

M U N I

Empowering Early Career Scientists in Project Management and Grant Writing

Grant Office, Research and Development Office, MU Rectorate

Program

11. 11. 2024

- 9:00-10:20 Basics of project management (Ladislav Čoček)
- 10:20-10:40 Coffee break
- 10:40-12:00 Grant writing for early career researchers (Veronika Mikitová, Zdenka Žampachová)

12. 11. 2024

- 9:00-10:20 Czech and Internal funding schemes for postdocs (Zdenka Žampachová, Kateřina Kolbabová, Eliška Skalická, Pavla Pospíšilová)
- 10:20-10:40 Coffee break
- 10:40-12:00 Research grants & fellowships from foreign providers (Ladislav Čoček, Veronika Mikitová)

MUNI

Basics of project management

Ladislav Čoček

Project is...

- **What is a project? – write you brief definitions!**
- Or, if you do not know, write your guesses, estimates, ... or at least associations

Minor hints:

- How does „a project“ differ from a „non-project“ reality?
- Why don't we talk just about „a plan“, „an intention“, or „activities“?

Project is...

- ...a set of tasks executed within pre-defined **time** and certain **costs** with **purpose** to create a unique product, service or result.
- **Temporary** = it has a defined beginning and end in time, and therefore defined scope and resources.
- **Unique** = a planned piece of work that has a specific purpose (such as to find information or to make something new)
- Project vs. routine operations

Project Manager is...

... the person assigned by the performing organization to **lead the team** that is **responsible for achieving** project objectives

- Knowledge
- Performance
- Personal approach

You are a **PROJECT MANAGER**

- Sooner or later, you will have to be in a role of a **project manager**
- What does it mean? What does it require specifically?
- What **skills** and **competences** should a project manager have?
- Can you tell more about „hard skills“ and „soft skills“ and „transferable skills“? What are they?



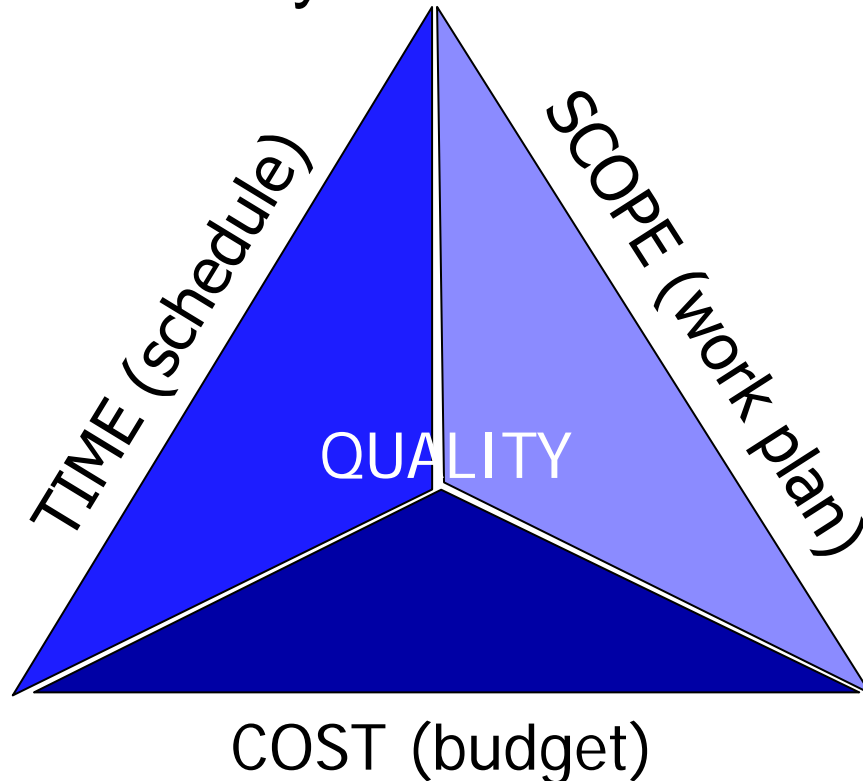
Have your
say!

Projects in research... why at all?

- Is it a good idea?
- Is it a bad idea?
- **Pros & cons of project thinking and approach in research**
 - Share your experience
 - Share your opinions

TRIPLE CONSTRAINT

- This is a basic Framework of a project
- We are always within it borders (limits)



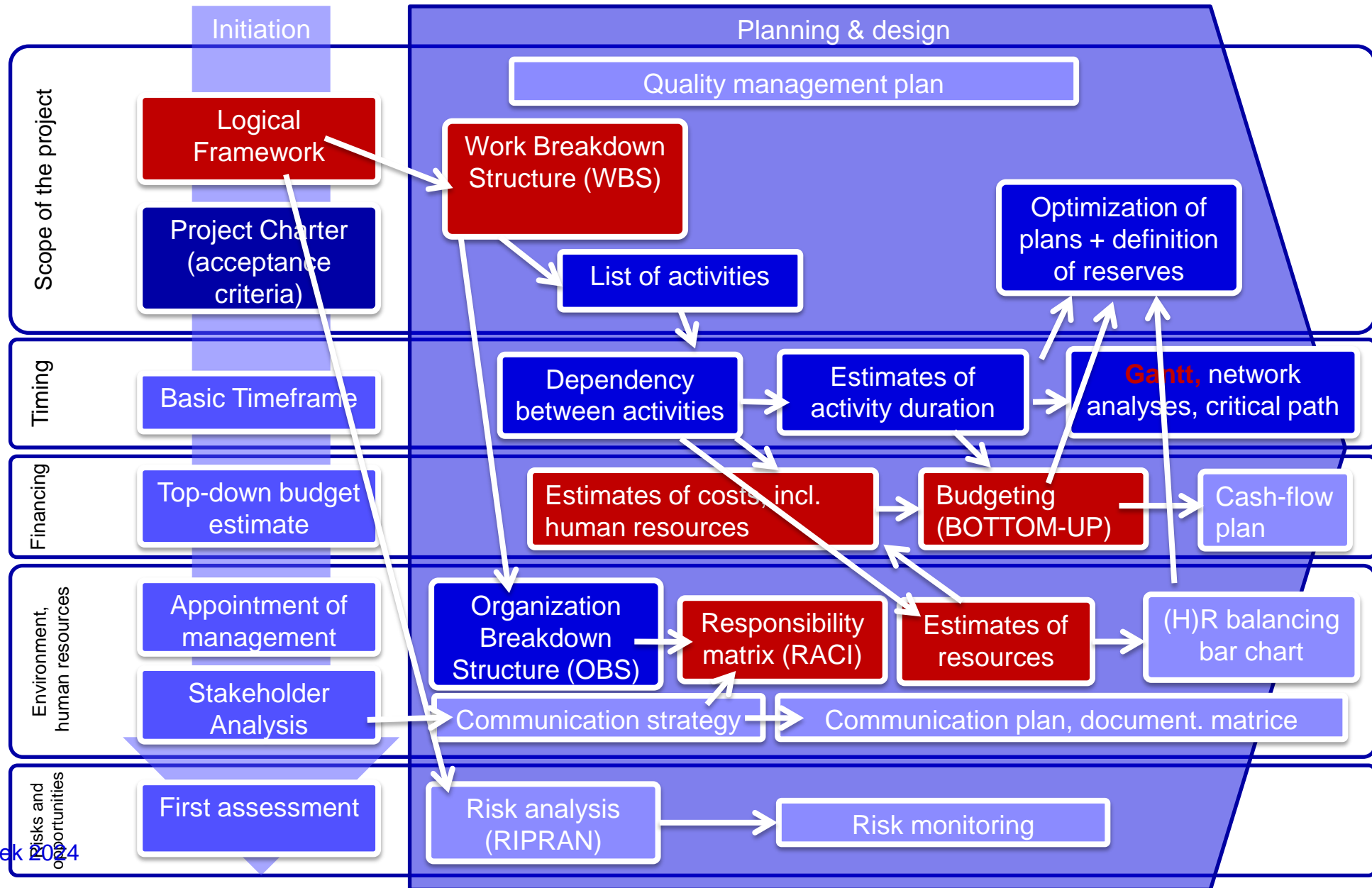
What are your priorities?

To increase quality:

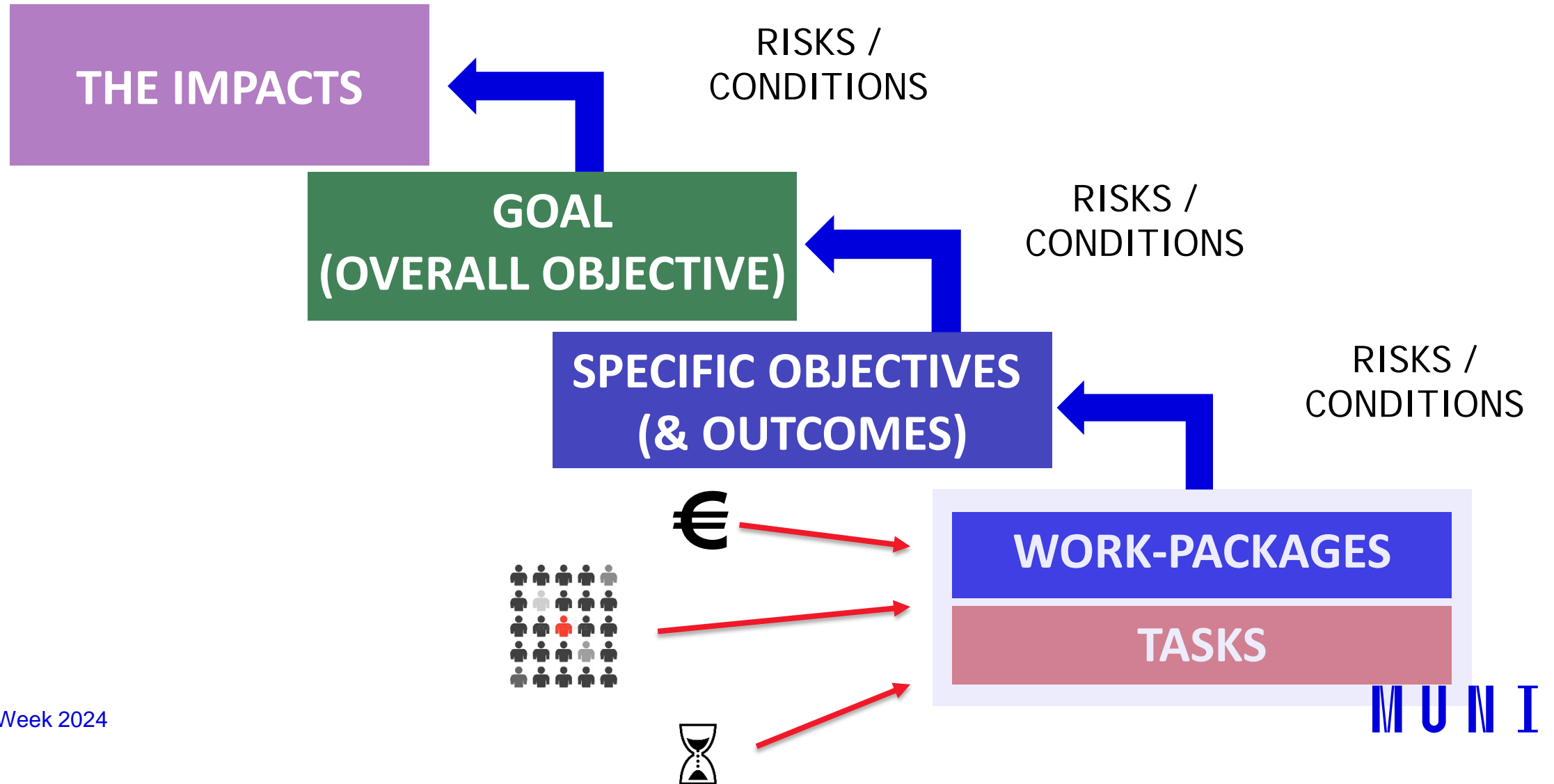
1. Add time
2. Limit scope
3. Put more money

