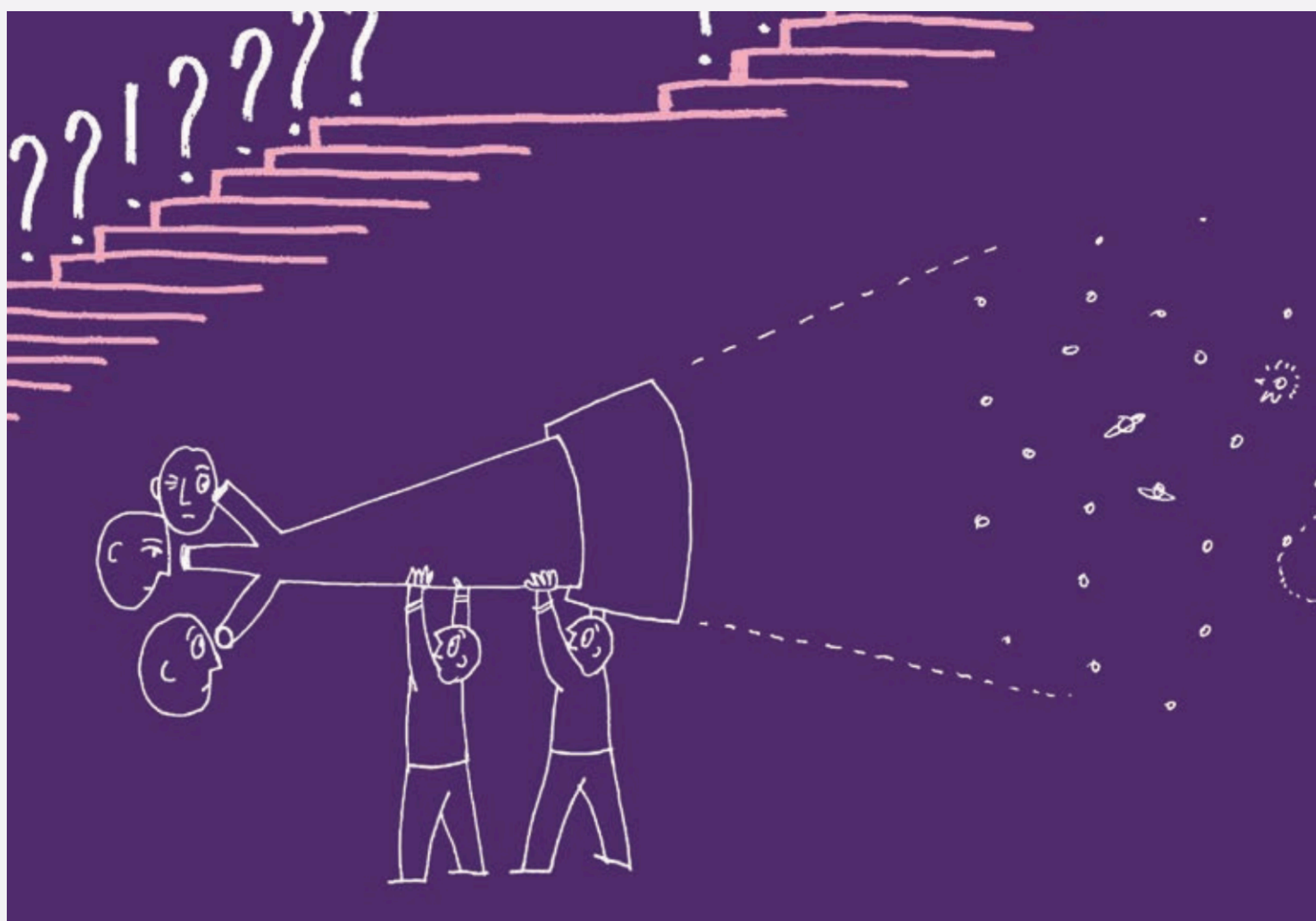


Predavanje III

Pisanje predloga naučnih projekata



Darko Donevski

Assistant Professor | Principal Research Scientist

1. Astrophysics Division, National Centre for Nuclear Research, Warsaw
2. (Visiting Project Lead) SISSA, Astrophysics & Cosmology Group, Trieste



www.darkodonevski.com



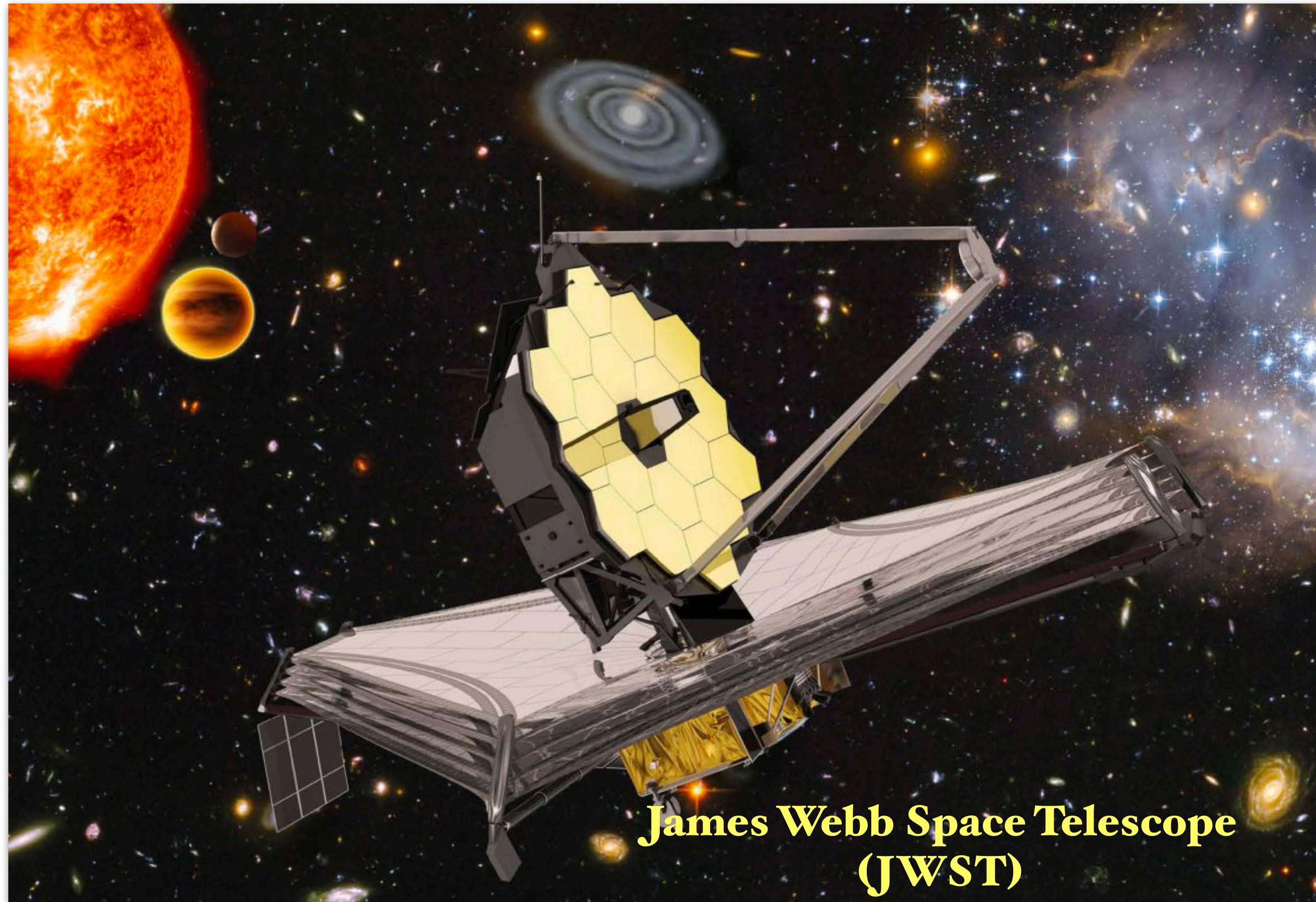
darko.donevski@ncbj.gov.pl
darkdonevski@gmail.com



[darkOenergy](https://twitter.com/darkOenergy)

Motivacija za finansiranje naučnih projekata

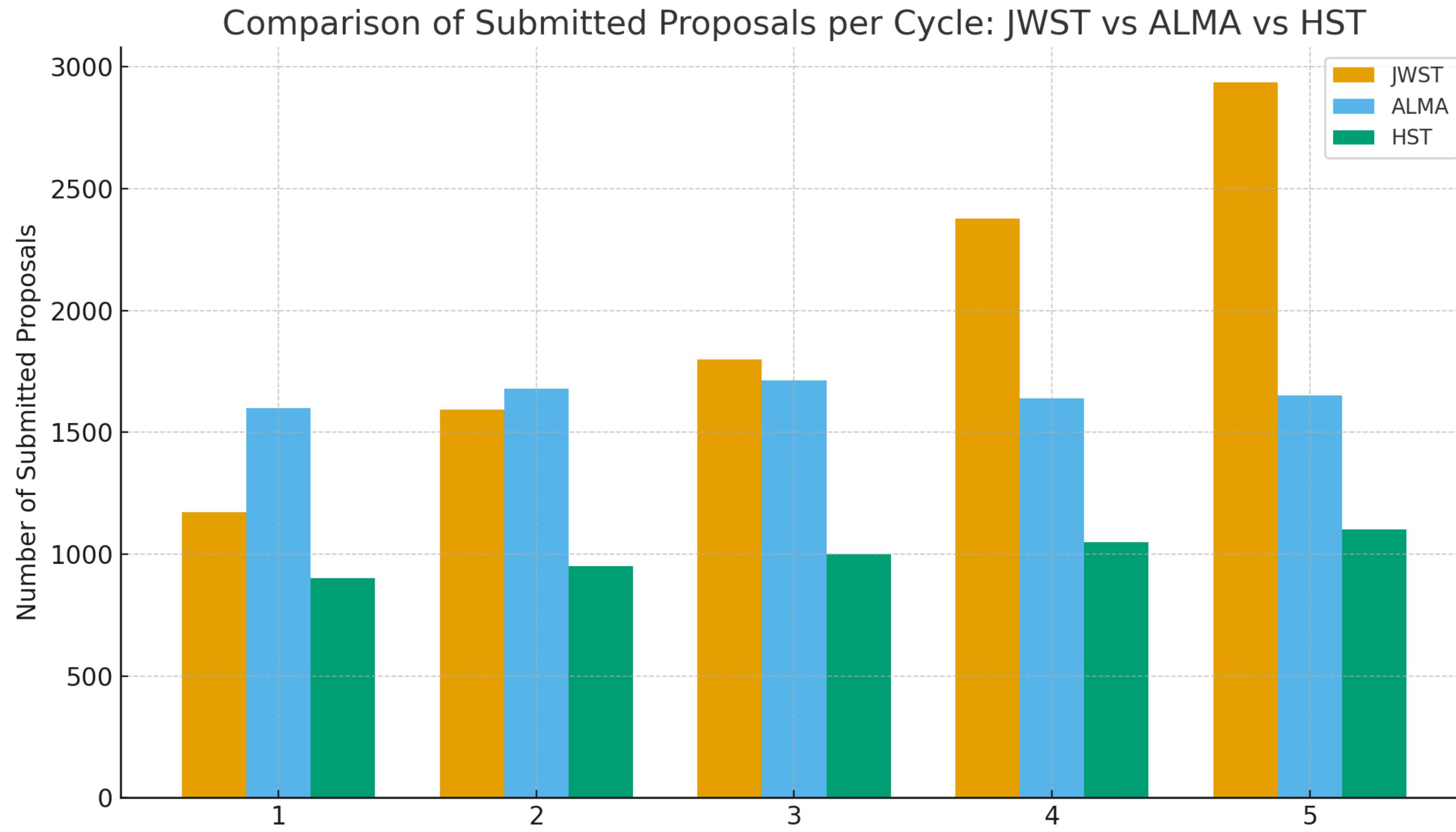
- Dobijanje podataka (naročito iz svemira) je skup proces



- Projekat je koštao oko 10 milijardi dolara
- Učešće 3 svemirske agencije i 15 država
- Ekskluzivni podaci se ne dobijaju "gratis". Za njihovo dobijanje mora da se konkuriše na godišnjem međunarodnom takmičenju.
- Oko 2000 timova se takmiče za 50 mesta!

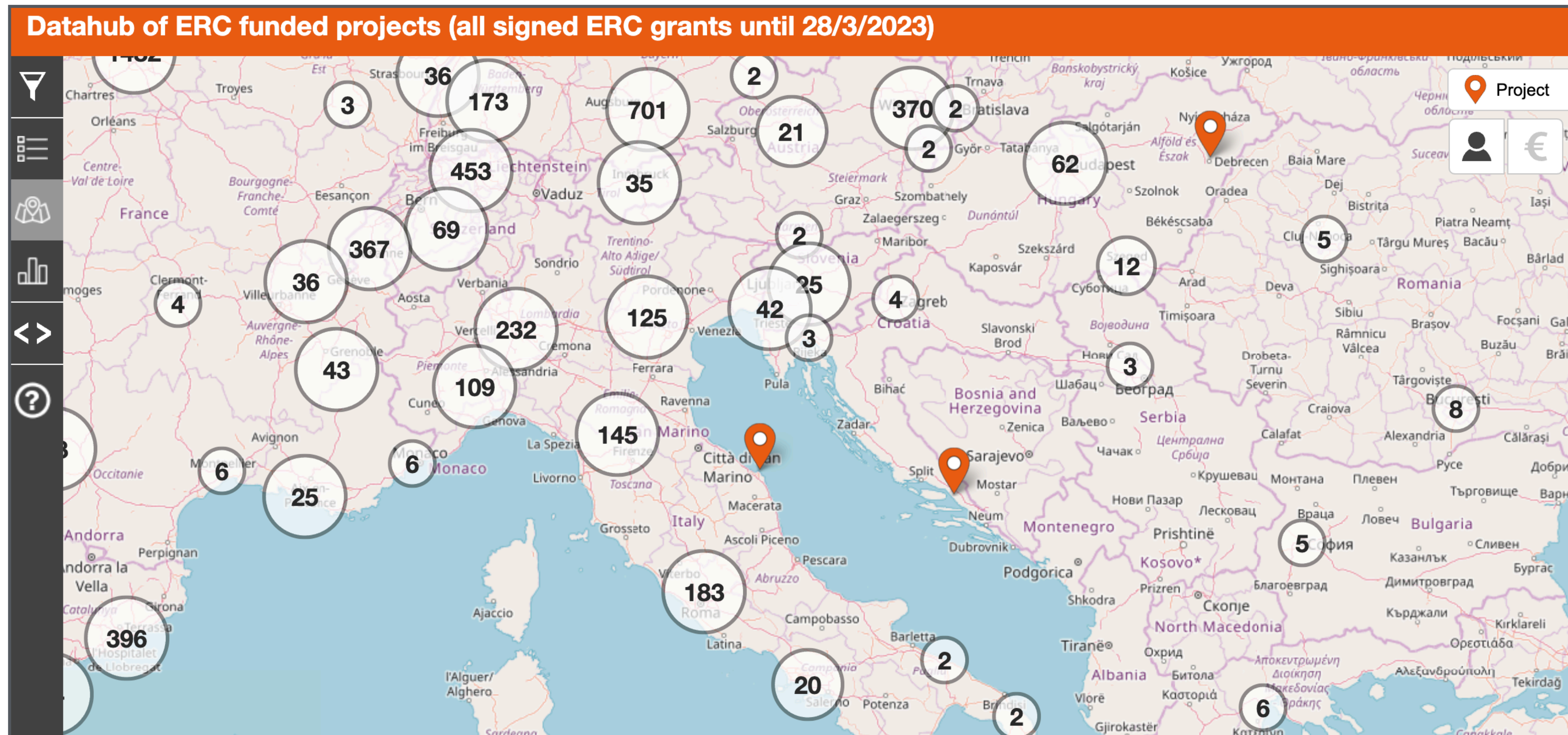
Motivacija za finansiranje naučnih projekata

