

foRMAtion Teaching Material

IO3 foRMAtion teaching material for the international curriculum for RMAs

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Table 1 – Document Control Sheet

Versioning and Contribution History

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Table 2 – Versioning and Contribution History





Executive Summary

Intellectual Output 3 (IO3) aims to develop the teaching material for the international curriculum for future Research Managers and Administrators (RMAs), which includes various innovative educational tools, to develop students' professional and transversal skills. In line with the outcomes of the transnational meetings and the main findings of the methodological guide and good practice collection (IO1), the curriculum and the teaching material is based on the "learning outcome approach", fostering a student-centred teaching-learning process, and applying several modern and innovative educational tools and methodologies such as Problem Based Learning.

It provides tools and methods for instructors to develop students' most important soft skills that they might need as RMAs such as cooperation, (written and oral) communication, problem solving, flexibility, time management, networking, negotiation etc. The development of these skills and competences is enhanced not only by the application of innovative teaching methods but also by shaping teachers' attitude and views on their role in the learning process and on the goals of the learning process. Several activities aim to enhance the digital skills of the students and their familiarity with working with different applications and online interfaces. The ability to exploit these tools is becoming increasingly important, as they enable a more flexible and more efficient work and they provide the conditions for a smooth collaboration for teams in an online environment. In some cases, such as applying different applications for writing quizzes or brainstorming, involvement of digital tools serves the purpose of making the teaching-learning process more playful for students, thus contributing to increase their engagement. Each lesson includes activities which require the cooperation of students, and the learner-centred approach facilitates interactivity.

IO3 (teaching material for the international curriculum for Research Managers and Administrators) is one of the first three intellectual outputs of the foRMAtion project. Based on the Application Form, the objective of IO3 is to elaborate a teaching material that gives guidance to the instructors attending the teachers training activity within foRMAtion project (C2, Short-term joint staff training event for teachers and professors) and then teaching the curriculum (see IO2). When elaborating the teaching material, a learner-centered, practice-oriented approach was applied. The activities, tasks included in the lessons aim to improve the transferable skills of the participating students.

The primary dissemination target group of IO3 are the teachers, lecturers at the participating universities and beyond.





As indirect target groups, researchers and experts involved in higher education course-design will also benefit from the teaching material, as well as RMAs and students participating in the RMA courses. The students in general at the universities and the university management are also target groups from the point of view of dissemination. The methodology of the teaching material for the international curriculum for future RMAs will be adapted to the special needs of the nonformal adult education, thus adults and adult learning providers are also considered as indirect target groups. RMAs already working on the labour market and coordinating teams can also benefit from IO3 when they provide further training for their staff members.







1. Introduction and methodology

Intellectual Output 3 (IO3) aims to develop the teaching material for the international curriculum for future Research Managers and Administrators (RMAs). The teaching material was elaborated parallel with the IO2 international curriculum, following its modular structure.

Learning outcome approach

The learning outcome approach is a basic principle guiding the elaboration of the teaching material. As a background and starting point for the elaboration of the teaching material, a desk research had been conducted related to the features of the learning outcome approach in HE (guidance to define learning goals and outcomes), and on the identification and formulation of knowledge, skills and attitudes.

Sources such as the European Qualification Framework for Lifelong Learning (EQF, 2008), the homepage of The framework of qualifications for the European Higher Education Area and the Tuning - Educational Structures in Europe (http://www.unideusto.org/tuningeu/) give relevant overview of the competence frameworks. Considering the essential EU policy documents and strategies, for the phrasing of learning outcomes, the ECTS (European Credit Transfer and Accumulation System) Guide¹, as well as the Defining, writing and applying learning outcomes: a European handbook (CEDEFOP, 2017) or the Application of learning outcomes approaches across Europe; a comparative study (CEDEFOP, 2016) proved to be the most adequate and fundamental resources. Research encompassed the academic literature discussing teaching methodology, course/curricula and learning outcome development in HE such as the work of Kennedy et al (2007; 2009)² and Bloom taxonomy³.

Reference of existing frameworks and projects:

- <u>CanMEDS</u> 2015: the most widely accepted and applied physician competency framework in the world; <u>competence framework</u>, <u>learning outcomes with milestones</u>
- EQF (European Qualification Framework)

³ Bloom's Taxonomy of Measurable Verbs <u>https://www.utica.edu/academic/Assessment/new/Blooms%20Taxonomy%20-%20Best.pdf;</u> retrieved: 20 December, 2019.





¹ https://ec.europa.eu/education/ects/users-guide/docs/ects-users-guide_en.pdf

² Kennedy, Declan & Hyland, Áine & Ryan, Norma.: Writing and Using Learning Outcomes: A Practical Guide. <u>https://www.cmepius.si/wp-content/uploads/2015/06/A-Learning-Outcomes-Book-D-Kennedy.pdf</u>, 2007, retrieved: 20 December, 2019; Kennedy, Declan & Hyland, Áine & Ryan, Norma.: Learning Outcomes and Competences.

https://supporthere.org/sites/default/files/2. paper los and competences bologna handbook.pdf, 2009, retrieved: 15 January, 2020.



- ECTS (The European Credit Transfer and Accumulation System)
- <u>EHEA</u> (European Higher Education Area)
- <u>BESTPRAC</u>

Hungarian sources compiled on the base of the above mentioned studies also stimulated productive thinking in connection with the teaching material, for example the handbook edited by Lukács&Derényi⁴, Éva Tót's study⁵ on writing learning outcomes or the manual of Éva Farkas⁶. These sources provided useful information regarding the process of formulating learning outcomes starting with the identification of learning goals, competences, and the way of phrasing relevant learning outcomes (giving hints on active verbs).

Teaching methodology: principles and tools

The main principle guiding the structure of the curriculum and the teaching material is the constructivist interpretation of teaching-learning process, characterized by

- a student centred approach,
- focusing on the *process* and the *outcome*, not on the *input*
- its main goal, namely the development of the necessary *competences*, while the disciplinary *content* is just a tool to achieve this goal.

Main tools: gamification, innovative, various, technology enhanced, interactive tools and methods such as Problem Based Learning (PBL). Flexible learning opportunity and continuous feedback from the teacher are promoted by blended learning and the advanced use of technology.

Taking into account the conclusions of the second transnational meeting (TM2) and the joint staff training event (C1) in Porto and those of IO1, exploring the academic literature on **Problem Based Learning** was carried out. The application of this **student-centered approach** in the modules of the projects could be convenient, since it "empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined

⁶ Éva Farkas: Segédlet a tanulási eredmények írásához a szakképzési és felnőttképzési szektor számára. Oktatási Hivatal, Budapest, 2017



⁴ Kézikönyv a képzési programok tanulási eredményeken alapuló fejlesztéséhez,

felülvizsgálatához. István Lukács & András Derényi (eds.) Oktatási Hivatal, Budapest, 2017

⁵ Éva Tót: Segédlet a tanulási eredmények írásához a felsőoktatási szektor számára. Oktatási Hivatal, Budapest, 2017



problem"⁷. Savery also mentioned several benefits of the PBL approach. The Wiley Handbook of Problem-Based Learning also offers a detailed overview of the approach, namely, (i) origin of the concept and its baseline, (ii) case studies, (iii) proposal of strategies to design PBL and also provides some examples of its application.⁸

The application of the approach in the classroom (examples) is mentioned in the booklet series called "Módszertani füzetek" (Series of Methodological Booklet). The first in the series⁹ includes the general methodology, touching upon constructive learning theory and cooperative learning methods, within which PBL is also introduced.