PROJECT WORK PLAN

Project Planning Techniques and Tools



Logical Framework of a Project



SMART objectives

- **S**pecific
- **M**easurable
- **A**chievable
- **R**elevant
- **T**ime-Bound

Logical Framework - example

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	10% increase in the number of Grades 5-6 primary students continuing on to high school within 3 years.	Percentage of Grades 5-6 primary students continuing on to high school.	Comparison of primary and high school enrolment records.	N/A
Outcome	Improve reading proficiency among children in Grades 5-6 by 20% within 3 years.	Reading proficiency among children in Grades 5-6	Six monthly reading proficiency tests using the national assessment tool.	Improved reading proficiency provides self confidence required to stay in school.
Outputs	1. 500 Grade 5-6 students with low reading proficiency complete a reading summer camp	Number of students completing a reading summer camp.	Summer camp attendance records.	Children apply what they learnt in the summer camp.
	2. 500 parents of children in Grade 5-6 with low reading proficiency help their children read at home.	Number of parents helping their children to read at home.	Survey of parents conducted at the end of each summer camp.	Children are interested in reading with their parents.
Activities	1. Run five reading summer camps, each with 100 Grades 5-6 students who have low reading proficiency.	Number of summer camps run.	Summer camp records.	Parents of children with low reading proficiency are interested in them attending the camps.
	2. Distribute 500 "Reading at Home" kits to parents of children attending summary camps.	Number of kits distributed.	Kit distribution records.	Parents are interested and able to use the kits at home.

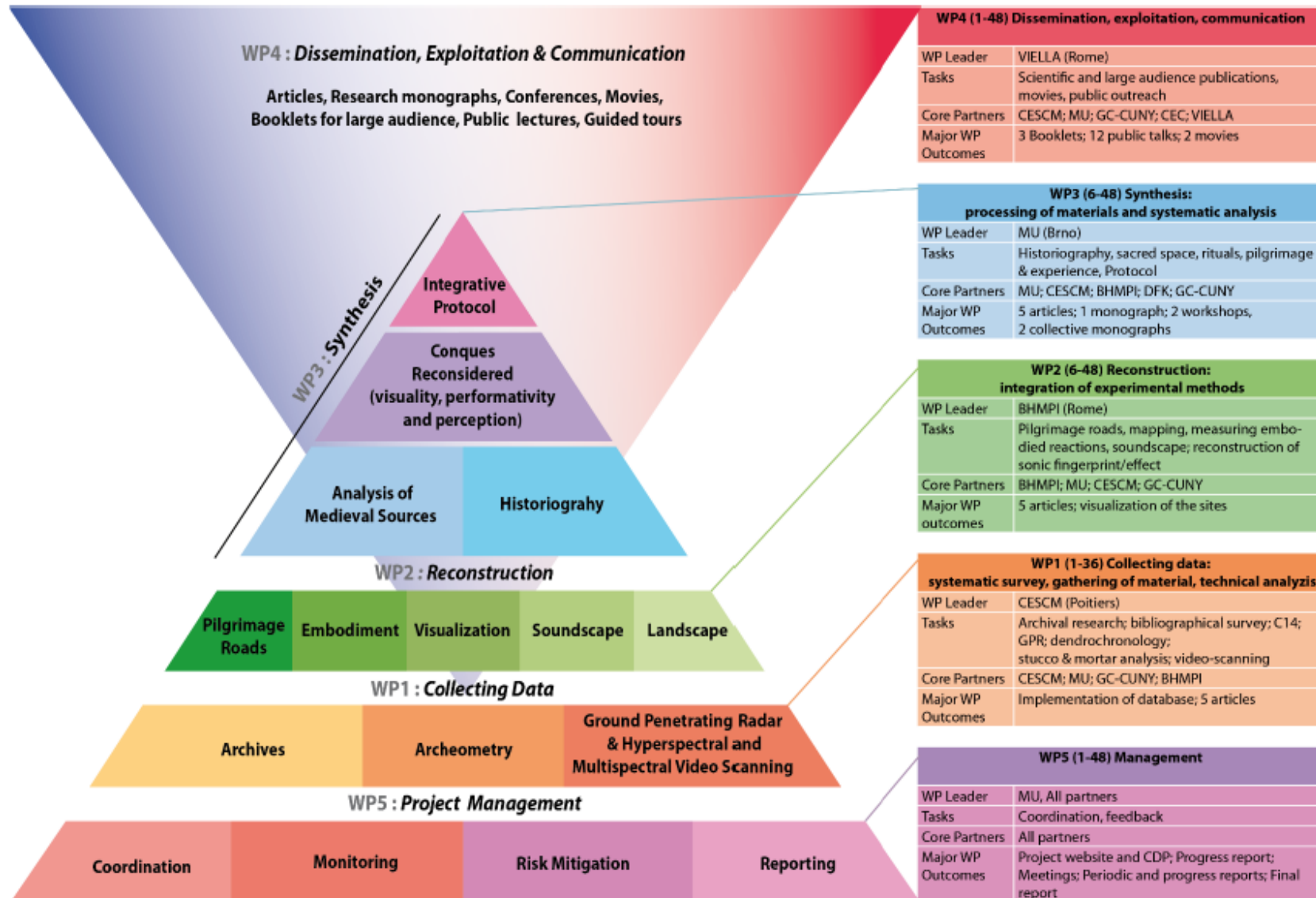
Work Breakdown Structure (WBS)

- All work within a project (scope) – hierarchically „broken down“ into pieces, usually 3-4 levels max
- The beginning of any **schedule** in a project
- You need to define **work packages** (WPs)
- **WP** is a set of activities required to produce a **major project output** (i.e. a tangible result, deliverable)
- **WP** is characterized by **effort and time** and may cover a single task or several related tasks
- **WP** has got their **deliverables**

