



RESEARCH,
DEVELOPMENT
AND INNOVATION
COUNCIL

Government of the Czech Republic



ERC and cutting-edge research support in Czechia

meeting of president of ERC M. Leptin with research stakeholders
12 June 2024, CU, Prague

Pavel Doleček

Topics

Focus of cutting-edge research

ERC – overview and support

Approach to increase Czech involvement in ERA

Focus of cutting-edge research

Comprehensive perspective (Concept of Support for Excellence at Universities and Czech Academy of Sciences)

- defining strategic goals and principles aimed at the development of excellence
- classification of types of funding tools within institutional and targeted (project based) support
- overview of existing support and specification of newly planned tools

Budget design (development of funding tools to support cutting-edge science is one of the priorities), i.e.

- programmes and grant schemes (MEYS, CAS, CSF)
- international cooperation (MEYS, Ministry of Health, Technology Agency)
- institutional support (MEYS, CAS)

Support of Excellence at Uni and CAS

Main Goals

- consolidating the architecture and stabilizing funding in key tools
- participation in ERA, “seal of excellence”
- short-term, medium-term and long-term perspective
- setting grounds for identifying and supporting core research organizations and research infrastructure (*pro futuro*)

Cross-Cutting Principles

- synergy - alignment among tools, levels of intervention and individual/consortia projects
- evaluation - assessment of impact, support infrastructure

ERC – overview

- Success rate for ERC grants is **below the European average** for all three types of grants. Increasing over time and driven mainly by younger researchers.
- Activity for ERC grants is **stagnant**, particularly ERC-ADG and ERC-COG, with the **exception of ERC-STG**.
- The most successful research area for ERC grants is Life Sciences (ERC-LS) - again driven by younger researchers.
- There is a **need to improve the quality** of project proposals submitted by Czech researchers for ERC grants. This includes improving the scientific quality of the proposals, as well as the international reputation of the researchers involved.
- Despite the increasing attractiveness of the Czech Republic as a scientific destination, Czech research institutions have not yet succeeded in attracting a higher number of holders of these prestigious grants from abroad.

ERC – number of grants

Number of ERC grants in the Czech Republic by principal investigators: 2007 - December 2023

