

Program FET Open v programu Horizont 2020

Technologické centrum AV ČR
30. listopadu 2018

Petr Pracna, NCP FET/ NMBP

Přehled prezentace

- **Program Future and Emerging Technologies v průběhu let 2014-2018**
- **FET Open / FET Proactive / FET Flagships**
- **Podrobnější pohled na FET Open (2014-2018)**
- **Nový portál EK pro účastníky**

Program FET v H2020

FET – Future and Emerging Technologies

Vznikl na konci FP7 (2007-**2012-2013**) v oblasti **ICT** (Information and Communication Technologies) – podpora ‘základního’ výzkumu

H2020 – otevření všem vědním oborům

x menší rozpočet než v ICT (úspěšnost žádostí **< 2%** !!)

FP7-ICT **90 M€** H2020-FET **77 M€**

2018 – 4x větší rozpočet než 2015, méně žádostí
úspěšnost > 10%

2014-2017 v pilíři **Excellent Science**

2018- 2020 součást **pilotu EIC** (European Innovation Council)

Program FET

Future and Emerging Technologies

→ **FET Open** (RIA / CSA) 3/4 cut-off dates v každém 2/3-letém WP
Bottom-up program, **průlomové** technologie + technologická perspektiva

→ **FET Proactive** (RIA) 1 výzva v každém v každém 2-letém WP
Rozvíjení úspěšných témat a komunit z FET Open

→ **FET High Performance Computing** (RIA/CSA) 1 výzva v každém v každém 2-letém WP

FET Flagships – Graphene, Human Brain Project (HBP) (2014-2023),
10-leté projekty, **1 mld.€** ($\frac{1}{2}$ EK + $\frac{1}{2}$ průmysl, MS)

Vývoj programu FET v H2020



HE

FET Open - zpočátku chápán více ve smyslu **open** než s důrazem na technologickou perspektivu a 'gatekeepers'

FET Innovation Launchpad (CSA) 1 výzva ročně od 2016

Raná inovační stadia, rozvíjení výsledků dosažených v předchozích výzkumných projektech (RIA)

FET Proactive (RIA) - Rozvíjení úspěšných témat a komunit z FET Open
– témata odvozována od výsledků veřejných konzultací + AG FET

FET High Performance Computing (RIA/CSA) 1/2 výzvy v každém v 2-letém WP

FET Flagships – Graphene, HBP (2014-2020)

Listopad 2018 - začal nový **Flagship Quantum Technologies**

+ Příprava dalších 3 FET Flagships

Health, Digitisation of Industry, Energy and Environment

EIC

**EuroHPC
JTI/JU**

**Začíná
od 2019
?**

FET Proactive v H2020

FET Proactive (RIA)

- ❑ Rozvíjení úspěšných témat a komunit z FET Open
- ❑ Doporučení Advisory Group FET (AG FET)
- ❑ Témata odvozována od výsledků veřejných konzultací - 2015

2018 - RIA

- Artificial organs, tissues, cells and sub-cellular structures
- Time
- Living technologies
- Socially interactive technologies
- Disruptive micro-energy and storage technologies
- Topological matter

2019 - Community building and roadmapping for high performance and smart electrochemical energy storage (CSA)

FET Proactive v H2020

Předběžná témata 2020 (AG FET)

1. BIOMEDICAL AND BIOTECHNOLOGY FOR BETTER LIFE

1.1 Implantable Autonomous Devices and Materials

1.2 Innovative imaging of biological processes for diagnostics and therapeutics

2. ARTIFICIAL INTELLIGENCE, ROBOTICS AND INTERACTIONS

2.1 Human-centric AI

3. TECHNOLOGIES FOR SOCIETAL CHANGE

3.1 New Technologies for societal integration of social media

4. NEW TECHNOLOGIES FOR ENERGY AND ENVIRONMENT

4.1 Environmental Intelligence / Simulating the European Environment

5. ADVANCED FUNCTIONAL MATERIALS AND NOVEL COMPONENTS

5.1 Multi-scale materials for omni-connectivity

5.2 Sub-nanoscale science for Nanometrology

FET HPC v H2020

Výzvy HPC – High Performance Computing

2014 - Towards exascale high performance computing, 98.6 M€

‘nejlepší ročník’ - 19 financovaných projektů – 3 CZ účasti = 3x IT4I (+4)

2016 -

2017 - Transition to Exascale Computing. 39.5 M€

11 financovaných projektů – 1 CZ účast = IT4I (+ 5)

2018 - International Cooperation on HPC (Brasil/Mexico), 6M€

2 financované projekty (6 M€)

Od roku 2019 přechod programu do [EuroHPC Joint Undertaking](#) se sdruženými prostředky z programů FET HPC, PPP HPC, Research Infrastructures – 486 M€ (celkově 1000 M€)

Příspěvky z 25 MS/AC + European Technology Platform for HPC (ETP4HPC)

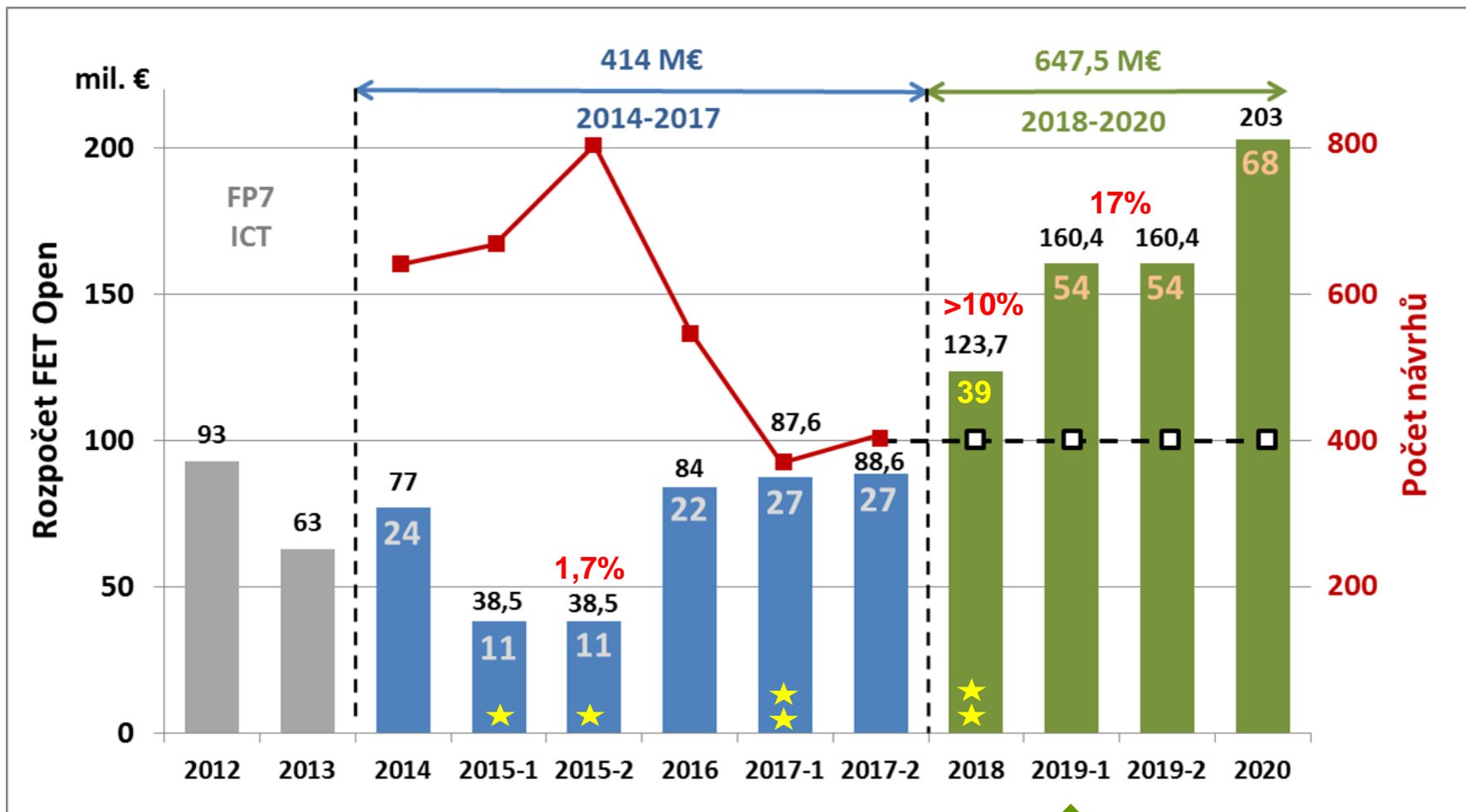
Big Data Value Association (BDVA)

