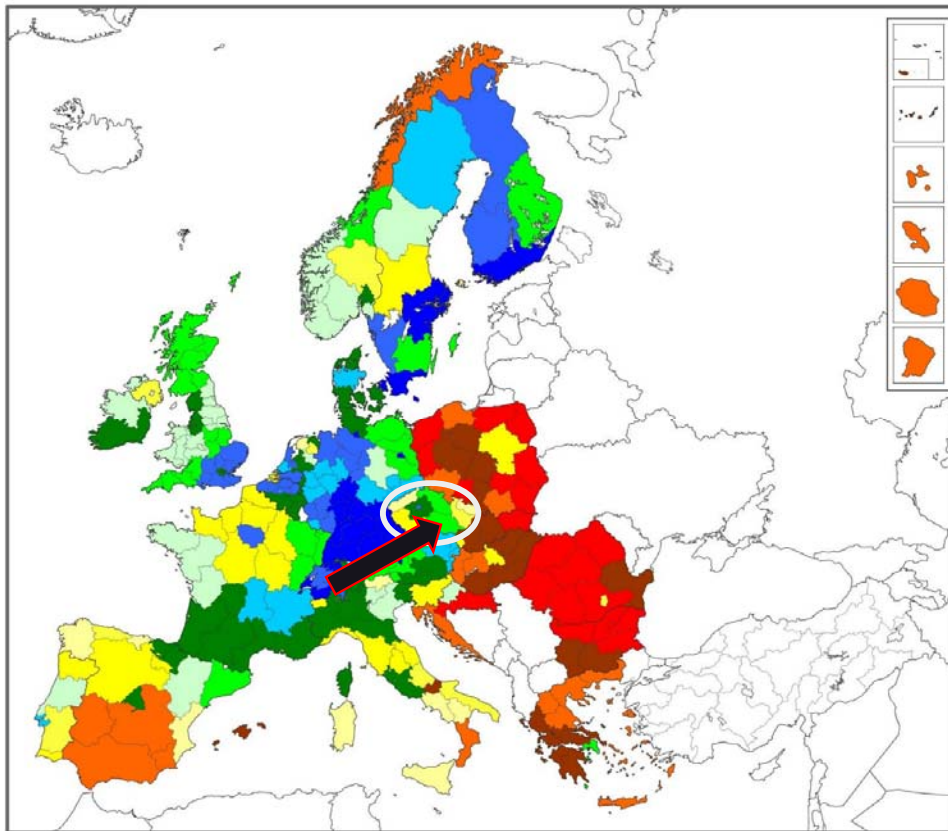
- [Biotechnology and Biomedical Center BIOCEV](#) - a joint project of the ASCR and Charles University - a contribution of CZK 1.9 billion
- [Central European Institute of Technology \(CEITEC\)](#) - project of Brno universities and institutes of the ASCR - contribution of CZK 4.4 billion
- [Center of Excellence IT4 Innovations \(IT4I\)](#) - computer center of the University of Mining - Technical University in Ostrava and several other partner universities - contribution CZK 1.3 billion
- [Telč Center of Excellence](#) - project of the Institute of Theoretical and Applied Mechanics of the ASCR - contribution of CZK 0.2 billion
- [CzechGlobe - Center for the Study of the Impacts of Global Climate Change](#) - contribution of CZK 0.6 billion
- [Extreme Light Infrastructure \(ELI\)](#) - project of the Academy of Sciences of the Czech Republic in Dolní Břežany - CZK 4.8 billion
- [International Center for Clinical Research \(ICRC\)](#) - the center of the University Hospital at St. Anny in Brno - CZK 1.8 billion
- [New Technologies for the Information Society \(NTIS\)](#) - research center of the Faculty of Applied Sciences of the University of West Bohemia in Pilsen - CZK 0.6 billion

OP VaVpI (CoC) – 2008-2015

- About 800M EUR spend on cca 40 additional regional projects
 - NETME one of them.
- Most ceased to exist in reality (formally most still in existence).

Regional aspect of the OP VaVpl Investment

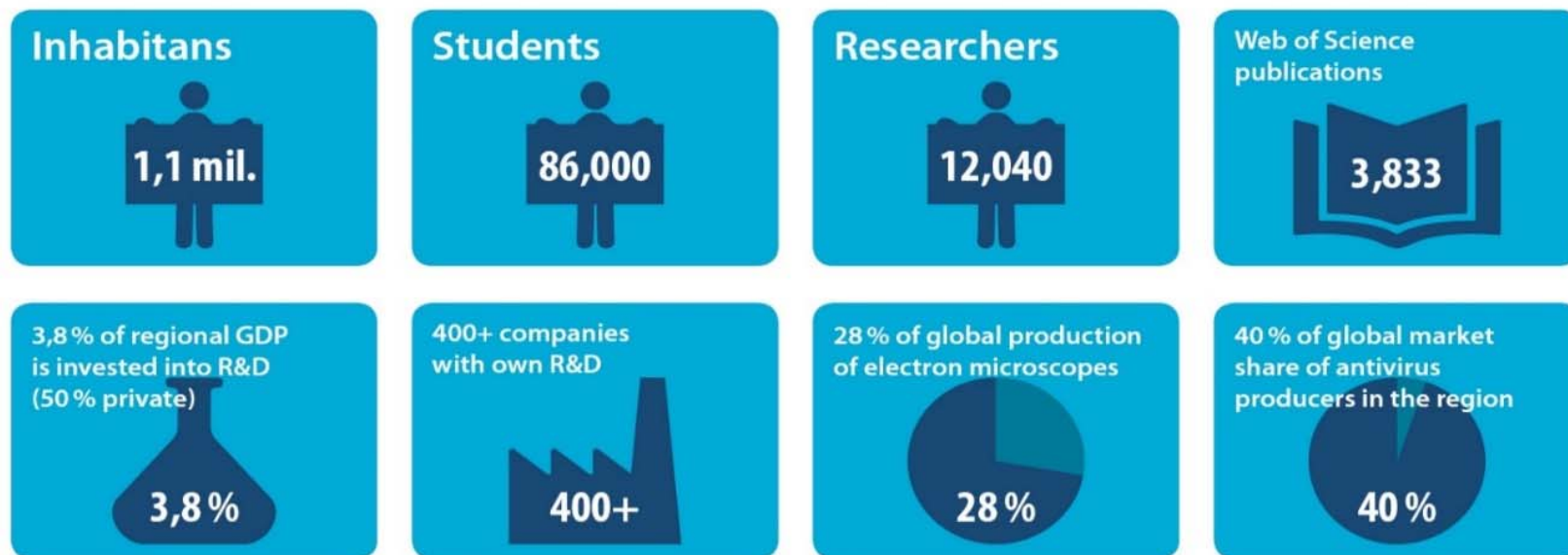
RIS 2012 Regional innovation performance



Ref.: The Regional Innovation
Scoreboard
2012 [http://europa.eu/rapid/press-
release_MEMO-12-834_en.htm](http://europa.eu/rapid/press-release_MEMO-12-834_en.htm)



Basic facts – Brno Region – second largest and most industrial city in the Czech Republic (Prague was out!)



Brno University of Technology



- Largest technical university in CZ
- 23 000 students
- 8 faculties
- 80 study programmes
- 26 foreign-language study programmes