RP	STG	COG	ADG	POC	SyG	TOTAL
FP7	4	2	5			11
H2020	17	15	3	1	2	38
HE	11	7	5	6	2	31
Total	32	24	13	7	4	80

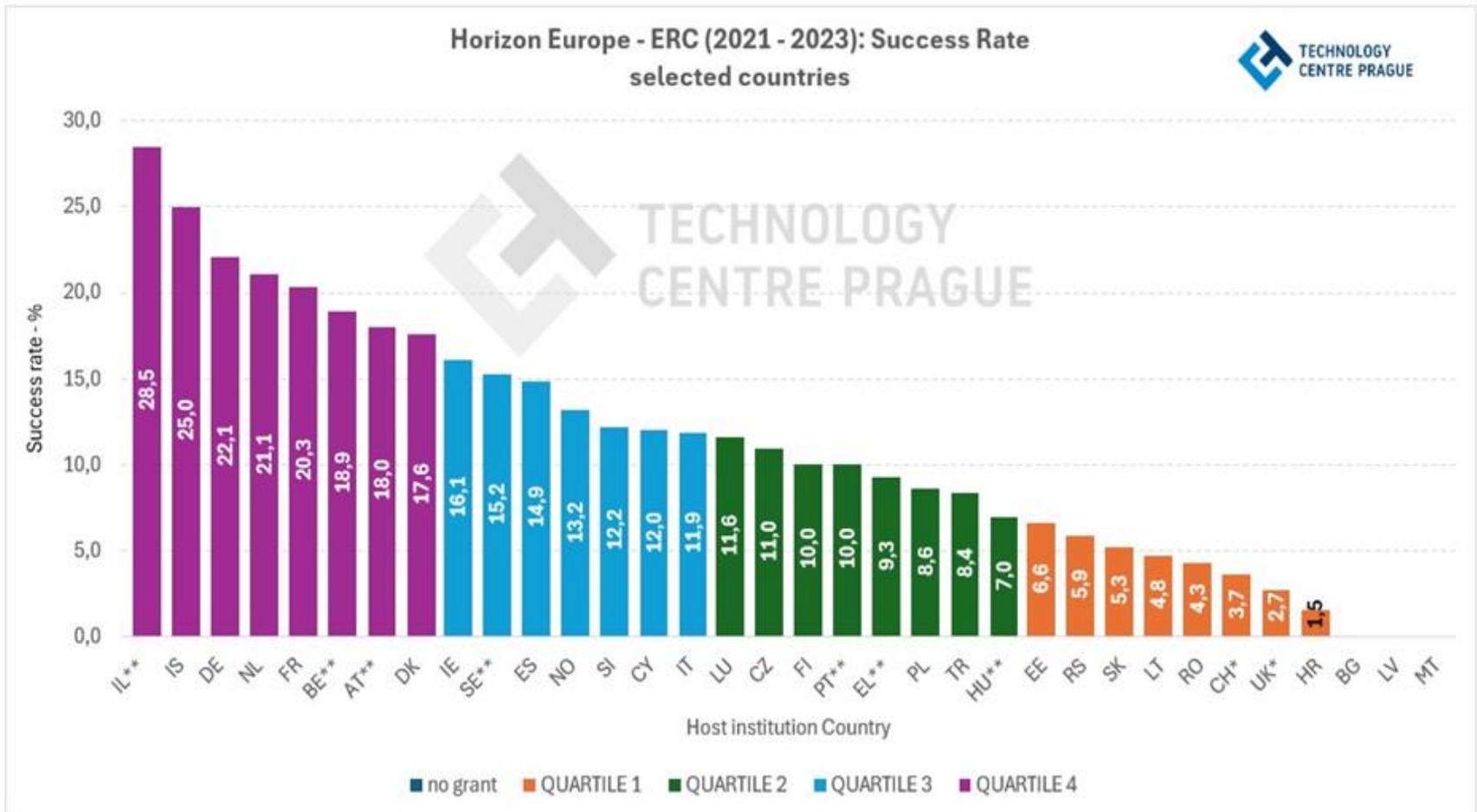


Number of ERC grants funded by principal investigators with Czech nationality abroad: 2007 - December 2023

RP	STG	COG	ADG	POC	TOTAL
FP7	11		1		12
H2020	5	11	3	1	20
HE	2	2	1	1	6
Total	18	13	5	2	38

Source: Daniel Frank, own data processing (eCORDA, CORDIS, Horizon Dashboard)