Cíl – do roku 2023 evropský exa-scale superpočítač

FET Open RIA – výsledky hodnocení

Výzvy	Rozpočet M€	Požadovné finance M€	Návrhy	Projekty	%	Min. body	Průměrný rozpočet M€
2014	77	2050 26x	639	24	3.8	4.65	3.24
2015	38.5	2129 55x	665	11	1.7	4.9	3.72
	38.5	2670 69x	800	11	1.4	4.95	3.51
2016	84	1876 22x	544	22	4.0	4.75	3.40
2017	87.6	1150 14x	365	27	7.4	4.65	3.26
	88.6	1225 14x	395	27	6.8	4.6	3.16
2018	123.7	898 7x	356	39	10.7	4.5	3.29
Celkem	538	11998	3764	161	4.3		

FET Open RIA – H2020



2014-2018 - celkem **161** projektů
CZ účast - **6** projektů

uzávěrka výzvy
24/01/2019

FET Open RIA – výsledky účasti ČR

Výzvy	M€	Projekty	%	CZ návrhy	CZ projekty	%	CZ / M€	%
2014	77	24	3.8	34 (37)	-	-	-	
2015-1	38.5	11	1.7	40 (46)	1 (1)	2.5	0.250	0.65
2015-2	38.5	11	1.4	46 (59)	1 (1)	2.2	0.225	0.58
2016	84	22	4.0	25 (28)	-			
2017-1	87.6	27	7.4	10 (11)	2 (3)	7.4	1.643	1.9
2017-2	88.3	27		16 (17)	-			
2018	123	39	10.7	17 (21)	2 (2)	5.1	0.594	0.48
Celkem	537	161	4.3	188 (219)	6 (7)	3.2	2.712	0.65

2018 Funded 2 / 38+1 (min 4.5 bodu)
 BelowAB 6 / 117 (dosáhly prahových hodnot 4 / 3.5 / 3 bodu)
 BelowThr 9 / 196

FET Open RIA – příjemci z ČR

Z Celkem – 2.7 z 538 M€ (0.65 %)

Výzva	Projekt	Příjemce
2015-1	CellViewer	Laboratory Imaging sro
2015-2	ICARUS	Advamat sro
2017-1	PETER	VUT Brno
2017-1	ASPIN	FzÚ AV ČR, UK Praha
2018	FRINGE	VŠCHT
2018	Super-pixels	ÚPT AV ČR

FET Open - Scope

2014-2017 vs. 2018-2020

2014-2017

Specific Challenge

2018-2020

Early stages of science and technology research towards radically new future technologies

High-risk / high-impact **interdisciplinary** research

Scope - Gatekeepers

- Long-term vision
- Breakthrough **scientific and technological** target
- Novelty
- Foundational
- High-risk
- Interdisciplinary

- **Radical** vision
- Breakthrough **technological** target
- **Ambitious** interdisciplinary research

Up to 4 M€ ➔ 3 M€ / project
2014-2016 2017 -

Up to 3 M€ / project

FET Open – Expected impact 2014-2017 vs. 2018-2020

2014-2015

- Initiating a radically new line of technology by establishing **Proof-of-Principle (TRL3)** of a new technological possibility and its new scientific underpinning, **or**
- Kick-starting an emerging innovation eco-system of high-potential actors around a solid baseline of feasibility and potential for a new technological option, ready for early take-up.

2016-2017

- Strengthening European leadership in the early exploration of visionary, new and emerging technologies, **beyond academic excellence** and with global recognition. **This impact can be reinforced by involving also new high-potential actors such as young, both female and male, researchers and high-tech SMEs** that may become the European scientific and technological leaders and innovators of the future.

2018-2020

- Scientific and **technological** contributions to the foundation of a new future technology
- Potential for future **social or economic impact or market creation**
- **Building leading research and innovation capacity** across Europe by involvement of key actors ... + **first time participants** for FET under H2020

FET Open (RIA) – hodnocení

Prahové hodnoty a vážení hodnotících kritérií

Kritérium	Prahová hodnota	Váha %	Max (5)
Excelence	4 / 5	60	<ul style="list-style-type: none"> • Radical vision • Breakthrough technological target • Ambitious interdisciplinary research
Dopad	3.5 / 5	20	
Implementace	3 / 5	20	