Case study: Regional CoC NETME



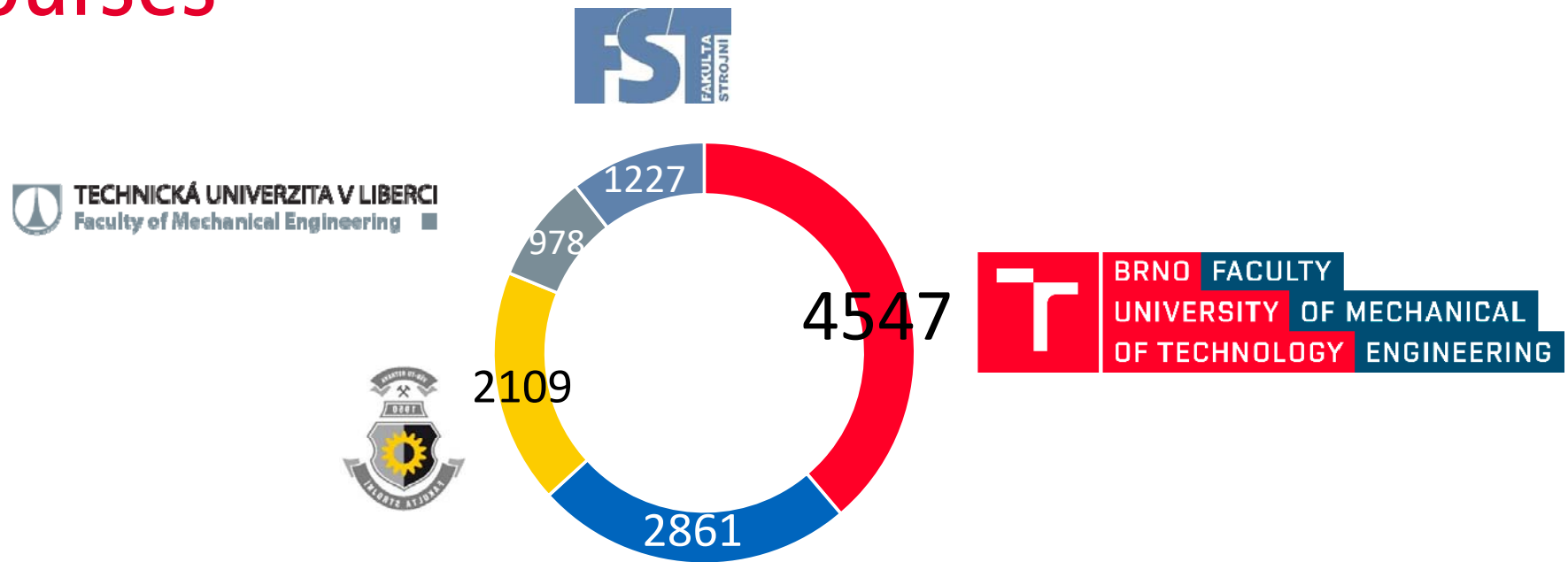
Faculty of Mechanical Engineering



- Largest faculty of mechanical engineering in CZ
- 4 500 students
- 13 institutes
- 1 CoC / NETME Center



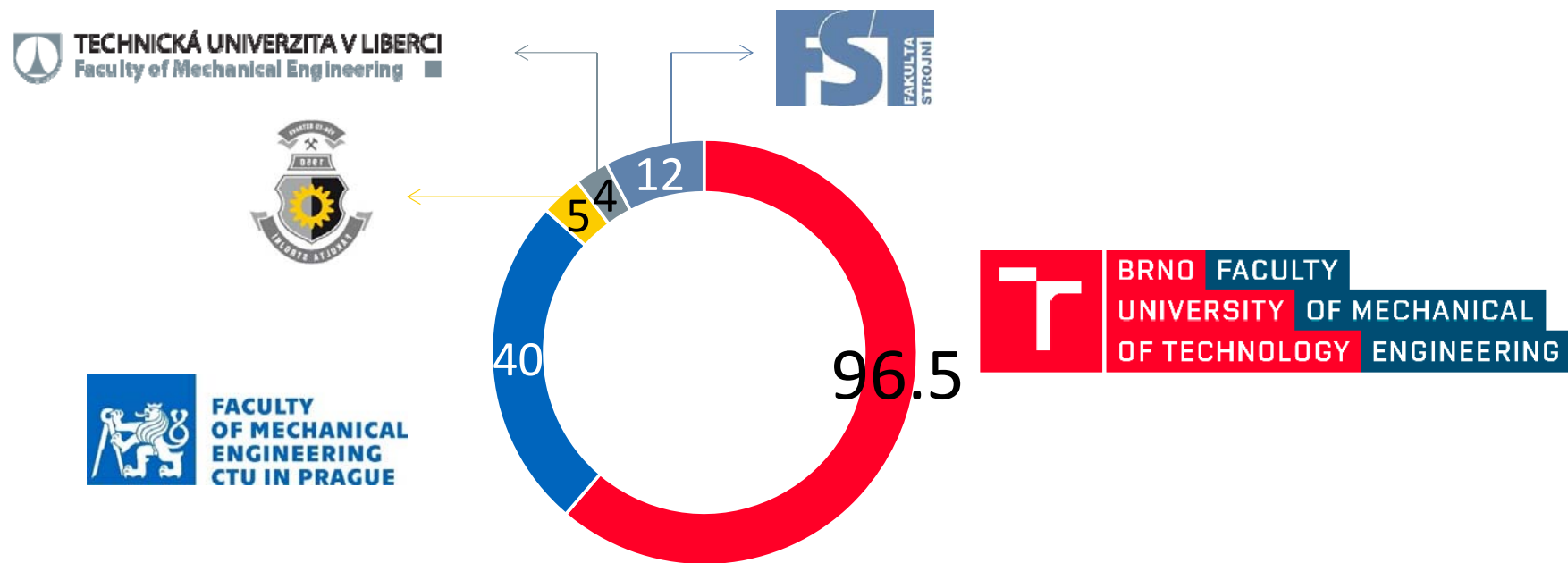
Number of students attending Mechanical Eng. Courses



Departments of mechanical engineering

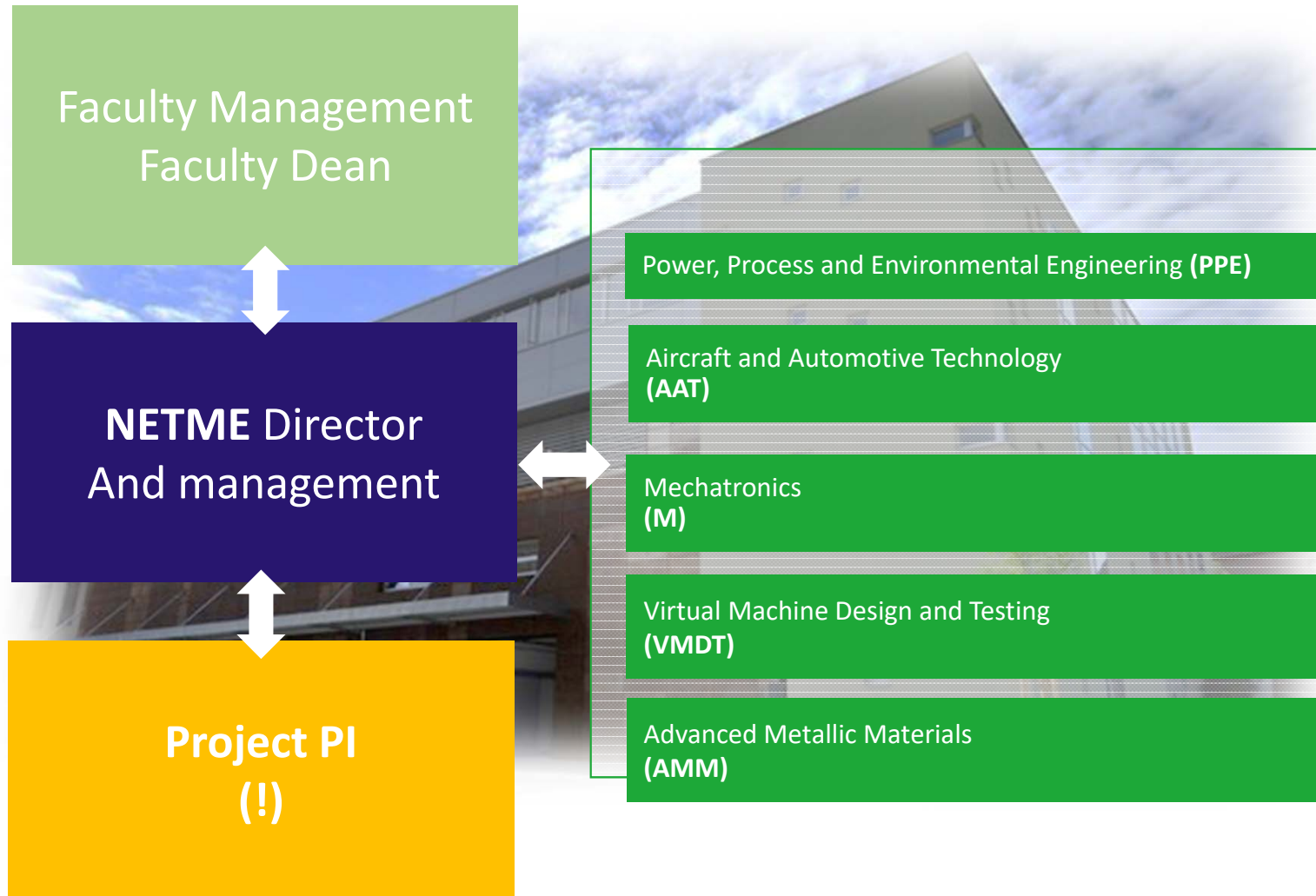


The median number of citations per prof.