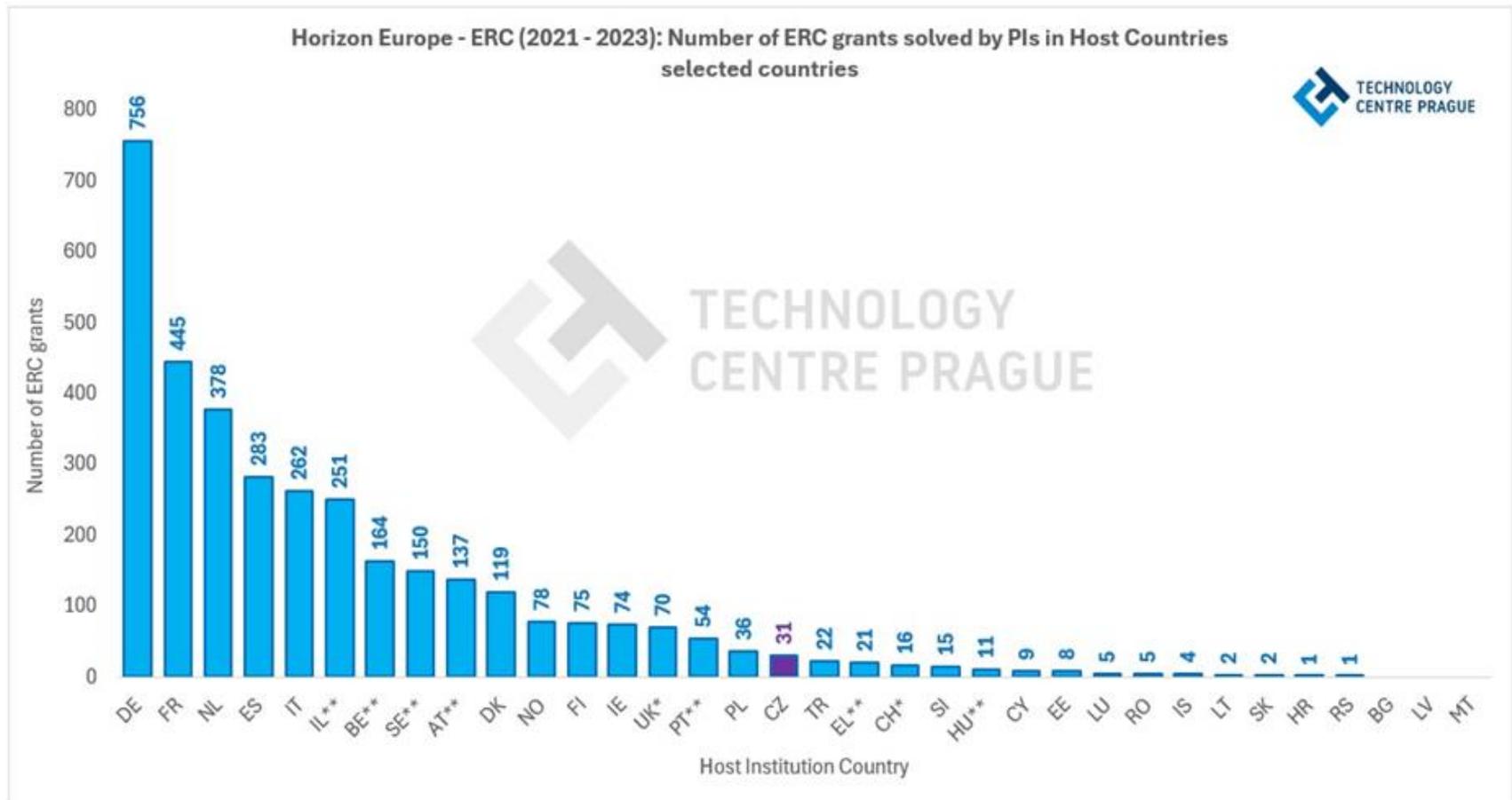
ERC – success rate



Source: HE - eCORDA 04/2024, Daniel Frank - TC Prague, own data processing

* HE access rules restrictions, ** populated comparable countries with CZ

ERC – number of grants by PIs



Source: HE - eCORDA 04/2024, Daniel Frank - TC Prague, own data processing

* HE access rules restrictions, ** populated comparable countries with CZ

ERC - CZ: 2012 - 2023

Institution	Number of projects	Total cost - CZK	Total cost - €
Univerzita Karlova	19	473 545 399,64	18 941 815,99
České vysoké učení technické v Praze	4	101 796 048,00	4 071 841,92
Masarykova univerzita	4	113 833 041,48	4 553 321,66
Univerzita Pardubice	3	119 375 485,00	4 775 019,40
Biologické centrum AV ČR, v. v. i.	3	102 903 000,00	4 116 120,00
Vysoká škola chemicko-technologická v Praze	2	84 209 699,00	3 368 387,96
Vysoké učení technické v Brně	2	56 719 570,00	2 268 782,80
Ústav molekulární genetiky AV ČR, v. v. i.	1	48 589 000,00	1 943 560,00
Západočeská univerzita v Plzni	1	11 949 000,00	477 960,00
Mendelova univerzita v Brně	1	37 786 528,00	1 511 461,12
Fyziologický ústav AV ČR, v. v. i.	1	46 094 000,00	1 843 760,00
Ústav fyzikální chemie J. Heyrovského AV ČR, v. v. i.	1	39 000 000,00	1 560 000,00
Jihočeská univerzita v Českých Budějovicích	1	8 091 000,00	323 640,00
Ústav organické chemie a biochemie AV ČR, v. v. i.	1	48 762 290,00	1 950 491,60
Univerzita Palackého v Olomouci	1	15 663 760,00	626 550,40
Národohospodářský ústav AV ČR, v. v. i.	1	33 220 600,00	1 328 824,00
Filosofický ústav AV ČR, v. v. i.	1	16 645 000,00	665 800,00
Ostravská univerzita	1	11 182 141,71	447 285,67
Ústav fotoniky a elektroniky AV ČR, v. v. i.	1	40 738 000,00	1 629 520,00
Total	49	1 410 103 562,83	56 404 142,51