- Dobijanje podataka (naročito iz svemira) je skup proces



Motivacija za pisanje naučnih grantova

- Međunarodne grant šeme nude velike izvore finansiranja za projekte izuzetnosti
- Srbija još uvek zaostaje na listi “kompetitivnih naučnih zemalja”.
Na pr., samo 3 ERC granta do 2024. godine

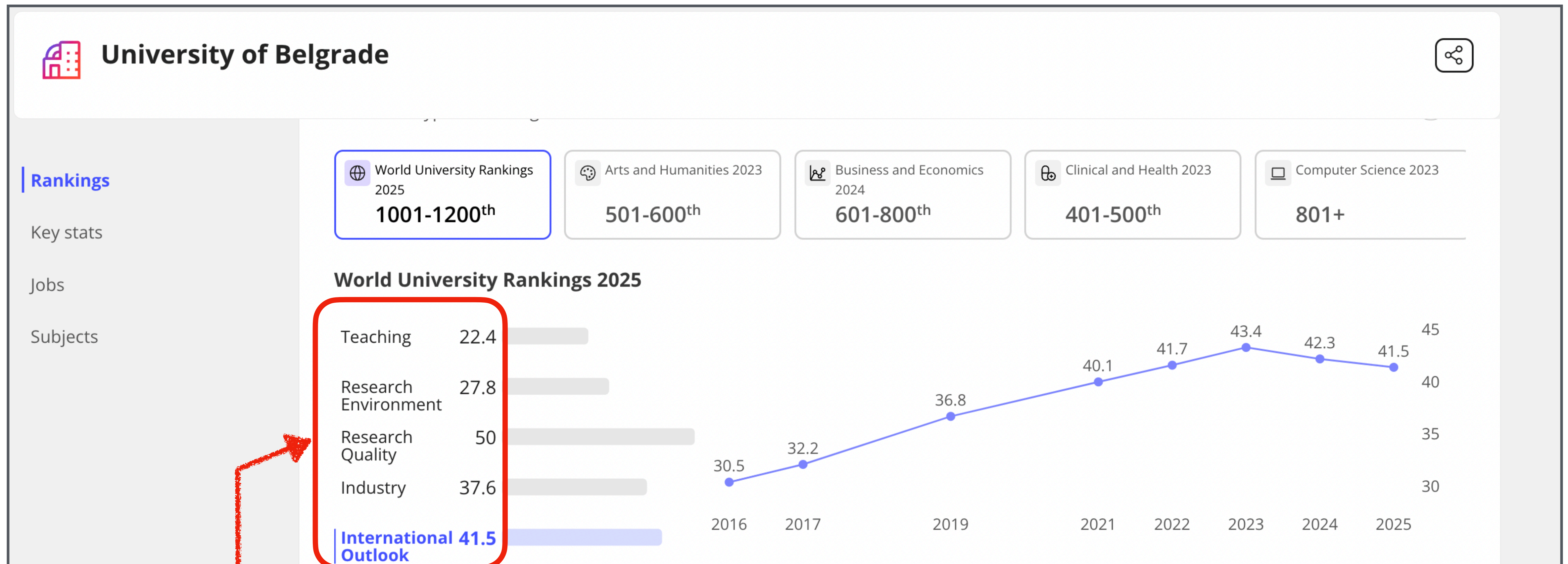


Motivacija za pisanje naučnih grantova

	Main pillars	Univ. of Belgrade ranking
1. THE World Uni. Rankings	Research Quality; Research Environment; Teaching; International outlook	1001-1200
2. QS World Uni. Rankings	Accounts for student feedback and internationalization aspect; + citations per faculty	721-730
3. Shanghai List	Pure cumulative research output (but strong bias towards STEM)	401-500

Motivacija za pisanje naučnih grantova

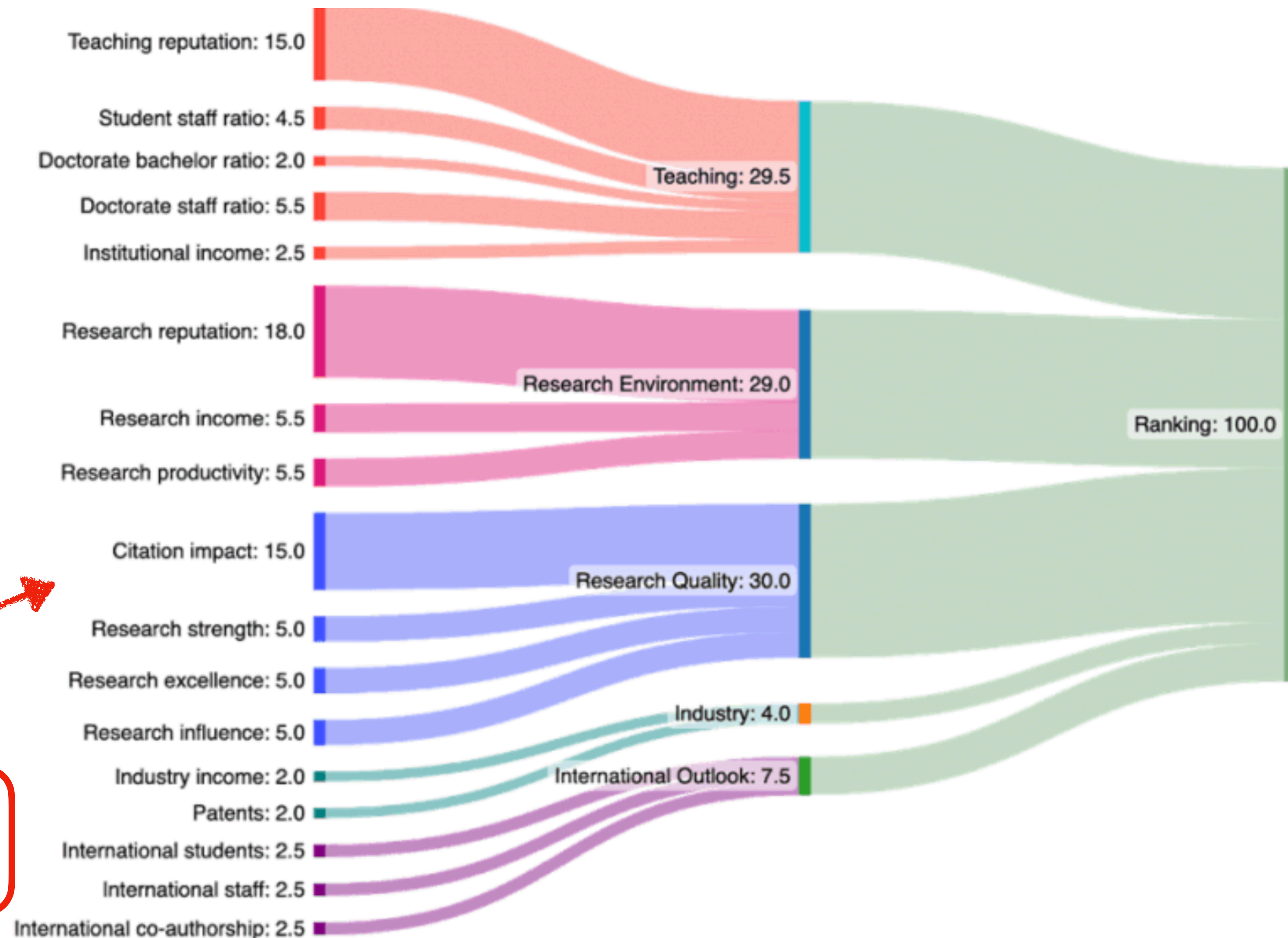
- Pozicija na Times Higher Education listi “World University Ranking”



- Nedovoljno visok nivo kvaliteta istraživanja i njegovog međ. finansiranja
- Slaba inkluzija međunarodnog kadra

Motivacija za pisanje naučnih grantova

•Prilika za vas!!!!