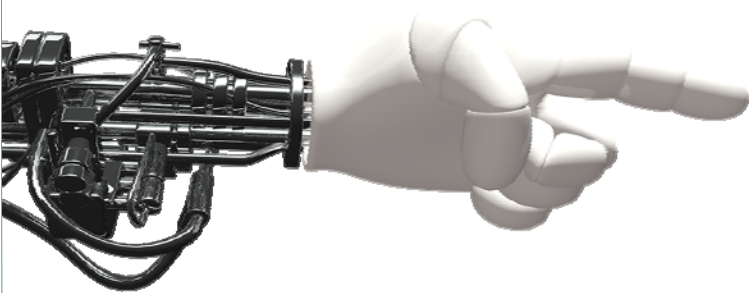


NETME ORGANISATION

4,749 m² plus 3,725 m² / 30mil EURO



NETME Centre (2010-2015)



€5,8 mil contractual research

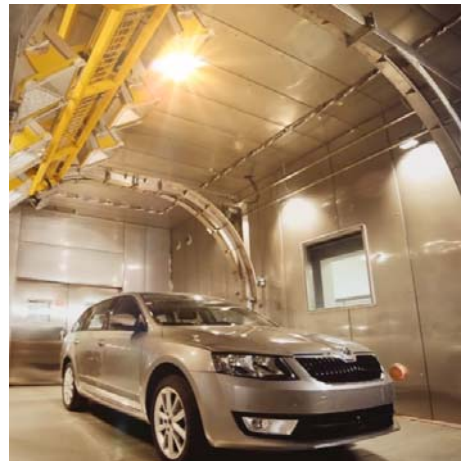
€9,3 mil EU and CZ grants

€12 mil investment into capex

NETME Centre Business Focus



Aerospace



Automotive

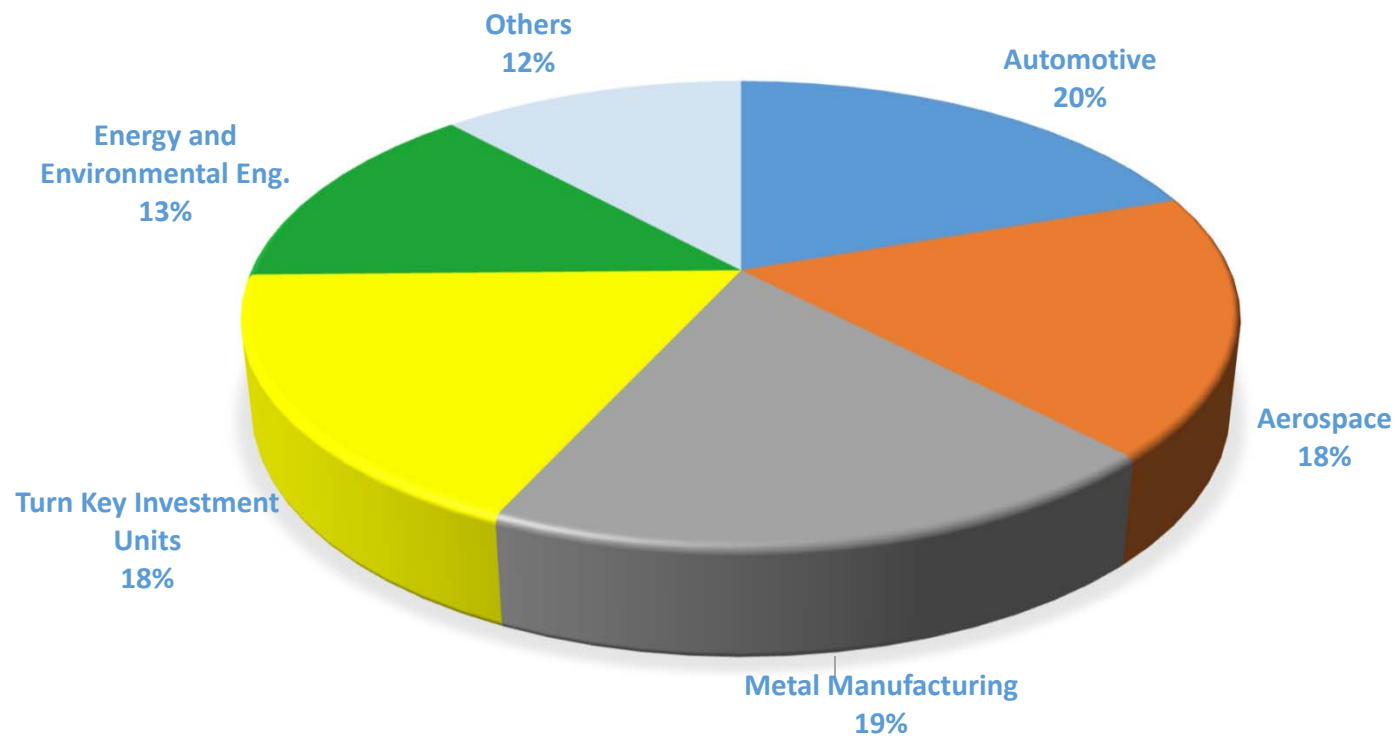


Energy Eng.