Types of Institutions	Number of projects	Total cost - CZK	Total cost - €
Public Universities	39	1 034 151 672,83	41 366 066,91
Czech Academy of Science	10	375 951 890,00	15 038 075,60
Total	49	1 410 103 562,83	56 404 142,51

Source: CEP, Daniel Frank - TC Prague, own data processing

Support to ERC Applicants

National Support System

- Evolving since 2007, initially based on ad hoc cooperation between the ERC NCP based at TC CAS (now TC Prague) and individual experts
- Expert Group: Established 2021, joint initiative of CU and CAS, chaired by Prof. Zdeněk Strakoš, includes 12 experts covering all ERC domains, providing nationwide support.

Key Support Activities

- National Information Day
- Workshops (three interconnected sessions)
- Mock Interviews

Institutional Support

- Support levels vary across institutions
- Basic and advanced
- Key area for future development

Approach to increase Czech involvement in ERA

Gaps and opportunities for improvement

- Czech participation in the FP is still insufficient
- Need for setting research priorities for European research and innovation cooperation
- Need for increasing of investment in research, development and innovation
- Weak participation of SMEs

Focus & Measures

- Ensure adequate **funding** for international cooperation
- Increase focus on **international cooperation** within research assessment (national and institutional)
- Provide financial support for **Seal of Excellence** projects
- Provide **support** to research organisations (and research community) to implement measures in favour of a higher degree of internationalization
- Align administrative and financial **rules** with FP, implement criteria of FP with national programmes (open science, GEP,...)