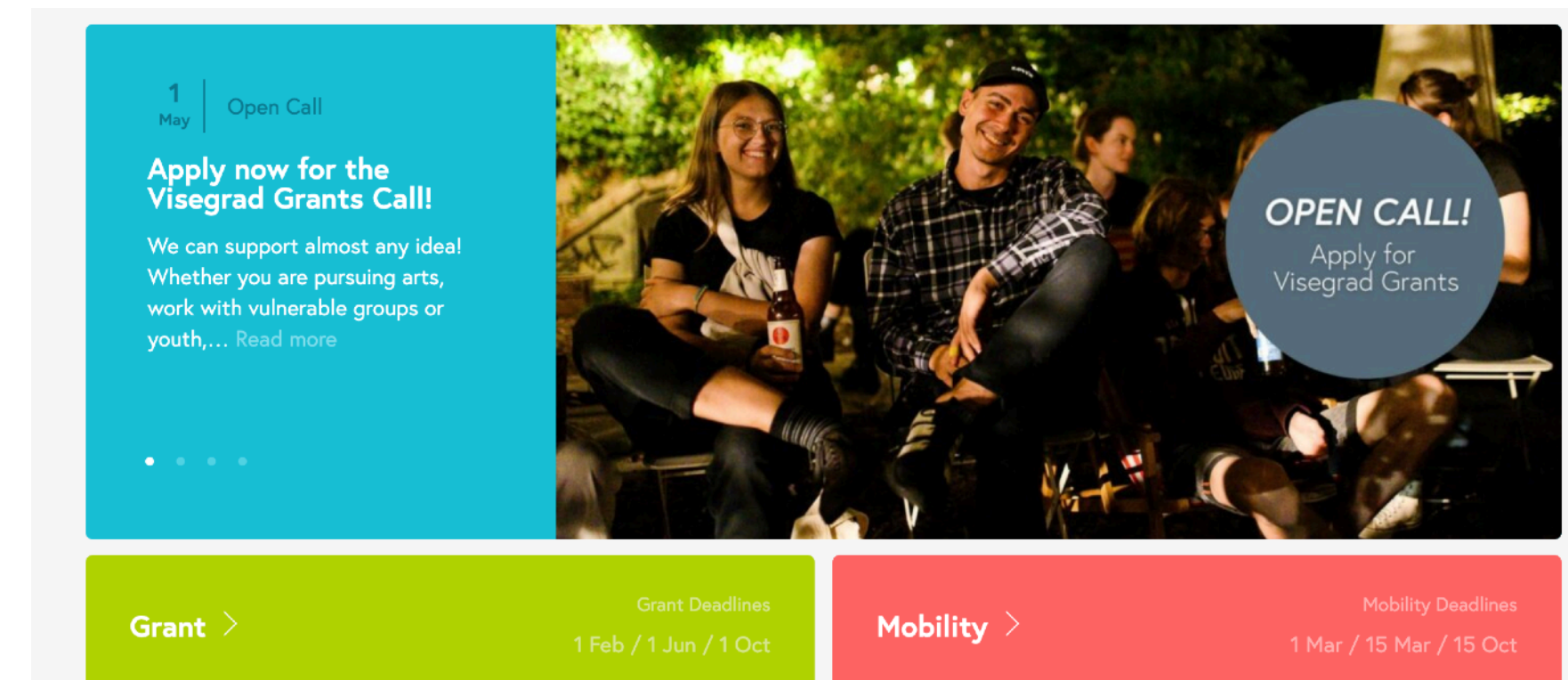


Resursi za traženje finansijske podrške

Fondovi istraživačke mobilnosti



<https://www.cost.eu/>



<https://www.visegradfund.org/>

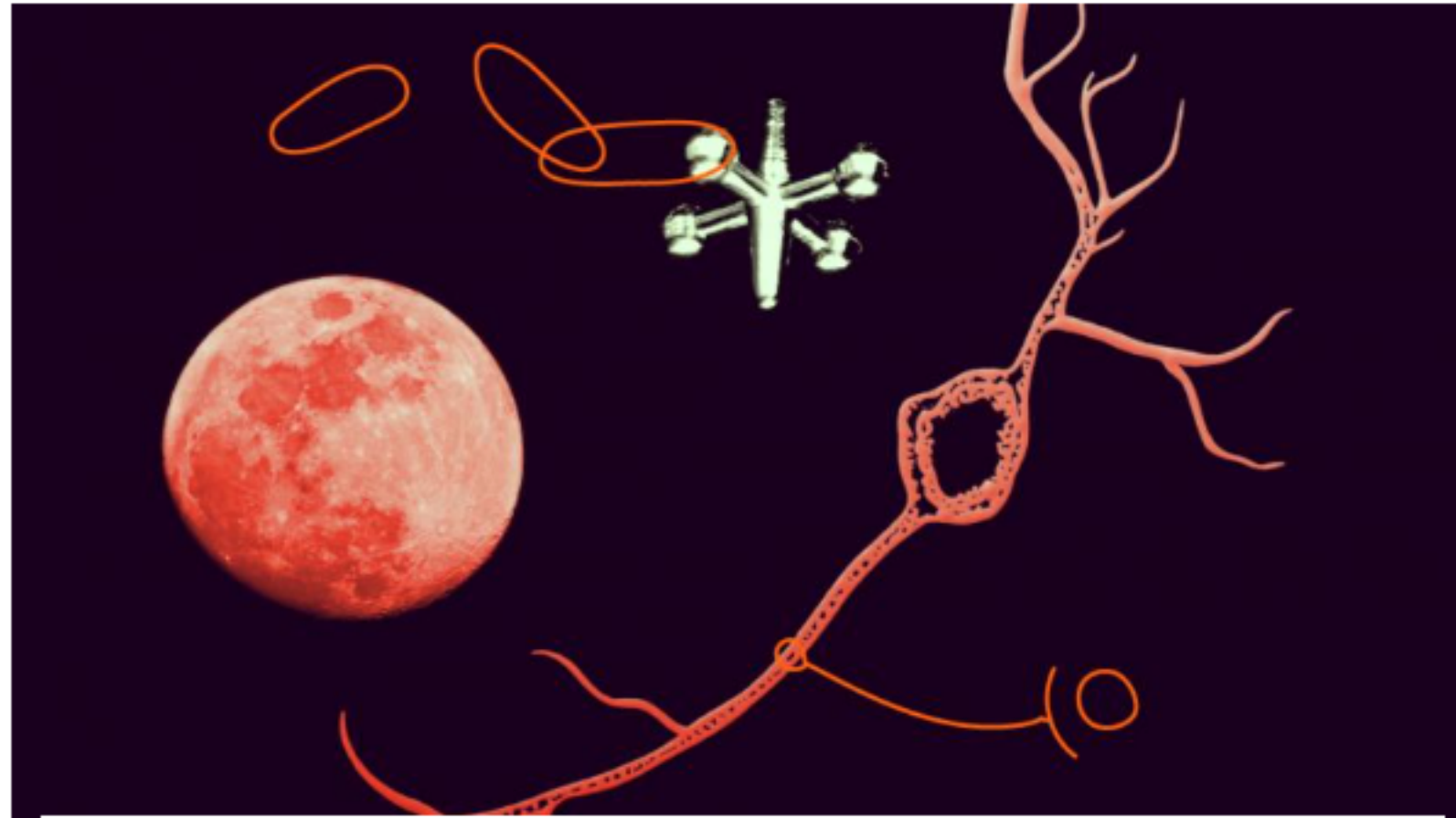


<https://euraxess.ec.europa.eu/>

Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača

Marie Skłodowska-Curie Actions



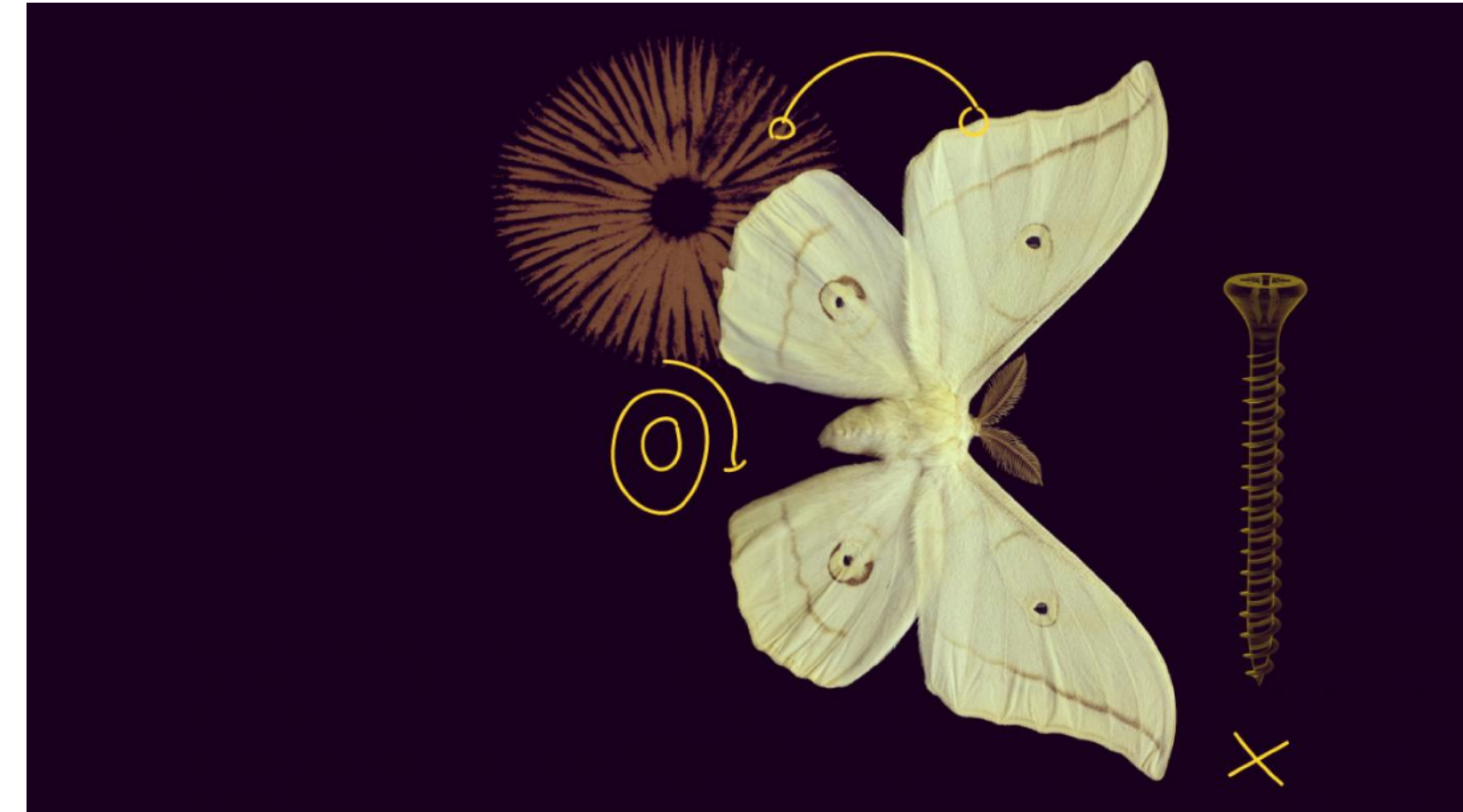
Doctoral Networks

Who applies:

- A *consortium of organisations* — usually universities, research institutes, companies (including SMEs), NGOs and other non-academic bodies.
- Must include at least **3 independent entities** from **3 different EU Member States or Horizon Europe associated countries**. Marie Skłodowsk...

Who benefits:

- **Doctoral candidates (Early Stage Researchers)** are recruited *into the network* once it's funded.



COFUND Scheme

What it is:

A scheme that **co-funds existing doctoral or postdoctoral programmes** run by research organisations or universities (regional, national or international) — helping them expand quality training and mobility opportunities. Marie Skłodowsk...

Who applies:

- *Host organisations* (universities, research institutions) submit a proposal to receive EU co-funding for their own programme.
- They design their own training scheme (could be multidisciplinary) and provide conditions for doctoral candidates. Study in Europe ...

Who benefits:

- **Doctoral candidates / postdocs** are recruited by those host organisations into the co-funded programmes. Marie Skłodowsk...

Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača

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Source: iStockphoto.com

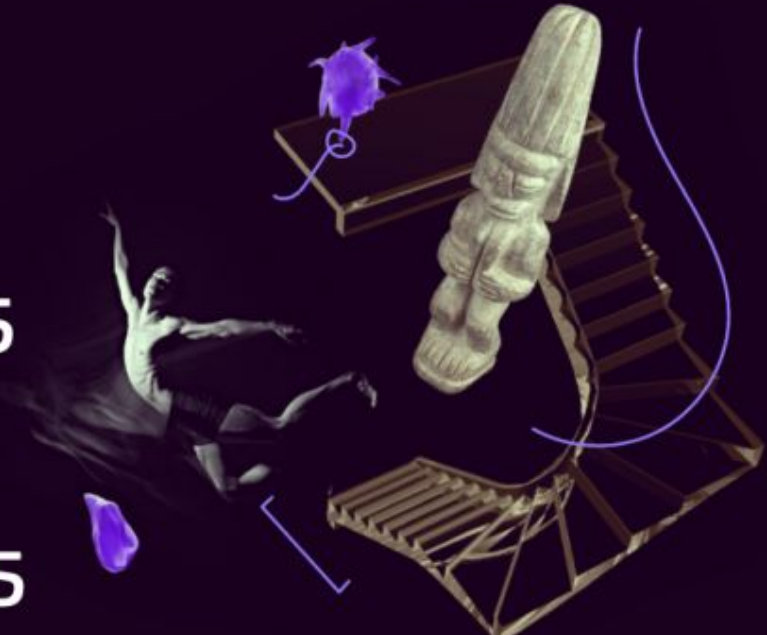
Staff Exchanges Call 2025

Opening:
27 • 03 • 2025

Deadline:
08 • 10 • 2025

Budget
€97.7 million

MSCA
Marie Skłodowska-Curie **Actions**
Developing talents, advancing research



- **Goal:** fund **short-term secondments** (1–12 months each) of existing staff between institutions to build collaboration. Marie Skłodowsk... +3
- **Applies:** consortia of organisations (universities, companies, etc.).
- **Who moves:** existing **staff members**:
 - doctoral candidates
 - postdocs
 - permanent researchers
 - technicians, managers involved in R&I.
- **What you get:** salary top-up / daily allowance while seconded, travel, networking, etc.

Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača

© European Union, 2025 (CC BY-NC-ND 4.0)
Source: iStockphoto.com

Staff Exchanges Call 2025

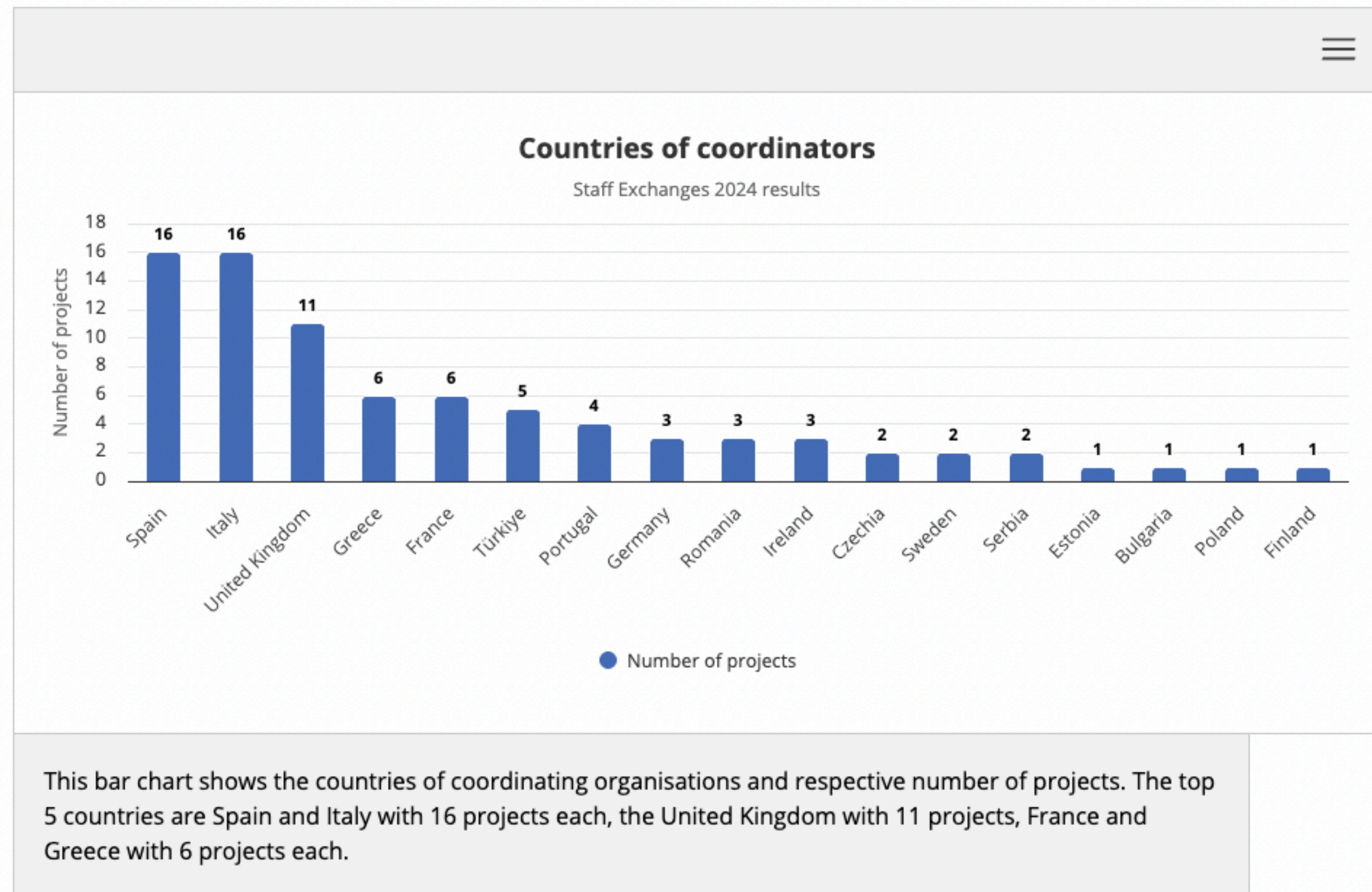
Opening:
27 • 03 • 2025

Deadline:
08 • 10 • 2025

Budget
€97.7 million

MSCA
Marie Skłodowska-Curie **Actions**
Developing talents, advancing research

 European Commission



Prolaznost projekata je velika, oko 25% za 2024. godinu!

Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača



For: Doctoral candidates and young researchers, *via national/regional calls*.

What: ESF+ is the EU's main instrument for investing in people; many regions use it to finance PhD scholarships, research positions, and skills programmes.

Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača



Resursi za traženje finansijske podrške

Fondovi za mreže i razmenu studenata i istraživača



European Institute of
Innovation & Technology

A body of the European Union



EIT supports dynamic pan-European partnerships, known as Knowledge and Innovation Communities (KICs) among **leading companies, research labs, and universities.**



Resursi za traženje finansijske podrške

Fondovi za podršku inovacija, ideja i startupa studenata i istraživača



Motivacija za pisanje naučnih grantova

Veština planiranja i realizovanja projekta u nacionalnom okviru

- Pisanje projekta koji će vam dati prvi “izlet” u nezavisno istraživanje



Sticanje novih / komplementarnih ekspertiza

- Pisanje projekta gde bi istraživač/ica otišli u instituciju koja im omogućava sticanje dodatnih veština i znanja



Realizovanje neke vrhunske ideje koja za cilj ima pomeranje granica znanja

- Pisanje kompetitivnog individualnog grantu u kome vi imate ulogu glavnog naučnika (PI)



Motivacija za pisanje naučnih grantova

Veština planiranja i realizovanja projekta u nacionalnom okviru

- Pisanje projekta koji će vam dati prvi “izlet” u nezavisno istraživanje



Izvrsnost ideje: 50%
Impakt projekta: 30%
Kvalitet implementacije: 20%

Sticanje novih / komplementarnih ekspertiza

- Pisanje projekta gde bi istraživač/ica otišli u instituciju koja im omogućava sticanje dodatnih veština i znanja



Realizovanje neke vrhunske ideje koja za cilj ima pomeranje granica znanja

- Pisanje kompetitivnog individualnog granta u kome vi imate ulogu glavnog naučnika (PI)



Izvrsnost ideje je osnovni i glavni kriterijum za ocenjivanje ERC projekata

Vrste individualnih naučnih grantova: Republika Srbija



Програм за изврсне пројекте младих истраживача и научника у раној фази каријере (ПРОМИС 2023)



Програм ИДЕЈЕ 2024



Програм Доказ концепта



Fond za nauku R. Srbije

Prednosti:

- Programi otvoreni za istraživače u raznim stadijumima karijere
- Garantovan novčani iznos i do 150 hiljada eur (PROMIS) i 300 hiljada eur (IDEJE) po projektu.
- Prilika da se vežbaju prakse naučne komunikacije i za kompetitivnije grantove.

Nedostaci:

- Ne postoji inkluzivnost naučnika koji nisu zaposleni u NIO u Srbiji = ograničen priliv novih ekspertiza
- I dalje nije prepoznat koncept postdoktorskih istraživača (= nalik na post-dok pozicije u svetu koje se zasnivaju na proširenju ekspertiza)
- Iako se projekti zasnivaju na izvrsnosti ideja, njiovo ocenjivanje se razlikuje u odnosu na projekte izvrsnosti evropskih fondova (na pr, ERC) i mnogo su sličniji programima kao što su MSCA.