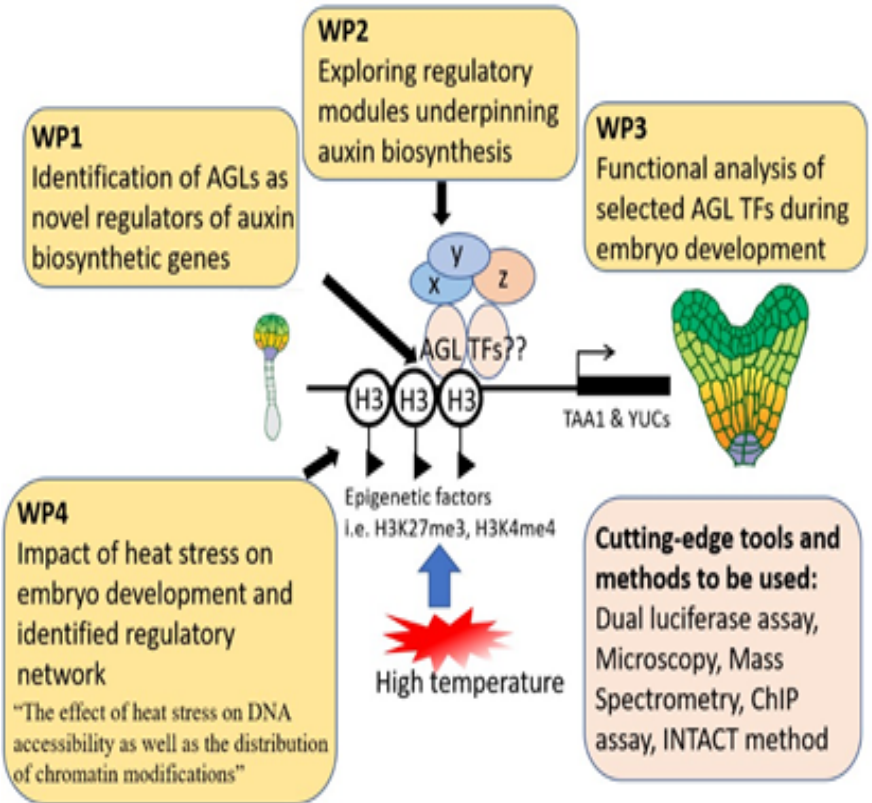
Description of a work package

Work Package Number	3	Start/End Month	M6/M48					
Work Package Title	Synthesis: Processing of materials and systematic Analysis							
Lead Beneficiary	MU							
PO Short Name	MU	CESCM	BHMPI	DFK	GC-CUNY	RU	CEC	VIELLA
Total PM's per PO:	27	19	23	2	0	1	0	0
<p>Objectives: 1) R&I: All the archival, archaeometric, and experimental data gathered during WPs 1–2 will be here analysed into the general framework of the project (see Fig. 1) → OBJ-2/3. This WP will be led by the MU under the supervision of Foletti, the CO; 2) Training: workshop in Conques (2023) and summer schools in RU (2022) and MU (2023). All the consortium will be involved into the analysis process; selected graduate students will also be involved under the supervision of senior scholars; 3) ToK: all the disciplinary knowledge of the partners are involved into the synthetic reflection, and at the same time, to formulate the research protocol → OBJ-3/5. The main Tok will occur during 71 months of secondments from 2022–2024 at GC-CUNY and MU (see 2.2.1.1. p. 12).</p>								
<p>Description of Work (the involved partners are highlighted in blue)</p> <p>Task 3.1 (12-48) Historiography: a) to analyze the scholarly writings and the sources gathered in the archives (→ WP1), of the 19th and early 20th c. about Conques in the context of the history of the diverse involved fields. → CESCM, DFK, MU, RU</p> <p>Task 3.2 (12-48) Sacred space and rituals: a) to reconstruct the original liturgical setting and possibly decorations of the abbey-church; b) to reconstruct the original “Carolingian” building of the abbey-church; c) to reflect on the interactions between space, decorations, objects, and rituals → all academic PO's</p> <p>Task 3.3 (12-48) Pilgrimage and experience: a) to reconstruct the movement of medieval pilgrims to Conques through the landscape and to the sacred space; b) to reflect on the conception of decoration and objects for specific audiences, e.g., pilgrims, regular visitors, monks, etc; c) to propose a comprehensive reflection on the possibilities to reconstruct – through textual sources and experimental methods – the reception of medieval art and architecture → all academic PO's</p> <p>Task 3.4 (12-36/48) Protocol: a) to assess and constitute a transdisciplinary protocol of all involved fields applicable to other sites; a) verification of the protocol → all consortium</p>								
<p>Description of Deliverables: 1) D.3.1. Manuscript of the final monograph to be published in 2024; 2) D.3.2. Manuscript of 5 submitted articles devoted to present the major results of the systematic analysis of Conques (BHMPI, CESCM, DFK, MU, RU, GC-CUNY); 3) D.3.3. Manuscript of 2 articles presenting the protocol; 4) D.3.4. Manuscript of 2 submitted collective monographs proceeding from the 2 workshops which will be published in SAMB (WoS) respectively in 2023 and 2024.</p>								

Presenting Work packages – a scheme

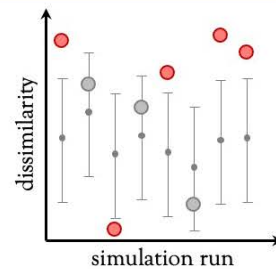


Presenting Work packages – a scheme



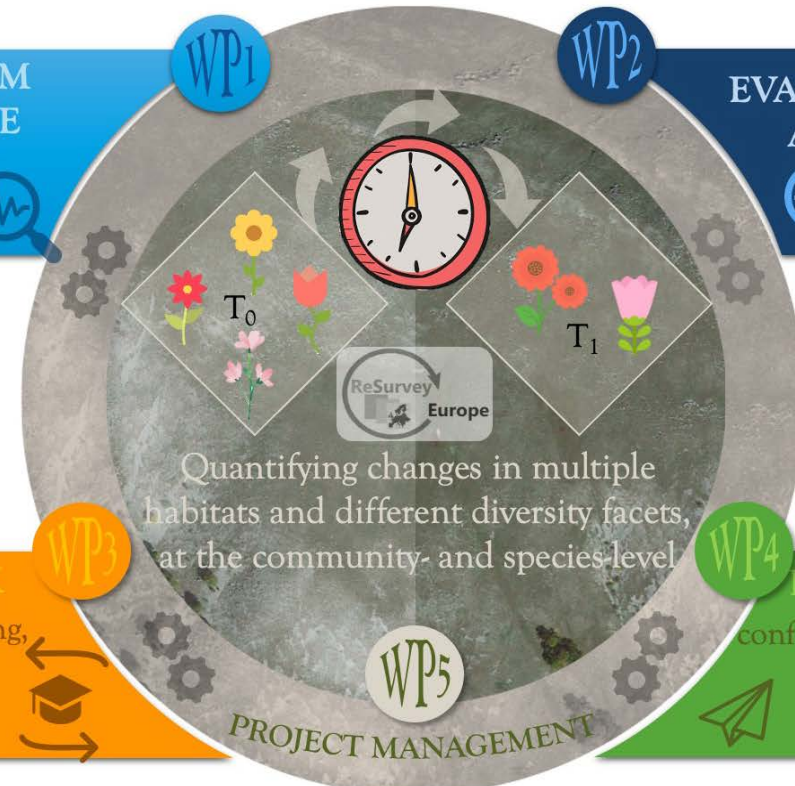
ASSESSING LONG-TERM VEGETATION CHANGE

..and testing for non-random shifts



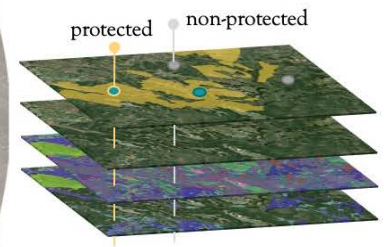
TRAINING AND TOK

courses, personalized training, TRR, hands-on activities, seminars, workshops



EVALUATING PROTECTED AREAS EFFECTIVENESS

..and investigating its driving factors



Quantifying changes in multiple habitats and different diversity facets, at the community- and species-level

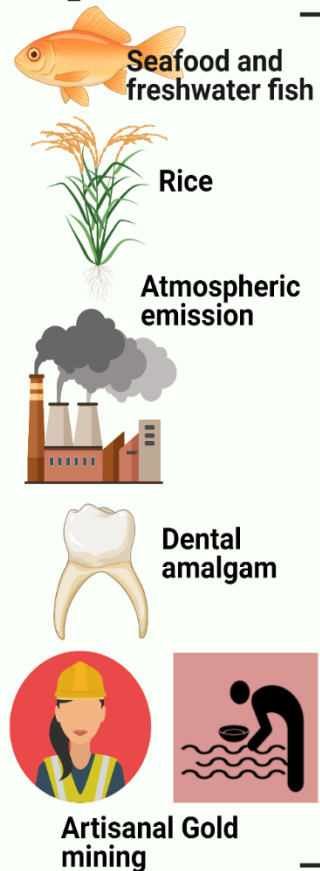
DISS & COMM

conferences, seminars, digital flyers, press releases, social media, short videos, public outreach

PROJECT MANAGEMENT

Project concept – „graphical abstract“

Mercury (Hg) exposure sources



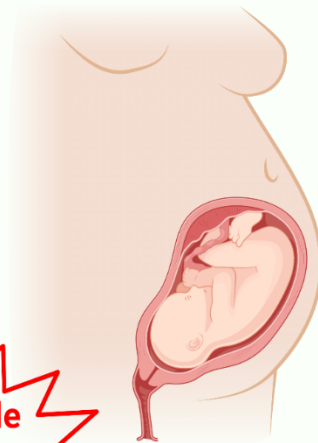
Characterization and relative contribution of Hg exposure sources ?

At global and national scale

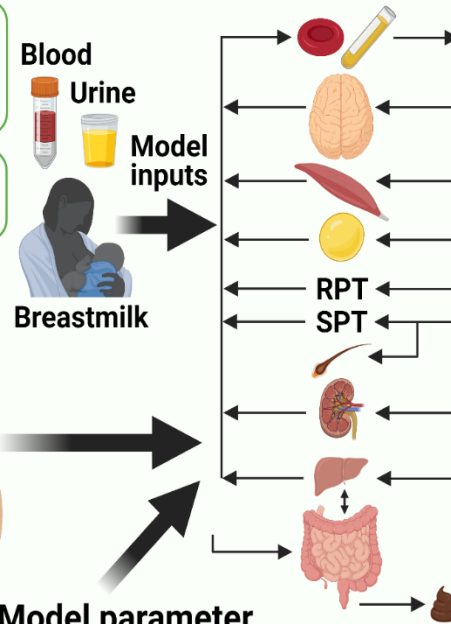
Vulnerable population
Pregant women, Neonates

HBM data:

- **CELSPAC: TNG** (Czech mother-child cohort, original data)
- **Global data** (Literature)



PBPK modelling



Model parameter
-Hg specific: biochemical and physicochemical properties
-Mother-child specific: socioeconomical, lifestyle, diet, physiological, etc.

Knowledge translation

Research-based knowledge on characterization of Hg exposure sources and their relative contributions



MINAMATA CONVENTION ON MERCURY

★ Effective implementation of the Convention related measures

- **Reduced burden on Health sector**
- **Economic benefit** e.g. increased productivity
- **Social justice**
Better health and economy leading to social equality and justice

Fig. 1. The concept, design, and implications of COSMOPOLITAN project

Deliverable

- **Deliverable** is a tangible or intangible **result of the project to be delivered and accepted by the customer / grant provider**
- **Deliverable** differs from milestone
- **a milestone** is an **intangible time- or decision- point** within a project, it is a *measurement of progress* towards an output (see the next slide) whereas the deliverable is the *result of the process*
- Examples of **deliverables**: report, document, server upgrade, functional design, prototype, web portal, knowledge base, publication, business plan, kick-off meeting minutes...

Milestone

- Milestone is a **measurement of progress** towards an output. It is a **decision point** and **control gate** within the work plan
- **Milestones** are decisions influencing further progress of the project



Examples on D & M

Decide in polls....

- In month 10 (M10) you will have completed an analysis, and based on the result of the analysis you will be deciding whether to use *method A* or *method B*. Are we talking about a milestone or a deliverable here?
- In month 3 (M3) your website is to be ready and published. Are we talking about a milestone or a deliverable here?
- In month 5 (M5) you should publish your research paper. Are we talking about a milestone or a deliverable here?