RESEARCH,
DEVELOPMENT
AND INNOVATION
COUNCIL

Government of the Czech Republic



Thank you for your attention

pavel.dolecek@vlada.gov.cz

back-up

activity index & success index

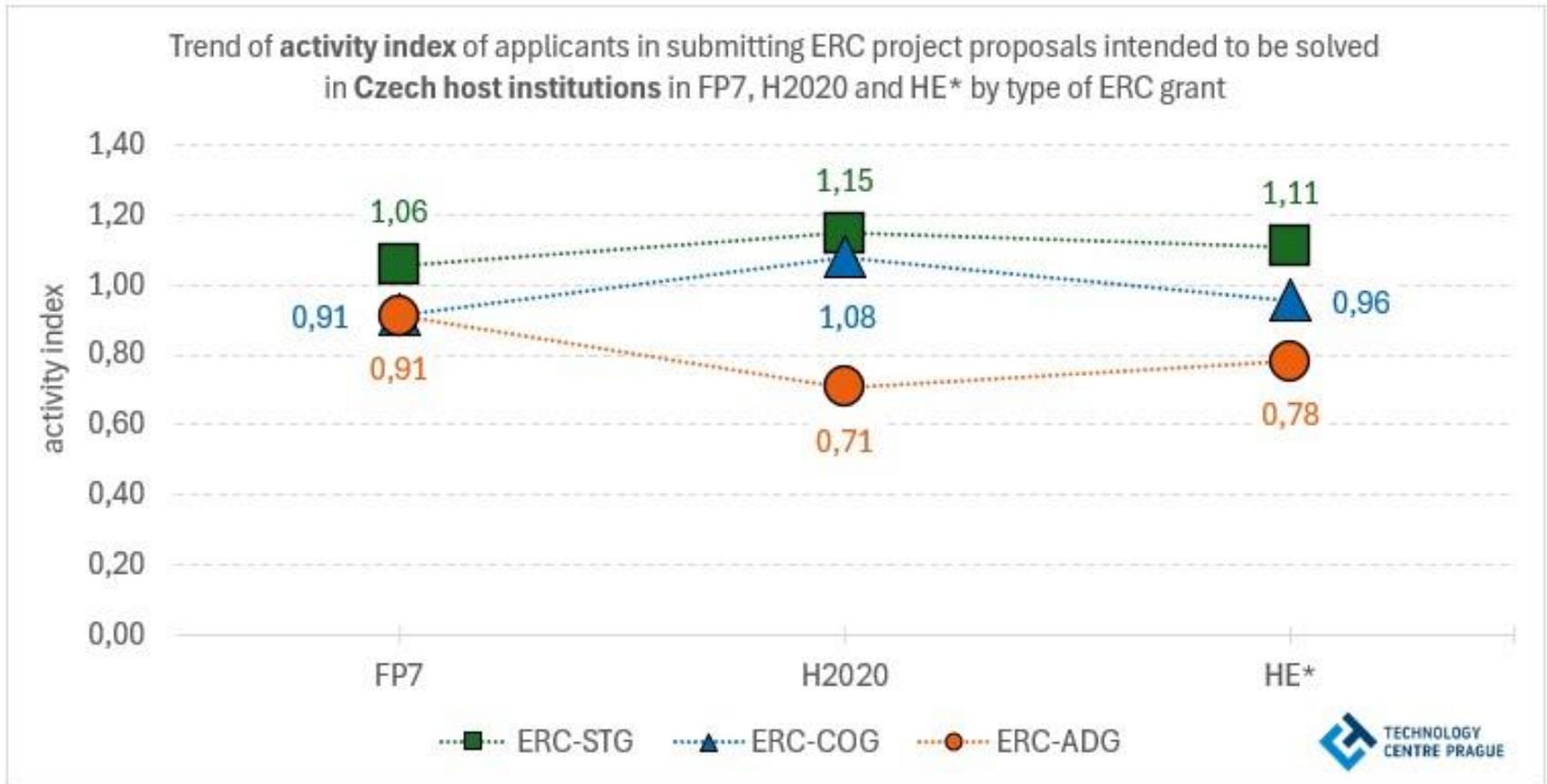
Overall project success rate at country level varies widely from one FP to another:

- ratio between the available budget for the ERC in each FP
- the total number of project proposals submitted, and the number of ERC projects funded

= it is therefore not optimal to compare absolute project success rates across FPs