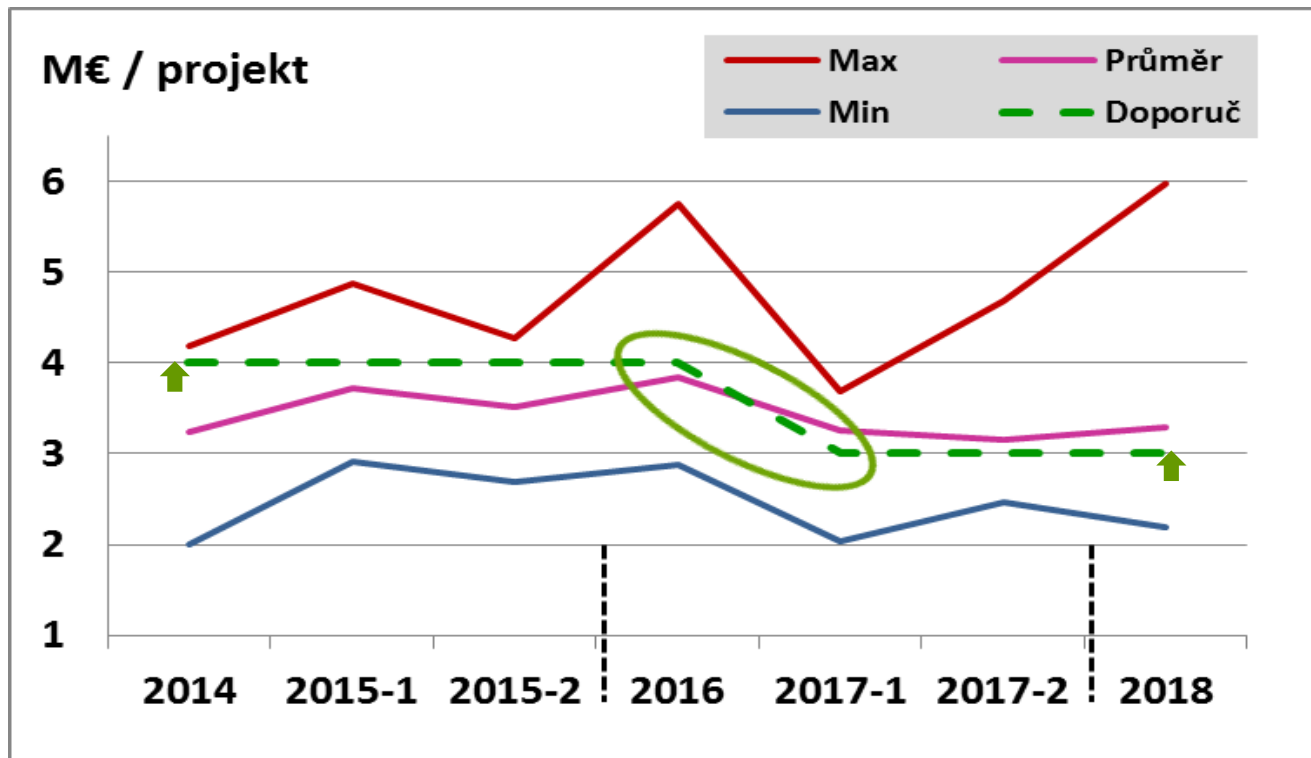
WP 2018-2020 Conditions of the call – Evaluation procedure

A proposal that, according to the evaluator's assessments, does **not convincingly satisfy all FET gatekeepers** as described under this topic will be declared **out of scope**. The communication to the applications will include the evaluators' assessments, or relevant extracts from them.

Výzva 2018 – použito u 18 návrhů (4.8%)

FET Open RIA – limity

Rozpočet



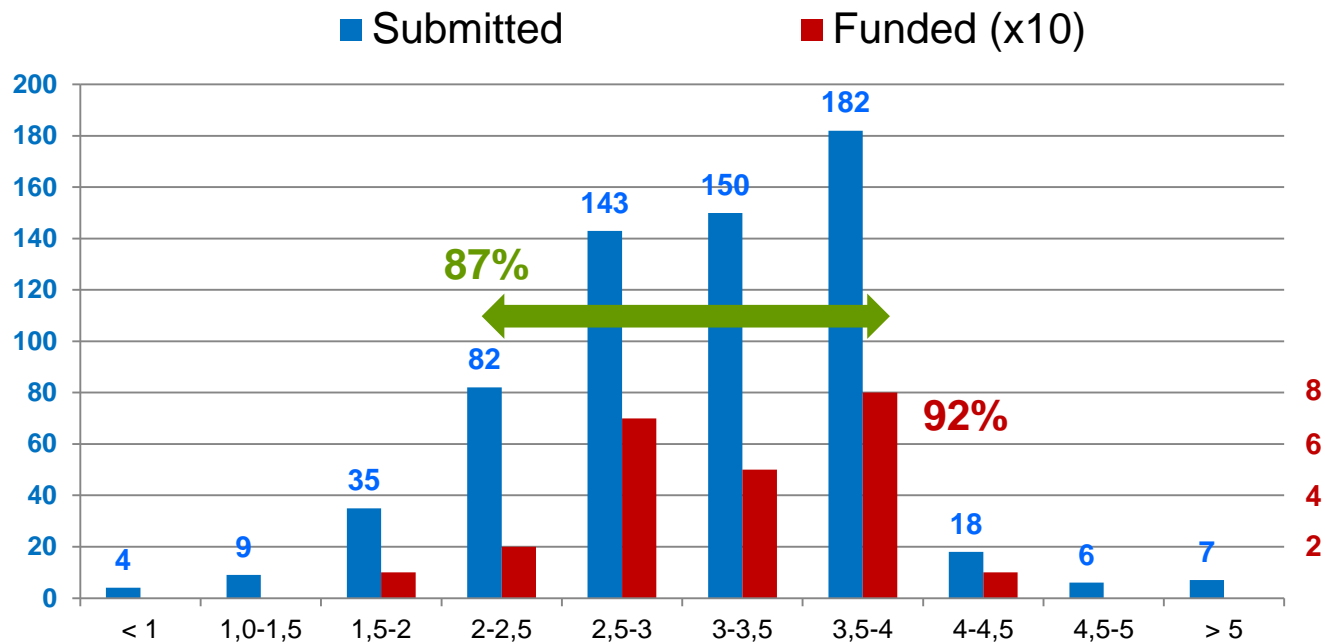
Délka trvání (měsíce)

	2014	2015-1	2015-2	2016	2017-1	2017-2	2018
Max	48	60	54	51	60	60	60
Průměr	40,3	43,1	40,7	44,0	43,2	40,9	44,7
Min	40,3	43,1	40,7	44,0	43,2	40,9	44,7