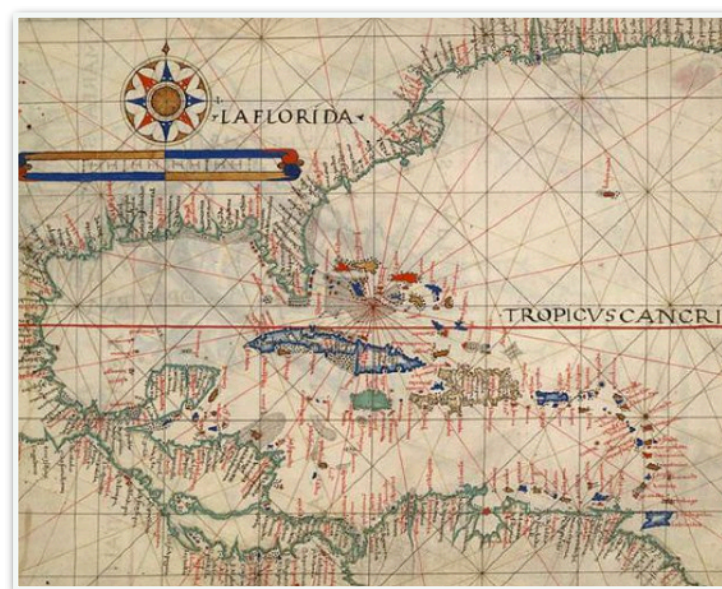
Vrste individualnih naučnih grantova: Evropska komisija

Vrste individualnih naučnih grantova: Evropska komisija

- **MEĐUNARODNI NAUČNI GRANTOVI:** Takmičenje za finansiranje najkvalitetnijih svetskih istraživanja.
- Najznačajniji evropski fond je **European Research Council (ERC)**
Ukupan novac za ERC projekte osvojen u toku 2007-2021 je veći od 20 milijardi eur!



- **MESTO ZA KOMBINOVANJE UMETNOSTI I NAUKE**



CREATIVE EUROPE

Be visible. Share results. Inspire and get inspired.

CULTURAL
COOPERATION
IN THE WESTERN BALKANS



cultural
relations
PLATFORM

Vrste naučnih grantova: Evropska komisija

Evaluation panel structure (2024 calls)

Life Sciences

- LS1 Molecules of Life: Biological Mechanisms, Structures and Functions
- LS2 Integrative Biology: From Genes and Genomes to Systems
- LS3 Cell Biology, Development, Stem Cells and Regeneration
- LS4 Physiology in Health, Disease and Ageing
- LS5 Neuroscience and Disorders of the Nervous System
- LS6 Immunity, Infection and Immunotherapy
- LS7 Prevention, Diagnosis and Treatment of Human Diseases
- LS8 Environmental Biology, Ecology and Evolution
- LS9 Biotechnology and Biosystems Engineering



Physical Sciences and Engineering

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical and Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE10 Earth System Science
- PE11 Materials Engineering

Social Sciences and Humanities

- SH1 Individuals, Markets and Organisations
- SH2 Institutions, Governance and Legal Systems
- SH3 The Social World and Its Interactions
- SH4 The Human Mind and Its Complexity
- SH5 Texts and Concepts
- SH6 The Study of the Human Past
- SH7 Human Mobility, Environment, and Space
- SH8 Studies of Cultures and Arts

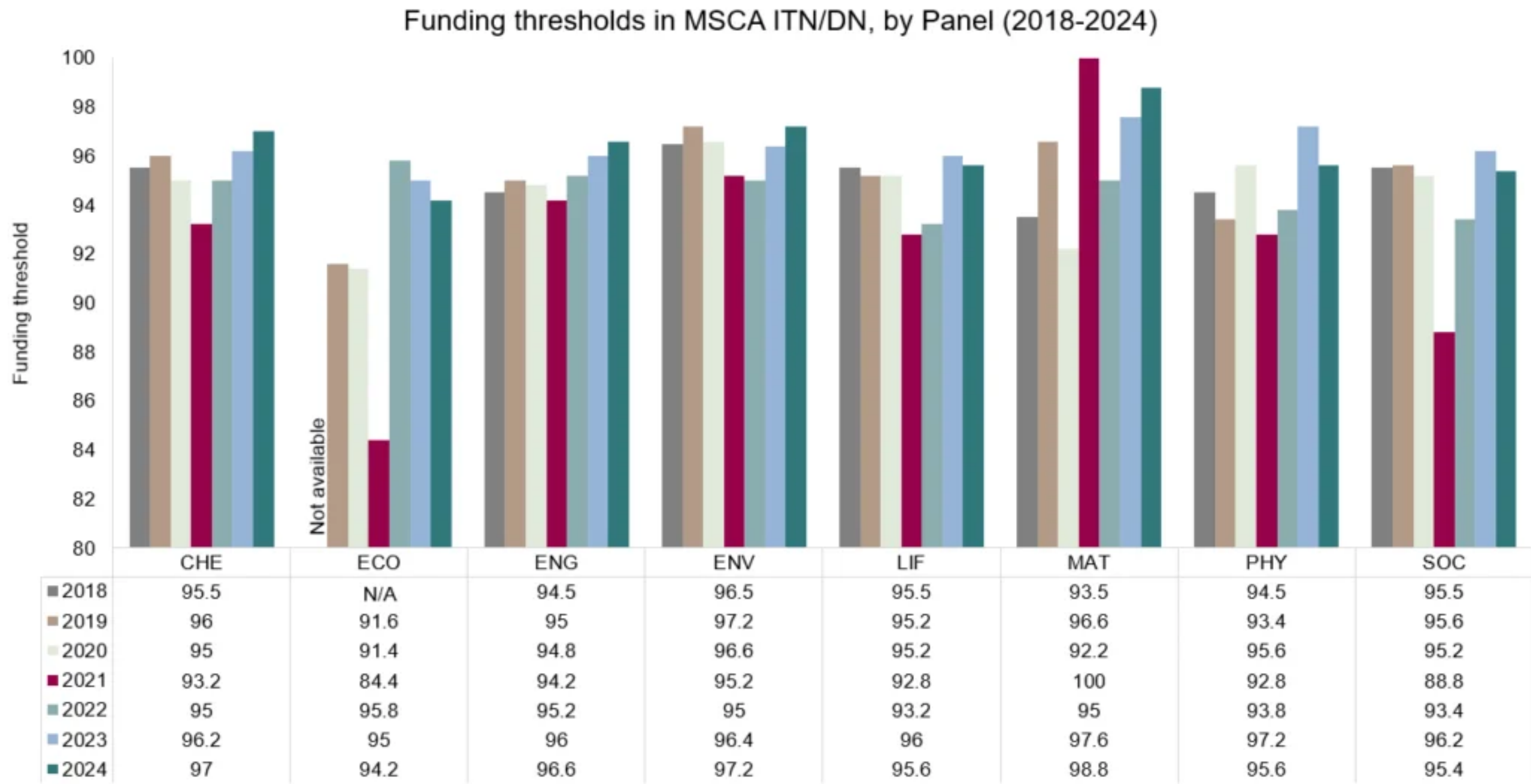
Odakle početi sa učenjem o komuniciranju nauke?



II Priprema apliciranja za naučni grant



Kompetitivnost kao deo naučnog života



2.1. Pre pisanja aplikacije...

Kompetitivni proposal je rezultat pažljivog planiranja, a ne ad-hoc intuicije ili nerazrađene ideje



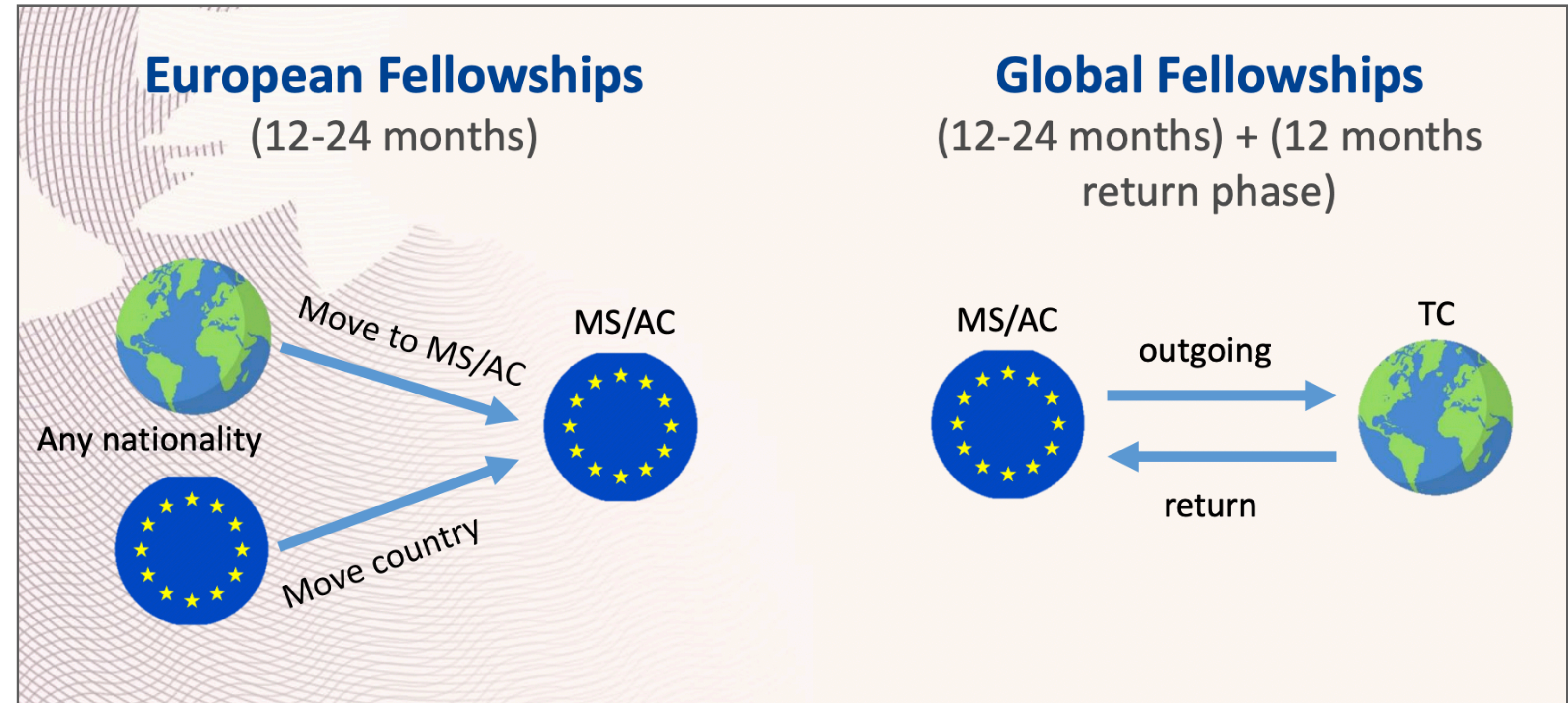
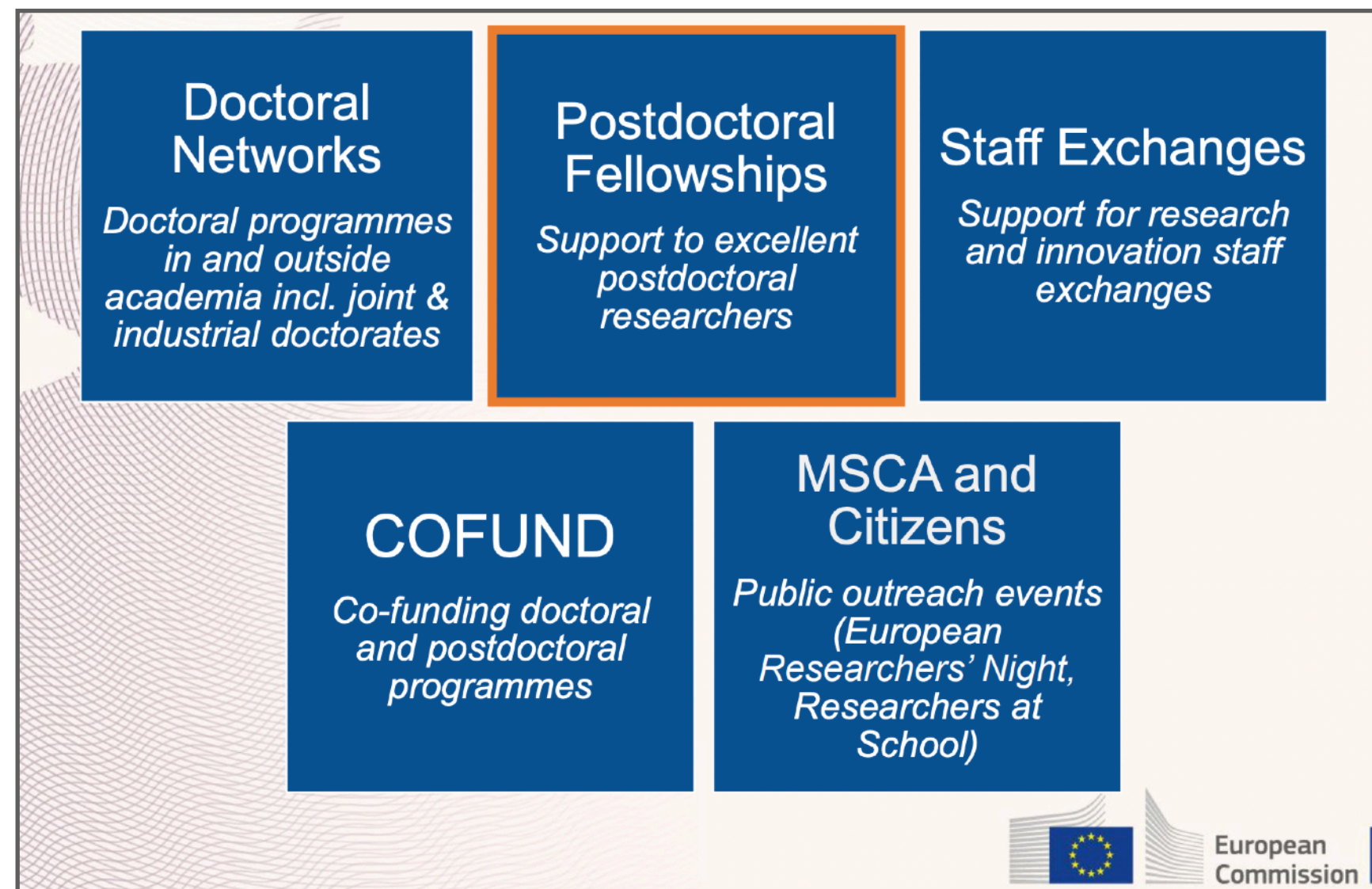
Posadite ideju..
Pisanje nacionalnih grantova je često sjajan početak da je razradite kao *“pathfinder”*



Najinovativniji deo ideje, primenjen na najaktuelnija otvorena pitanja je ono što je *“drvo”* vašeg proposala

U oblasti koju predlažete morate da dokažete kapacitet za vođenje projekta!