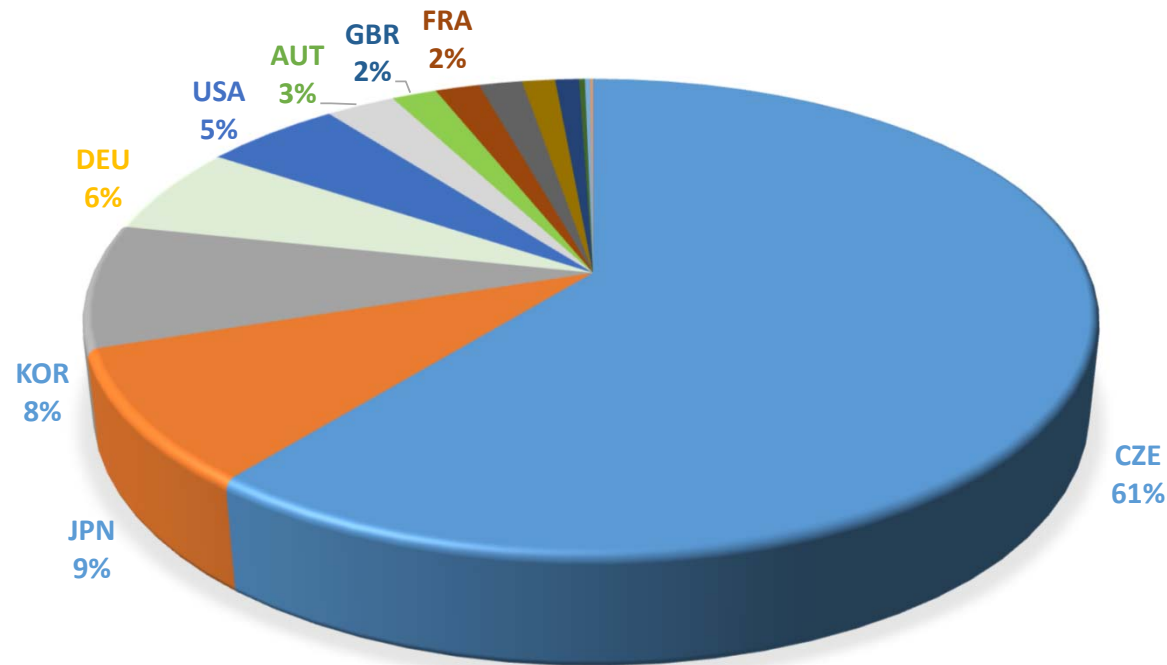


Industrial
Technologies

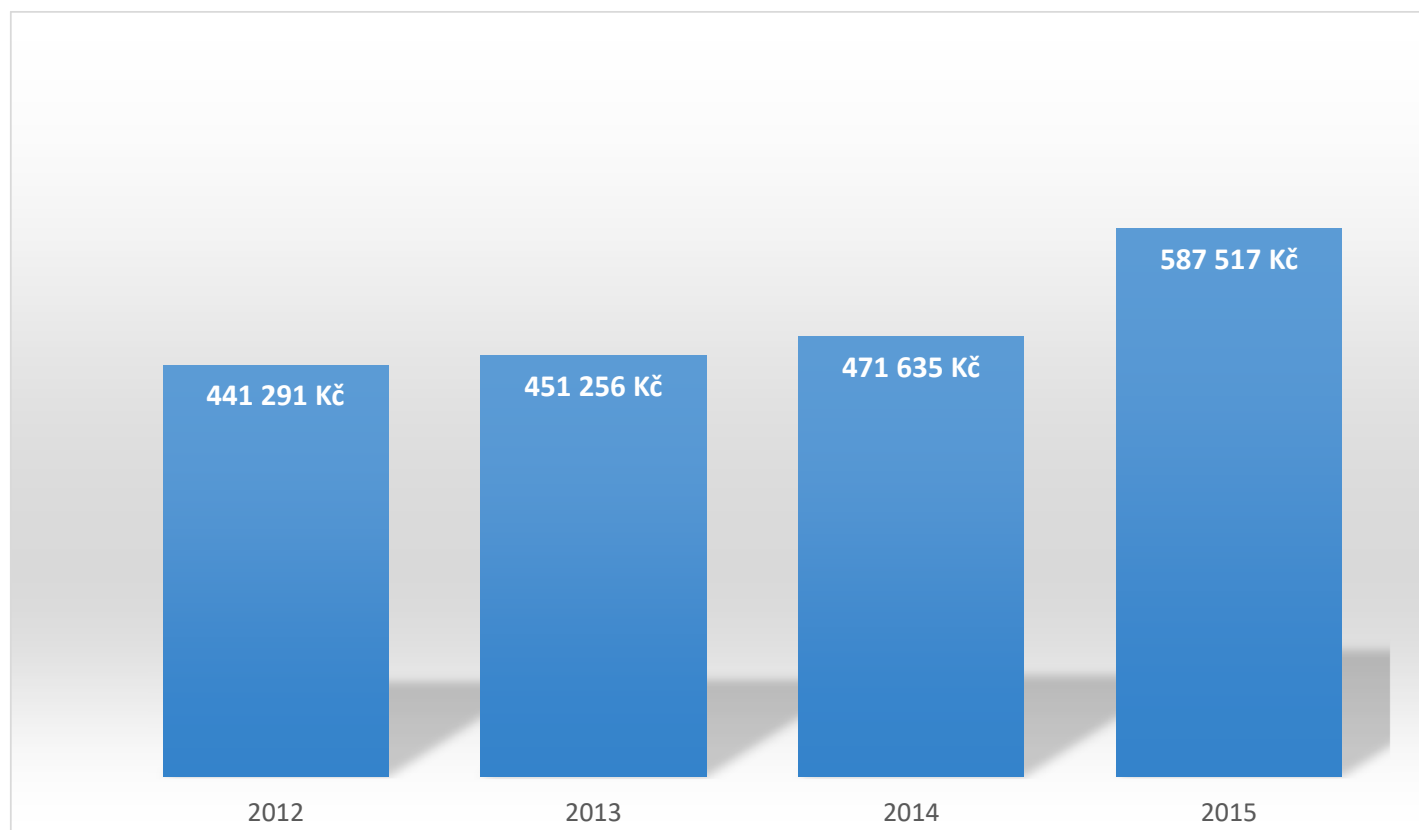
2012-2014 turnover by industrial sector



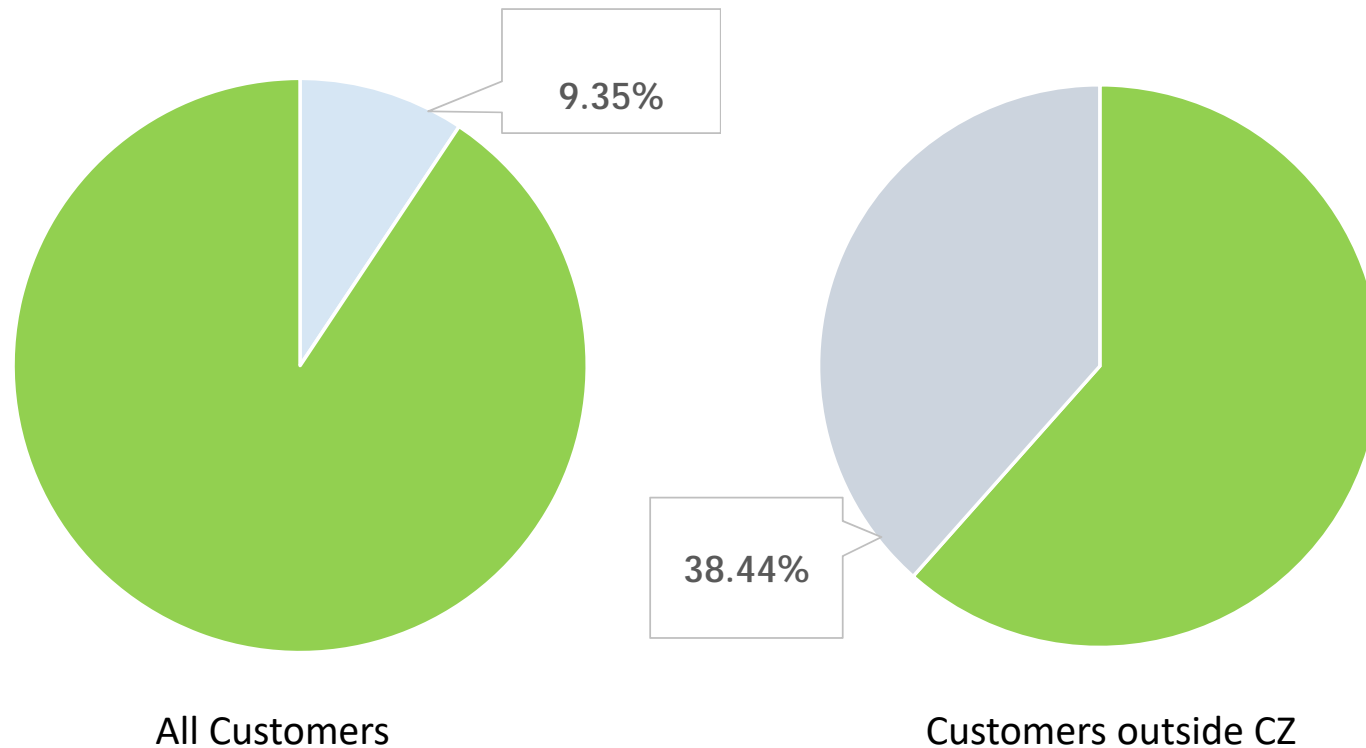
Contractual Research by Country of Origin



Average value of the top 20% contractual research grants



Netme Contractual Research as a % of the total Czech university sector in 2014 (source CSU and internal data)



Conclusion

- Very successful example of CoC but only thanks to the mother organization!!!
- Business never involved in the leadership of NETME (very active resistance from academics).
- Industry ownership vs portfolio of customers (!)
- After funding ceased, the CoE transformed to project support unit of the faculty.
- Brand NETME still in existence, however, only as a shell for project application.