Gantt Chart

- Gantt chart is simply **WBS' tasks on a timeline**
- It helps to assess overlaps (of tasks), allocate resources, identify potential bottlenecks and reserves, gives a picture of overall **feasibility**
- It allow for **project monitoring** and
- It marks significant “time-points“ where „something“ should happen
- It is also something to look **clear and nice to the reviewer ;)**

Example of a Gantt Chart

GANTT CHART																								
Demarginalizing Medieval Georgia: History of Art History between Colonial Perspective and Nationalist Appropriation (1921–1991)																								
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Research Work packages																								
WP1	D1.1	T1.1 – T1.3			M1	D1.2																		
WP2							T2.1				T2.2–T2.3		M2	D2.1										
WP3															T3.1–T3.2		M3							
WP4																	T4.1–T4.4				M4	D4.1		
WP5								T5.1–T5.2		M5														
Dissemination and public outreach Work package																								
WP6																			D6.1				D6.2	
<i>Conferences</i>								C1		C2				W1							C3			
<i>Public outreach</i>			P1				P2							P3				P4				P5		P6
Training Work package																								
Training	TA1				TA2		TA3		TA4			TA5				TA6		TA7				TA8		
Legend																								
T=Task ; M= Milestone ; D= Deliverable; C= Conference; W= Workshop; P= Public outreach; TA: Training activity																								

Example of a Gantt Chart

InterTau Gantt Chart

Schedule of the InterTau key activities indicating milestones, deliverables, evaluations, reporting, and major dissemination and communication activities

YEAR MONTH	Year 1												Year 2												Year 3												Year 4											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
WP1 Preparation of models of tau filaments relevant to individual tauopathies																																																
T1.1 Preparation of native and phosphorylated monomeric Tau proteins																																																
T1.2 Incorporation of non-canonical amino acids within the Tau protein																																																
T1.3 Production of Tau oligomeric and fibrillary material																																																
T1.4 Preparation of tubulin, 14-3-3 and Map2																																																
WP2 Investigation of key structural changes in soluble Tau leading to pathologic aggregation																																																
T2.1 The non-uniform sampling (NUS) measurements of Tau WT and Tau variants																																																
T2.2 Assignment of NMR spectra of Tau WT and selected Tau variants																																																
T2.3 Phosphorylation kinetics of monomeric soluble Tau																																																
T2.4 Binding characteristics of monomeric soluble Tau/phosphoTau																																																
T2.5 Characterization of kinetics and regions involved in the oligomerization of Tau variants																																																
WP3 Comprehensive characterization of Tau filament structure																																																
T3.1 ssNMR-based screening of Tau WT and selected phosphoTau fibrillation condition																																																
T3.2 Assignment of Tau WT and selected phospho Tau																																																
T3.3 Binding regions of Tau/phosphoTau towards mAb DC11, 14-3-3, microtubules																																																
T3.4 Structural models of Tau/phosphoTau binding mAb DC11, 14-3-3, microtubules.																																																
T3.5 Analysis of Phf from animals by Cryo-EM																																																
T3.6 Analysis of recombinant Phf by Cryo-EM to validate ssNMR results																																																
T3.7 Characterization of interaction properties of pathological soluble and fibrillary Tau																																																
WP4 Translation of tau structural changes to cellular signal, networks and interneur. propag.																																																
T4.1 HTA platform to study the efficiency of Tau on their inter-neuronal propagation																																																
T4.2 Characterization of mitochondrial bioenergetics and neuronal vulnerability in neurons																																																
T4.3 Identification of molecular mechanisms leading to neurofibrillary degeneration																																																
T4.4 Preparation of a new database of interactome and regulome data																																																
T4.5 Validation of interaction pathways/partners of Tau protein																																																
WP5 Integration and Exploitation																																																
T5.1 Analysis of the proposed mode of action of current anti Tau vaccines																																																
T5.2 Formulation of new hypothesis about anti-tau therapy mode of action																																																
WP6 Dissemination and project management																																																
T6.1 Project administration and monitoring																																																
T6.2 Risk management																																																
T6.3 Promotional and dissemination activities																																																

- M A Milestone
- D A Deliverable
- R Periodic / Final Report towards REA
- r Progress Report
- W Open International Scientific Workshop
- M Mid-term Meeting with REA
- P Lectures for general public
- P MSCA Open Days / Researchers' Night / RSCI Research day
- J Publication in a high-impact peer-reviewed journal

Project teams in research

At the level of coordinating organisation

- Project **coordinator** (and possibly WP leaders / task leaders)
- Project **management team** (Project manager and – financial manager, PR & event manager, project administrator, etc.)

At the level of partner organisation

- **Principle investigators** (and possibly WP leaders / task leaders)
- A project **administrator**

At the level of consortium

- Project **Steering Committee**
- Optional, but recommended – an **External Advisory Board**

Project coordinator / manager

- Leads the team and is **accountable for achieving project objectives**
 - Helps **write** and **coordinate preparation** of the grant proposal
 - Assembles the team (and the consortium)
 - Defines the roles and tasks
 - Manages and plans interactions with key stakeholders
 - *Operational management*
 - *Guides the project team*
 - *Monitors project work and proposes changes*
 - *Manages the reporting, amendments, communication with funder*
- **Acts proactively**
- Has to be respected by the team

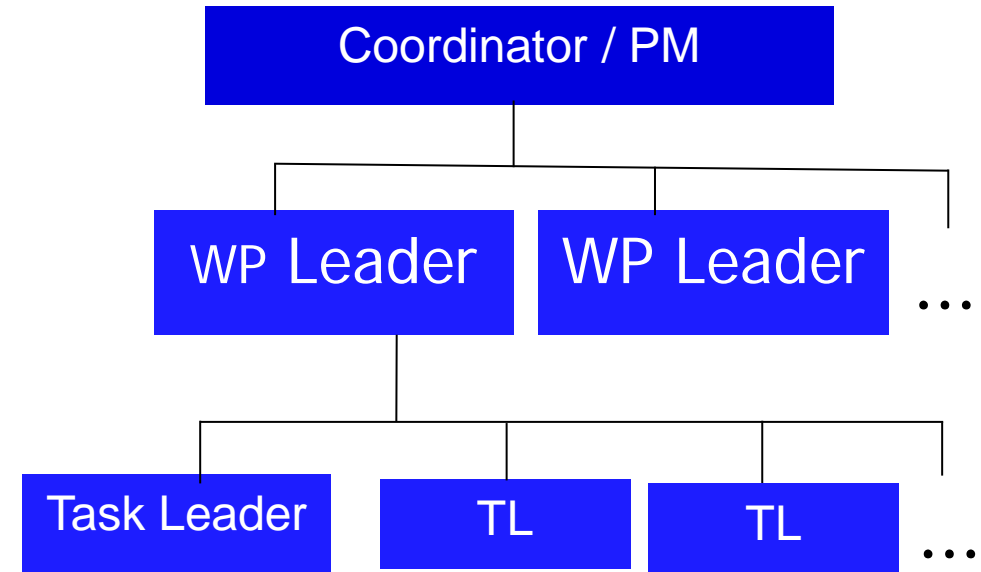
Project team role

- Project team completes the work of the project
 - They do the work according to project plan
 - Help identify requirements, constraints and assumptions
 - Monitor and identifies risks
 - Participate in activity planning and provides estimates
 - Participate in meetings
 - Prepare reports and deliverables
 - Raise requests for changes (amendments)

Planning – HR Management Plan

Roles and responsibilities

- Role
- Authority
- Responsibility
- Competency



Human Resource Plan

- Project organization chart
- RACI matrix

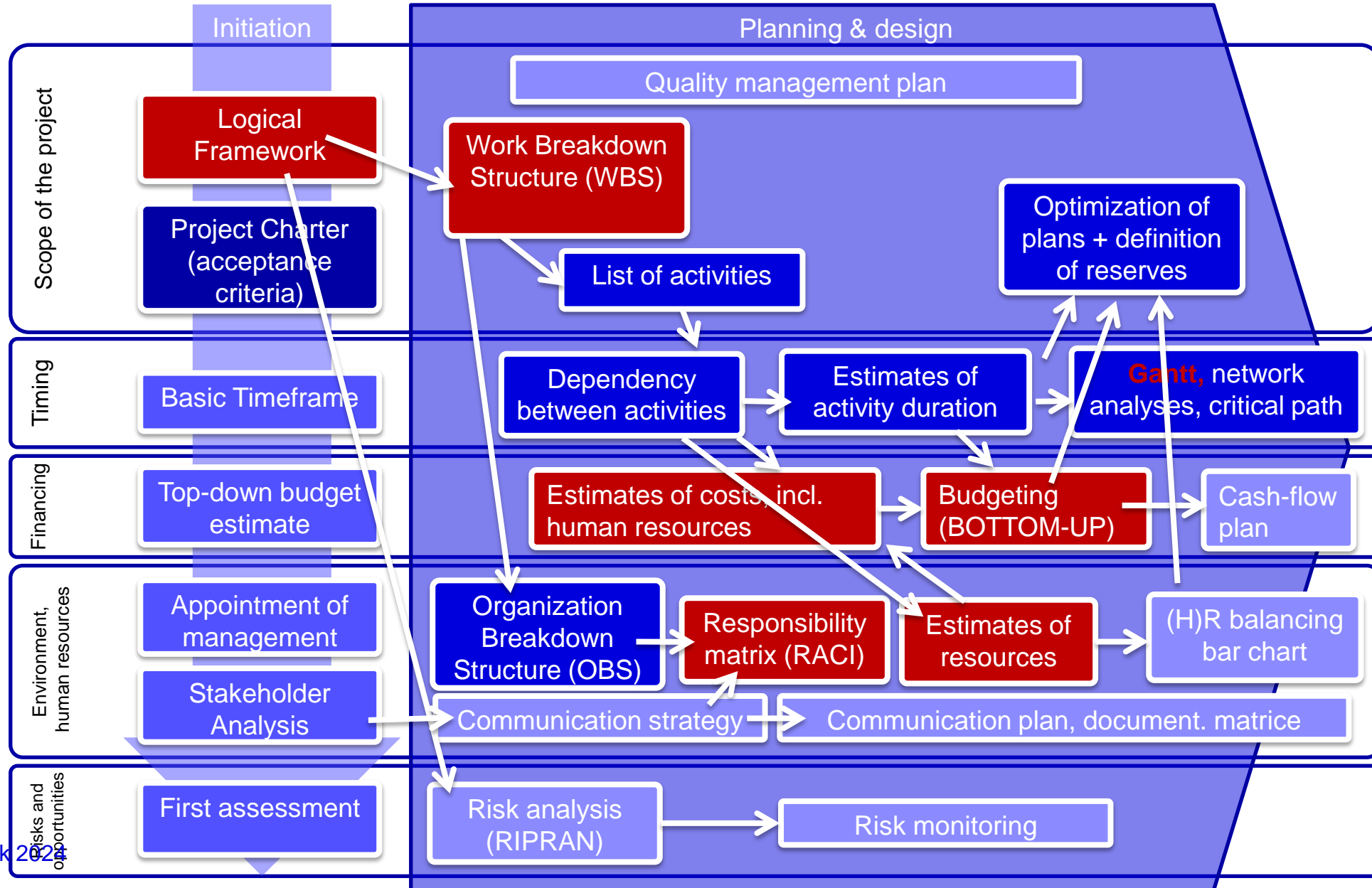
Work package	Brno team	Prague team	Vienna team
Sample preparation	A	R	R
Sample analyses	A	R	C
Conference organization	I	I	A,R