2.1 Informišite se i izaberite



+ secondment that can be done up to 1/3 of the fellowship duration

+ 6 months can be dedicated to non-academic placement

Struktura glavnog (naučnog) dela proposala je skoro identična i u programu Fonda za nauku

➔ **Uzmite to u obzir prilikom praćenja ove lekcije!**

2.1 Informište se i izaberite

Mobility towards an organisation based in a Third country and a mandatory return in a Member State or an associated country to Horizon Europe

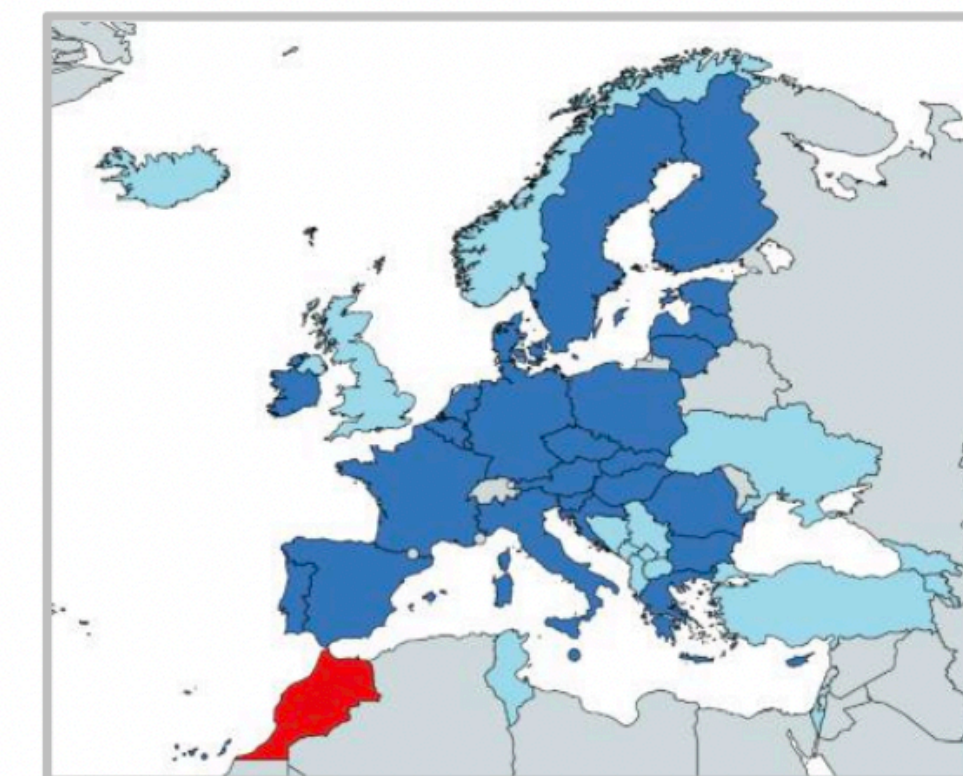
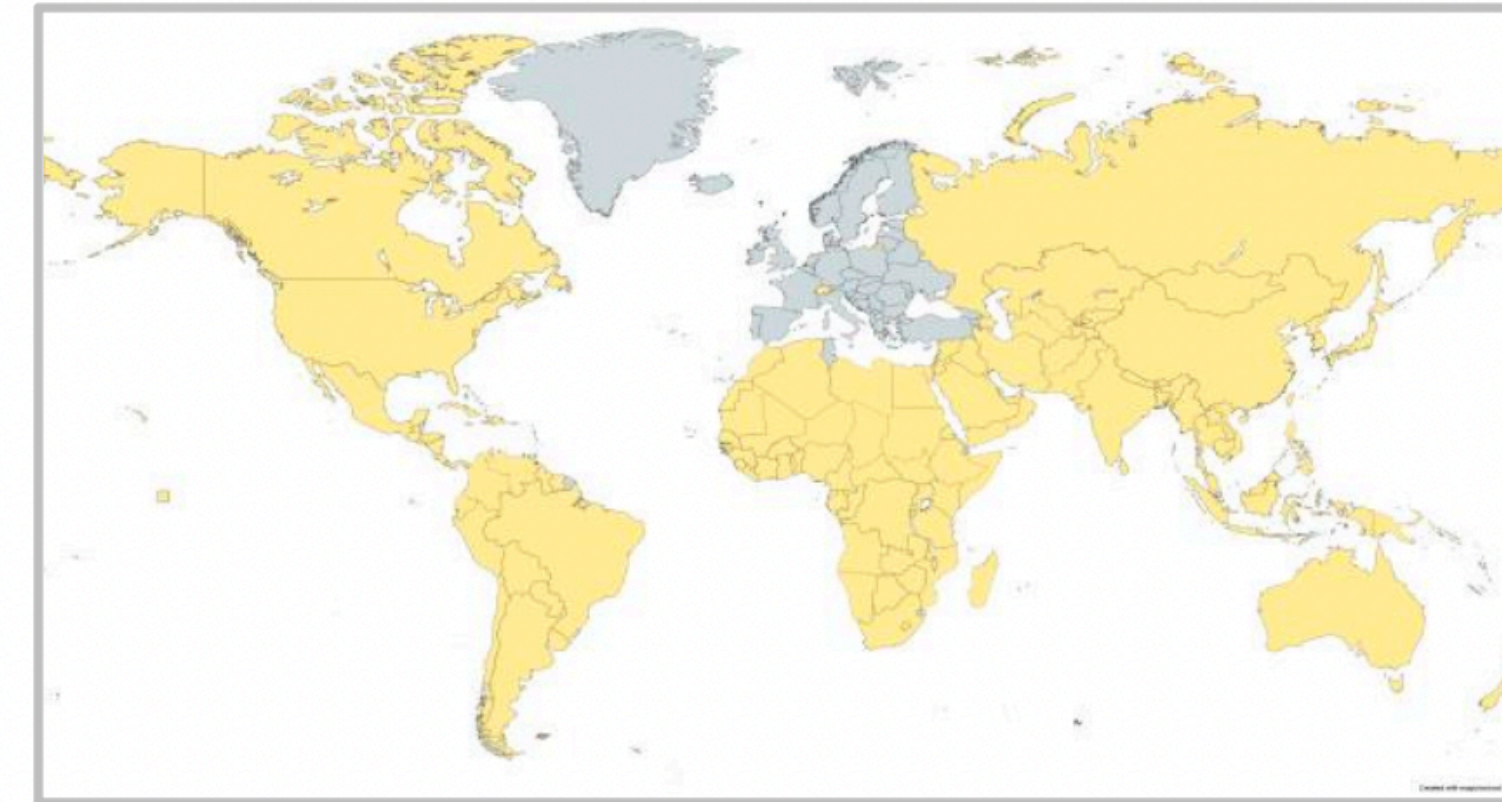
Duration: from 24 to 36 months

Outgoing phase: 12 to 24 months

Mobility rule: The researcher cannot have **resided** or **carried out** his/her main activity (work, studies, etc.) in the **third country of the outgoing phase** for **more than 12 months** in the **36 months** immediately **prior** to the call deadline.

Applicant:

- Nationals or long-term residents of a Member State or an associated country
- **Must be** in possession of a **doctoral degree**
- **Up to 8 years** of research experience



Return phase : 12 months
Mandatory

■ Etats Membres
■ Pays associés
■ En cours de négociation (avril 2024)

2.1 Informišite se i izaberite

Eligibility conditions: Individual researchers

Nationality of researcher*:

- **European Fellowships**: any nationality
- **Global Fellowships**: nationals or long-term residents of MS or HE AC (see definition of long-term residents in [MSCA-PF GfA](#))

The researchers must also:

- Be in **possession of PhD** at the call deadline
- Have **up to 8 years research experience maximum** after PhD (with exceptions = career breaks, work outside research, research outside Europe for reintegrating researchers)
- Not have resided /carried out their main activity in the country of the beneficiary (for European Fellowships) or TC associated partner **only** (for Global Fellowships) for more than 12 months in the 36 months before call deadline (**mobility rule**)
- An individual researcher can only **submit one proposal**

2.1 Informišite se i izaberite

INFORMIŠITE SE !

Koristite oficijelne resurse, pričajte sa alumnima, idite na kurseve...



European Research Council
Established by the European Commission

- Kontaktirajte host institute kako biste dobili potvrde o gostoprimstvu (host agreement)
- Učinite to bar 5 meseci pre roka za slanje prijava

2.2 Priprema za pisanje aplikacije

Sagledavanje problema i resursa

Analiza velikih pitanja u vašoj oblasti

Definišite pitanje koje želite da rešite

Da li je za rešavanje pitanja dovoljna vaša ekspertiza?

DA

Nacionalni ili internacionalni individualni grant

NE

Planirajte saradnju sa eksternim stručnjakom/ institutom

Samoevaluacija

Napravite skicu plana sa vremenskim okvirom

Da li tvoj CV, znanje, kontakti, tim, garantuju efektivnu realizaciju projekta?



2.2 Priprema za pisanje aplikacije

IZABERITE HOST INSTITUTE



Ne birajte mesta samo zato jer vi ili vaš (doktorski) mentor tamo imate saradnike

Ne birajte mesta koja ne mogu da zadovolje visoke kriterijume za implementaciju projekta

Ne birajte mesta koja nemaju jaku međunarodnu saradnju



Host researcher mora biti ekspert u oblasti/temi/metodi koja je vama komplementarna

Host researcher mora biti naučnik/ca koja je u visokom stadijumu karijere i ima međunarodni potencijal da vašu karijeru učini vidljivijom

2.2 Priprema za pisanje aplikacije

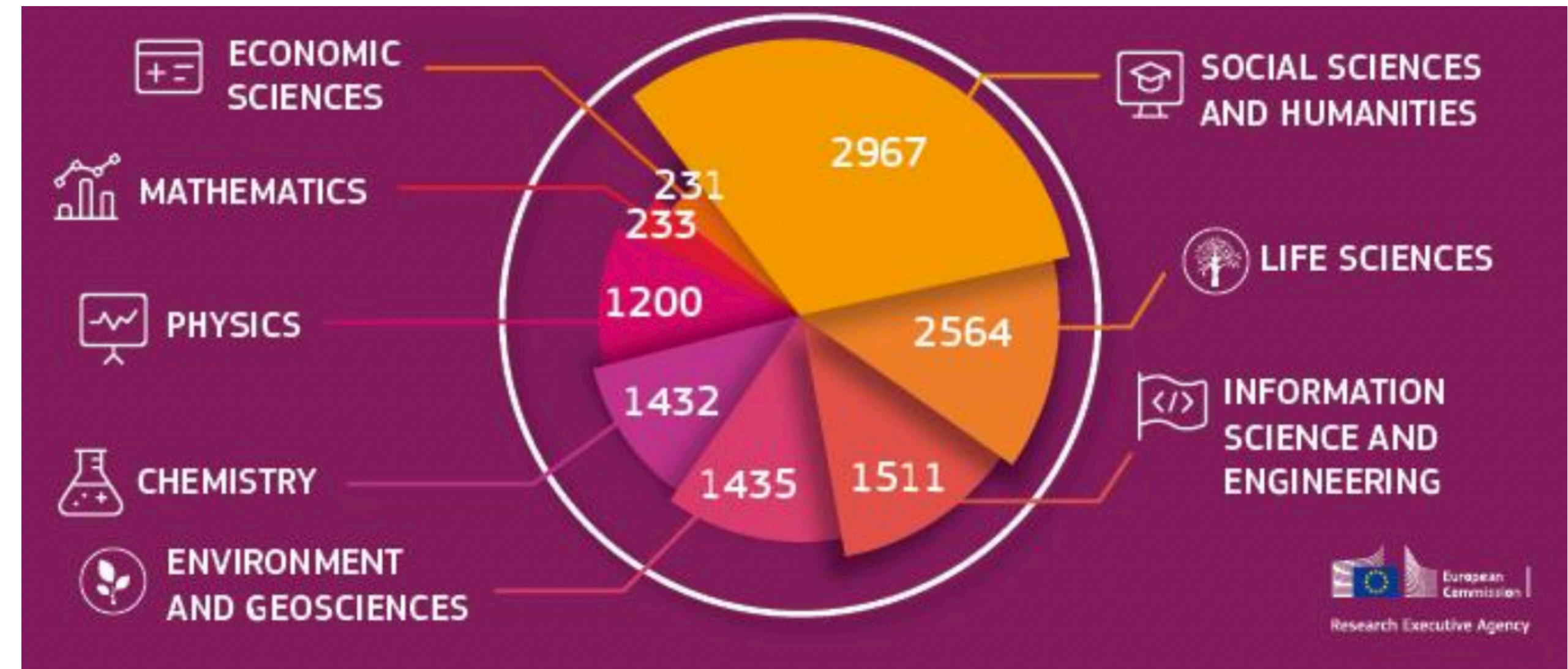
IZABERITE HOST INSTITUTE



2.2 Priprema za pisanje aplikacije

MSCA program dobija 11 hiljada proposala, od toga svake godine je oko 1000 prijava više nego prethodne.

Najveća opterećenost je u *Natural science area* (ove godine samo iz oblasti fizike je stiglo 1200 prijava)



Threshold: 91/100

Ukoliko ste dobili odličnu ocenu, a grant vam je zamalo izmakao, dobijate “seal of excellence”.

Mnoge države na osnovu njega pružaju mogućnost alternativnih finansija!



III Pisanje aplikacije za naučni grant



3.1 Pisanje aplikacije za naučni grant

Proposal content and format

The proposals are composed of two parts, **Part A** and **Part B**:

Part A includes administrative and financial information of the host institution (beneficiary) and the researcher, as well as information on ethics and security.



Part B includes the description of scientific and training activities. It is further divided into:

> 85 %

- **Part B-1** describes the aspects Excellence, Impact and Quality and Efficiency of the Implementation. **The maximum total length of this document is 10 pages.** Any excess pages (i.e. numerical page 11 and beyond) will not be available to the evaluators.

~15 %

- **Part B-2** contains **The researcher's CV**, a description of the participating organisations, and potentially information on ethical or security aspects and a letter of commitment (for GF and for non-academic placements). There is no page limit applied to Part B-2.



3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

Section II: IMPACT

30% of marks

- Najviše 2 strane teksta u kome moreate da objasnite kome će projekat koristiti, na koji način itd.
- Važan deo je **diseminacija i komunikacija projekta.**

Section III: IMPLEMENTATION

20% of marks

- Najviše 2 strane teksta u kome predstavljate plan realizacije projekta, uključujući njegov *timeline* (tzv. *Working packages and Gantt Chart*)

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

State-of-the art → Problem → Beyond state-of-the art

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat**.
- Ključna stvar u ovom delu je **jasna komunikacija ideje**!