The handbooks of Biggs et al. (2007)¹⁰ and of Fry, Ketteridge and Marshall (2008)¹¹ provide valuable and useful guidelines regarding the methodology of HE instruction.

Practical cooperative learning techniques (such as expert jigsaw) are described in Spencer Kagan's book on cooperative learning¹², and some possible applications are mentioned in the Methodological Booklets. In addition to the aforementioned resources, a number of websites make available up-to-date, innovative and practical information on HE teaching methodology, such as <u>www.teachthought.com</u>, tanarblog.hu, <u>The Chronicle of Higher Education</u>. The websites of the educational centres of the most prestigious universities like <u>Teaching and Learning Lab</u> of the Massachusetts Institute of Technology, <u>Vice Provost for Teaching and Learning</u> at Stanford



⁷ Savery, J. R.: Overview of Problem-based Learning: Definitions and Distinctions.

Interdisciplinary Journal of Problem-Based Learning, 1(1), 2006

⁸ Moallem, Mahnaz, Woei Hung, and Nada Dabbagh: The Wiley Handbook of problem-based learning. Wiley Blackwell, NJ, USA, 2019. Examples for other sources on PBL: Gijbels, D., Dochy, F., Van den Bossche, P., & Segers, M: Effects of Problem-Based Learning: A Meta-Analysis From the Angle of Assessment. Review of Educational Research, 75(1), 2005; Baviera-Puig, A., Buitrago-Vera, J., Escribá-Pérez, C., Pons-Valverde, JV.: An Example of Problem-Based Learning (PbI) from a Collaborative and Multidisciplinary Approach. Conference: International Conference on Education and New Learning Technologies, June 2016; Journal of Problem-Based Learning.

⁹ Daruka, M., Pfister, É.: Módszertani Füzet I. Általános módszertan tanár szakos hallgatóknak. CC PRinting Kft., Budapest, 2015.

¹⁰ Biggs, J. B., Tang, C.: Teaching for quality learning at university. Open University Press/Mcgraw-Hill Education, Berkshire, UK, 2007

¹¹ A handbook for teaching and learning in higher education : enhancing academic practice / [edited by] Heather Fry, Steve Ketteridge, Stephanie Marshall, 2008

¹² Kagan, S., Kagan, M.: Kagan Cooperative Learning. Kagan Publishing, Canada, 2009



University, <u>Derek Bok Center for Teaching and Learning</u> at Harvard University among others offer insight into the innovative teaching practice of these institutions.







2. General annexes: practical information and guides

Annex 1: Guide for Mentimeter quiz

- 1. Go to <u>https://www.mentimeter.com/signup</u>
- 2. Sign up for your own Mentimeter account
- 3. Create and name a new presentation
- 4. Select the "Quiz Competition", and then "Select answer" options from the "Types" menu shown in the box on the right
- 5. Following this, the "Content" menu appears automatically.
- 6. Fill in your question and enter right and false answer options
- 7. Set the time for the answer (usually, 10-20 seconds are enough)
- 8. If you would like to show the leaderboard to students (it is recommended), click the next slide and Add a new slide.
- 9. You can change the background and style of the slides by using "Themes" settings in the top-right menu bar
- 10. Students can access your Mentimeter if you select the "Share" option and shoes "Participation" in the appearing window. Here you can select the preferred way of participation: link, QR code or voting code (the latter is the most used option by teachers)
- 11. Tutorial and detailed description: <u>https://help.mentimeter.com/en/articles/410459-</u> <u>multiple-choice-questions</u>







Annex B: Jigsaw method

How to apply the jigsaw method in the classroom?

- 1. Students form groups and number themselves 1, 2, 3, 4, 5 [with 5 as the optimum number in the group]. (Determine the size of these groups according to how many students will profitably work together at the end of the exercise.)
- 2. All the 1s join together, all the 2s, and the 3s etc to create new ('expert') groups.
- 3. Each group has a different aspect of a topic in which to become an expert. The 'expert' group researches a topic (the topic can be studied first individually and then can be discussed together within them.
- 4. 1s, 2s, and 3s then return to their original group and present their new knowledge in the form of a mini-presentation.
- 6. Where possible, get the students to present their new knowledge with their own words but using the main professional terms.

Source: <u>https://www.cultofpedagogy.com/</u> Video tutorial: <u>https://www.youtube.com/watch?v=VXxN99Le0nc</u>

How to apply the jigsaw method in the online learning environment?

- Step 1: Break lesson/topic into segments_and upload them (either in different documents or within one) on the commonly used online learning platform
- Step 2 Divide students in groups (in Zoom: chat rooms, in Teams: sub-channels)
- Step 3: Give students time to read over assigned materials_individually
- Step 4: Form temporary expert groups (using new "expert' chat-rooms/sub-channels). They can discuss their findings and they can also compile a common online document saved in their sub-channel or other online learning platform)
- Step 5 : Bring 'experts' back to their home group_where each group member can present the information learned.
- Step 6: Students can be required to assess each other's presentation. The teacher wraps up the lesson, summarizing the main information by using the "questioning method" (helping structuring and comprehension of the content by activating students' existing understanding).

Video tutorial: https://www.youtube.com/watch?v=-ULJfgkZVMY





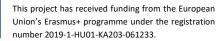
Annex C: Guide for teachers for the application of Google Forms for classroom activities

- 1. Go to https://docs.google.com/forms/u/0/
- 2. Sign in with your Google account
- 3. Start a new form
- 4. Insert your questions in the form
- 5. It is usually worth starting the questionnaire with the indication of the student's name (enabling identification of the answers)
- 6. If you would like to assess student's individual performance, uncheck the "Edit after submit" option in the "Settings".
- 7. If (and when) you would like to discuss the results with the whole class, you can check the "See summary charts and text responses" option.
- 8. You can set the layout of your Form using the "Customize theme" menu (top right corner)
- 9. How to present the result for students?
 - 1. Select the "Responses" page of your Google Form;
 - 2. choose the "Create Spreadsheet" option (top right corner, grid icon);
 - 3. the spreadsheet is more transparent if you select the entire spreadsheet and then format it with the "text wrapping" command available in the upper menu bar of the spreadsheet (see the icon below)



d. When presenting and projecting the table, it is recommended to hide the columns including timestamp and students' names.

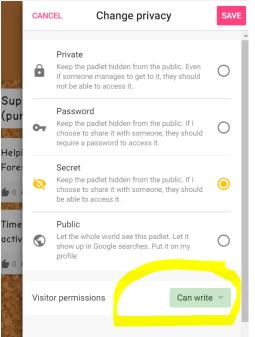






Annex D: How to use Padlet as an online classroom whiteboard?