R – Responsible
 A – Accountable
 C – Consulted
 I – Informed

But what is the surroundings?

- What **duties** do you think you have towards the funder during project implementation? How does it work?
- And who are the **Project stakeholders** – generally in project management and in the world of research specifically? What interest they have? How shall we treat them, deal with them? Do we need to care?
- **Stakeholders** – research **ethics**, **open science** and how your research can be scrutinised by unexpectedly **broad audience**... any ideas and comments on this point?

Project Planning Techniques and Tools

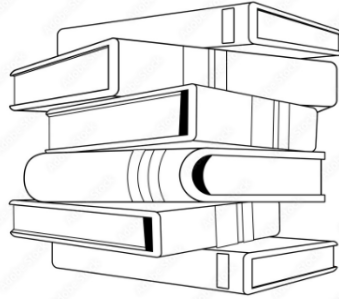


M U N I

Grant writing for early career scientists

Veronika Mikitová, Zdenka Žampachová

Why writing matters in science?



Grant applications
Publications
Presentations
Project reports
Thesis revisions
Paper reviews
Emails

Postdoc

Many grant applications
Lots of publications
Grant evaluation
Group evaluation reports
Project reports
Paper revisions
Revisions of thesis
Many presentations
Tons of emails

Researcher

PhD thesis
Publications
PhD project reports
Presentations
Emails

Student



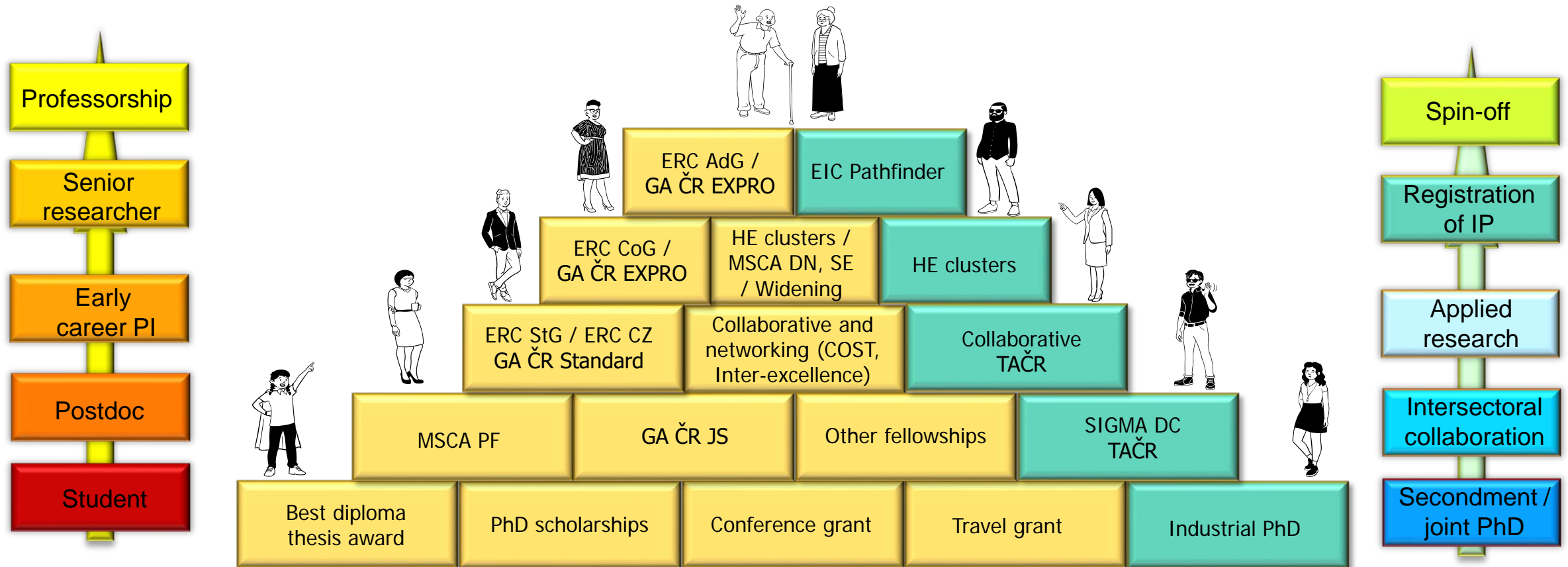
To write or not to write a grant?

- A. **Apply for postdoc positions** in specific research group
 - jobhunting, no need to write proposal, selected based on CV, motivation letter and interview.
- B. **Apply for research grant / fellowship**
 - grants tightenned to specific topic/requests/funder´s expectations that you have to match with (foundations, industry).
 - grants without predefined topic (MSCA PF, GAČR Junior Star).
- C. **Combination of both**
 - get hired as postdoc and write a grant application with your supervisor

Research grant

- provided by **funding bodies** (internal or external, international or national, governmental or private), foundations, corporates, professional associations
- awarded to achieve **goals and objectives** described in the proposal. Thus, the idea/problem statement of the proposal must be in line with what the agency expects
- **grant vs. fellowship** = grant awarded for research project but with a strong emphasis on a researcher/fellow conducting the work.

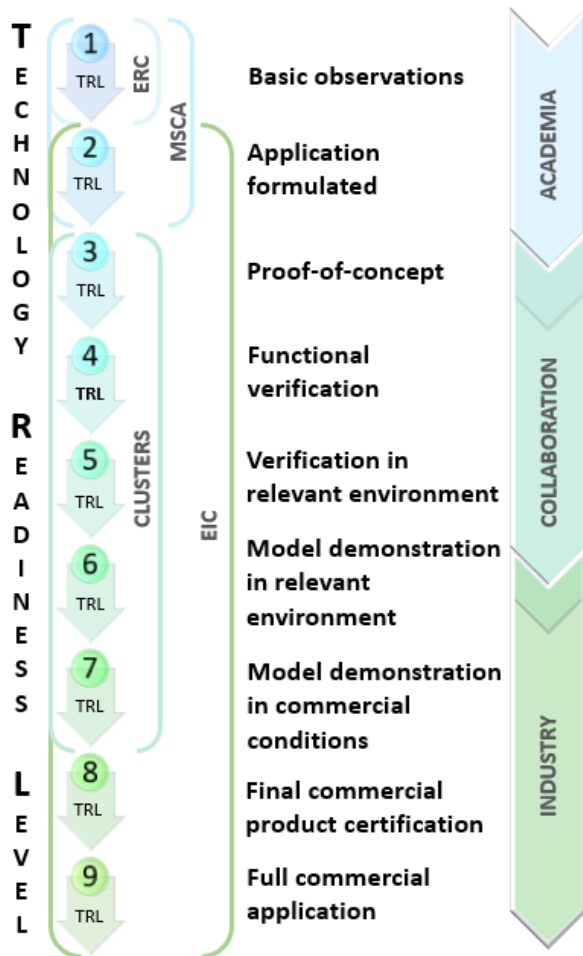
The journey to (non-)academic success



How can I survive in this jungle?

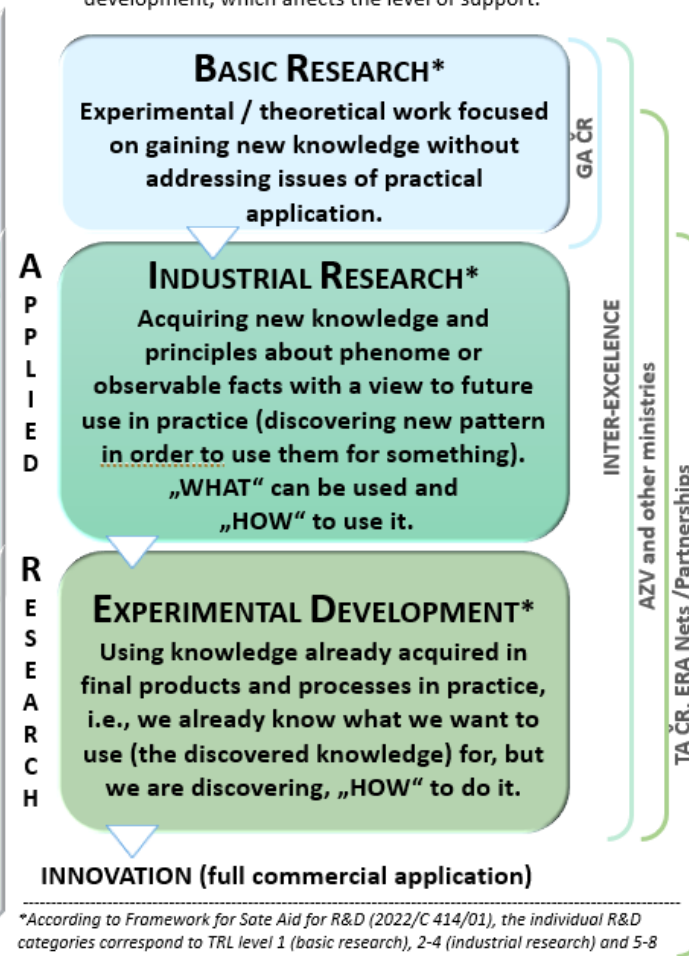
INTERNATIONAL PROJECTS

We follow the TRL scale (Technology Readiness Level) and individual schemes (ERC, EIC...) are limited by the level of support.