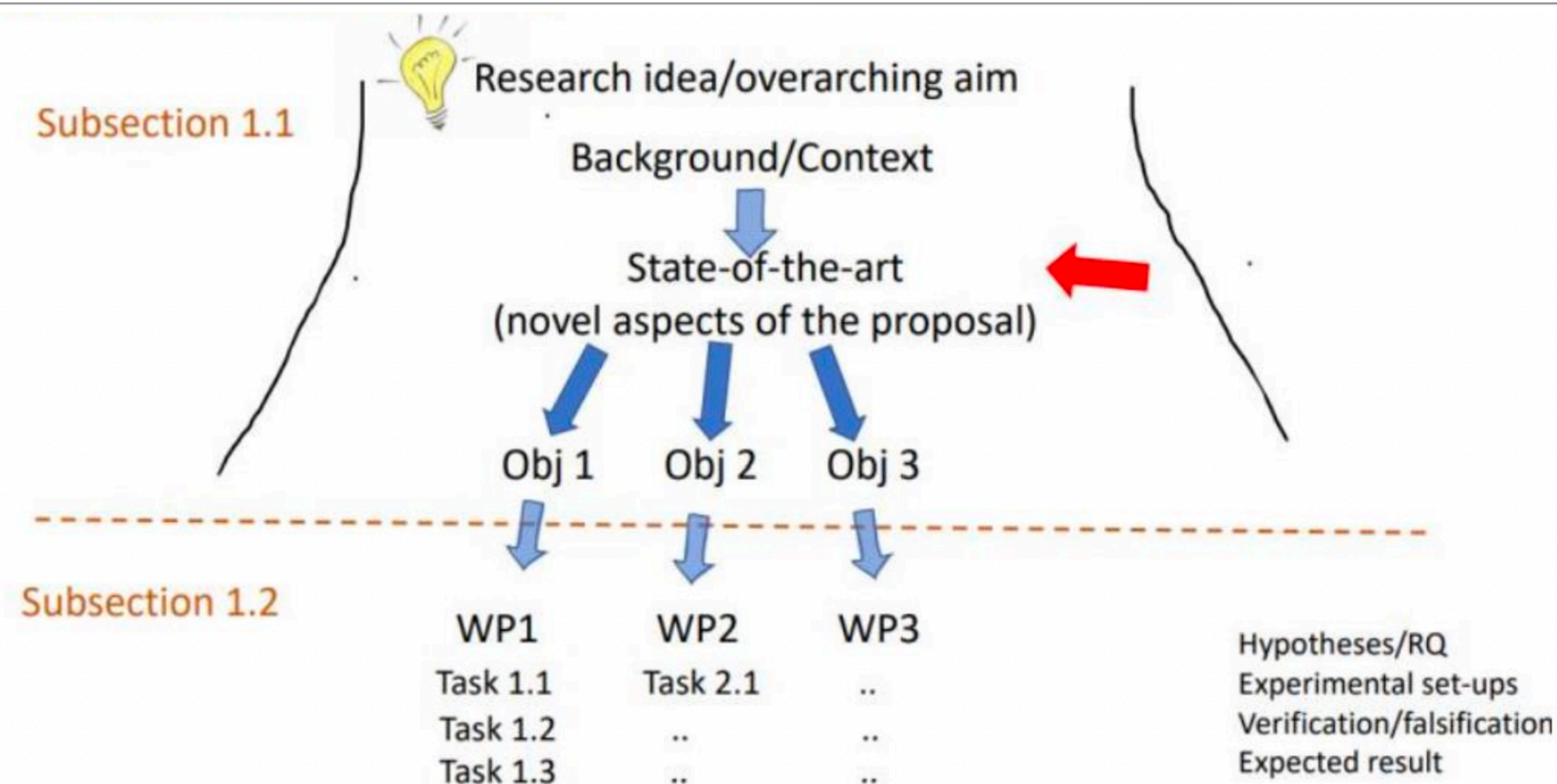
Part B-1

1. Excellence #@REL-EVA-RE@#

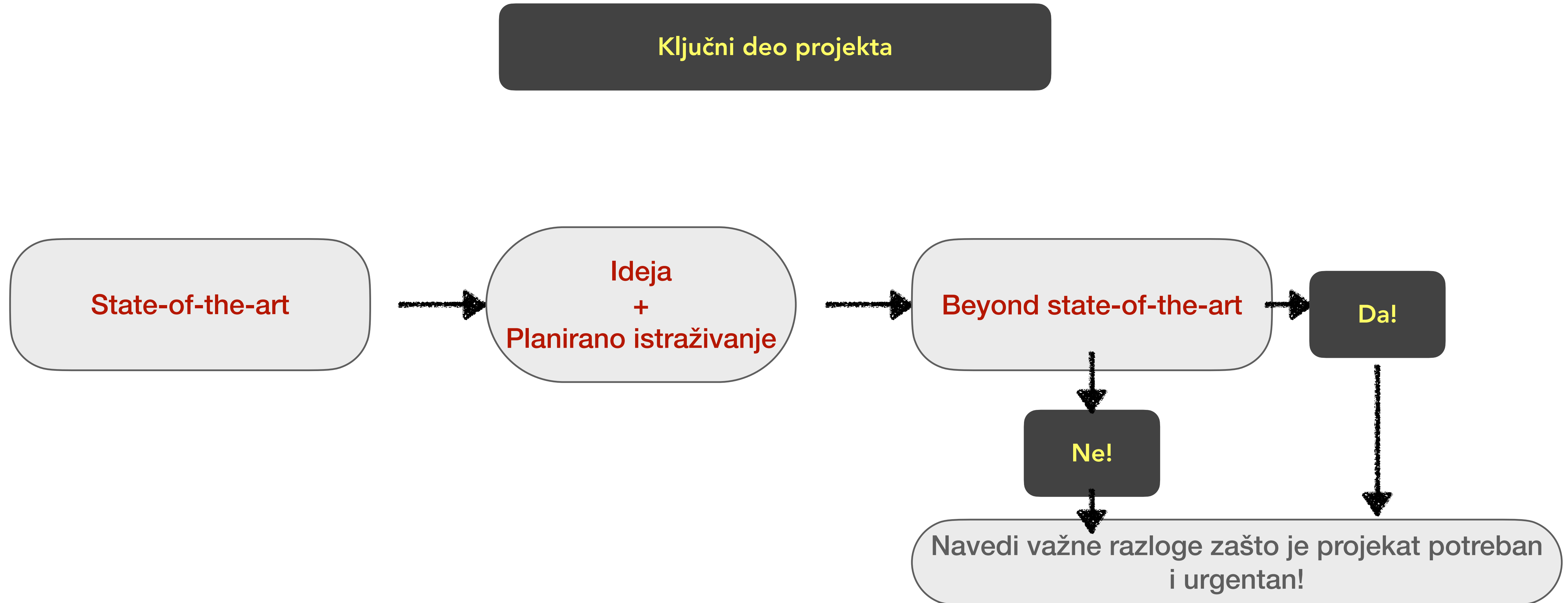
1.1 *Quality and pertinence of the project's research and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art)* #@QUA-LIT-QL@#

At a minimum, address the following aspects:

- Describe the quality and pertinence of the R&I objectives; are the objectives measurable and verifiable? Are they realistically achievable?
- Describe how your project goes beyond the state-of-the-art, and the extent to which the proposed work is ambitious.



2.2 Science excellence



3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

Part B-1

1. Excellence #@REL-EVA-RE@#

1.1 Quality and pertinence of the project's research and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art) #@QUA-LIT-QL@#

At a minimum, address the following aspects:

- Describe the quality and pertinence of the R&I objectives; are the objectives measurable and verifiable? Are they realistically achievable?
- Describe how your project goes beyond the state-of-the-art, and the extent to which the proposed work is ambitious.

- Introduction: A brief text to introduce the research proposal/project with the facts of proposal followed by answers to key questions.
- State-of-the-art (SoA): Sharing the current level of knowledge on the research area and explaining the connection between SoA and research objectives.
- Objectives and overview of the action: Explain the research objectives which will be carried out during the project. Each research objective is connected to specific research work package (WP).

Credit: G K. Bicakci (MSCA Alumni)

Questions to reply:

- ✓ Why your project is important now?
- ✓ How do current legislations address the issue?
- ✓ What do you offer to solve the issue?
- ✓ Are the objectives measurable and verifiable?
- ✓ Are they realistically achievable?

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat**.
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

1.2 Soundness of the proposed methodology (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality of open science practices)

At a minimum, address the following aspects:

- *Overall methodology: Describe and explain the overall methodology, including the concepts, models and assumptions that underpin your work. Explain how this will enable you to deliver your project's objectives. Refer to any important challenges you may have identified in the chosen methodology and how you intend to overcome them.*

- *Overall research methodology: Explain how the research should be carried out. However, do not go into WP-deep details, as you will do that in Section 3.*
- *Originality & innovative aspects of the research: Explain why your project is worth funding.*
- *Interdisciplinary and gender dimensions: Demonstrate how you will take into consideration interdisciplinary aspects and gender dimensions in the project.*
- *Open science practices: Describe how appropriate open science practices are implemented as an integral part of the proposed methodology.*
- *Research data management and management of other research outputs: Explain how the data will be managed per the FAIR principles (Findable, Accessible, Interoperable, Reusable).*

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

1.3 *Quality of the supervision, training and of the two-way transfer of knowledge between the researcher and the host*

At a minimum, address the following aspects:

- *Describe the qualifications and experience of the supervisor(s). Provide information regarding the supervisors' level of experience on the research topic proposed and their track record of work, including main international collaborations, as well as the level of experience in supervising/training, especially at advanced level (i.e. PhD and postdoctoral researchers).*

- **Explain clearly why the host researcher and her/his group are ideal to supervise your project!**
- **But, don't forget clearly indicate precise training steps and timelines for gaining complementary skills offered by your host**

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

- Oko 6 strana teksta
- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
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Two-way transfer of skills

Knowledge	Transfer from host researcher to	Transfer from researcher to host	Mode of transfer
A1	X		
A2	X		
A3		X	
A4		X	

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section I: EXCELLENCE

50% of marks

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- Deo u kome morate da **momentalno uhvatite pažnju**, istaknete inovativni deo, njegovu realizaciju, kao i da objasnite **zašto ste vi i vaš host prave osobe da realizujete projekat.**
- Ključna stvar u ovom delu je **jasna komunikacija ideje!**

1.4 *Quality and appropriateness of the researcher's professional experience, competences and skills*

Discuss the quality and appropriateness of the researcher's **existing** professional experience in relation to the proposed research project.

- Here you need to tell the evaluators ***(they have no knowledge of you)*** of your research experience and skills; argue why you are already an accomplished researcher relative to your career stage, and why your existing knowledge and skills make you the best person to conduct the project.
- This section is **not about boosting, but about showing confidence** in yourself with the evidence to back it up. This evidence should also be clearly presented in your CV in part B2

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section II: IMPACT

30% of marks

- Najviše 2 strane teksta u kome moreate da objasnite kome će projekat koristiti, na koji način itd.
- Važan deo je diseminacija i komunikacija projekta.

- In its most simple definition, "Impact" essentially means any positive effect (benefit) that your results will have in the short or long term.
- It is a way of convincing evaluators to invest in your research, because someone or something stands to benefit from it.

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section II: IMPACT

30% of marks

- Najviše 2 strane teksta u kome moreate da objasnite kome će projakat koristiti, na koji način itd.
- Važan deo je diseminacija i komunikacija projekta.

2.1 Credibility of the measures to enhance the career perspectives and employability of the researcher and contribution to his/her skills development

2.1 Credibility of the measures to enhance the career perspectives and employability of the researcher and contribution to his/her skills development

- Explain how new skills, collaboration links and experience will improve your career inside and/or outside academia after the fellowship.
- It is always better to be specific instead of using generic sentences.

Key to mention: 

- ✓ Proposed research's contribution to the development and career advancement of the researcher
- ✓ New skills will be acquired by research and added value of the fellowship

Credit: G K. Bicakci (MSCA Alumni)

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section II: IMPACT

30% of marks

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- Važan deo je diseminacija i komunikacija projekta.

2.2 Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities

2.2 Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities

- *Vision for dissemination and exploitation of action results:* Dissemination & exploitation activities management structure/approach.
A table to detailing the planned activities.
- *Exploitation of results and intellectual property:* What are the expected benefits of exploiting your results, and how will you exploit your results?
It is key to describe potential commercialization and how IPR will be managed.

Dissemination methodology and activities:

- Activity
- Target Audience
- Where/When
- Metrics



3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section II: IMPACT

30% of marks

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- Važan deo je diseminacija i komunikacija projekta.

2.2 Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities

Communicating your project to general audience!

- **Who is your target audience?**
- **What is your key message?**
- **What is your preferred communication channel?**
(e.g., podcast, webpage, GitHub, popular journal, public space, social networks, science festivals...)
- **What is a timeframe?**
- **Do you need help in establishing connection to the media?**
(e.g., does your institute have media/press officer?)
- **Metrics?**

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

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- **Metrics?**

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section III: IMPLEMENTATION

20% of marks

- Najviše 2 strane teksta u kome predstavljate plan realizacije projekta, uključujući njegov *timeline* (tzv. *Working packages and Gantt Chart*)

This section is about convincing the evaluators that your research is **feasible**. They might be thinking great idea, but can you actually do it?

The evaluators will also want to ensure that your Fellowship will enable you to indeed **meet all your research and training objectives, and career ambitions**.

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

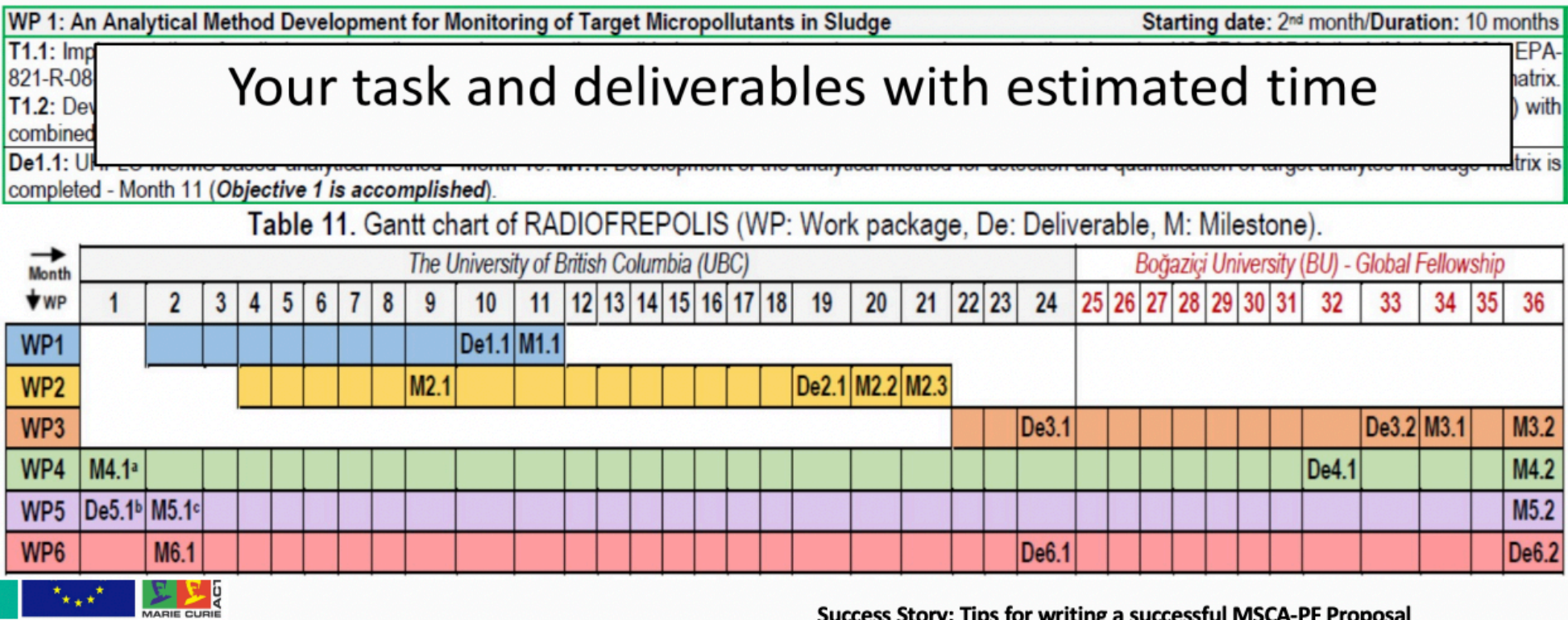
Section III: IMPLEMENTATION

20% of marks

- Najviše 2 strane teksta u kome predstavljate plan realizacije projekta, uključujući njegov *timeline* (tzv. *Working packages and Gantt Chart*)

3.1 Quality and effectiveness of the work plan, assessment of risks and appropriateness of the effort assigned to work packages

- Explain the WP structure and the calculations for person/day and budget.
- This is where you need to specify the details about Work Packages and also provide a Gantt Chart to visualize your overall project.