Case study: National CoE CEITEC

Basic Overview



Advanced Nanotechnologies and Microtechnologies



Advanced Materials



Structural Biology



Genomics and Proteomics of Plant Systems



Molecular Medicine



Brain and Mind Research



Molecular Veterinary Medicine



MASARYK UNIVERSITY
www.muni.cz



MENDEL UNIVERSITY IN BRNO
www.mendelu.cz



UNIVERSITY OF VETERINARY AND PHARMACEUTICAL SCIENCES BRNO
www.vfu.cz



BRNO UNIVERSITY OF TECHNOLOGY
www.vutbr.cz



INSTITUTE OF PHYSICS OF MATERIALS AS CR
www.ipm.cz



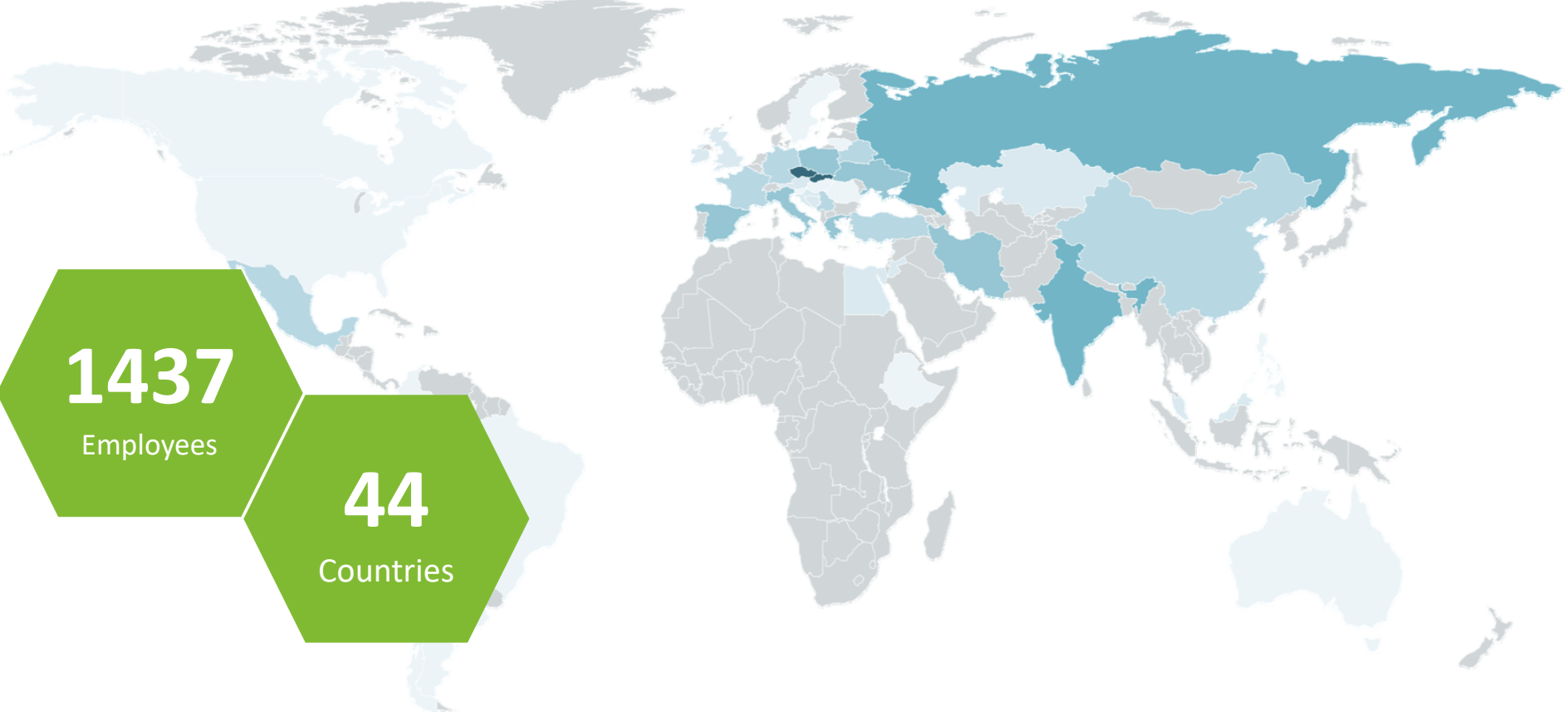
VETERINARY RESEARCH INSTITUTE
www.vri.cz

so many directors...