- 3. Go to https://padlet.com/ and sign up
- 4. On the upper menu bar, select Make a padlet command
- 5. Select a template, e. g. "Shelf" if you would like students to fill in a table together
- 6. Customize your layout using the *Settings* (upper right corner of the screen)
- 7. Create columns and give them the names of the categories
- 8. Share your padlet with your students
- 9. Select Share (upper right corner of the screen)
 - a. In the appearing window, choose "change privacy" so that visitors can edit the dashboard
 - b. You can share your padlet by clicking Copy link to clipboard



10. Students can add items to the columns by clicking the + sign on the screen

Video tutorials: https://www.youtube.com/watch?v=UkBnwPqaljA https://www.youtube.com/watch?v=uBvWCWuuFFM





2. Teaching material for the international curriculum for Research Managers and Administrators

Module 1 Research Methodology and Design

Lesson 1: Introduction to science - what distinguishes scientific knowledge from other types of knowledge

Learning outcomes to be developed:

- The student can distinguish and describe the different approaches in scientific theories and epistemological trends, and their scientific history-background (hermeneutical vs scientific, inductive vs. deductive, qualitative vs. quantitative approach, mixed-methods)
- The student is open to perceive and accept the diversity of cultural and social context of research systems and practice
- The student is open for different research methods and is committed to finding consensus in an interdisciplinary research setting

Legend for the use of lesson plans: Grey texts describe useful but optional activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a) Games helping students to be connected: getting acquainted with each other 15 minutes Share a personal fact about yourself and then find something in another student's report to which you can connect in some way. E. g. the teacher starts the game by sharing "I like listening to classical music", 		15 mins





	$_{\odot}$ the first student says "I have 2 younger brothers and one		
	of them plays the piano" and "My hobby is travelling" -		
	etc.		
•	"Show and tell" see <u>here</u>		
•	OR: "Snowball fight"- see <u>here</u>		
•	OR: Haiku writing with instructions (Instructions for the poem:		
	first line: the title of the poem (the topic itself, according to the		
	expectations of the students, for example: the RMA		
	profession/research projects; second line: describe the topic with		
	two adjectives; third line: three verbs (expressing action) in		
	connection with the topic; the fourth line: a short sentence that		
	expresses feeling about the topic; the fifth line: one-word		
	synonym of the first line that reflects the essence of the topic.		
•	OR see further ideas <u>here</u>		
•	A brief introduction, summary of the modules		
b) Eva	Iuation of prior knowledge and competences - 10 minutes	(Results	10 min
Explor	ring the initial competences, knowledge of students:	(scores)	
Answe	ers to basic questions by either of the followings	should not be	
Answe	ers to basic questions by either of the followings Kahoot test (after registering, at <u>Kahoot</u> homepage, you can	should not be counted into	
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•	Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create games helping assessment <u>here</u> (<u>https://create.kahoot.it/creator</u>). Students shall visit <u>kahoot.it</u> page, where they can type in the game pin and then their name. Closed by teacher's feedback and oral summary	counted into the end of semester	35 min
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• c) Act i <i>minut</i> For th	Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create games helping assessment <u>here</u> (<u>https://create.kahoot.it/creator</u>). Students shall visit <u>kahoot.it</u> page, where they can type in the game pin and then their name. Closed by teacher's feedback and oral summary ivities helping the understanding of theoretical foundations - <i>35</i> es e content and exercises, see Annex 1.1. A and 1. 1. B and the cure below this table Jigsaw method (A guide for the teacher on the application of jigsaw method is available in <u>Annex B</u>): Topics to be included (and according to the teacher's preference, can be changed:	counted into the end of semester	35 min
• c) Act i <i>minut</i> For th	Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create games helping assessment <u>here</u> (<u>https://create.kahoot.it/creator</u>). Students shall visit <u>kahoot.it</u> page, where they can type in the game pin and then their name. Closed by teacher's feedback and oral summary ivities helping the understanding of theoretical foundations - <i>35</i> es e content and exercises, see Annex 1.1. A and 1. 1. B and the ture below this table Jigsaw method (A guide for the teacher on the application of jigsaw method is available in <u>Annex B</u>): Topics to be included (and according to the teacher's preference, can be changed: • IO2 on induction and deduction	counted into the end of semester	35 min





 Depending on the number of students, (in the case of a 16 students-class) 4 readings (each of them can be 3-5 pages long) discussing the main theoretical units/part-topics (e. g. scientific theories, epistemological trends and their scientific history background), these are distributed to the 4 teams who read, discuss and present them. OR YouTube videos like https://www.youtube.com/watch?v=8xvpxBVC00c The assignment of the groups: they discuss and summarize the main conclusions of their readings in the form of a commonly edited outline in an online document, shared with the teacher (e. g. Google Document) Students go back to their original groups (see the Annex B - Jigsaw guide) and present the content discussed in the expert groups for their own group. The group members can give the presenter 1-10 points, considering the clarity and attractiveness of their presentation. The class creates an online, e. g. Coggle (https://coggle.it/) mindmap with the direction of the teacher, based on the outlines created by the groups with the facilitation of the teacher. See an 	max. 5 points/person for the outlines The teacher divides the total score given by the classmates to each presenter by 10	5 min for individua I reading 10 min for group discussion and outline , 10 min for presentati ons (2,5 minutes/pr esentation)
 example in Annex 1. 1. B. d) Activity providing insight into the RMA and researcher professions - (20 minutes) Introduction to the RMA carrier by inviting an RMA (10 minutes of self-introduction + 10 minutes of Q&A) Questions of the teacher previously sent to the RMA as a guide for the presentation, for example Your education background. What kind of education is useful in the case of an RMA? How did you choose this profession? What are the most exciting or challenging parts of the profession? What do you love in your job? What are the trajectories of further development / career opportunities? 		20 minutes





 What are the most important / useful skills for this profession? optionally, this conversation can be done via Internet as well 	
e) Quick end-of-lesson feedback for the teacher	5 mins
Quiz questions by <u>Socrative or Wordwall game</u> with quiz questions	
related to the content of the lesson.	

References for this lesson:

- Babbie, E. R. (2016). The practice of social research. Available in our Files/Readings folder of the General channel of our Teams group.
- Lewis-Beck, M. S., Bryman, A., & Futing Liao, T. (2004). The SAGE encyclopedia of social science research methods(Vols. 1-0). https://methods.sagepub.com/Reference/the-sage-encyclopedia-of-social-science-research-methods
- Sage Project Planner tool https://methods.sagepub.com/project-planner
- Szokolszky, Ágnes (2004) Kutatómunka a pszichológiában. Metodológia, módszerek, gyakorlat. Budapest: Osiris







Annex 1. 1. A – Summary table of concepts and methods

Source: <u>http://salmapatel.co.uk/academia/the-research-paradigm-methodology-epistemology-and-ontology-explained-in-simple-language/</u>

Paradigm Positivism	Ontology What is reality? There is a single reality or truth (more realist).	Epistemology How can I know reality? Reality can be measured and hence the focus is on reliable and valid tools to obtain that.	Theoretical Perspective Which approach do you use to know something? Positivism Post-positivism	Methodology How do you go about finding out? Experimental research Survey research	Method What techniques do you use to find out? Usually quantitative, could include: Sampling Measurement and scaling Statistical analysis Questionnaire Focus group Interview
Constructivist / Interpretive	There is no single reality or truth. Reality is created by individuals in groups (less realist).	Therefore, reality needs to be interpreted. It is used to discover the underlying meaning of events and activities.	Interpretivism (reality needs to be interpreted) Phenomenolo gy Symbolic interactionism Hermeneutics Critical Inquiry Feminism	Ethnography Grounded Theory Phenomenologi cal research Heuristic inquiry Action Research Discourse Analysis Femenist Standpoint research etc	Usually qualitative, could include: Qualitative interview Observation Participant Non participant Case study Life history Narrative Theme identification etc
Pragmatism	Reality is constantly renegotiated, debated, interpreted in light of its usefulness in new unpredictable situations.	The best method is one that solves problems. Finding out is the means, change is the underlying aim.	Deweyan pragmatism Research through design	Mixed methods Design-based research Action research	Combination of any of the above and more, such as data mining expert review, usability testing, physical prototype
Subjectivism	Reality is what we perceive to be real	All knowledge is purely a matter of perspective.	Postmodernism Structuralism Post-structralism	Discourse theory Archaeology Genealogy Deconstruction etc.	Autoethnography Semiotics Literary analysis Pastiche Intertextuality etc.
Critical	Realities are socially constructed entities that are under constant internal influence.	Reality and knowledge is both socially constructed and influenced by power relations from within society	Marxism Queer theory feminism	critical discourse analysis, critical ethnography action research ideology critique	Ideological review Civil actions open-ended interviews, focus groups, open-ended questionnaires, open-ended observations, and journals.