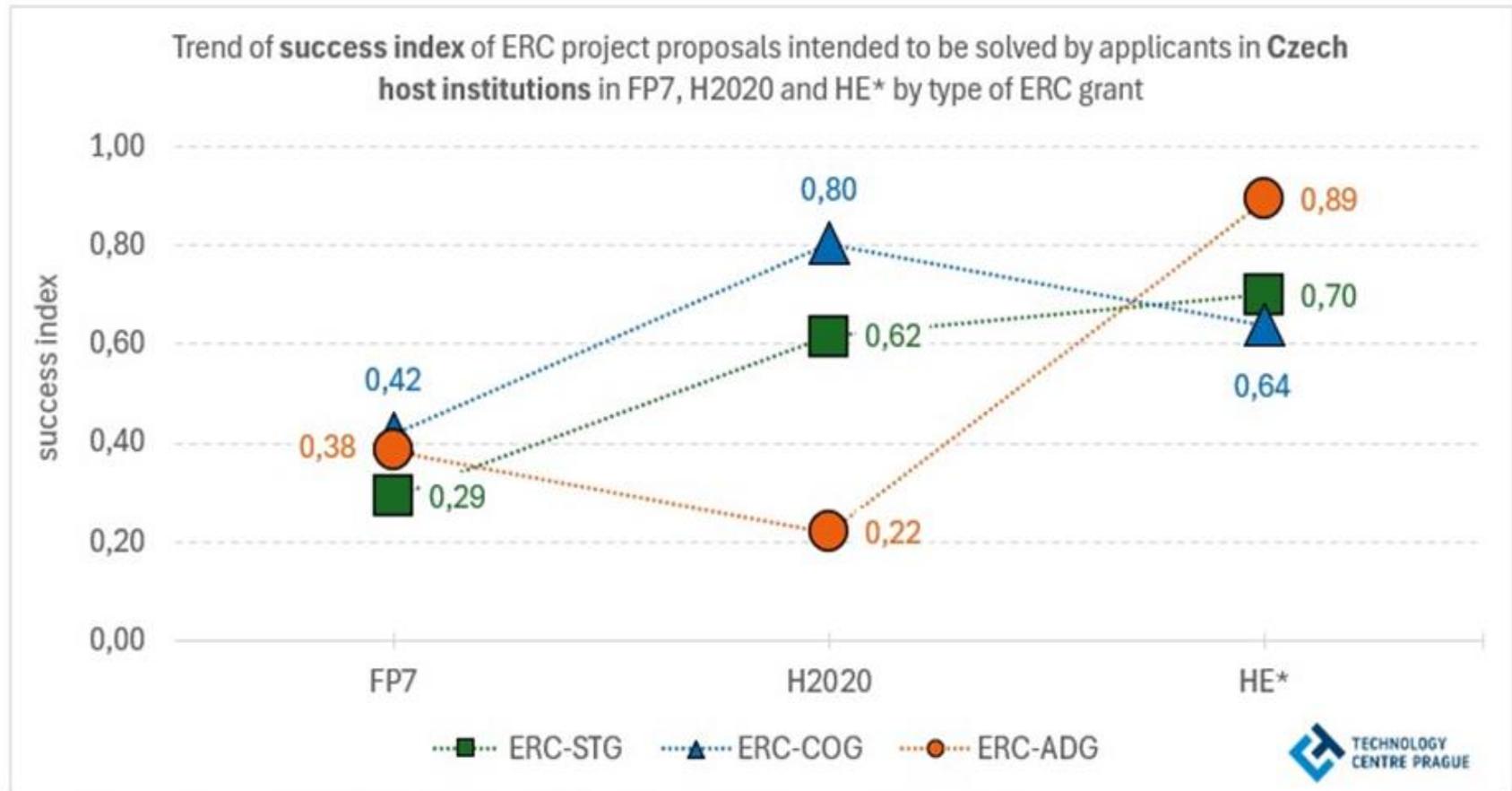
„1“ = „European average“

activity index – type of ERC grant



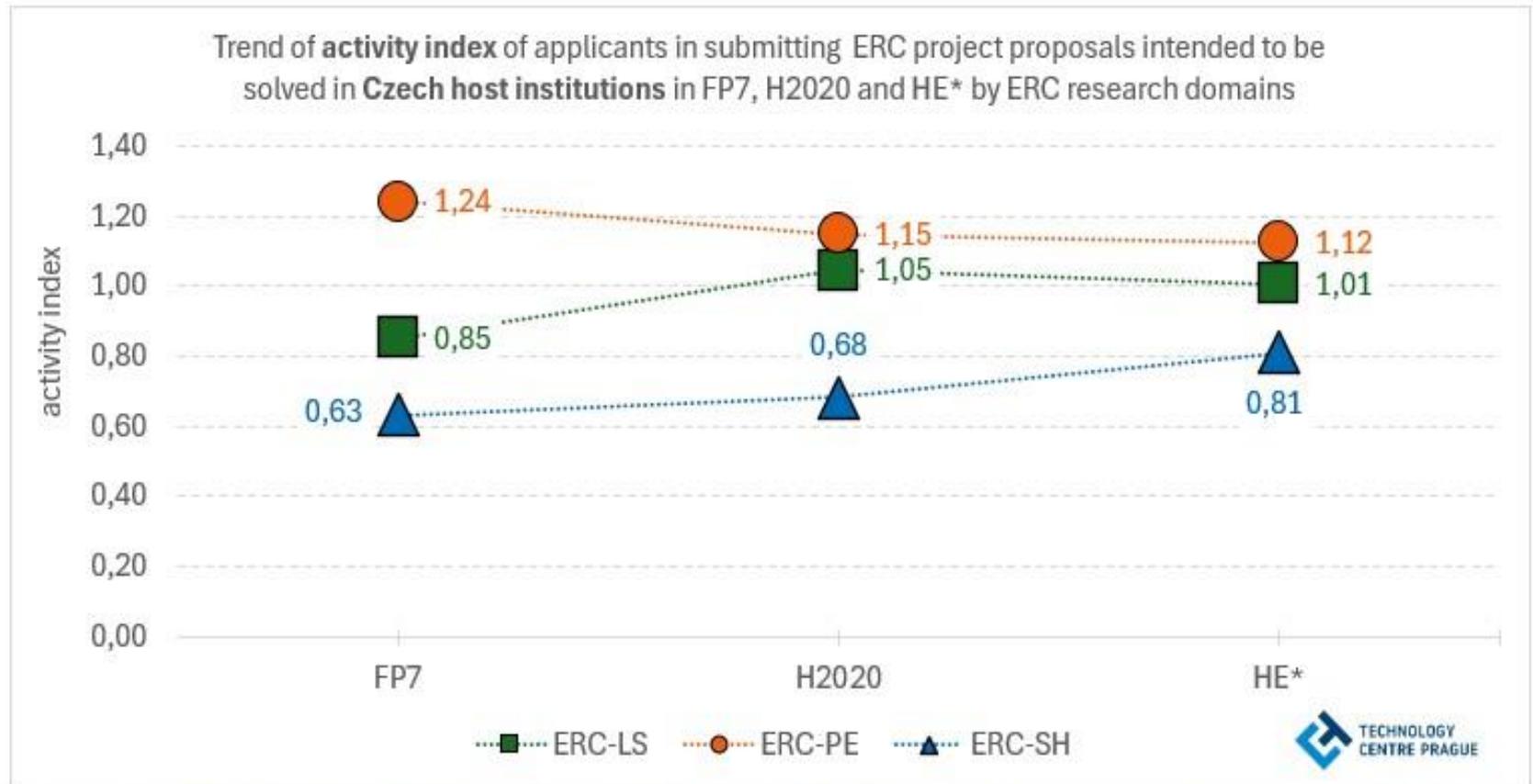
Source: EC - eCORDA: FP7 06/2019, H2020 - 08/2022, HE - 03/2024, Daniel Frank - TC Prague: own data processing 06/05/2024
HE* - only ADG 2021 and 2022 calls included, only STG, COG 2021 - 2023 calls included