Our people

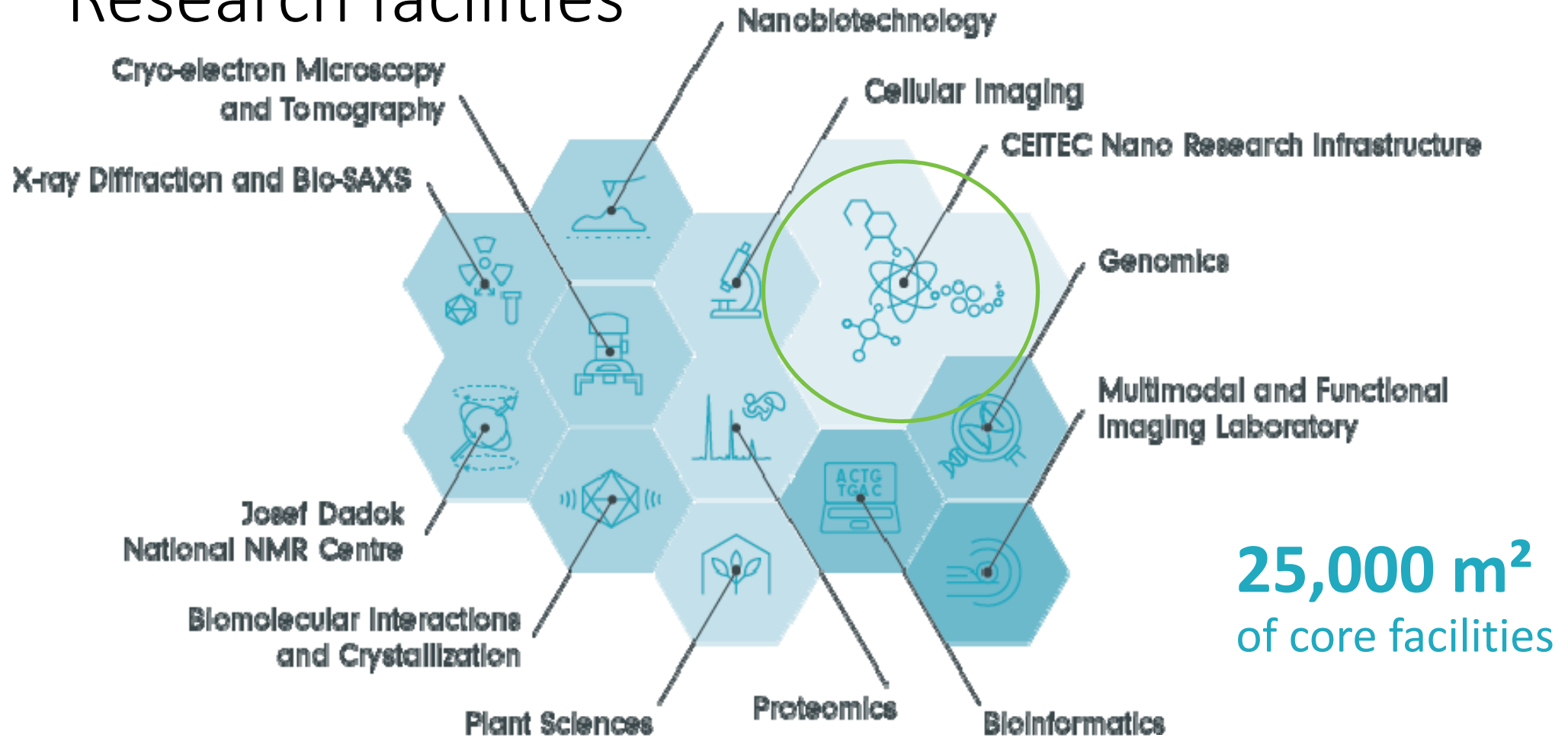
in **2019**



1437
Employees

44
Countries

Research facilities



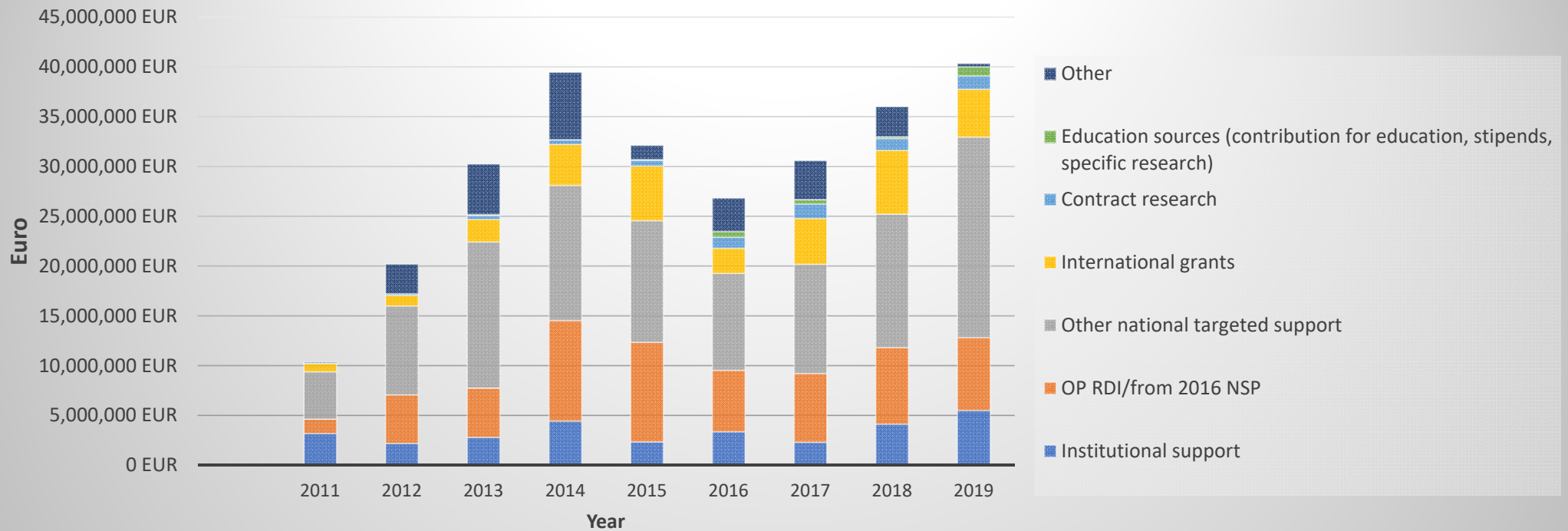
25,000 m²
of core facilities

CEITEC INTEGRITY

- Central office
- Common rules and policies (i.e. ISAB, HR, PR, ethics rules etc...)
- CEITEC PhD School
- Regular consortial events (RGL retreat, PhD retreat, Postdoc Retreat, Christmas workshop, Science Mixers)
- PhD Student Committee, Postdoc Committee
- BRIDGE FUND
- CEITEC Connect

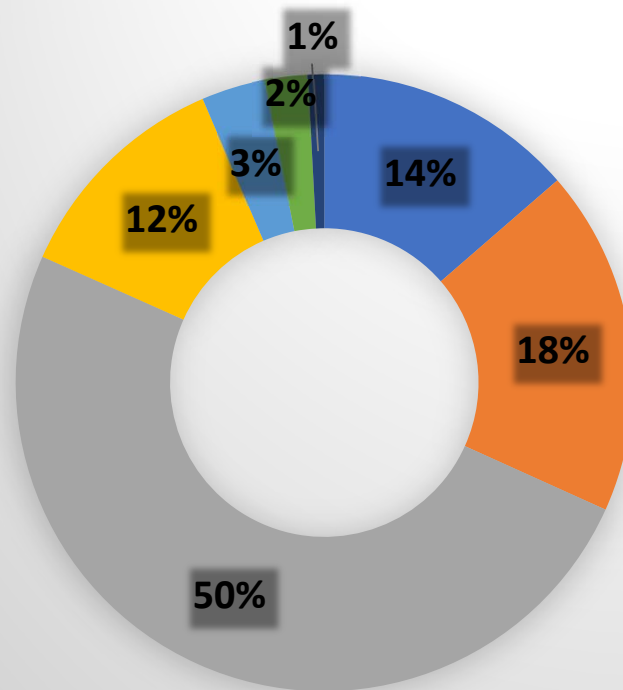
BUDGET, FINANCING

Budget (non-investment, spending)



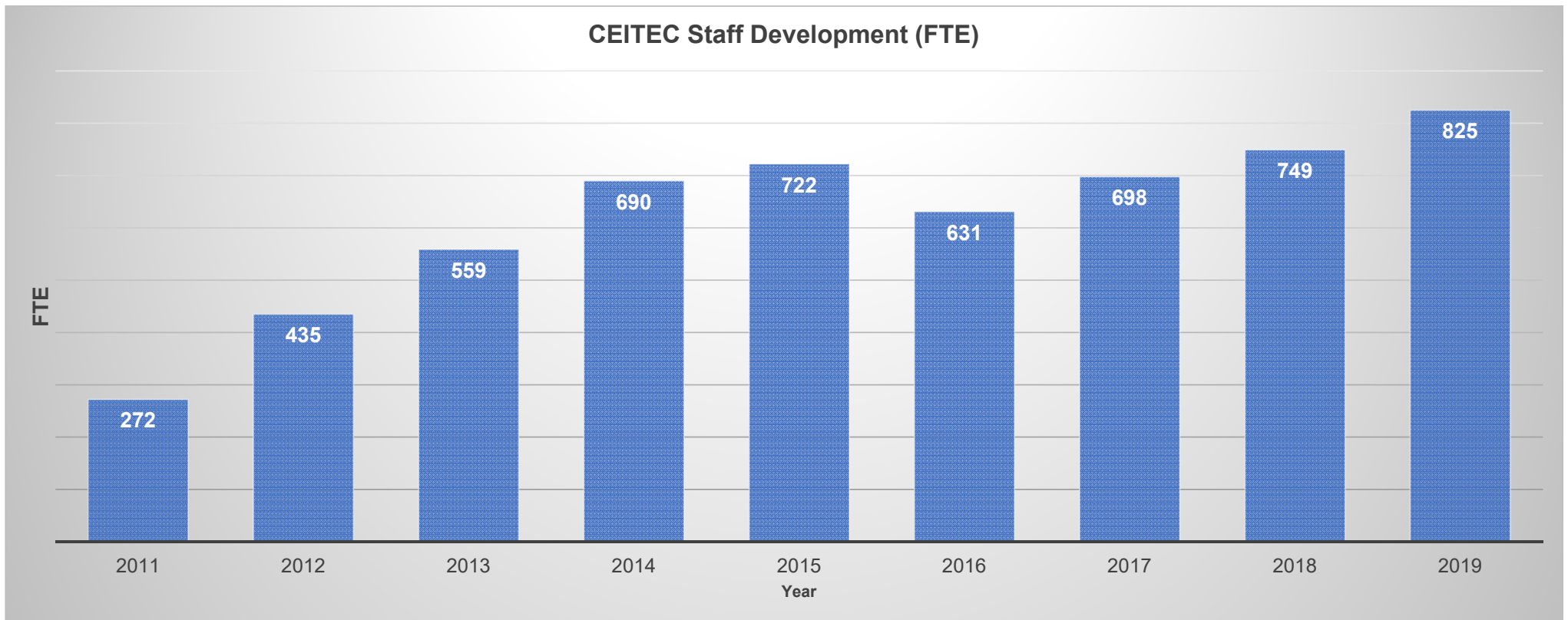
BUDGET, FINANCING

CEITEC financing in 2019

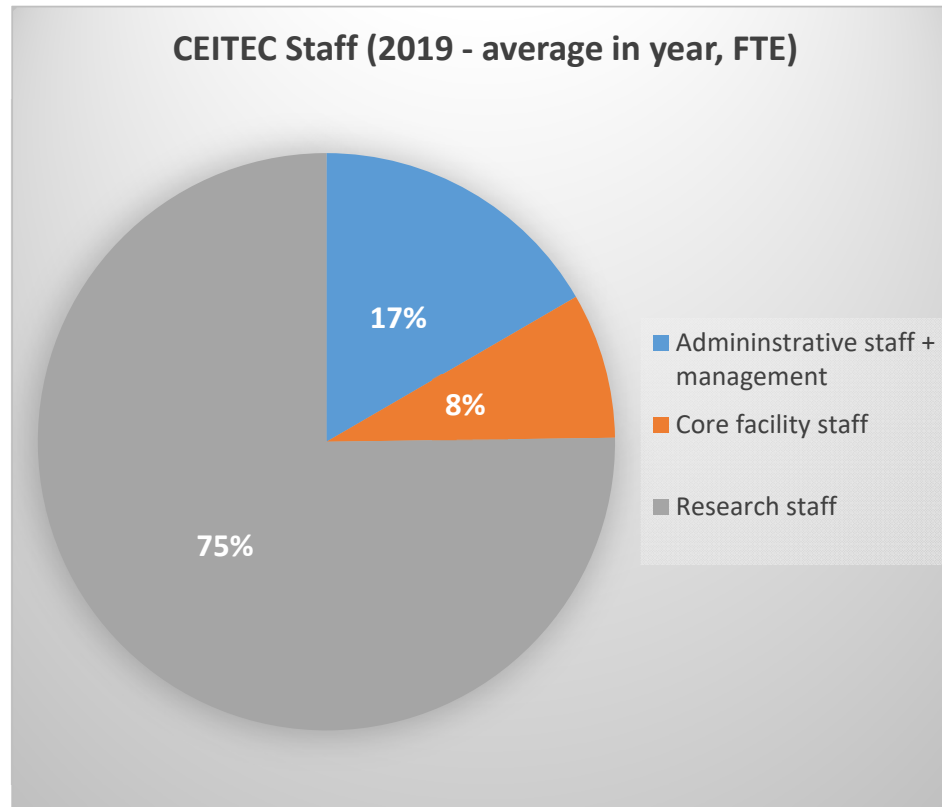


- Institutional support
- National Sustainability Programme
- Other national targeted support (Ministry of education, Czech Science Foundation, etc.)
- International grants
- Contract research
- Education sources (contribution for education, stipends, specific research)
- Other