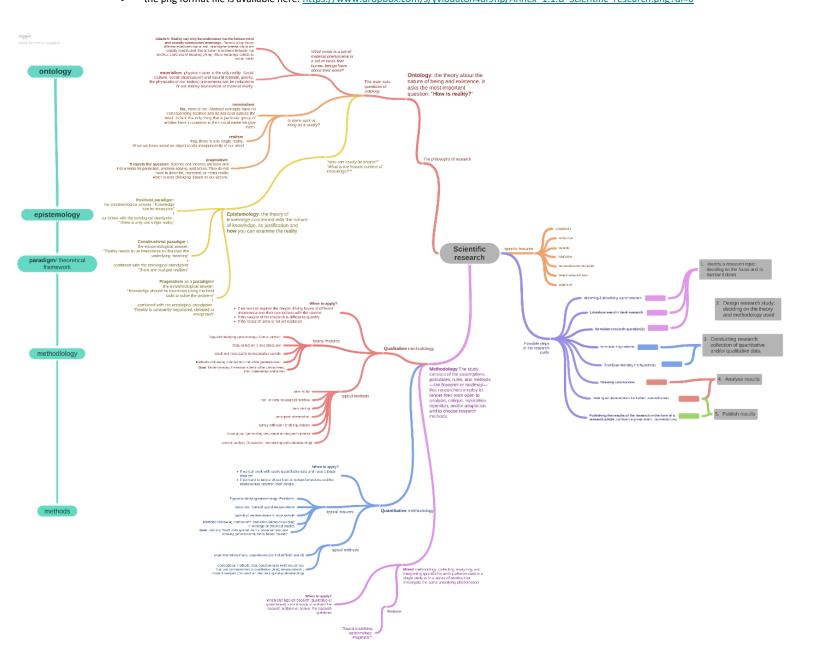
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Annex 1. 1. B – A summary for main research related terms

- the Coogle mind map is available online at https://coggle.it/diagram/YCOvki31dzsfuK4c/t/scientific-research/ff072fa65164da7d1e87cee64918a1bb9a207483de86c69da060a0f4936faeee, it can be copied and further edited by users
- the png format file is available here: https://www.dropbox.com/s/yvi0uat8n4af9hp/Annex 1.1.B Scientific research.png?dl=0









Lesson 2: Introduction to research design, research methods and research life cycle

Learning outcomes to be developed:

- The student can distinguish and describe the types and specificities (aims, advantages, limits, appropriateness to certain disciplines) of main research methods that can be applied by different scientific areas (e.g. observation, survey, interview, focus group, experiments, etc).
- The student should understand the research project lifecycle.
- The student can identify the differences between a research design/plan and a research proposal.
- The student can apply the stages of the research project lifecycle to a research plan, identifying the key questions to answer at each stage.
- The student is able to recognise and integrate the motivations, expectations and role of a researcher.
- The student is able to construct logical arguments to present a research idea.
- The student is committed to find a balance between assertiveness and cooperation in the course of teamwork in research as a leader and as team member.
- The student is open to perceive and accept the diversity of cultural and social context of research systems and practices.
- The student is open for different research methods and is committed to finding consensus in an interdisciplinary research setting.

Legend for the use of lesson plans: Grey texts describe useful but optional activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
a) Playful activity enhancing recalling prior knowledge: - 5 minutes		5 mins







Wordcloud (<u>https://www.mentimeter.com/</u>): "Answer the following question by typing single words at this link, indicating the following code:"
Content of the questions will be related to the curriculum, e. g. What are the goals/main features/of science? What are the distinctive features of natural science/human and social research?etc. They can refer to the following terms and concepts: science, inductive and deductive inference, experiments, observation
b) 10 minutes long frontal presentation by the teacher:

goal: providing short summary of the first lesson, laying the

- goal: providing short summary of the first lesson, laying the foundations for research methods, brief explanation of theoretical framework, the main terms such as
 - 1. research question
 - 2. hypothesis
 - 3. literature review
 - 4. qualitative data
 - 5. quantitative data
 - 6. Survey Research
 - 7. Discourse analysis
 - 8. Mixed-methods
 - 9. experimental method

c) Activities helping the understanding of theoretical knowledge

- Online option with Padlet (advantage: the result can be downloaded and saved as a graph). See a guide for the use of Padlet in <u>Annex D</u> but now please select the "Canvas" template
- The name of each concept is distributed among pairs of students
- they have to work together on Padlet (https://padlet.com/)
- A sample Padlet board is already elaborated for this task, see this link:

https://padlet.com/vinczelidia/xrwpcamo84926xwz

Peer grading (giving points to each other) as 10 mins the group members work together. Providing the correct specificities of the research 35 mins methods. Suggestion for grading: 10 points maximum for the infographic (the group members receive the same amount of points)





 Teachers are as 	ked to not use this o	ne, but sign in and then		
choose the "Remake" option thus using the copy in their				
lesson.	lesson.			
 Pairs of students have to find 				
 the (green state) 	en) card showing exa	mples for the different		
concept	s/terms			5 mins
 and the 	yellow cards present	ing the definition of the	0-5 points/ student, based on	
given te	rm.		right answers.	
 They have to dr 	ag and drop their ter	m, its definition and	Extra 1-5 points	
the example clo	ose to each other.		can be given in the case of active	
 Offline option: 	printing the texts and	l giving them to the	and correct answers regarding	
pairs of student	s who stick them on	the relevant cell drawn		
on the whitebo	ard as follows:		the errors in the questions	
			questions	
term	definition	example		
 Teacher's quest 	tions:			
	in be the risks and th	e advantages of the		
survey n		a a subiah may raly		
	examples for disciplin on discourse analysi			
		ical method of which is		
	experimenting?How would you start a literature review?			
	-	rature search indicating		
•	the most important databases that are free and available for the students of the given university (Web of Science,			
EBSCO Academic Search Complete, Sage Journals -				
Social Sciences & Humanities, Scopus, ScienceDirect etc.)				
	·			
mind map on the discussed topics (by using Coggle				
(http://coggle.it/) : the mind map summarizing the content of the 1st Lesson and compiled by the teacher in Lesson 1				





will be further alpherated in the second of the whole	1	
will be further elaborated in the course of the whole Module.		
d) Watching a video about the required features of an adequate research		
question https://www.youtube.com/watch?v=71-		
GucBaM8U&feature=emb_logo		
(Alternatively, the text is available as well at this link		
https://www.scribbr.com/research-process/research-questions/		
but in this case students may find the answers to the questions below.		
Group work: Which of the research questions is more adequate and what		
can be the problem with the wrong one? The pairs of students answer the		
questions by filling in a table together and submitting them through the		
shared online interface.		
Worksheet is available in <u>Annex 1.2.A</u>		
Source and answers for the questions: <u>https://www.scribbr.com/research-</u>		
process/research-question-examples/		
 d. First steps of PBL encompassing Lessons #2-4: discussing the main and the sub-topic of a research idea. Groups of 2 students can work together - a possible project can be that they are given one main problem, and 4 aspects (political, economic, legal and psychological), they give a report to the group and the entire picture can be achieved by that → mindmap on the whole topic Ideas for pre-defined real problems: the impact of Covid-19 pandemic economic challenges impact on education impact on health care system impact on labour market, jobs impact on international trade relations impact on inter-state relations 		20 min
 impact on EU (possible solutions, future of EU, budget) 		
 impact on the global powers (geopolitics) 		