FET Open RIA – limity

2014 : Doporučený rozpočet : **2-4 M€**

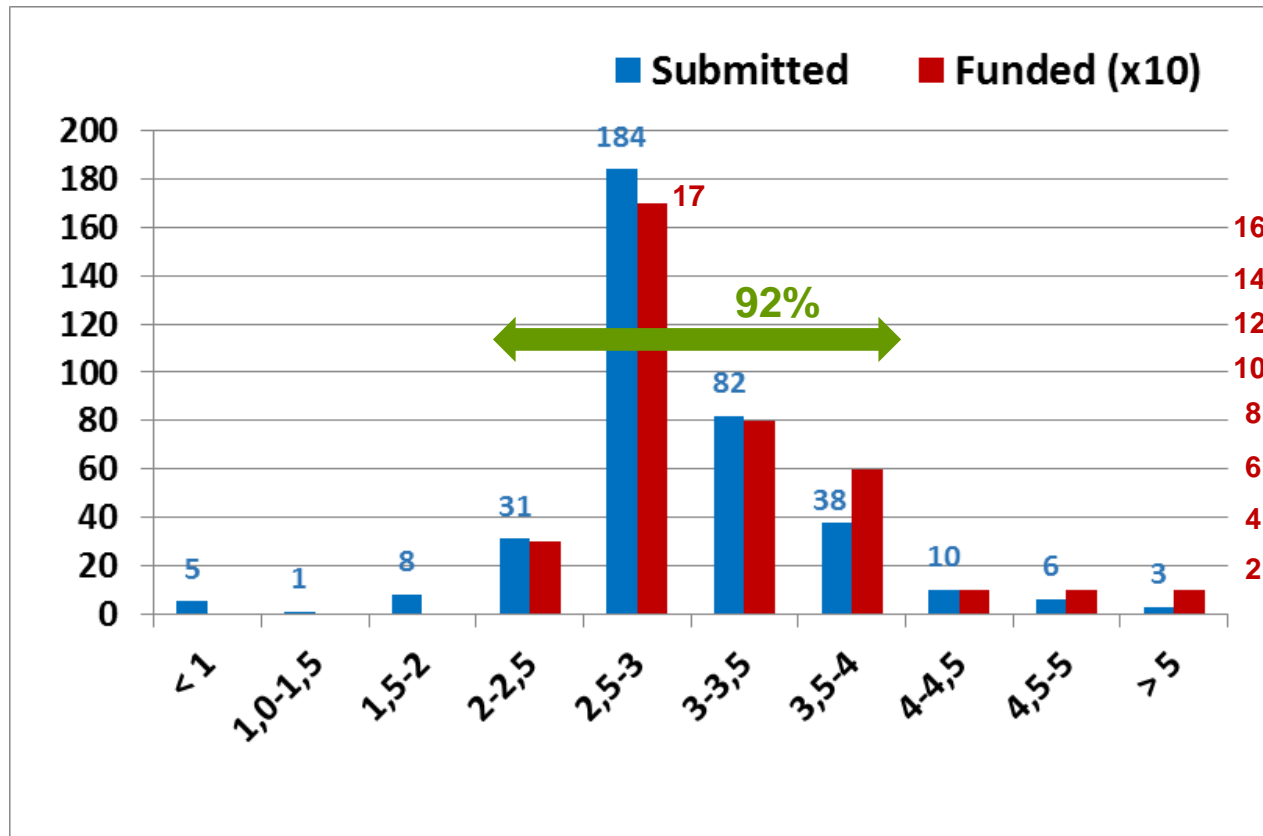
634 návrhů / 24 financovaných projektů

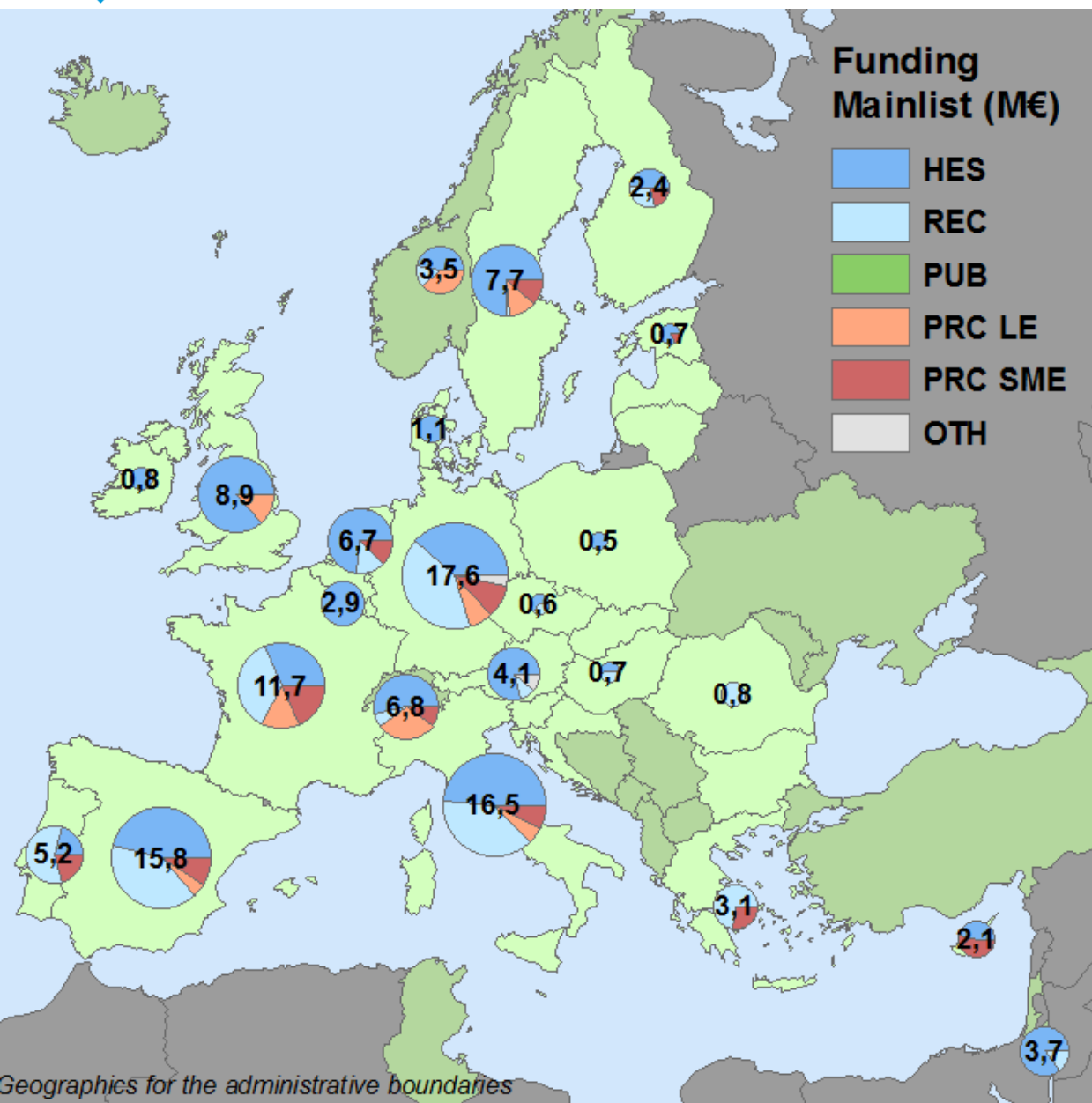


FET Open RIA – limity

2018 : Doporučený rozpočet : **< 3 M€**

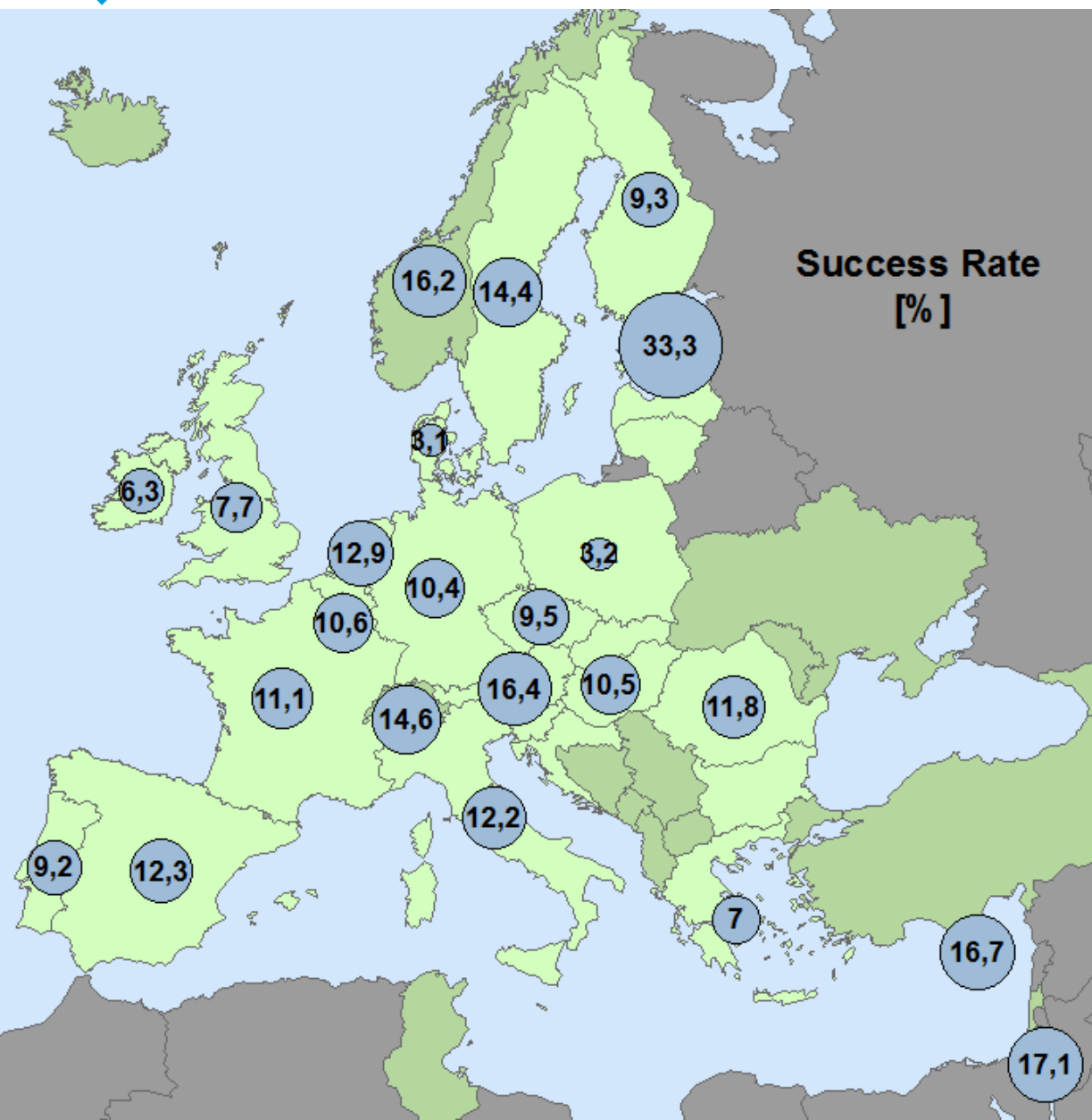