STAFF

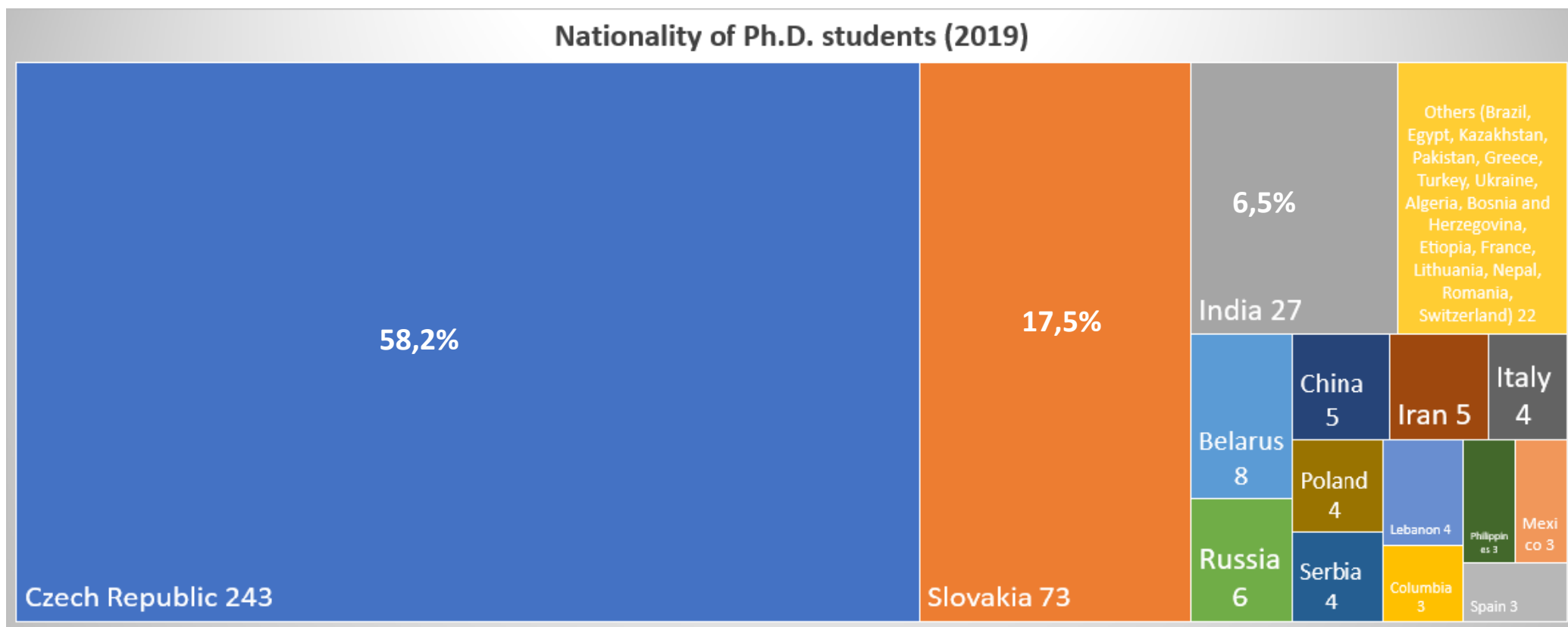


STAFF



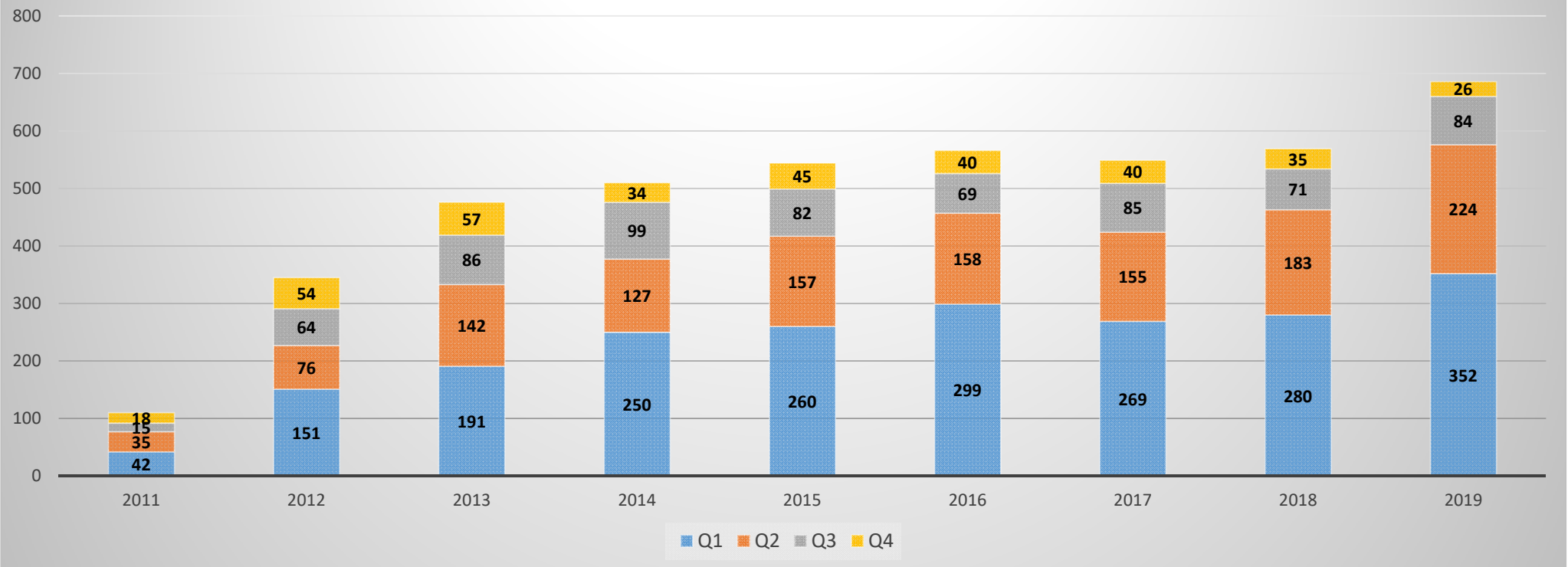
NATIONALITY OF PH.D. STUDENTS (2019)

Nationality of Ph.D. students (2019)