]
	 legal aspects (restrictive measures, governance) 		
٠	climate change		
	 economic challenges 		5 mins
	 energy market, energy policy 		
	 social impact 		
	 impact on health care 		
	 EU - policies, priorities, initiatives 		
	\circ agriculture		
	 innovation 		
	 green deal - political sphere 		
	 migration policy 		
	 automobile industry 		
•	aging society		
	 impact on the economy 		
	 health care / social security system 		
	 society (generations) 		
	 labour market 		
•	migration		
	 health care / social security system 		
	 labour market 		
	 EU level: policies, politics, member states - political parties 		
	 education 		
•	artificial intelligence		
	 labour market 		
	 ethical issues 		
	 legal questions 		
	o economy		
	 innovation 		
•	From pre-defined real problems (for example ageing research	0-10 points	
	community, one of the consequence of which is that the emphasis		
	in (financial) management is shifted; generational tensions;		
	coronavirus and digital revolution - new solutions in the workplace,		
	social relations, entertainment, the rearrangement of the		
	education); the class can choose one main topic		





topics (suc consequer ○ students m each other	ch teams of 2 will define research narrower sub- h as financial, environmental, psychological etc. nces) nake notes on the online interface shared with r and the teacher. k: start a literature review and reference
e. Introduction of th	e <u>Template for Research Plan Outline</u> (See <u>Annex</u>
<u>1.1.A</u>) by the teach plans	her on the base of which they will develop their
f. Quick wrap up b	y the teacher and end-of-lesson feedback from 5
the students	minutes
Each student gives a	a brief answer to the questions:
- What d	id you like in this lesson and why?
- What w	vas difficult for you and why?

Additional resources for the teacher:

Research question:

- https://methods.sagepub.com/book/social-research-methods
- <u>https://methods.sagepub.com/base/download/BookChapter/social-research-methods/n6.xml</u>

Research theories

https://methods.sagepub.com/base/download/BookChapter/social-research-methods/n2.xml







Annex 1. 2. A - Template for Outlining a Research Plan

Template for Outlining a Research Plan

- 1. Name: ______
- 2. Grade: _____
- 3. Working title of the research:

4. Area of research

What science does your research belong to? Within it, is there any special sub-field where it can be categorized?

5. Literature review¹³:

A possible way to your start your literature review is using the databases of the Library (EBSCO, <u>Web of Science, etc</u>). First, make a list of the main 3-4 expressions related to your topic, then search for each of them in the following way

- Type the given expression in the "Basic Search" field of the main page of the site
- In the Timespan menu, set the time period so that you get results from the last 15 years (by choosing "Custom year range" option)
- Sort the results by "Times cited" (you can set it in the top menu of the results page) so that the most cited ones will be on the top of the list of records
- Choose 4-5 relevant articles, and on the base of their introduction, you will get the necessary information for the questions below.

On the base of the introduction of at least 3 relevant studies, summarize the following: What have others said about this topic? What previous research exists? What are their main conclusions?

conclusions?



¹³ Besides the necessary bibliographical data, the short summary of the chosen piece of literature is needed, with a reference to its relevance to the research topic.



6. Research question(s) and its/their relevance

Within it, what exactly do you want to study? Why is this area worth studying?

7. Hypotheses/expected results

8. Methods to apply:

What/who are the subjects for your study? Whom or what will you study in order to collect data? How and what kind of data/information will you collect?

9. Schedule

What will be the main stages of your research and when are they planned to be implemented? Total duration: months/weeks?

Phase #1: Main goals:	. Duration:
Phase #2: Main goals:	. Duration:
Phase #3: Main goals:	. Duration:
Phase #4: Main goals:	. Duration:
Phase #5: Main goals:	. Duration:

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Annex 1. 2. B - Research question examples

Source and answers for the questions: <u>https://www.scribbr.com/research-process/research-guestion-examples/</u>

Task: Underline the adequate research questions in the list below. What can be the problem with the one which is not good?

Research questions 1. What effect does social media have on people's minds? 2. What effect does daily use of Twitter have on the attention span of under-16s? 3. Why is there a housing crisis in the Netherlands? 4. What impact have university internationalisation policies had on the availability and affordability of housing in the Netherlands? 5. Does the US or the UK have a better healthcare system? 6. How do the US and the UK compare in health outcomes and patient satisfaction among low-income people with chronic illnesses? 7. What should political parties do about low voter turnout in region Χ? 8. What are the most effective communication strategies for increasing voter turnout among under-30s in region X? 9. Has there been an increase in homelessness in San Francisco in the past ten years? 10. How have economic, political and social factors affected patterns of homelessness in San Francisco over the past ten years? 11. What factors led to women gaining the right to vote in the UK in 1918? 12. How did Irish women perceive and relate to the British women's suffrage movement?





- 13. How can sexual health services and LGBT support services in district X be improved?
- 14. How can sexual health clinics in district X develop their services and communications to be more LGBT-inclusive?
- 15. Where do the majority of immigrants to Germany come from?
- 16. What are the similarities and differences in the experiences of recent Turkish, Polish and Syrian immigrants in Berlin?
- 17. How is race represented in Shakespeare's Othello?
- 18. How have modern adaptations of Shakespeare's Othello dealt with the theme of racism through casting, staging and allusion to contemporary events?
- 19. How can drunk driving be prevented?
- 20. What effect do different legal approaches have on the number of people who drive after drinking in European countries?





Annex 1. 2. C – Literature search handout

available at this link as well:

https://www.dropbox.com/s/jpahi5ws1ts8suj/Literature%20search%20handout.pdf?dl=0

	Steps	Example
1.	Define your research question(s): First, brainstorm and collect more questions that seem to be relevant, concrete and feasible for you (in case of a real research study, it has to be gap-filling, adding something new to the already published research results). This may be changed during your research!	How did Irish women perceive and relate to the British women's suffrage movement?
2.	 Identifying your keywords of the question (this should be expanded continuously): synonyms in the articles, titles, bibliography of the article keywords indicated in relevant studies you found thesauri (e. g. <u>https://www.thesaurus.com/</u>) <u>EBSCO</u> Subject terms 	mainkeyterm:women'ssuffragesynonyms,connected/broader terms:feminism,Britain,women'srights, voting, rights of women,righttovote,righttovote,representation,womanism,suffragism
3.	(optional: compiling a conceptual newtork for your concept – illustrating the relation of the concept with each other)	see an example <u>here</u>
4.	Search in the databases available free of charge in the Corvinus area and network. Start at Corvinus library's homepage where you find a list of databases; many of them are discipline specific ones.	see the short video in the group folder on how to do it





Search techniques

1. The Boolean search (in most databases and in Google)

Always use quotation mark ("...") when you search for an expression including more than one word

women AND suffrage AND Britain	Using AND will narrow the search by ensuring material retrieved covers both phrases.
"women's suffrage" NOT "United States"	Using NOT will narrow a search on transferable skills alone by excluding any information that discusses US Women suffrage movements.
suffrage OR "voting right"	Using OR will broaden a search on suffrage by including matches on the synonym ability.