368 návrhů / 37 financovaných projektů





2018 EU contribution (M€) amongst participant countries in retained proposals

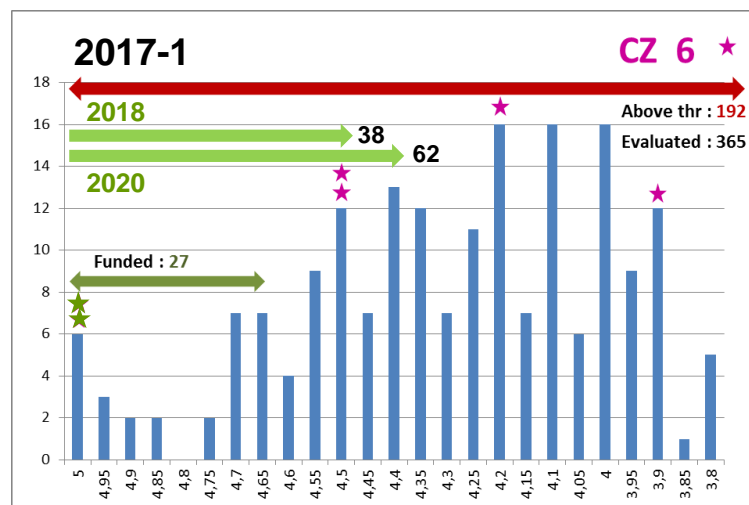
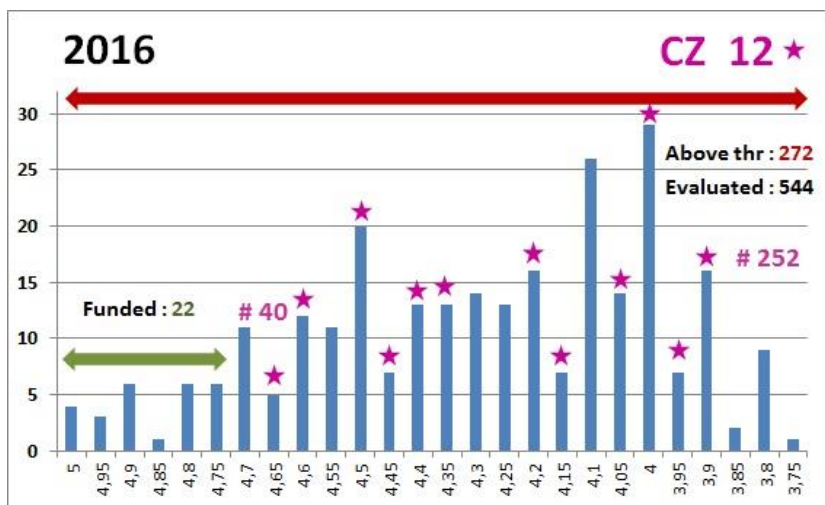
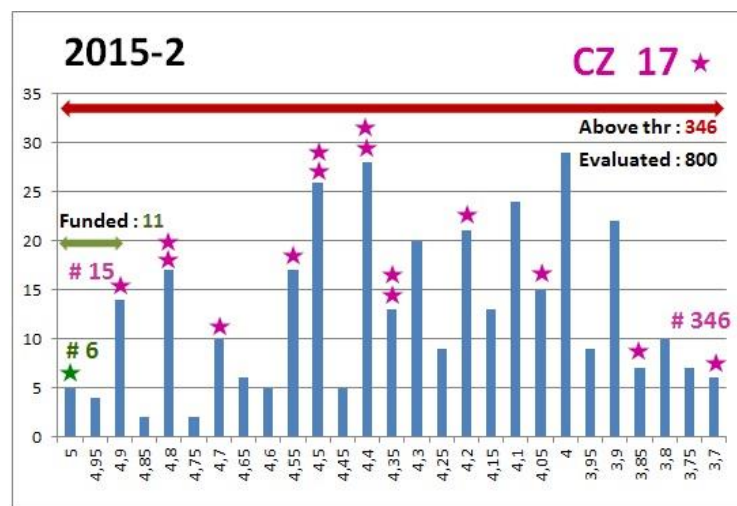
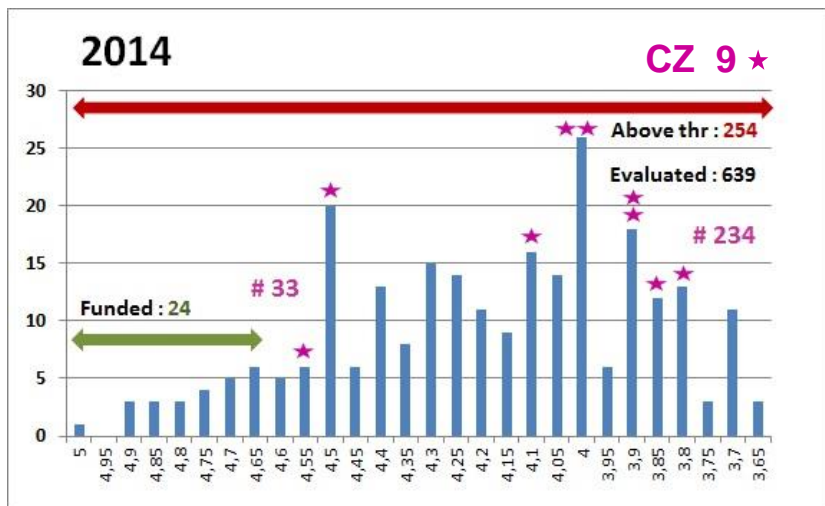
- No EU contribution to other third countries