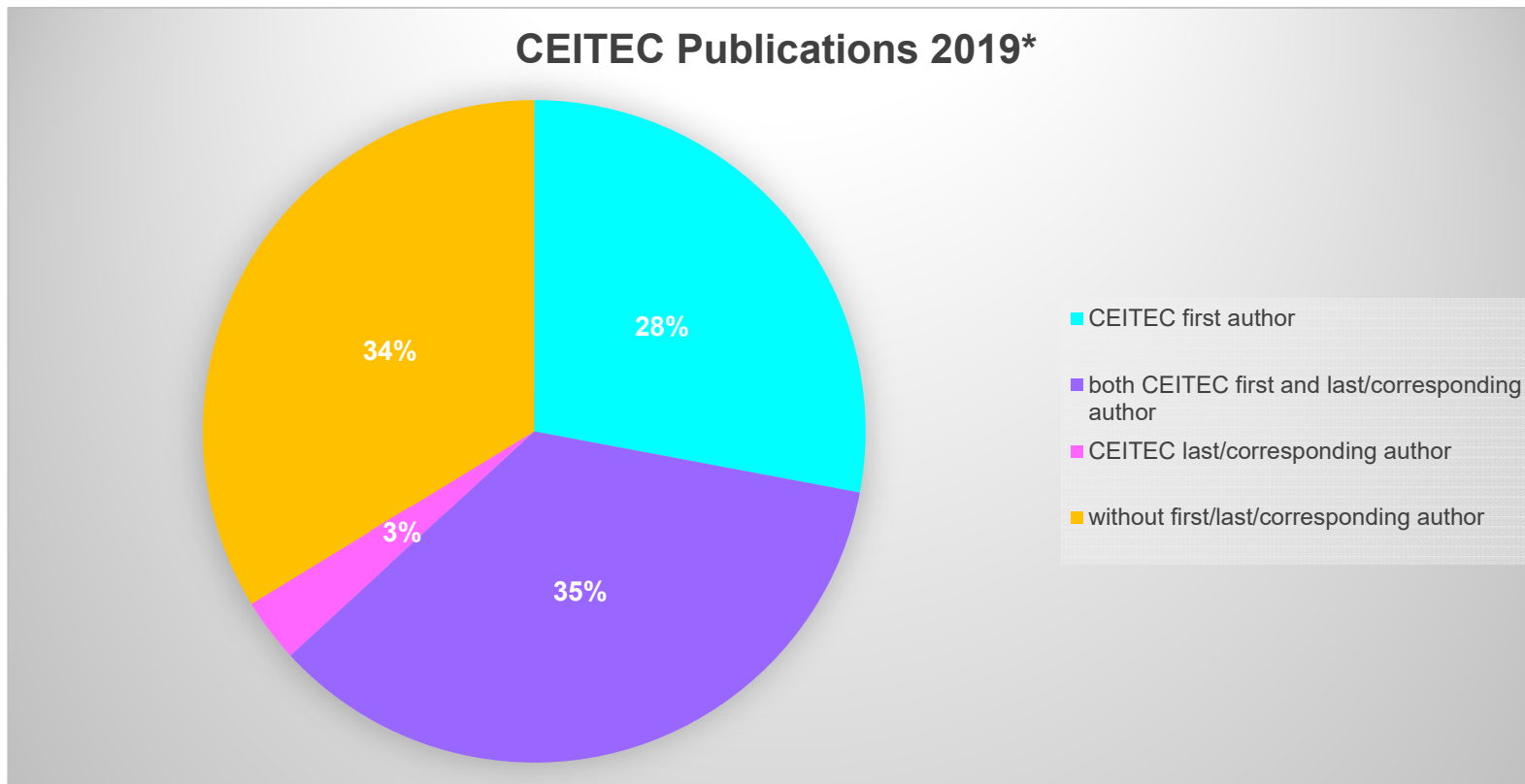
DUPLICATIONS - JOURNALS

Quartile Distribution of Publications*



Only articles, reviews and letters published in the Web of Science in journals with Journal Impact Factor are included in the statistics. The average JIF (Journal Impact Factor) quartile ranking (when a journal comes under more subject categories, the average quartile ranking is counted).

PUBLICATIONS – CEITEC AUTORSHIP

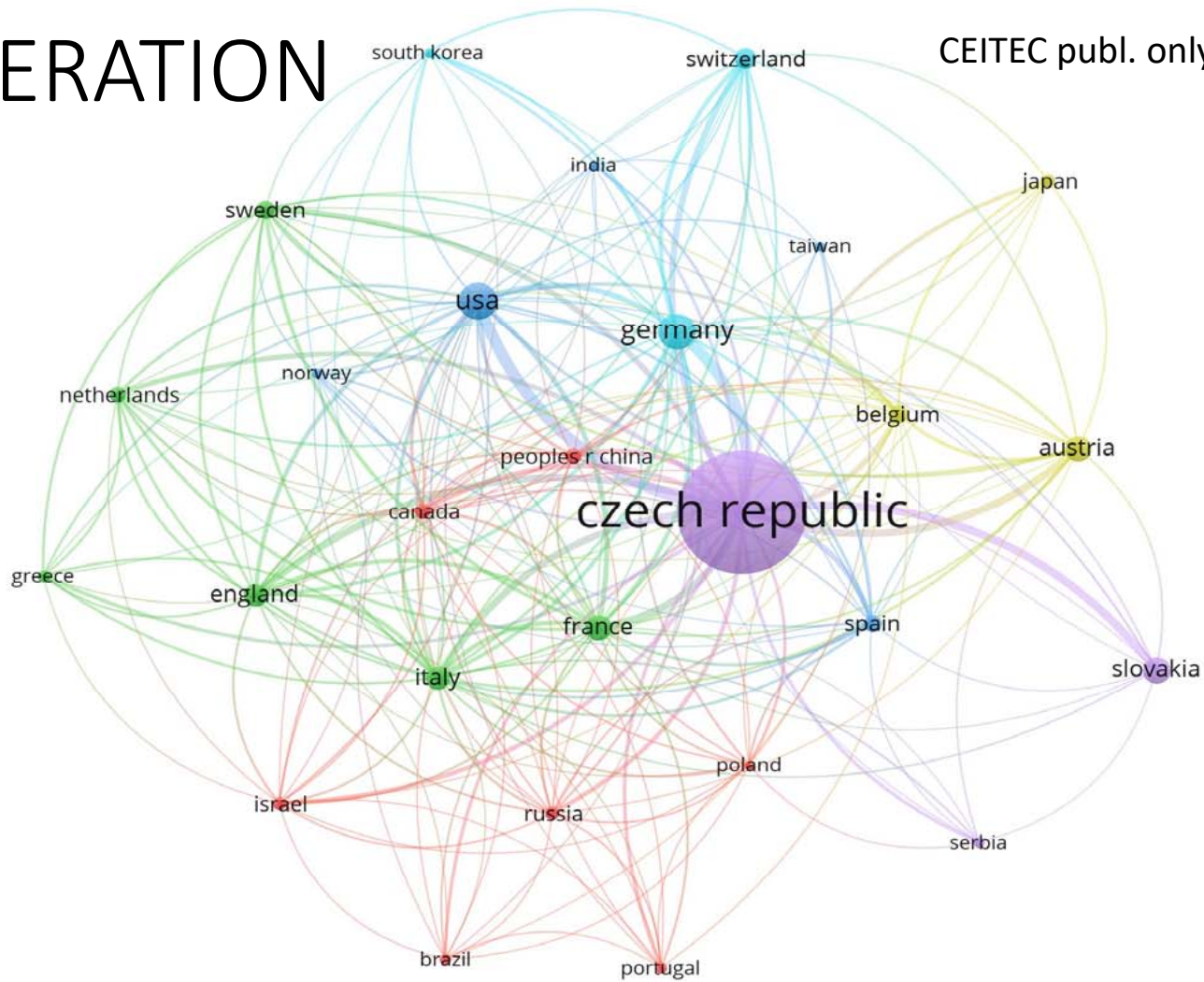


*Only articles, reviews and letters published in the Web of Science in journals with Journal Impact Factor are included in the statistics.

COOPERATION

CEITEC publ. only

2012-2013



DUPLICATIONS 2011-20 - COOPERATION

Name	WoS			
	Documents	Times Cited	CNCI	% Docs Cited
GERMANY	512	10 578	1,71	86,91
USA	499	13 527	1,89	90,38
UNITED KINGDOM	342	8 328	2,19	87,72
ENGLAND	306	7 668	2,18	88,24
AUSTRIA	299	4 948	1,59	88,96
FRANCE	260	7 196	2,12	90,00
ITALY	229	6 977	2,29	91,70
SLOVAKIA	204	2 169	0,91	83,82
SPAIN	195	6 024	2,56	86,67
SWEDEN	148	3 858	1,96	93,92
SWITZERLAND	145	2 325	1,72	90,34
POLAND	134	2 031	1,34	80,60
RUSSIA	132	2 913	1,96	87,12
NETHERLANDS	126	3 821	2,68	97
CHINA MAINLAND	110	2 652	2,10	86,36
BELGIUM	99	3 290	2,55	91,92
CANADA	94	3 327	2,70	91,49
JAPAN	84	1 736	2,04	88,10

CNCI – Category Normalized Citation Impact - citations normalized for year, field and document type
 *Only articles, reviews and letters published in the Web of Science database in journals with Journal Impact Factor are included in the statistics.

CONTRACT RESEARCH (2019)



GRANTS

Competitive Funding



Including institutional grants, excluding National Sustainability Programme

Conclusion CEITEC

- Major benefit to the country: attracts and retain talents (7 ERC level scientists) in the country and educate new generation
- Provides open access state-of-the-art facilities
- Extremely dependable on (public) competitive funding (vulnerability)
- Commercial research is playing marginal role! However, 4 start ups so far!
- No involvement of industry in the managerial structure.

**THANK YOU
FOR YOUR ATTENTION!**