Further info and test: Boolean search tutorial

2. Truncation

It is useful when searching for terms that can be reduced to a common stem and used with different endings. E. g. feminis* (to find feminist, feminism, feministic)

3. wildcard

It makes possible to able to replace none, one or more letters within a word by using question mark (?), e. g. using wom?n ensures that you find articles including both "woman" and "women".

References

Aveyard, H. (2014). *Doing a literature review in health and social care: A practical guide*. Open University Press.

Gough, D., Oliver, S. & Thomas, J. (2017). Introducing systematic reviews. In *An introduction to systematic reviews* (3rd ed). Sage Publications Ltd.

An article describing further search techniques: <u>https://www.open.ac.uk/library/help-and-support/advanced-search-techniques</u>

EBSCO simple search https://www.youtube.com/watch?v=N_idAA4uRiY

EBCSO advanced search https://www.youtube.com/watch?v=n7-HO19Xxb0

Video made for the current course is available here







Lesson 3 - Research integrity and ethical conduct

Learning outcomes to be developed:

- The student should understand the research project lifecycle and the role of RMAs within it.
- The students can discuss, formulate arguments and critically examine their beliefs in the context of real cases of scientific integrity, responsible research, ethical dilemmas that can emerge in the course of a research work project.
- The student is open to perceive and accept the diversity of cultural and social context of research systems and practices.

Legend for the use of lesson plans: Grey texts describe useful but optional activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and	Timing
Methous, tools, mustration, problem, game etc.	suggested	
	scores	





a. Playful activity enhancing recalling prior knowledge : - 5 minutes Kahoot: multiple-choice or true-or-false questions <i>Content of the questions will be related to the curriculum, e. g. What are</i> <i>the characteristics of a given research method? etc.</i>	As this is a playful type of test but is a test anyway, students have to be informed about it (points, topics, time frame) in	5 mins
b) Presentation of a real and famous research ethics dilemma (5 mins) &	advance . Results (scores)	25 mins
some basic rules of the dispute (Milgram, Philip Zimbardo, Laud	should be counted into the	
Humphrey: description of the cases: Babbie, E (2010). <i>The practice of social research</i> . Wadsworth Cengage Learning. pp. 3-10. ISBN-13: 978-0-	end of semester	
495-59841-1 http://ccftp.scu.edu.cn/Download/e6e50387-38f2-4309-	grade.	
af84-f4ceeefa5baa.pdf)		
 group formation on the base of individual opinions, and collecting 		
arguments (5 mins)		
• group level debate when the group is represented by one of the		
members, in rotation (10 mins) Methodological guide for the		
teacher on how to manage a debate in the class:		
https://www.teachhub.com/classroom-		
<u>activities/2016/03/classroom-activities-how-to-hold-a-classroom-</u> <u>debate/</u>		
 the real solution to the problem is summarized by the teacher (5 		
mins)		20 mins
c) Presentation by the teacher: Research Ethics (20 mins)		
		25 mins
d) A new round of debate with a new problem, where students have to		
apply the arguments, approach and methods included in the teacher's		
presentation (structure is the same as in the first case) (25 mins)		
Source: z		
 Everyday type of case studies for students in university 		
environment, with short descriptions and solutions - special field:		
physics		
https://www.aps.org/programs/education/ethics/upload/Ethics-Case-		
Studies-Teacher-Edition.pdf		





 Case studies for researchers in academic environment, with short descriptions and solutions - special field: social sciences <u>https://methods.sagepub.com/book/case-studies-ethics-in-academic-research-in-social-sciences</u> Suggested topics among the examples included in the publication: plagiarism, conflict of interest or acquisition of data 	
d) PBL tasks	15 mins
Research plan (15 mins):	
 the groups give a short report on their research focus in class 	
 they present their list of literature 	
• they formulate a broader list of possible research questions (6-8)	
 Formulating hypotheses 	
Homework:	
 continuing literature review, 	
 selection and/or fine tuning of one research question, formulating 	
arguments supporting the selection	

Readings for the teacher providing examples for the exercises

- Everyday type of case studies for students in university environment, with short descriptions and solutions - special field: physics <u>https://www.aps.org/programs/education/ethics/upload/Ethics-Case-Studies-Teacher-Edition.pdf</u>
- Everyday type of case studies for researchers in academic environment, with short descriptions and solutions - special field: social sciences <u>https://methods.sagepub.com/book/case-studies-ethics-in-academic-research-in-social-sciences</u>
- Case study exercises

https://www.unodc.org/e4j/en/integrity-ethics/module-14/exercises/a-casestudies.html





Lesson 4 - RMAs as Professionals at the Interface of Science

Learning outcomes to be developed:

- The student should understand the research project lifecycle and the role of RMAs within the research cycle.
- The student is able to recognise and integrate the motivations, expectations and role of a researcher, and of other professions linked to the research activity.
- The student can predict the needs for research interface activities along the research project lifecycle and identify key RMA roles (e.g. Funding Advisory, Project Manager, Science Communicator).
- The student is committed to find a balance between assertiveness and cooperation in the course of teamwork in research as a leader and as team member.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a) Conversion enhancing recalling the experiences of the first lesson What do we know about the RMA profession? Listening to the interview, what were your impressions, what are the things that the expert enjoys in his work? What were his challenges? 		5 mins
 b) Teacher's presentation (See Annex 1. 4. A Teacher's presentation) on the development of RMA profession, on the base of Lesson 4 and the study of Kerridge and Scott (2018), using questions activating students' prior knowledge and ideas: What can be the factors in the last two decades that increase the need for their involvement in research? What kind of challenges do RMAs might face? What can be the levels of RMA profession? What do you think, which are the countries where the profession has been known and accepted? What can be the reasons? 		10 min





	10 mins
c) Class activity - the roles and tasks of RMAs	
Students find the place of the different roles and tasks of RMAs in the	
different project lifecycle stages.	
 Every student gets a piece of paper with one of the roles/tasks 	
listed in Annex 4.A (in case of online learning: students receive the	
roles in a table where they find a term describing a role besides	
their name and they fill in the table in the form of a Padlet	
exercise. Annex D: <u>Description on how to use Padlet for this</u>	
purpose can be found here.)	5 mins
 The teacher draws a half-empty table on the board (using the 	
BESTPRAC RSS Framework (http://www.bestprac-	
wiki.eu/Tasks#Before_the_Proposal28A.29), See Annex 4.A)	
• Students stick their pieces of paper in the relevant cell of the table	5 min
The class discusses the results	
 Wrap-up and feedback from the teacher 	
(Alternatively, it can be accomplished by using a virtual whiteboard app, or	
a drag and drop exercise can be created in Moodle applying HSP activity.)	
d) Introducing the genre of "elevator pitch"	
Collecting answers	
- what makes a presentation effective, enjoyable? Good practices and	15 min
pitfalls (the visual appearance of the ppt, presentation mode (body	
language, tone, eye contact), the structure of the content, etc.)	
- Oral and written completion and summary by the teacher: general	
guidelines for presentations	
e) Watching 3-4 elevator pitches (videos) - see the link to 6 videos in	
Annex 1.4.B	
• What can be the purpose of such speeches?	
 What can be the situations where they are applied? 	20 mins
 What are the differences between an elevator pitch and a 	
presentation?	
Alternative element: Teacher invites a (science) communication	
expert who completes the conclusions and gives general and	





practical advice about the genre - emphasizing the function and the importance of elevator pitch

Or: Presentation and wrap-up by the teacher: completion of the answers, general guidelines for presentations - presentation is available in Annex 1. 4. C available at this link

Sources, templates, infographics for the elevator pitch are in Annexes below and in the references indicated in this lesson.

f) PBL situational game

Work in pairs - practicing elevator pitch.