2018
Success rate per
country in retained
proposals

FETOPEN (RIA)

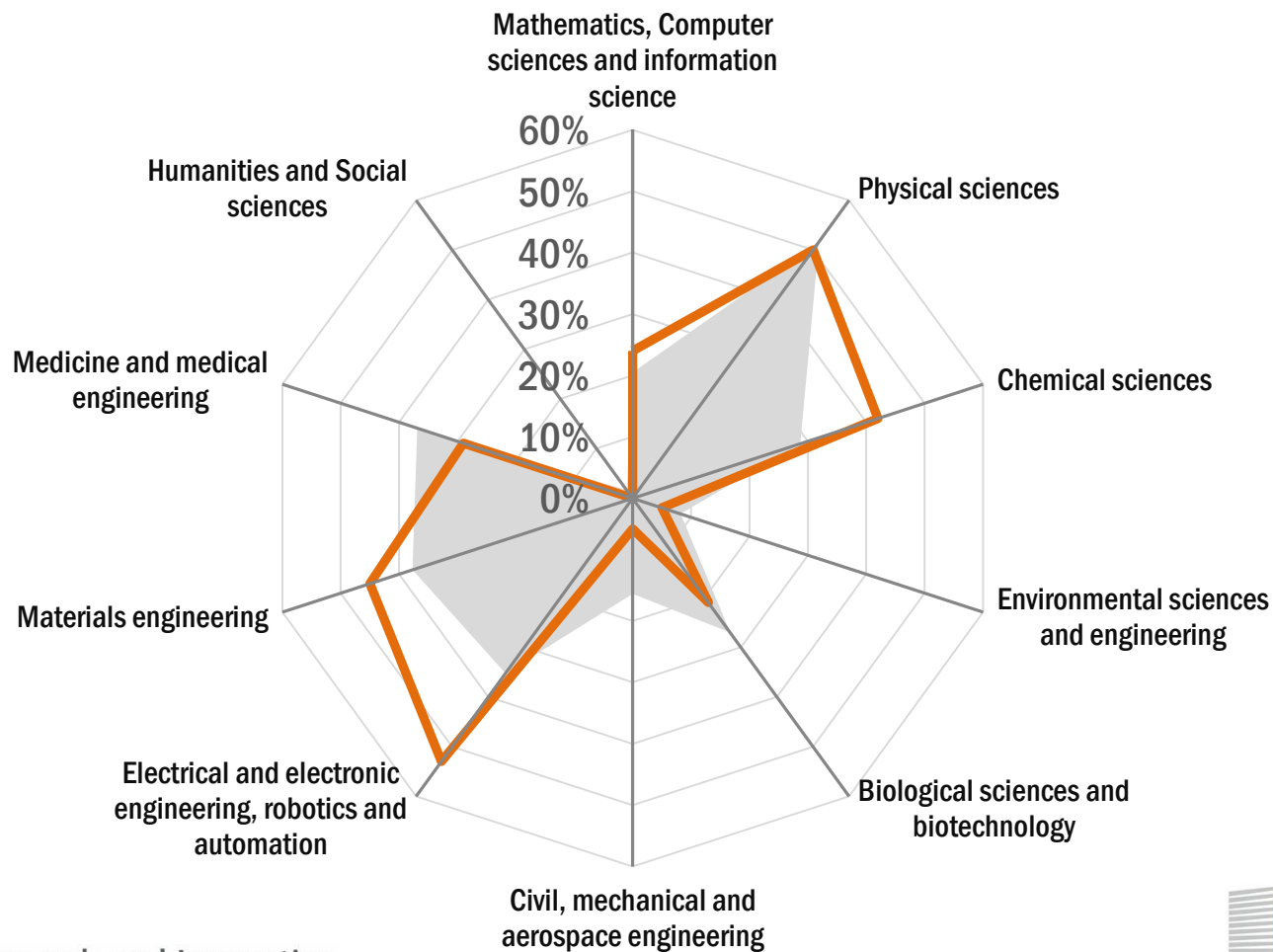
histogramy bodování 2014-2017



Discipline coverage

■ 2014-2017

■ May-18



Opakované žádosti ve výzvách FET Open

Výzvy (cut-off) se opakují po **8 měsících**

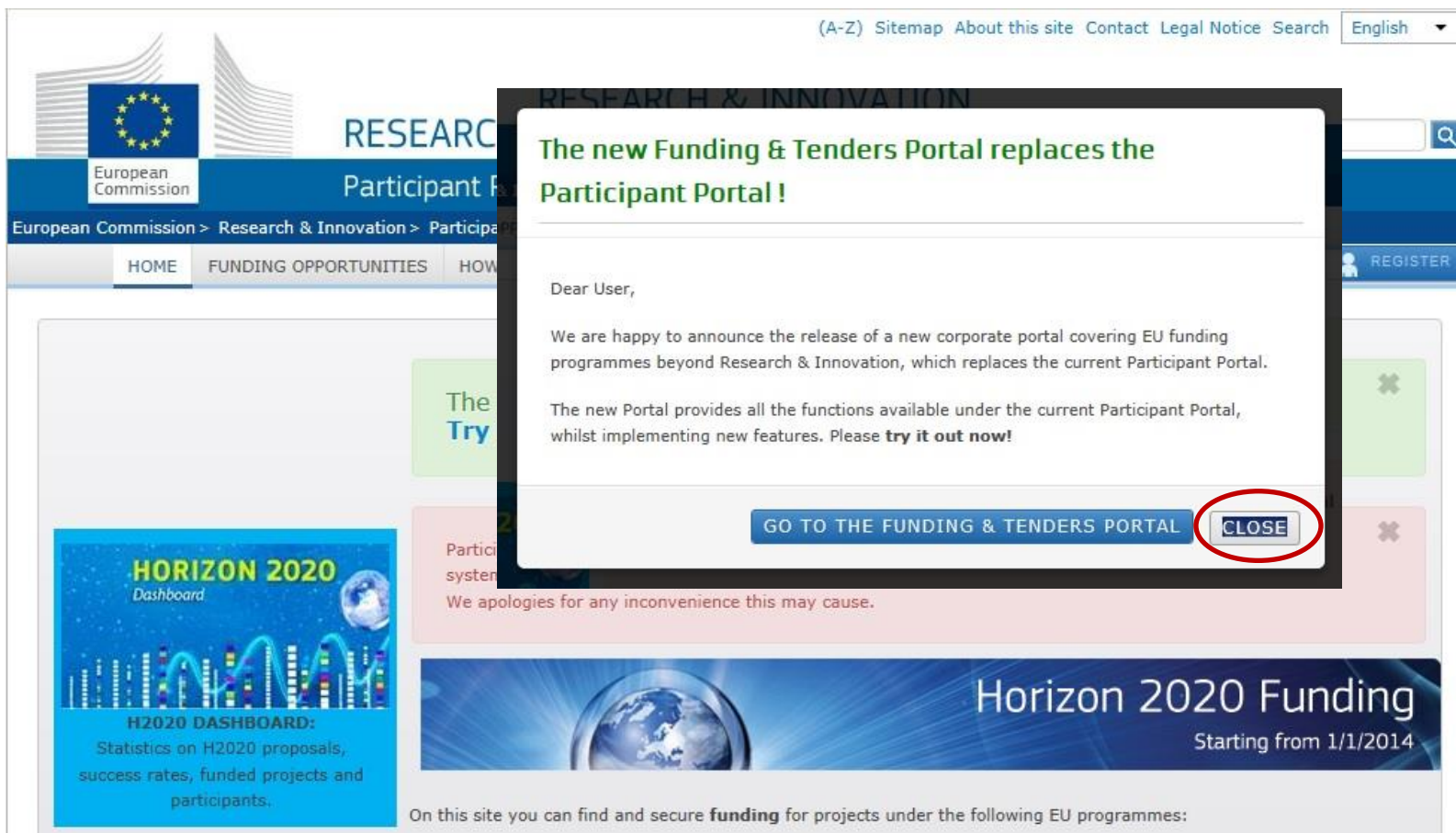
Hodnocení – 5 měsíců po uzávěrce

Analýza poslední výzvy – květen 2018

- 38 proposals on main list, out of which:
 - **21** submitted for the **1st time**
 - 11 submitted for the 2nd time
 - 2 submitted for the 3rd time
 - 3 submitted for the 4th time
 - 1 submitted for the 6th time
- Success rate for first-time submissions: 9,0%
- Success rate for resubmissions: 13,9%

Nový 'Participant Portal'

Please note that **on Friday 30th November**, the new **Funding & Tenders Portal** <https://ec.europa.eu/info/funding-enders/opportunities/portal/screen/home> will replace the current Participant Portal.



The screenshot shows the European Commission Participant Portal interface. A large notification box is overlaid on the page, announcing the replacement of the Participant Portal by the new Funding & Tenders Portal. The notification text reads: "The new Funding & Tenders Portal replaces the Participant Portal!", "Dear User, We are happy to announce the release of a new corporate portal covering EU funding programmes beyond Research & Innovation, which replaces the current Participant Portal. The new Portal provides all the functions available under the current Participant Portal, whilst implementing new features. Please **try it out now!