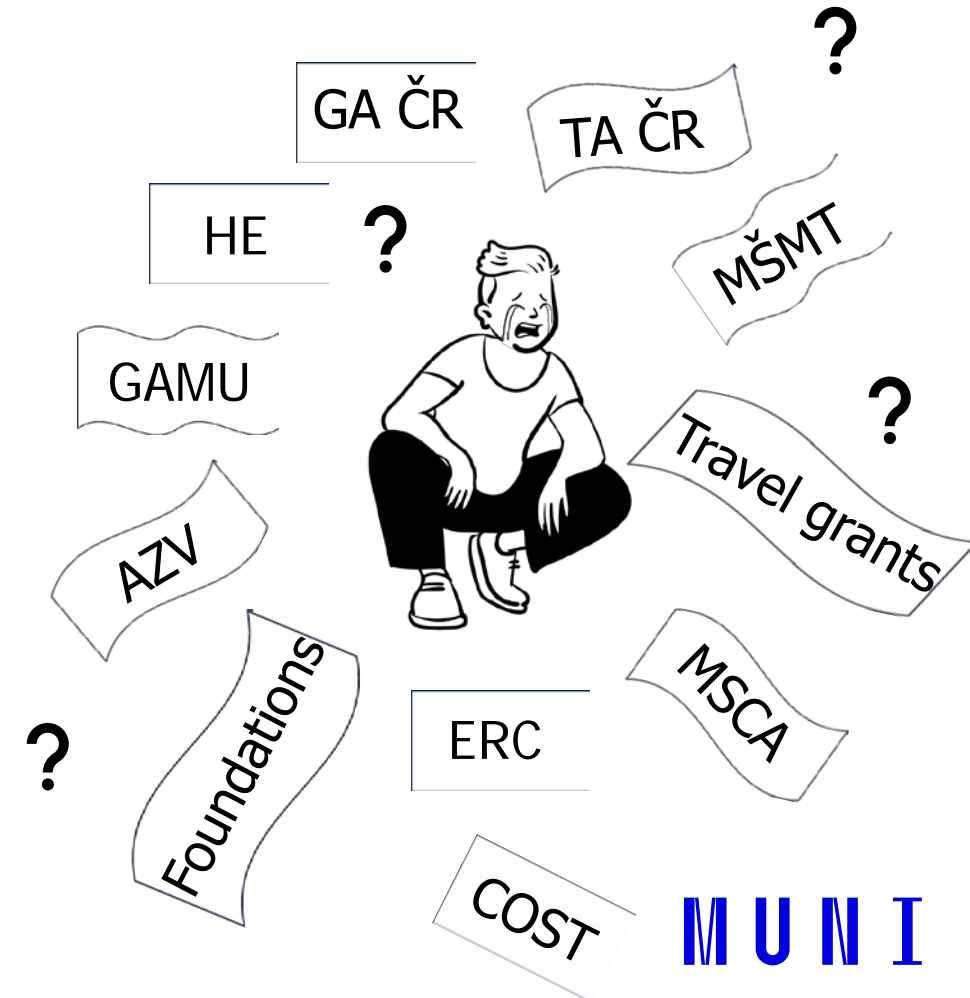


NATIONAL PROJECTS

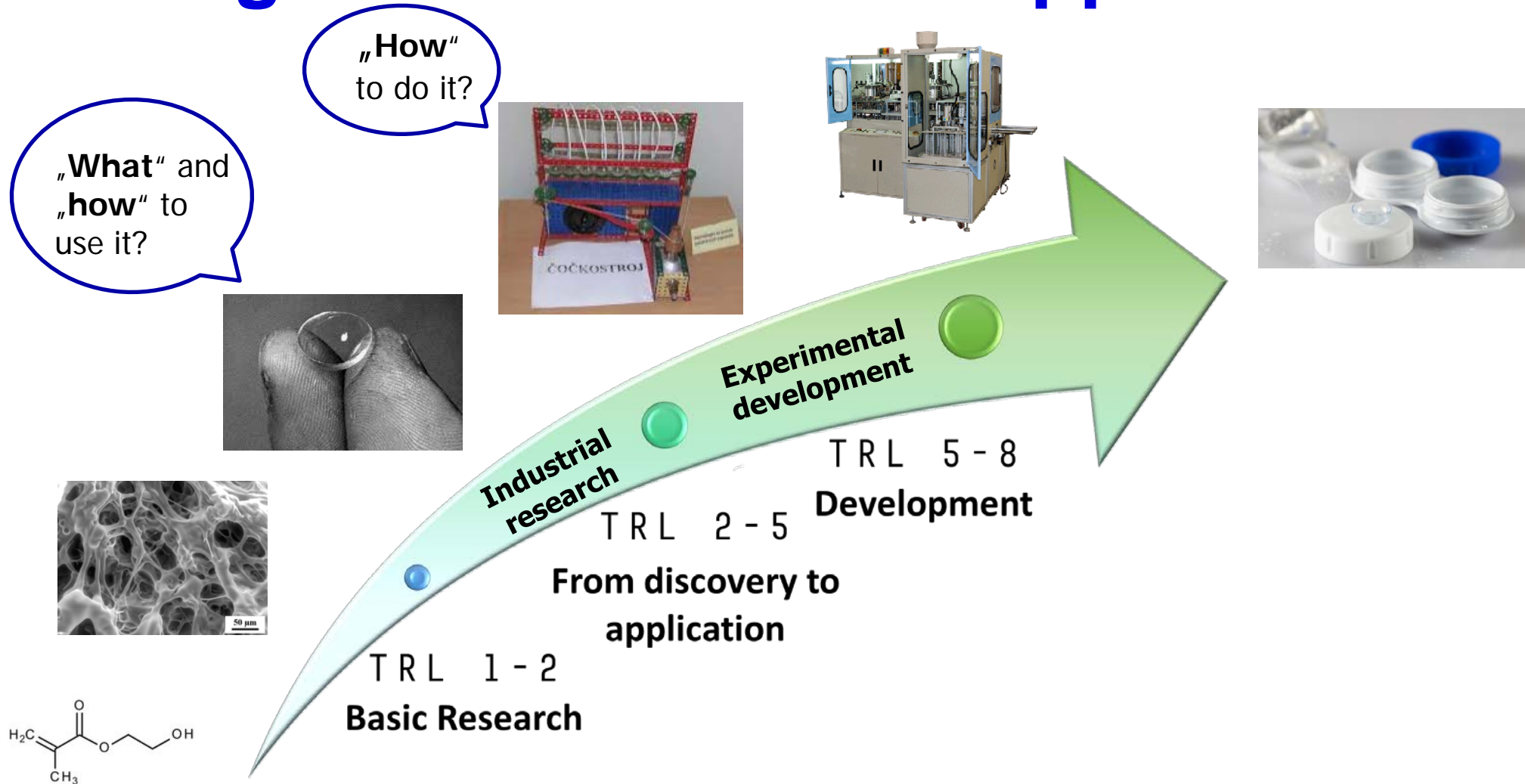
TRL scale is not used (possibly only as a guide), but it is necessary to indicate what percentage of the project involves basic research, industrial research or experimental development, which affects the level of support.



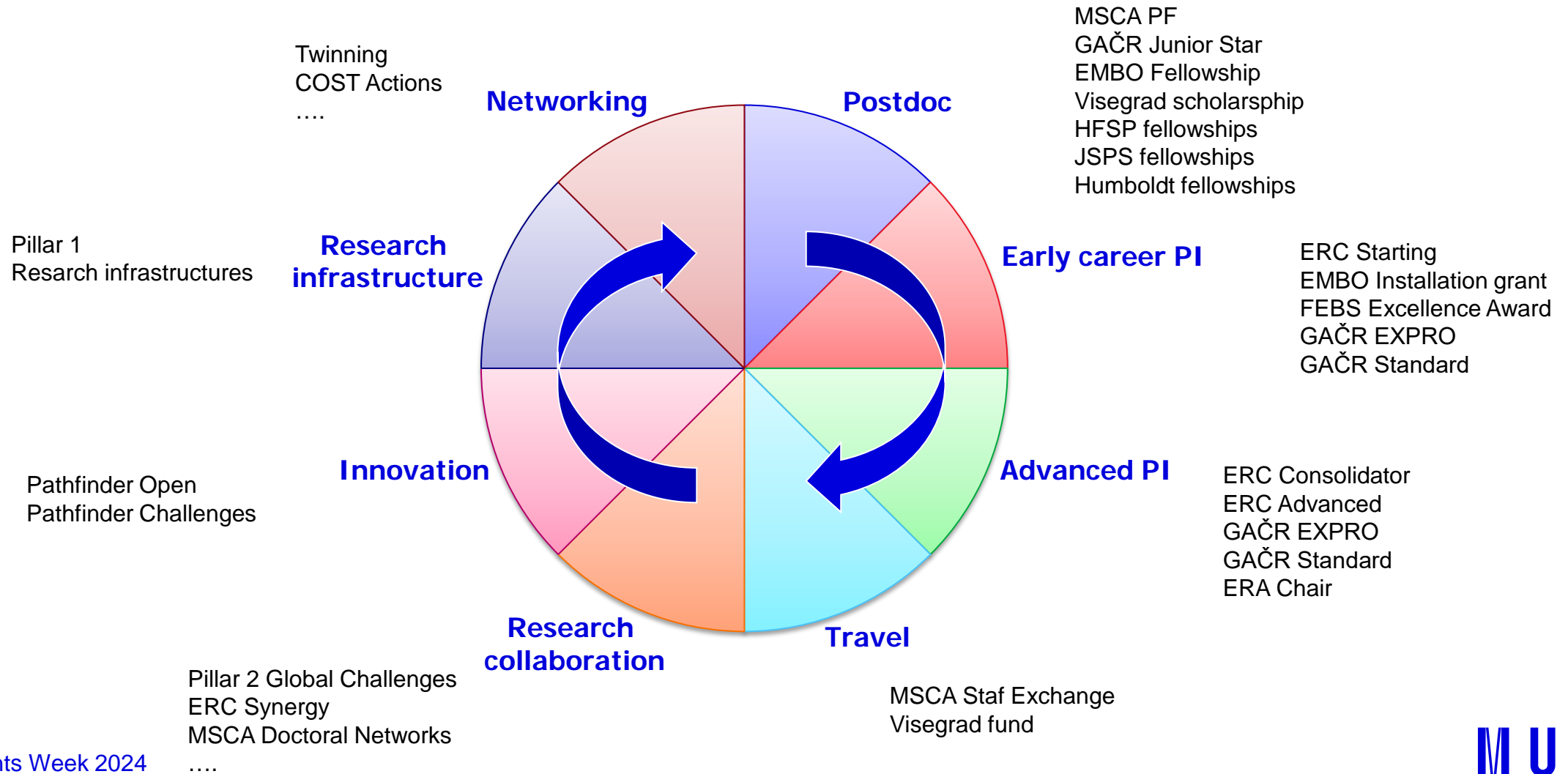
*According to Framework for State Aid for R&D (2022/C 414/01), the individual R&D categories correspond to TRL level 1 (basic research), 2-4 (industrial research) and 5-8 (experimental development).