success index – type of ERC grant



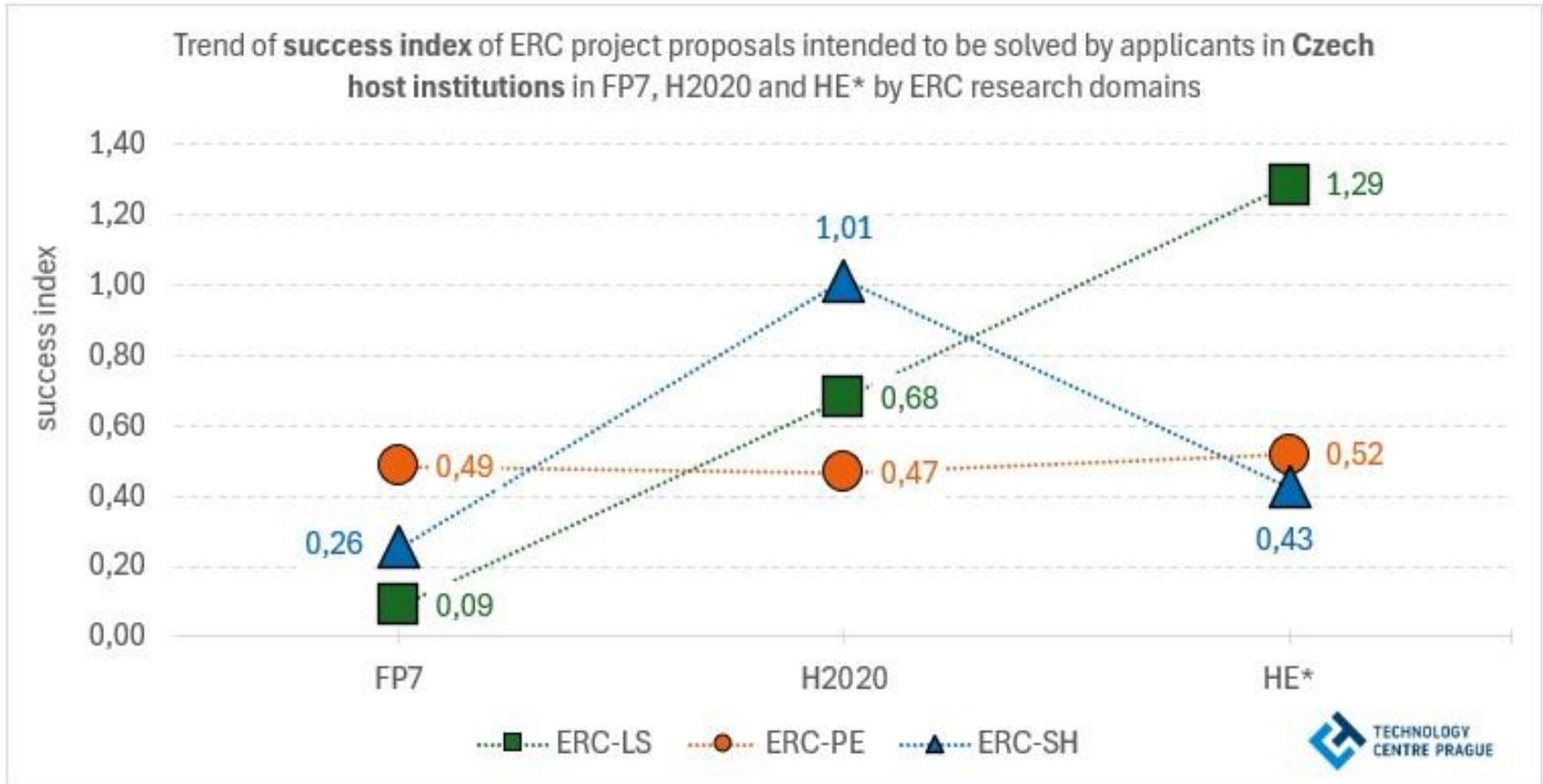
Source: EC - eCORDA: FP7 06/2019, H2020 - 08/2022, HE - 03/2024, Daniel Frank - TC Prague: own data processing 06/05/2024
HE* - only ADG 2021 and 2022 calls included, only STG, COG 2021 - 2023 calls included

activity index – ERC research domains



Source: EC - eCORDA: FP7 06/2019, H2020 - 08/2022, HE - 03/2024, Daniel Frank - TC Prague: own data processing 06/05/2024
HE* - only ADG 2021 and 2022 calls included, only STG, COG 2021 - 2023 calls included

success index – ERC research domain



Source: EC - eCORDA: FP7 06/2019, H2020 - 08/2022, HE - 03/2024, Daniel Frank - TC Prague: own data processing 06/05/2024
HE* - only ADG 2021 and 2022 calls included, only STG, COG 2021 - 2023 calls included