**", and includes two buttons: "GO TO THE FUNDING & TENDERS PORTAL" and "CLOSE". The "CLOSE" button is circled in red. The background of the portal shows the European Commission logo, navigation tabs (HOME, FUNDING OPPORTUNITIES, HOW), and a "HORIZON 2020 Dashboard" section.

(A-Z) Sitemap About this site Contact Legal Notice Search English ▼

RESEARCH & INNOVATION

European Commission

Participant Portal

European Commission > Research & Innovation > Participant Portal

HOME FUNDING OPPORTUNITIES HOW

REGISTER

The new Funding & Tenders Portal replaces the Participant Portal!

Dear User,

We are happy to announce the release of a new corporate portal covering EU funding programmes beyond Research & Innovation, which replaces the current Participant Portal.

The new Portal provides all the functions available under the current Participant Portal, whilst implementing new features. Please **try it out now!**

GO TO THE FUNDING & TENDERS PORTAL CLOSE

Participating system

We apologise for any inconvenience this may cause.

HORIZON 2020 Dashboard

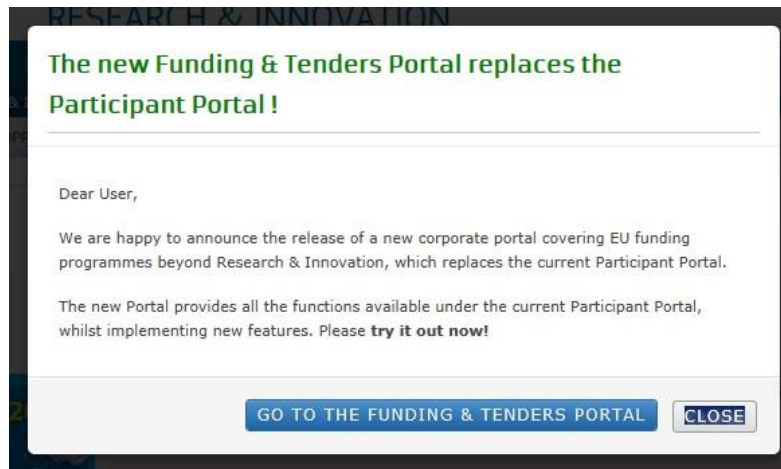
H2020 DASHBOARD: Statistics on H2020 proposals, success rates, funded projects and participants.