- Key to mention: 
- Limit the total number of WPs to 6-7.
- ✓ Have a separate WP for Management, Dissemination, and Communication activities.
 - ✓ Gantt Chart should show the total project time; you can remove the unnecessary parts.

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

Section III: IMPLEMENTATION

20% of marks

- Najviše 2 strane teksta u kome predstavljate plan realizacije projekta, uključujući njegov *timeline* (tzv. *Working packages and Gantt Chart*)

Risk recognition and mitigation is critical!

- It is impossible that the highly competitive projects lacks high-risk/ high-gain aspect !!!

Risk	Likelihood	Impact on the work	Mitigation measures
	Low	High	
	Medium	Low	
The project falls behind schedule/deliverables are not achieved on time (Type: Administrative)	Low	Medium	Regular supervisory meetings will ensure the early identification (and resolving) of any potential risks. Project milestones will facilitate progress monitoring.
Poor involvement/collaboration with the secondment partner	Low	Medium	The collaboration with X will be established as early as possible. The secondment supervisor will frequently join supervisory

3.1 Pisanje aplikacije za naučni grant

Part B1 (10-11 page limit, depending on a call)

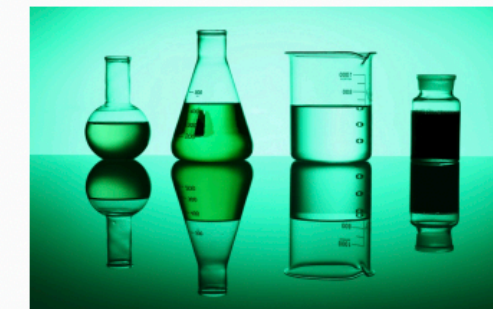
Section III: IMPLEMENTATION

20% of marks

- Najviše 2 strane teksta u kome predstavljate plan realizacije projekta, uključujući njegov *timeline* (tzv. *Working packages and Gantt Chart*)

3.2 Quality and capacity of the host institutions and participating organisations, including hosting arrangements

- Explain how the host(s) offers required infrastructure and collaborative environment for the career advancement, trainings, professional maturity and effective implementation.
- Mention about the key infrastructure/support services necessary for the research and training activities.



Key to mention:

- ✓ Do not list all equipment/laboratories in your host(s)
- ✓ List the key infrastructure/equipment required for your research by proofing your host is capable for your research



3.2 Pisanje B2 dela aplikacije za naučni grant

Part B2 (usually no page limit, but be concise)

Vaš CV

Zapamtite: Panel ne ocenjuje vas, već vašu sposobnost da iznesete projekat!

Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

3.2 Pisanje B2 dela aplikacije za naučni grant

Part B2 (usually no page limit, but be concise)

Vaš CV

Zapamtite: Panel ne ocenjuje vas, već vašu sposobnost da iznesete projekat!

Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

- Može biti i u deskriptivnoj formi!
- Ne više od 5 stranica!

At a minimum, the CV should contain:

- a) The name of the researcher;
- b) Professional experience (most recent first, with exact dates in format dd/mm/yyyy);
- c) Education, including PhD award date (most recent first, with exact dates in format: dd/mm/yyyy).

The CV should include information on:

- Publications in peer-reviewed scientific journals, peer-reviewed conference proceedings, and/or monographs (they are expected to be open access either published or through repositories) and other outputs such as data, software, algorithms significant for your research path (they are expected to be open access in appropriate repositories to the extent possible; they should be accompanied by a very short qualitative assessment of their scientific significance and not by the Journal Impact Factor);
- Invited presentations to internationally established conferences and/or international advanced schools;
- Organisation of international conferences, including membership in the steering and/or programme committee;
- Research expeditions led by the researcher;
- Granted patent(s);
- Examples of participation in industrial innovation;
- Prizes and Awards;
- Funding received so far;
- Supervising and mentoring activities;
- Other items of interest.

3.2 Pisanje B2 dela aplikacije za naučni grant

Part B2 (usually no page limit, but be concise)

Vaš CV

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Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

PERSONAL DETAILS

Family name, First name: **Donevski Darko**

Researcher unique identifier(s): **ORCID ID: 0000-0001-5341-2162**

URL for web site: www.darkodonevski.com

• **Education and key qualifications**

- | | |
|------------|---|
| 21/09/2018 | PhD in Astrophysics and Cosmology
AIX-Marseille University
Laboratory of Astrophysics of Marseille (LAM), Marseille, France
PhD Supervisor: Prof. Veronique Buat (LAM, Marseille) |
| 2013 | MSc in Physics and Astronomy
Faculty of Science, Department of Physics, University of Novi Sad, Novi Sad, Serbia |

• **Current position(s)**

- | | |
|--------|--|
| 2022 - | Research Assistant Professor
National Centre for Nuclear Research (NCBJ), Astrophysics Division, Warsaw, Poland |
|--------|--|

• **Previous position(s)**

- | | |
|-------------|---|
| 2019 - 2022 | Postdoctoral Research Fellow
International School for Advanced Studies (SISSA), Astrophysics Group, Trieste, Italy |
| 2015 - 2018 | Research Associate (PhD student)
Laboratory of Astrophysics of Marseille (LAM), Marseille, France |

3.2 Pisanje B2 dela aplikacije za naučni grant

Vaš CV

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Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

RESEARCH ACHIEVEMENTS AND PEER RECOGNITION

Research achievements

- **New method for selecting the distant, dusty star-forming galaxies:** As part of my doctoral thesis I developed a methodology that combines spectral modeling techniques with end-to-end simulations to identify unlensed dusty star-forming galaxies in the distant universe ($z > 3-6$). With this method, in *Donevski et al. (2018)* I obtain and reduce the data that reveal previously unknown 133 dusty galaxies in the deep Herschel Virgo field. In the study that I co-authored (*Harikane et al., 2019*), I extended the concept to interferometric observations and unveiled a dusty members in one of the most distant protoclusters ($z > 6$) that have been spectroscopically confirmed thus far.

Corresponding publications:

[1] **Donevski D.**, Buat V., Boone F., Pappalardo C., Bethermin M., Schreiber C., Mazyed F., et al.; *Towards a census of high-redshift dusty galaxies with Herschel. A selection of "500 μ m-risers"*; **2018, A&A, 614, A33.**

[2] Harikane Y., Ouchi M., Ono Y., Fujimoto S., **Donevski D.**, Shibuya T., Faisst A.L., et al.; *SILVERRUSH. VIII. Spectroscopic Identifications of Early Large-scale Structures with Protoclusters over 200 Mpc at $z \sim 6-7$: Strong Associations of Dusty Star-forming Galaxies*; **2019, ApJ, 883, 142**

- **Estimating the evolution of galaxies' dust content across cosmic time:** I designed, developed, and led the study (*Donevski et al. 2020*), in which I utilized state-of-the-art spectrophotometric fitting techniques to analyze the physical and structural characteristics of 300 dusty star-forming galaxies in deep fields. The study uncovered a first robust evidence of enhanced dust mass in galaxies beyond the Cosmic Noon ($z > 2-5$) than anticipated from gas-scaling relations. I shared my observed and modeled dust mass evolution tracks with the scientific community. Recently, my research has expanded to investigate the role of outflows on dust content across diverse galaxy populations. Collaborating on a study that found evidence for extended dust and atomic carbon gas emissions in local dwarf galaxies (*Romano, Donevski, et al. 2024*) I focus on refining the methods for radial profiles on stacked data as well as helping interpret the results. In *Salak et al., (2024)* we unveiled the new tracer for molecular outflows in the reionization epoch dusty quasars. Here I employ the spectral modeling technique to infer the presence of a central black hole and its contribution to the dust luminosity. Both as PI and co-PI, I played integral roles in designing follow-up observations to further explore the findings from these three studies.

Corresponding publications:

[3] **Donevski D.**, Lapi A., Malek K., Liu D., Gómez-Guijarro C., Davé R., et al.; *In pursuit of giants. I. The evolution of the dust-to-stellar mass ratio in distant dusty galaxies*; **2020, A&A, 644, A144**

[4] Romano M., **Donevski D.**, Junais, Nanni A., Ginolfi M., Jones G.C., et al.; *Evidence of extended [CII] and dust emission in local dwarf galaxies*; **2024, A&A, 683, L9**

[5] Salak D., Hashimoto T., Inoue A.K., Bakx T., **Donevski D.**, et al.; **2024, ApJ, 962, 1**

3.2 Pisanje B2 dela aplikacije za naučni grant

Vaš CV

Zapamtite: Panel ne ocenjuje vas, već vašu sposobnost da iznesete projekat!

Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

Peer recognition

- **Individual research grants**
 - SONATA16 Starting Grant, National Science Centre, Poland (*240 000.00 EUR*) (**12/2021 to 12/2024**)
Project: *Dusty Giants: How galaxies form and destroy their dust in extreme environments*
Host institute: National Centre for Nuclear Research, Astrophysics Division, Warsaw, Poland
- **Individual research mobility grants**
 - Visiting Postdoctoral Research Fellowship; (*5 000.00 EUR*) (**01/2020**)
Dunlap Institute for Astronomy & Astrophysics, University of Toronto, Canada
- **Awards**
 - Annual award for communicating contemporary astronomy (**06/2024**)
National Centre for Nuclear Research, Warsaw, Poland
 - EXIT Foundation award for undergraduate research projects (**05/2012**)
EXIT Foundation, Novi Sad, Republic of Serbia
- **Fellowships**
 - SISSA postdoctoral research fellowship, SISSA, Trieste, Italy (**01/2019-12/2021**)
 - OCEVU Labex doctoral fellowship, Aix-Marseille University, Marseille, France (**10/2015-10/2018**)
- **Research mobility**
 - Dunlap Institute for Astronomy & Astrophysics, University of Toronto, Canada (**02/2020-06/2020**)
 - Research Institute in Astrophysics and Planetology (IRAP), Toulouse, France (**08/2016-11/2016**)
- **Accepted telescope proposals**

455 hours of observing time allocated: 147 hours as a PI (instruments: NOEMA interferometer, VLT, ALMA, JCMT SCUBA-2, IRAM 30m telescope). The proposals most relevant for this application:

 - IRAM 30m redshift survey of dusty starbursts at high- z ; (98 hours) [role: PI]
 - NOEMA interferometer observations of normal dusty galaxies at $z \sim 2$; (49 hours) [role: PI]
 - JCMT Scuba-2 observations on dusty galaxies in protoclusters at $z \sim 3-4$; (95 hours) [role: co-PI]
 - ALMA view on molecular outflow in reionization epoch dusty quasar; (17.5 hours) [role: co-PI]
 - VLT KMOS observations of dust and metal content in $z \sim 4$ galaxies; (16.5 hours) [role: co-PI]
 - GEMINI MOS observations on dusty galaxies at Cosmic Noon (12.5 hours) [role: co-PI]

3.2 Pisanje B2 dela aplikacije za naučni grant

Vaš CV

Zapamtite: Panel ne ocenjuje vas, već vašu sposobnost da iznesete projekat!

Zbog toga je CV jako važan, jer ulazi u diskusije svakog od kriterijuma koji su navedeni (naročito implementacije projekta)

INAF, Istituto di Astrofisica Spaziale e Fisica Cosmica, Milano, Italy (12/05/2021)

Fermilab Cosmic Physics Center, USA (15/02/2021)

Saint Mary's University, Halifax, Canada (02/10/2020)

Dunlap Institute for Astronomy and Astrophysics, University of Toronto, Toronto, Canada (19/07/2019)

Institute of Astrophysics and Space Science, Lisbon, Portugal (19/12/2018)

Open University, Milton Keynes, UK (22/05/2017)

- **Selected contributed talks at conferences & workshops**

EAS, Padova, Plenary Session “New light on Galaxies from Cosmic Dawn to Noon” (01/07/2024)

EAS, Padova, Special Session “High-z galaxies: From Dusk to Dawn in the era of JWST” (05/07/2024)

Bridging the models and observations of dust in early galaxies in the JWST era; Trieste, Italy (22-26/04/2024)

Engage: AGN In Galaxy Evolution Meeting, ESAC Madrid, Spain (18-22/09/2023)

SIMBA meeting, Flatiron Institute, New York, USA (02-05/05/2023)

The rise of metals and dust in galaxies, LAM, Marseille, France (26-30/10/2020)

The art of measuring galaxy physical properties, Milano, Italy (18-22/11/2019)

Twenty Years of Submillimetre Galaxies, SMG20, Durham, UK (31/07-02/08/2018)

Synergy between Euclid and JWST in galaxy evolution, ESA, Noordwijk, Netherlands (23-27/07/2018)

- **Organisation of international scientific meetings**

Dust in Trieste (main organizer and meeting chair); IFPU Trieste, Italy (22-26/04/2024)

Dust lifecycle - EAS special session (co-organizer); Krakow, Poland (14/07/2023)

- **Professional service**

- Referee for scientific journals (MNRAS, ApJ, Serbian Astronomical Journal)

- Telescope proposals reviewers (ALMA Cycle 9, 10)

- Referee for master thesis (2022; Ms. M. E. Sibiya, University of the Western Cape, South Africa)

- Reviewer for books in popular astronomy (“Extraterrestrial languages”)

- **Professional memberships**

International Astronomical Union (IAU) ; European Astronomical Society (EAS)

Member of LSST Galaxy Science Group

Member of WST telescope consortium

Section 1 EXCELLENCE

Research Proposal: Excellence Sample Evaluator Comments



- The proposal **clearly** defines the current state-of-the-art, the research topic and objectives for the project.
- The innovative and multidisciplinary aspects are **very well described**.
- The two-way transfer of knowledge between the host and the researcher is **clearly demonstrated**.
- **High quality** of scientific and complementary training is provided by the host consistent with the researcher's background and expertise.
- The main supervisor is a **top-level scientific manager** at the host and has a very good profile for guiding the research.
- The hosting environment is **ideal** to guarantee the integration of the researcher and support to the project.