Funding search – basic or applied research?



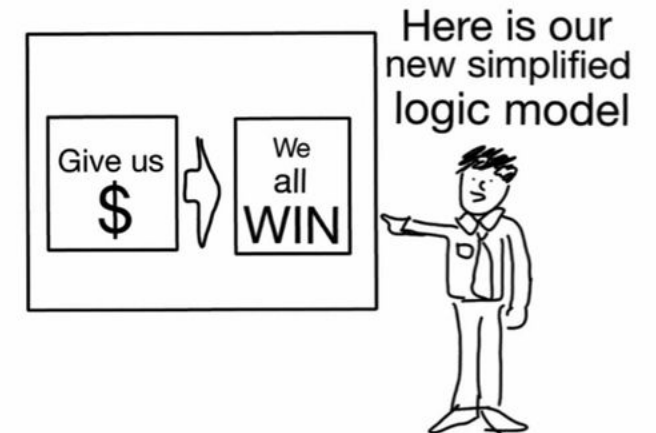
Various types and purposes of funding



Challenge

You are competing with other scientists in your field for the same funding and for the space in journals.

- Funding agency = your sponsor
- Research project = product that you have to sell
- Grant application = strategy that has to convince funding agency to buy your product that it is unique (it does not exist in the market) and is the exactly what the field needs right now.



Phases of proposal development



A. Idea development

- Choose **topic you and funding agency are passionate** about and you have some experience with.
- Choose **supervisor** who is willing to discuss and elaborate on your idea with you. Make the best of your supervisor!
- Communicate, collect feedback from your peers and advisors, ask for help.
- Allow plenty of **time** – a rushed proposal will show

B. Strategies for funding search

- Database search ([Research Connect](#), [Scientify Research](#), [grants.gov](#) for US federal funding)
- Subscription service ([Grants Division News](#) on Portal MUNI)
- Exploration of funding agency/organization websites ([FTOP](#) for EU funding, [GAČR](#), [TAČR](#), [MEYS](#), foundations etc.)
- News and email alerts that come from professional societies ([Věda a výzkum](#), [Horizontevropa.cz](#) from TC Prague)


C. Proposal planning and writing

Project idea

- know the current state of the art
- appropriate methodology

Workplan

- organize project activities
- plan resources



Text structure – helps guide the reader. If it is not clear, the content is not understood.

- defined or not by the funder
- short paragraphs rather than a solid block of text
- short sentences
- images/charts/diagrams

Content – defines value. Concisely and convincingly conveys the project's importance, and alignment with the funder's goal.

- writing style

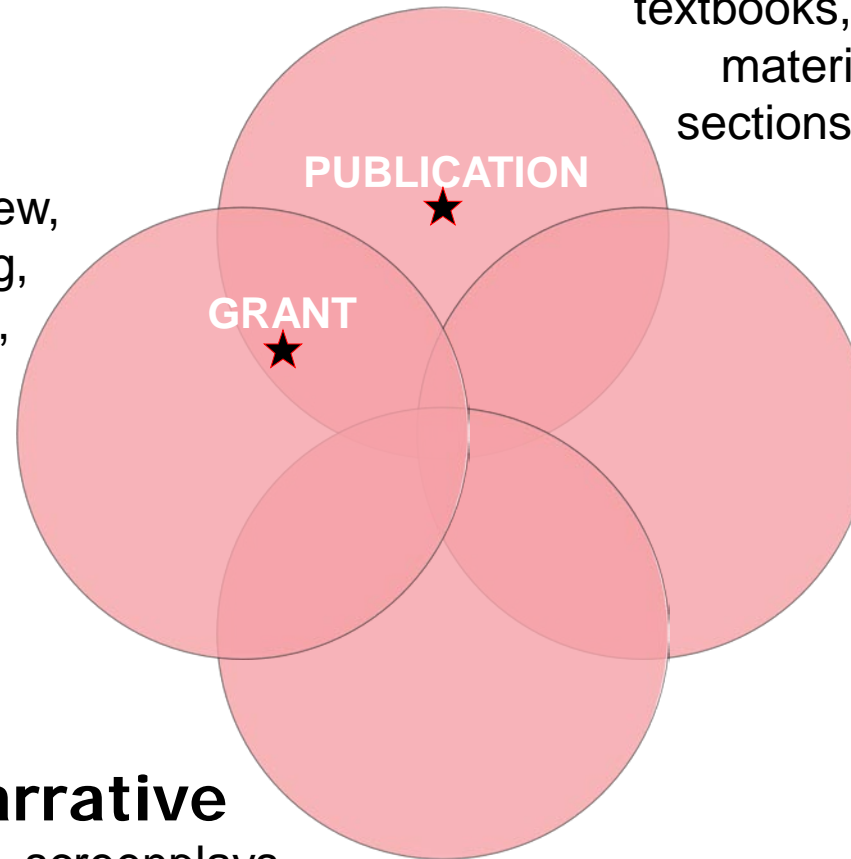
Types of writing styles

Persuasive
advertising, product review,
opinion & editorial writing,
cover/motivation letter,
evaluation report

Expository
textbooks, instruction manuals,
materials and methods
sections, news articles, CV

Descriptive
diary entries,
poetry, nature writing,
travel writing,
observations

Narrative
novels, screenplays,
biographies, mythology,
creative nonfiction



Grant vs. publication writing style

Academic writing:

Researcher-centered:

Scholarly passion

Past oriented:

Work you have done

Expository:

Explaining to reader

Impersonal:

Objective, dispassionate

Individualistic:

Usually solo activity

Verbosity rewarded:

Few length constraints:

Specialized terminology:

"Insider jargon"



Grant writing:

Sponsor-centered:

Service attitude

Future oriented:

Work you wish to do

Persuasive:

"Sell" the reader

Personal:

Convey excitement

Team-oriented:

Feedback needed

Brevity rewarded:

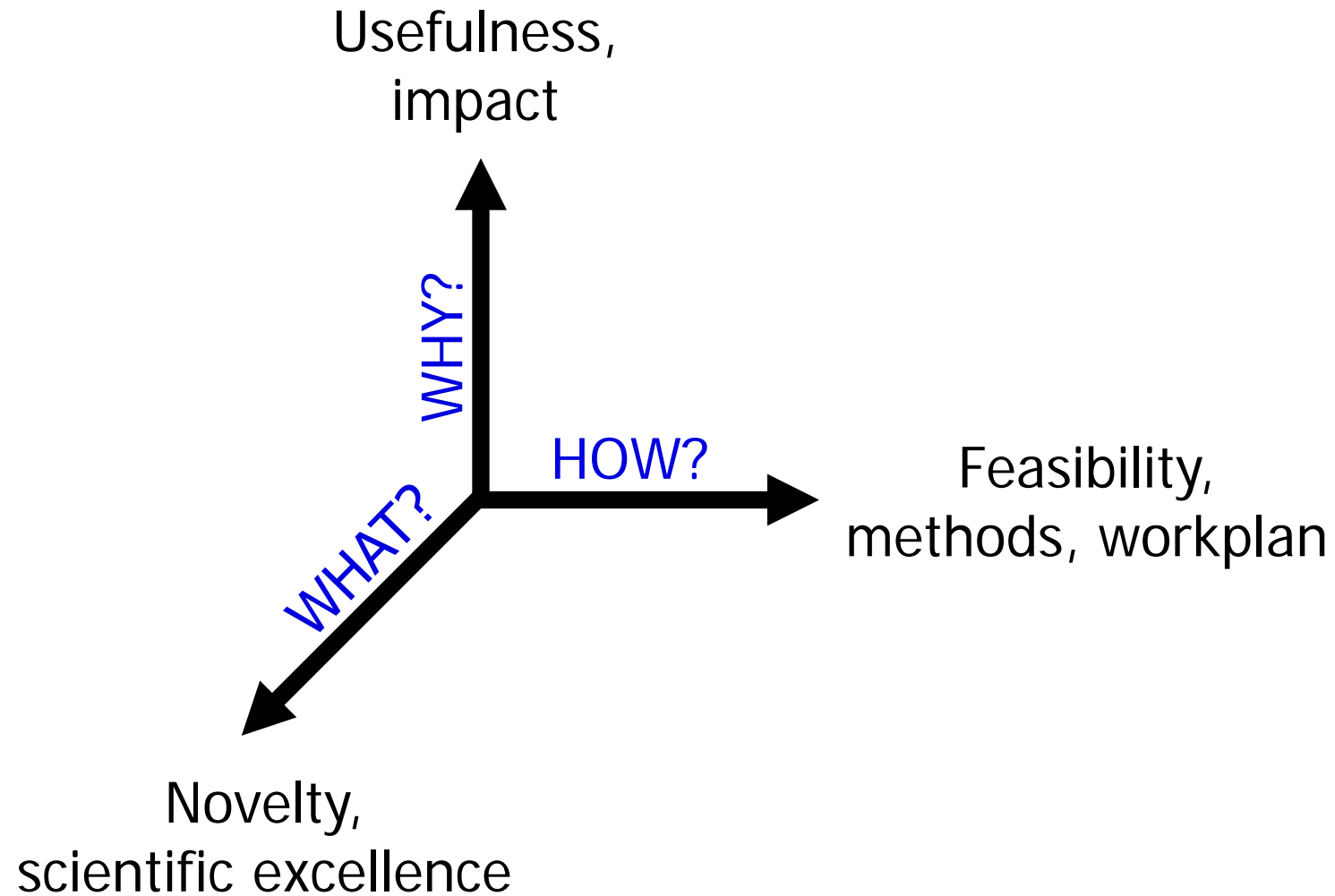
Strict length constraints

Accessible language:

Broad audience

*Porter R. (2007): Why Academics have a hard time writing good grant proposals, *Journal of Research Administration*, 38(2), 161-167

Three dimensions of research proposal



Suggested structure for a research proposal

- Title and abstract
- Introduction/summary

– State of the art

WHAT

– Project aims and hypothesis

– Methodology

HOW

– Workplan

WHEN AND BY WHOM

– Impact

WHY

Introduction

- What is the studied topic and research problem?
- **Why should the funder support your proposal?** Why is it worth pursuing? What is your motivation?
- What is the overall goal?
- Why is it exciting?
- Is there a hypothesis you want to investigate?
- Do not use jargon, just plain English, make it understandable to non-specialist audience
- Graphic summary appreciated

State of the art

- Select only the most important facts that are essential to understand your project goals (which S-o-t-A is relevant to your project?).
- Clearly identify the gap of knowledge.
- How your research differs from the existing research on the given topic?
- Have you already contributed to current S-o-t-A?
- Avoid long, complicated sentences.

Project aims

- **Example 1:** The aim of this project is to develop a sustainable, cost-effective energy solution for rural communities in EU that reduces carbon emissions by 50% within five years.
- **Example 2:** The aim of this project is to study the effect of the climate change.
- **Example 3:** The aim of this project is to cure cancer within the next year.
- **Example 4:** The aim of this project is to measure the effect of a new drug on 4 different types of cancer cells *in vitro*.

Methodology

- How will you do what you want to do?
- Highlight the most original, innovative and interesting concepts, methods, approaches.
- Link methodology with project objectives.
- Does your project have an interdisciplinary perspective?

Workplan

- Structure your research plan (workpackages, tasks)
- Suggest a time schedule (gant chart)
- Define the deliverables = outcomes of your work
- Discuss possible risks and suggest contingencies

	YEAR 1												YEAR 2														
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
WP1	Set up of XY protocol																										
Deliverables	1.1					1.2																					
Milestones	1		2		3																						
WP2						Application of XY protocol on mutants																					
Deliverables									2.1										2.2								
Milestones																4	5	6									
WP3													Quantitative analysis of mutants														
Deliverables																			3.1				3.2	3.3	3.4		
Milestones																			7		8						

MONTHS	3	6	9	12	15	18	21	24	27	30	33	36
WP1						D1.1						
Task 1.1			M1									
Task 1.2				M2		M3						
WP2							D2.1					
Task 2.1						M4						
WP3							D3.1	D3.2				
Task 3.1								M5				
WP4										D4.1	M6	D4.2
Task 4.1										M7		
Task 4.2											M8	
Task 4.3												M9

Impact – what difference will your project bring?

Scientific

How will your findings help closing the gap of knowledge?
How will the current knowledge advance?

Technological

New technology development

Clinical

Decreasing mortality, increasing efficiency of healthcare

Economic

Decreasing costs, bringing new products or services to market

Societal

Higher employment, better work life balance, better public awareness

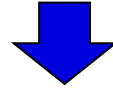
Impact - example

Aim: To develop a sustainable, scalable, and cost-effective technology for capturing and storing carbon dioxide emissions from industrial processes, with the goal of mitigating climate change and promoting a circular economy.



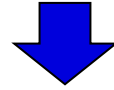
Environmental

- climate change
- biodiversity preservation
- air quality improvement



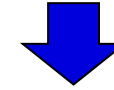
Economic

- job creation
- economic growth
- new market opportunities



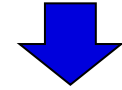
Societal

- public health
- community development
- social equality



Technological

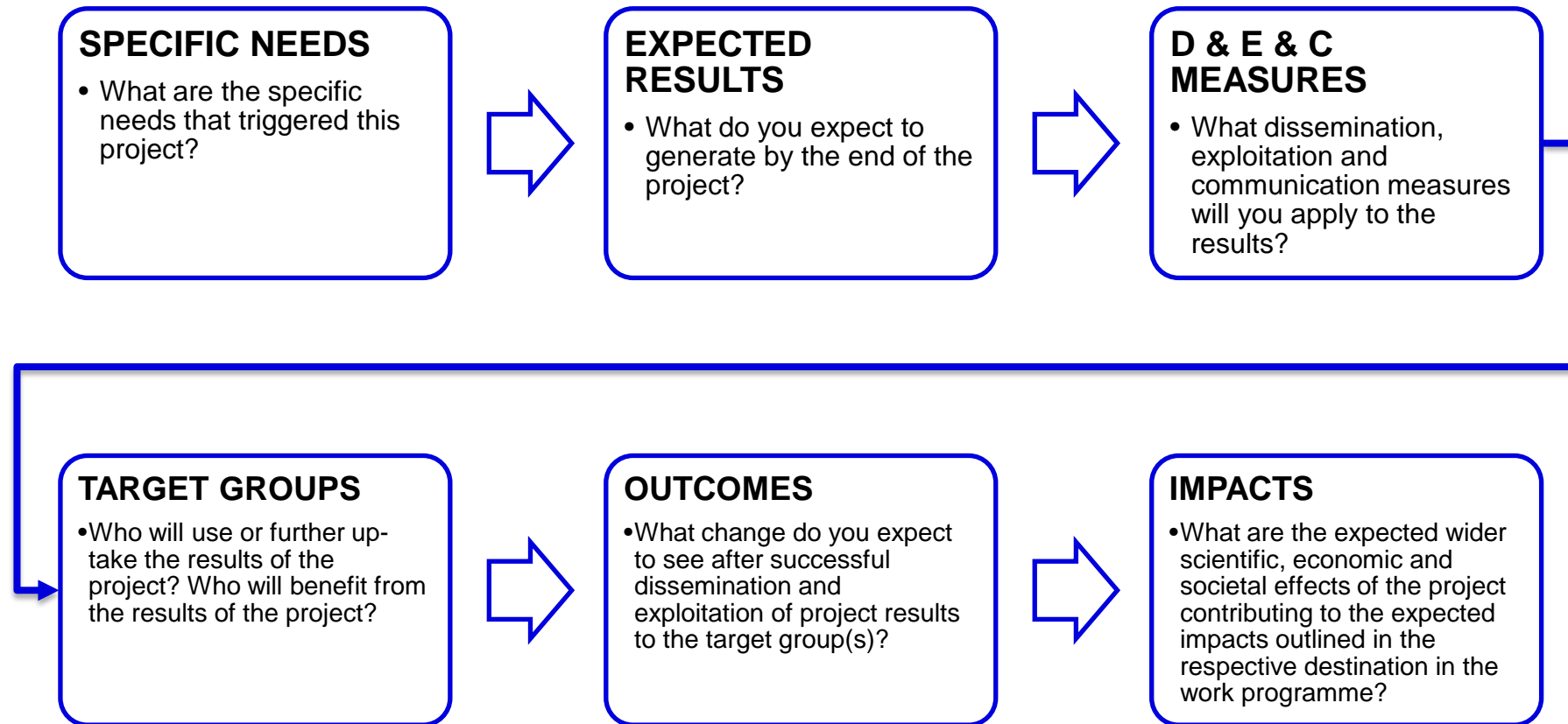
- technological advancement
- innovation



Policy

- policy development
- international cooperation

Writing Impact in Collaborative projects



Non-scientific aspects in research grants

GENDER

- Integrate gender dimension in your project – analyse differences between men and women (biological, societal and cultural features) in the R&I content of the project.
- Read MU Gender Equality Plan ([GEP](#)).

OPEN SCIENCE

- Apply practices such as early and open sharing of research via pre-registration or results, data deposition in shared repositories, pre-prints, immediate and open access to scientific publications, data, models, protocols, notebooks etc, promoting public engagement in research, enhancing public trust in science ...
- Consult with [open science methodologist](#) at your faculty

RESEARCH DATA MANAGEMENT

- Check the research-data requirements of your funder.
- Use help of application to create Data Management Plan (DMP) such as [DSW](#).
- Apply FAIR approach (Findable, Accessible, Interoperable, Reusable)
- Define the data handling processes and assign responsibilities for data handling
- Find data repository used in your research community.
- ...

Non-scientific aspects in research grants

DISSEMINATION

- Means promotion and raising awareness about obtained results and outcomes
- Identify the outcomes and peers who will be informed about them.
- How do you get the results to users of generated knowledge?
- Typically, publications and presentations
- All publications need to be OA (budget it!)
- Strategies to ensure uptake of applied research

EXPLOITATION

- Means making practical use of results for commercial or policy purposes
- To whom is the commercial value of interest?
- Knowledge management – consult the exploitation and dissemination strategy
- Protection of necessary
- Open access as much as possible
- If applied: Business Plan

COMMUNICATION

- Means making your research activities known to society (the public and the media) by promoting your project including its results, achievements, expectations, project activities, lessons learned etc.
- Tools for promoting the project and its results: website, press, social media, YouTube, blogs, podcasts, apps, mentoring, project branding...)
- Connect to outreach and public engagement

Best practise of successful grant applicant



Write for
your audience



Be authentic



Write when you
feel like



Revise, revise,
revise

M U N I

Question?

Grant Office, Research and Development Office, MU Rectorate