Horizon 2020 Funding Starting from 1/1/2014

On this site you can find and secure **funding** for projects under the following EU programmes:

Funding & Tenders Portal

Od dnešního dne – zcela
nahradí Participant Portal



Participant Portal may not be available on 28th of November 2018 from 15:30 until 16:00 CET while system maintenance is being performed. We apologise for any inconvenience this may cause.

The Funding & Tenders Portal is the entry point (the Single Electronic Data Interchange Area) for participants and experts in funding programmes and tenders managed by the European Commission and other EU bodies.

Find calls for proposals and tenders

Search calls for proposals and tenders by keywords, programmes...



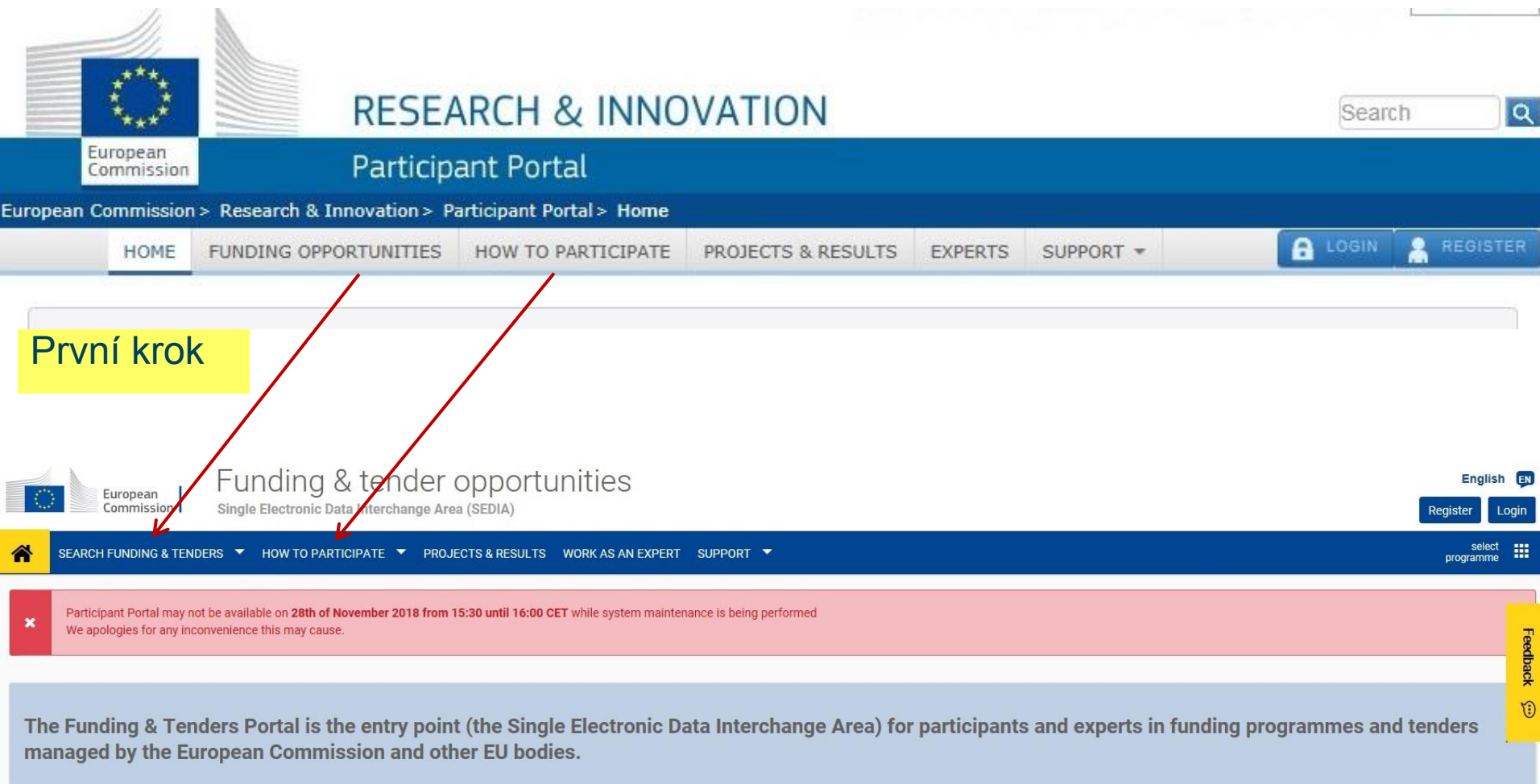
Search

What are calls for proposals? >

What are calls for tenders? >

How to participate in 5 steps >

Funding & Tenders Portal



The screenshot shows the 'RESEARCH & INNOVATION Participant Portal' of the European Commission. The top navigation bar includes links for HOME, FUNDING OPPORTUNITIES, HOW TO PARTICIPATE, PROJECTS & RESULTS, EXPERTS, and SUPPORT, along with LOGIN and REGISTER buttons. A search bar is located in the top right. Below the navigation bar, the 'Funding & tender opportunities' section is visible, with a sub-header 'Single Electronic Data Interchange Area (SEDIA)'. Two red arrows point from a yellow box labeled 'První krok' to the 'FUNDING OPPORTUNITIES' and 'HOW TO PARTICIPATE' links. A pink banner at the bottom of the page states: 'Participant Portal may not be available on 28th of November 2018 from 15:30 until 16:00 CET while system maintenance is being performed. We apologise for any inconvenience this may cause.' A blue banner at the very bottom explains: 'The Funding & Tenders Portal is the entry point (the Single Electronic Data Interchange Area) for participants and experts in funding programmes and tenders managed by the European Commission and other EU bodies.'

TECHNOLOGICKÉ
CENTRUM AV ČR

RESEARCH & INNOVATION

Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE PROJECTS & RESULTS EXPERTS SUPPORT

LOGIN REGISTER

První krok

Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

English EN

Register Login

select programme

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<http://ec.europa.eu/programmes/horizon2020/>

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

<http://ec.europa.eu/programmes/horizon2020/en/area/key-enabling-technologies>

Úrovně technologické pokročilosti

Technology Readiness Levels (**TRL**) - nástroj pro posouzení potenciálu KETs

General Annexes – Part G