- The originality and innovative aspects of the project are **not sufficiently demonstrated**.
- The reasoning of why the interdisciplinary nature of the proposal is essential to provide excellence is **unclear and insufficiently substantiated**.
- The gender dimension is **not sufficiently integrated** into the approach.
- How the training will be gained and knowledge transfer achieved is **not clear**, notably ways in which the researcher and applicant will interact.
- The training objectives for the researcher are **not sufficiently discussed**, it is **not clear** from the proposal what significant additional knowledge the researcher will learn at the host group.
- Integration of the researcher into the host institution is **not clearly elaborated**.

Section 2 IMPACT

Research Proposal: Impact Sample Evaluator Comments



The positive impact on the researcher's career development is **convincingly argued**.

Dissemination is **properly conceived** via publications, presentations and other activities of good impact.

- The commercial exploitation of the results and their protection will be **carefully and appropriately managed**. Patent applications are highly likely.
- The range of measures to communicate the research activities **properly addresses** various audiences with well-designed actions
- The existing networking structures of the beneficiary institution will be used to communicate to different target audiences.



- The career strategy is **not elaborated in detail** to translate the potential in a concrete path to enhance the future career prospects.
- There is **no clear strategy** for dissemination. The measures proposed only consider participation in a few conferences in the field.
- The IPR and exploitation issues are **not sufficiently considered**; this is highly inappropriate in view of the targeted commercialization of the device.
- Communication activities are **generic and basic**. No active measures are presented and the proposal lacks any concrete strategy for wider communication.

Section 3 IMPLEMENTATION

Research Proposal: Implementation Sample Evaluator Comments



- The milestones are **well elaborated** and come at the right place in the plan.
- The work plan is very **thoughtfully designed** to reach the objectives aiming at a high impact results.
- Deliverables and milestones are **well listed** on the Gantt chart
- The allocation of tasks and resources is very **appropriate** for the execution of the project
- All technical tasks are **clearly defined** and well elaborated.
- The organization and management structures are **convincing and very well designed**.
- Possible risks are **well identified**. The mitigation measures are **convincing**.



- The WPs **lack the necessary detail** concerning when the analysis of results from the fieldwork would take place.
- Lists of milestones and deliverables are presented in **generic** fashion.
- The Gantt chart is very **poorly designed** and **not sufficiently** informative.
- Allocation of tasks and resources has **not been properly detailed**. There is no sufficient indication of specific person-months allocation to most activities proposed
- Risk management related procedures have been addressed to a **very limited extent** and a list of sound contingency plans **is missing**.
- The management structures and procedures are addressed to a very limited extent, a sound comprehensive description **is lacking**

Report on evaluator comments: https://h2020.org.tr/sites/default/files/u387/n4mif_2017_esr_analysis_se.pdf

3.4 Globalne smernice za dobijanje naučnog granta

1. Počnite na vreme i usvojite ključne strateške informacije

- Na pr., informišite se o internim uslovima i aktivnostima grupa i instituta za koje biste konkurisali

2. Pišite... I mislite o vremenu

- Objavljivanje (bilo kakvih) radova nije dovoljno bez kvalitetne poruke!

3. Pronađite svoju specifičnu “zonu istraživanja”

- Da li oblast koju volim pruža mogućnost za širu vidljivost i razvoj?

4. Kreirajte “roadmap” od naučnih ciljeva koje ste identifikovali
+ treninig plan za razvoj komplementarnih veština

- Da li sve razvijate sami, uz odabrane mentore, ili konsultujete i širi tim?

5. STOP! Zatražite feedback

- Šta da napišem, šta da izbacim...kako ovo zvuči?

Waiting for
feedback?



6. Projekat je vaša priča ali mora da bude konzistentna ,
koherenta... i stilski/gramatički besprekorna

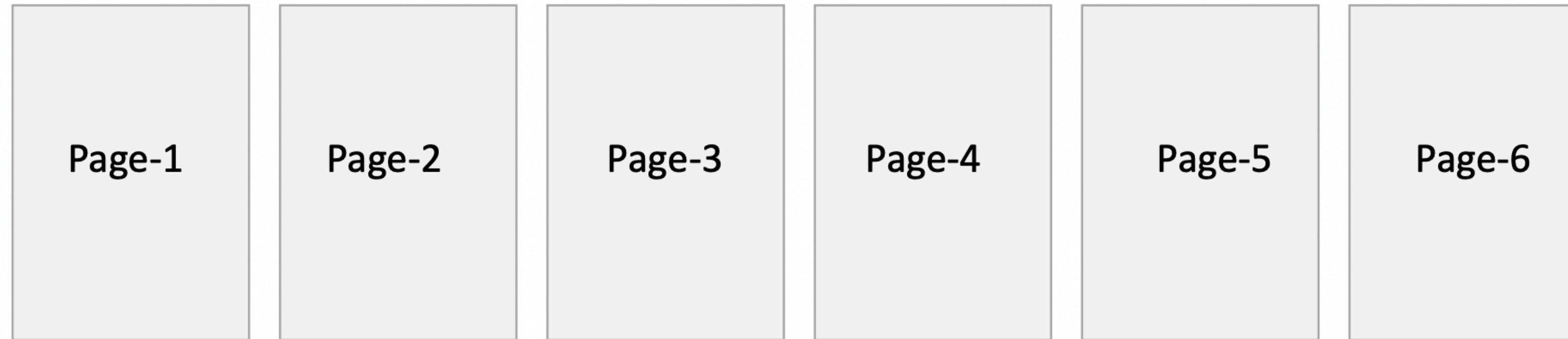
- Probudite pisca u sebi. Konsultujte sve moguće resurse da vam pomognu u “proofreadingu”.



7. Reciklirajte inicijalni tekst / prva verzija (ni)je uvek
najbolja/najčitljivija...

Mesto za zaključne mudrosti i savete ...

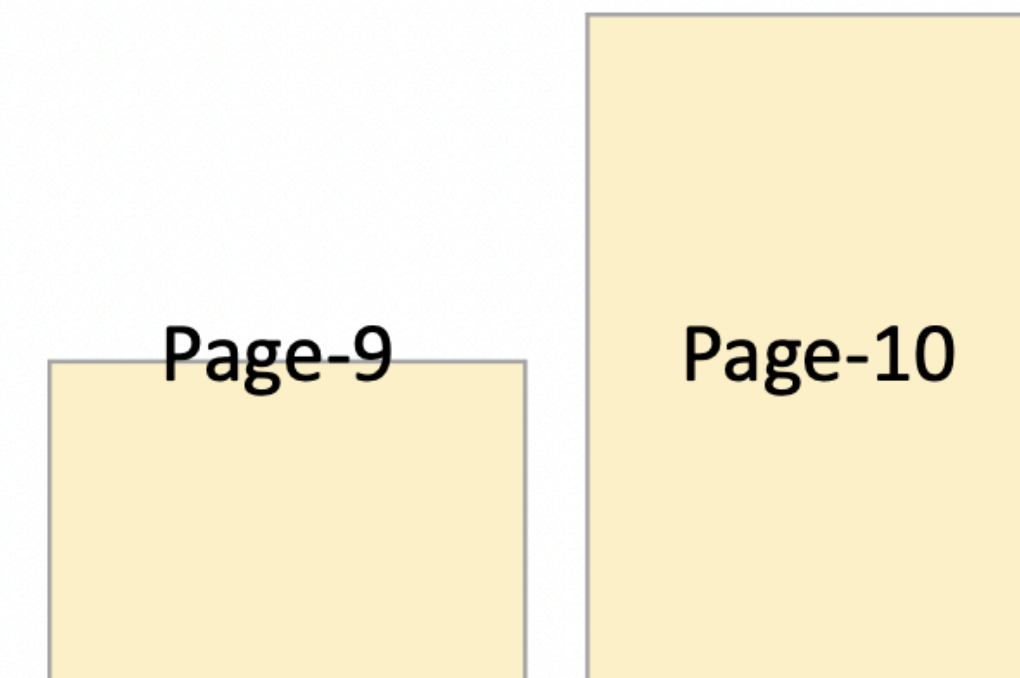
Excellence: For 5-6 Pages



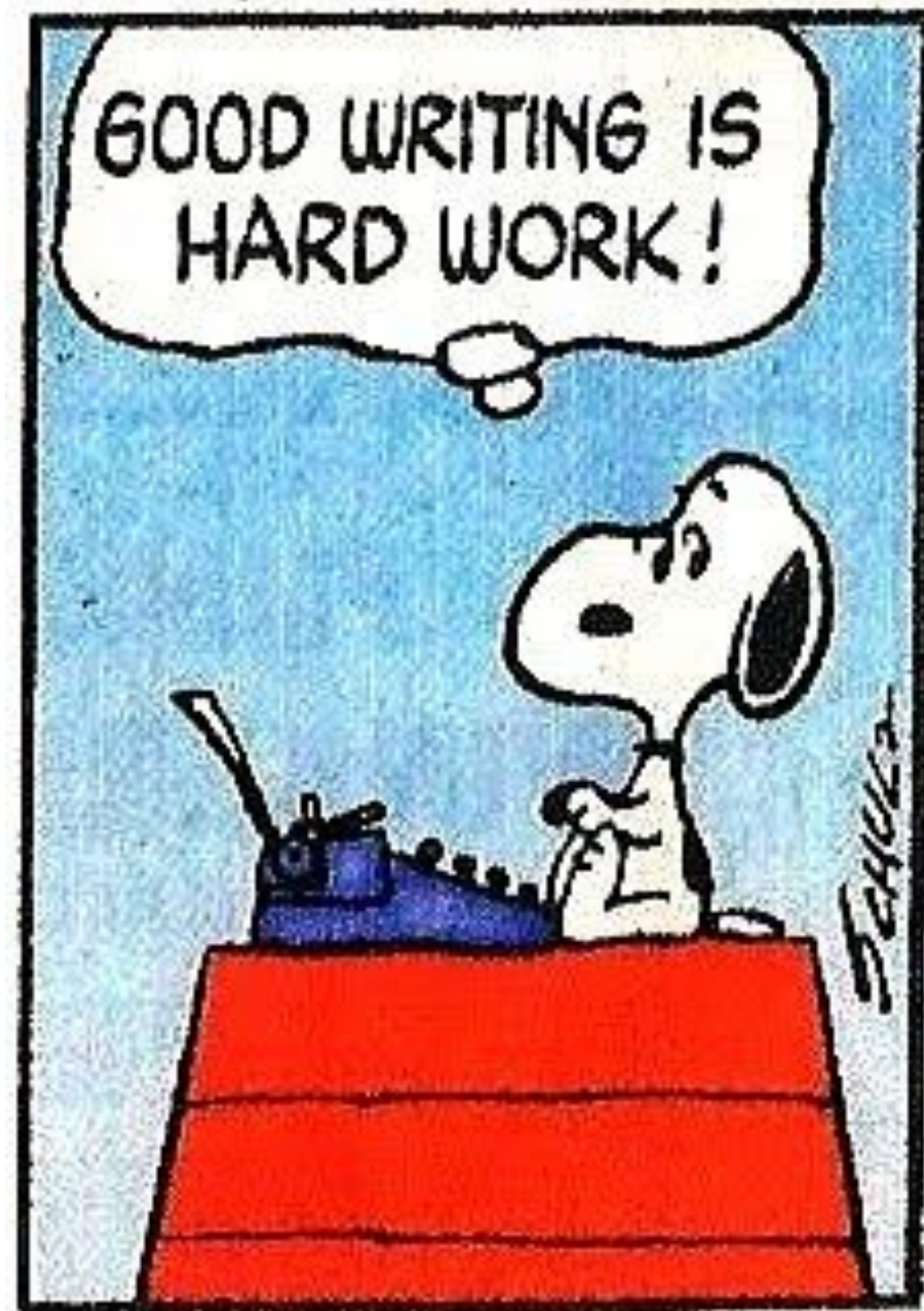
Impact: For 2-3 Pages



Implementation: For 1.5-2 Pages



Mesto za zaključne mudrosti i savete ...



"Spare a dollar for some lab consumables, buddy?"

HOW TO WRITE A SUCCESSFUL MSCA POSTDOCTORAL FELLOWSHIP PROPOSAL



02
September
3-5pm IST



REFERENCE LIST

3.3 Abstract (= 300 reči; < 2000 karaktera): DA i NE

**Prilika da u par paragrafa uhvatite pažnju širokog kruga
recenzenata kojima ćete predložiti
jasan problem, ideju i novu metodologiju**

Dust pervades the Universe; it is responsible for the formation of molecular hydrogen, radiative feedback processes capable of affecting the outcome of galaxy evolution. The unknown origin of dust, cosmological evolution, and its impact on the formation of stars and galaxies are some of the major unsolved problems in astrophysics.

Current work by myself and collaborators have delivered observational evidence for the efficient condensation of dust in supernova remnants (SNRs). Up to now, grain growth is assumed to be the dominant dust source, but a viable chemical route for growing grains in the ISM has yet to be found.

Current dust destruction efficiencies have been overestimated due to the neglect of inhomogeneous cloud structures. With Herschel's legacy of dust in the nearby Universe and ALMA's capabilities to detect the first infrared light of galaxies, this is an opportune time to re-evaluate the origin of dust.

Building upon my expertise in dust in both SNRs and nearby galaxies, I will re-evaluate net SN dust production rates by inferring the composition and grain size of SN dust based on my own dust polarimetric data of Galactic SNRs. With my collaborators from LERMA, I will exploit a new experimental technique to simultaneously infer adsorption and diffusion energies; these laboratory measurements will allow me to assess whether grain growth can provide a viable mechanism for dust formation.

My Dust and Element evolution modelS (DEUS) will be expanded to include a 3D inhomogeneous ISM structure, and will be exploited to model the destruction of dust by shocks in a realistic multi-phase ISM. Finally, the evolution of dust and metals will be modelled in a statistical sample of low- and high-redshift galaxies to infer the dominant dust sources. The three pillars (observations, modelling and laboratory experiments) of my ERC project are essential to solve the origin of dust problem.

3.3 Abstract (= 300 reči; < 2000 karaktera): Kako ga napisati ?

Dust pervades the Universe; it is responsible for the obscuration of 50% of starlight, for the formation of molecular hydrogen, for the cooling of clouds collapsing to form stars, and for radiative feedback processes capable of driving massive galactic outflows. Due to the **unknown origin of dust**, cosmological simulations lack detailed dust physics, which will affect the outcome of galaxy evolution models.

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- State-of-the-art
- Generalna važnost teme

Open problem

Kako projekat "napada"
problem

Kompetentnost i
konkretan plan PI da reši
svaj problem

Šta projekat nudi naučnoj
zajednici kao krajnji produkt

3.3 Abstract (= 300 reči; < 2000 karaktera): DA i NE

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Ne kopirajte deo glavnog teksta!

Ne navodite naučni cilj i pitanje van njegovog stavljanja u širi kontekst!

Ne zaboravite da navedete akronim/naziv projekta u apstraktu



Budite direktni i konkretni

Koristite fraze koje mogu da razumeju i eksperti van vaše oblasti

Očekivani rezultat projekta mora da bude jasno naveden