Students can use the sources used in Lesson 4 and the information ga in the classroom work

Situation: The student is an RMA (or researcher) who recognizes that institution should open an RMA position and he has to convince the management of his university about the necessity and the importance this investment. Students are working in pairs.

- 1. Individual work: compile an outline for an elevator pitch, keep in mind the criteria included in the evaluation form (Annex 1. 4 - individual work
- 2. Pair work: students perform it to each other and record each other's speech by the camera of their cellphone
- 3. They upload videos to Moodle or send them for the teacher by email.
- 4. Classroom activity: 2 volunteering students show their video t the class; They are discussed and evaluated publicly by the tea and the students (and the expert, if he is invited). (In the case these videos, the teacher may need a written consent from students for the use of the material within the class work so p follow the institution's regulation regarding this question.)
- 5. Short feedback and evaluation by the teacher
- 6. Teacher (and the invited observer) evaluate the rest of the pite for the next week
- 7. homework: students evaluate their peer's pitch at home, using evaluation form (Annex 1. 4. B)

ained their e of oing 4. B)	 teacher can give them a rating on a 1-10-point scale if an external observer is invited, (s)he can give them points on a 1-10-point scale students give their peers points using a 1-5-points scale 	Work in pairs / breakout rooms: 7 min (1 pitch+ oral evaluation Coming back & upload: 2- 3 min
y to acher of lease		20 mins
ches		
g the		

Evaluating pitches:

Instructions:

Individual

5 min

work:

5 min





PBL task:

the groups finalize their research plan:

- conclusions of the literature review,
- selecting research questions
- selecting research methods
- setting goals and a timetable

Homework:

- Preparation for the elevator pitches presenting the research plans. The team members have to cooperate regarding the contents. The recommended way of sharing the work among the pairs of students is the following
 - 1. in each pair, student "A" reports on the
 - background,
 - public benefits
 - the conclusions of the literature published so far regarding the planned research activity;
 - research question
 - 2. student "B" reports on the
 - hypothesis
 - methods to apply with explanation and supporting arguments
 - planned dissemination activities

Optional task for extra points: the pairs prepare infographics/ppt for their projects

Optional/Alternative homework

Let's imagine that each group of students is a team within an institution, who recognize that their institution should open an RMA position. The task of the group is to compile a job announcement. Background material to be used for the task: <u>ARMA's Professional Development Framework for</u> Research Managers and Administrators, p. 4-8

- For this, they have to assemble the competences/tasks of an RMA (educational background, competences, skills, knowledge).
- Students read and use the text of Lesson 4 for this task
- After the groups upload the result of their work, the teacher projects them, and the groups evaluate/compare each others' announcements





0	the teacher summarizes and completes them by referring to the results of the previous research.	

Sources for the teacher that can be optionally used in the classwork as well

Guides & examples on the method of elevator pitch:

- <u>https://felician.edu/wp-content/uploads/2019/10/tough-interview-guestions.pdf</u>
- o <u>https://www.atlassian.com/team-playbook/plays/elevator-pitch</u>
- o <u>https://www.cmu.edu/career/documents/quick-tips/elevator-pitch.pdf</u>
- <u>https://onlinebusiness.northeastern.edu/master-of-business-administration-mba/knowledge/elevator-pitch-guide/pitch-examples/</u>







Annex 1. 4. A Presentation for the lesson

see the ppt file at this link:

https://www.dropbox.com/s/seq4vqelzmn8uka/Annex 1.4.A Module%201%20Lesson%204%2 0-%20lesson%20presentation CO.potx?dl=0







Co-funded by the Erasmus+ Programme of the European Union





* foRMAtion

Different roles that an RMA can play?

- Communicator + Facilitator reseachers academia industry
- · Solve a problem: rules / elegibility / project management
- grant reviewing: scope Vs. tasks
- Look for funding opportunities
- Gather/ organize / Provide information
- Ethics consultant



*foRMAtion Based on Association of RMA (ARMA) Professional Development Framework The Most Common Sections of Grant Proposals 1. Cover Letter Developing 2. Executive Summa 3. Need Statement proposals 4. Goals and Objective 5 Methods Strategies or P 6. Evaluation Section 7. Other Funding or Sustair 8 Information About Your (Project Budget he balan Co-funde Erasmus+ Pro of the Europe *foRMAtion Based on Association of RMA (ARMA) Professional Development Framework Project



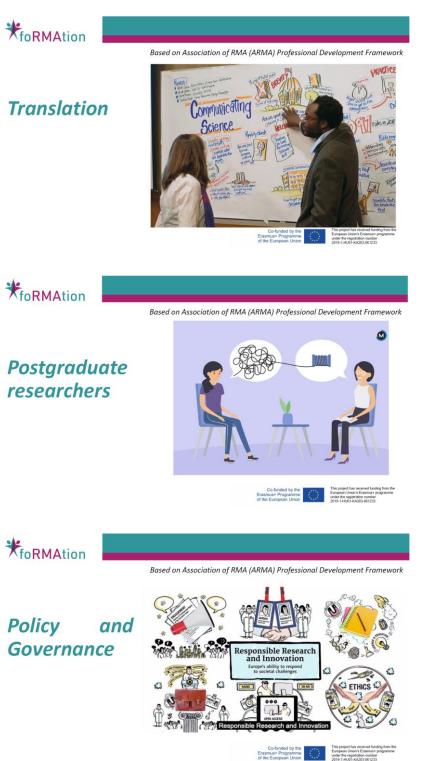




This project has received funding from the European Union's Erasmus+ programme under the registration number 2019-1-HU01-KA203-061233.

Lifetime









Management information and related functions

*foRMAtion



Based on Association of RMA (ARMA) Professional Development Framework



Based on Association of RMA (ARMA) Professional Development Framework

Service organisation and delivery



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Co-funded by the Erasmus+ Programme of the European Union

European Union's Erasmus+ program under the registration number 2019-1-HU01-KA203-061233.



RMA: a career in progress

Is the need for RMA professionals new? Increasing need for RMA in the R&I ecosystem in the past few decades

Is the RMA a recognized profession all over Europe? Professionalization in different rhythms and speeds

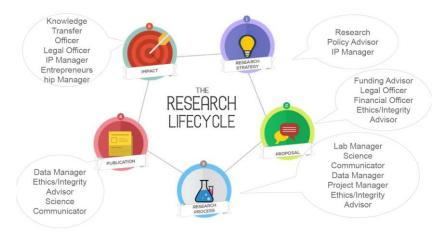
What are the boundaries of this profession? Research support activities - Professionals at the Interface of Science











Project implementation	Before the proposal
	At the proposal stage
	Grant preparation





Teacher's presentation on the development of RMA profession

Co-funded by the Erasmus+ Programme of the European Union





Annex 1. 4. B - The roles and tasks of RMAs

Source: BESTPRAC RSS Framework (http://www.bestprac-wiki.eu/Tasks#Before_the_Proposal_.28A.29)

List of tasks to be distributed for students:

- Identifying funding opportunities (finding)
- Disseminating funding
- Advising
- Training
- Gathering non-public information
- Quantitative and qualitative analysis of EU funding and organisational participation
- Providing general information and support regarding proposal submission
- Facilitating and setting up of internal approval and signature process
- Providing budget notes and explaining + enforcing internal budget rules
- Advise on the execution of the writing process and consortium formation and management
- Advise on the content to be written (vs writing process)
- General advising on legal aspects and providing organisational legal documents
- Linking to information or advising on IP, ethics, open access and open data
- Statistics and analysis
- Facilitating the signature of the grant agreement
- Facilitating the internal setup of the project
- Internal and external communication strategies
- Reviewing and discussing the GA and the grant preparation with the PI
- Facilitating the consortium agreement and handling related issues
- Communicating project success (internal and external)- Supporting financial and technical reporting
- Consortium management
- Communicating internal procedures
- Functioning as a helpdesk and providing administrative support
- Contracts management and archiving
- Support for amendments of the Grant Agreement and Consortium Agreement

Half-empty table to draw on the board:





Research lifecycle stage	RMA tasks and roles
Before the proposal	
Proposal	
Cront proporation	
Grant preparation	







Project	

Solution:

Research lifecycle stage	Before the proposal	Proposal	Grant preparation	Project
RMA tasks and roles	 Identifying funding opportunities (finding) Disseminating funding Advising Training Gathering non-public information Quantitative and qualitative analysis of EU funding and organisational participation 	 Providing general information and support regarding proposal submission Facilitating and setting up of internal approval and signature process Providing budget notes and explaining + enforcing internal budget rules Advise on the execution of the writing process and consortium formation and management Advise on the content to be written (vs writing process) General advising on legal aspects and providing organisational legal documents Linking to information or advising on IP, ethics, open access and open data Statistics and analysis 	 Facilitating the signature of the grant agreement Facilitating the internal setup of the project Internal and external communication strategies Reviewing and discussing the GA and the grant preparation with the PI Facilitating the consortium agreement and handling related issues Communicating project success (internal and external)- 	 Supporting financial and technical reporting Consortium management Communicating internal procedures Functioning as a helpdesk and providing administrative support Contracts management and archiving Support for amendments of the Grant Agreement and Consortium Agreement







Annex 1. 4. B - Examples for elevator pitch and evaluation table

Examples for elevator pitch videos:

- Connecting two problems to find a common solution: Youth unemployment and mass termination of SMEs <u>https://www.youtube.com/watch?v=gXwewPgLmkE</u>
- 2. Women users' needs in technology <u>https://www.youtube.com/watch?v=dqIEE-g_-Uc</u>
- CEO of Podio, a platform for work connections (First 1 minute): https://www.youtube.com/watch?v=UBNJh2rOOII
- Leader and founder of Pitch Academy (first 20 seconds): <u>https://pitch-professionals-academy.teachable.com/p/pitch-to-win-investment-and-resources/?product_id=909872&coupon_code=XSO60</u>
- 5. Mamma I want to write ghost writers https://www.youtube.com/watch?v=U0_NYHT9f50_
- Mission and values behind a Coffee Shop <u>https://www.youtube.com/watch?v=4CgkXZmqINE</u>

Background resources about elevator pitch:

- <u>https://www.indeed.com/career-advice/career-development/perfect-elevator-pitch</u>
- <u>https://elevatorpitchgenerator.com/</u>
- https://hbr.org/2014/12/your-elevator-pitch-needs-an-elevator-pitch
- <u>https://www.valuer.ai/blog/why-your-elevator-pitch-sucks</u>
- <u>https://www.atlassian.com/team-playbook/plays/elevator-pitch</u>
- <u>https://www.cmu.edu/career/documents/quick-tips/elevator-pitch.pdf</u>
- <u>https://onlinebusiness.northeastern.edu/master-of-business-administration-mba/knowledge/elevator-pitch-guide/pitch-examples/</u>

Evaluation table:

Evaluation table for the elevator pitch

Number of points given by







		peer student 0-5	observer 0-10	teacher 0-10
1.	Style and performance: Is the style in line with the interest and the language of the audience? Will they find it catchy/attractive?			
2.	Language: Is the text coherent, linguistically correct and easy to follow?			
3.	Arguments: How convincing and effective are the selected arguments and the overall pitch?			
4.	Content: Does it contain relevant, necessary and sufficiently detailed information (not too much, not too little)?			
5.	Duration: Did the presenter keep the time limit?			
	Sub-total			
	Total			







Annex 1. 4. C - Presentation slides – elevator pitch

Available at this link:

https://www.dropbox.com/s/5l4kon4jb3dbuy9/Pitch_presentation.pptx?dl=0













"a brief, persuasive speech that you use to spark interest in what your organization does. You can also use them to create interest in a project, idea, product – or in yourself?



WHERE?

Elevator Coffee breaks Brokerage events career fair membership events professional networking internal networking (your colleagues and leaders) Job interview







• Examples

- ourube, com/watch?v=gXwewPgLmkE from 0:10 outube, com/watch?v=dqlEE;g_-Uc ps://www.youtube.com/site/s
- ch able.com/p/pitch-to-win-code=XSO60

5

6





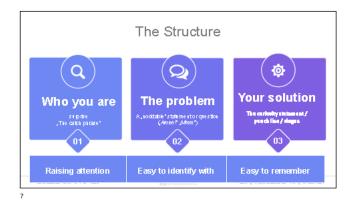
HOW IS IT?

30-90 seconds convincing emotional unique: striking / catchy











WHAT? - One SINGLE message that make your audience exited about your work

- 1. The context a problem to solve
- 2. How will you answer or solve it, what do you need for that? (punchline)
 3. Proove them: Why you are the best person (yours is the best organization) to the thic? to do this?







Useful tips

- Do not hurry, be relaxed
 Wake a professional impression BUT be understandable (no jargon, short sontences)
 What are the interests of your audience? show them why is your Idea so important for THEMI
 Show emotions and make them excited, tool
 Less is more Share that <u>1 single message</u>, with simple words
 Property your buy message with the same words

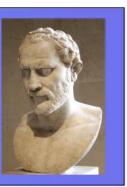
- Repeat your key message with the same words, more times
- keep pauses, especially before and after the key message
 Praotice

1

7

DEMOSTHENES

"the perfect orator who lacked nothing, (Cicero) "THE standard of oratory" who "stands alone among all the orators, (Quintilian)











11



Evaluation criteria for pitches

Style and performance: Is the style in line with the interest and the language of the audience? Will they flud H catchy/attractive?
 Language: Is the text coherent, linguistically correct and easy to follow?
 Arguments: How convincing and effective are the selected arguments and the overall pitch?
 Content: Does H contain relevant, necessary and sufficiently detailed information (net too much, net too little)?
 Duration: Did the presenter keep the time limit?

12





Lesson 5: Present and discuss a research plan

Learning outcomes to be developed:

- The student can apply the stages of the research project life cycle to a research plan, identifying the key questions to answer at each stage.
- The student can predict the needs for research interface activities along the research project lifecycle and identify key RMA roles (e.g. Funding Advisory, Project Manager, Science Communicator).
- The student is committed to find a balance between assertiveness and cooperation in the course of teamwork in research as a leader and as team member.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas:	Evaluation and	Timing
Methods, tools, illustration, problem, game etc.	suggested	
	scores	







Reporting on research plans:	
 Pairs of students present their research plan in the frame of an 	
international webinar	
An RMA or communication expert is invited for the	
class, introduces him-/herself (in the form of elevator pitch) and	
provides professional feedback for the pitches	Combination
 Every student holds a presentation using the tool of "elevator 	of peer-, self-
pitch" and infographics to present the results of their work.	and teacher
 Way of sharing the work among the pairs of students: in each 	evaluation
pair, student "A" reports on the	based on
 background, 	predefined
 public benefits 	categories.
 the conclusions of the literature published so far 	Evaluation of
regarding the planned research plactivity	the homework
 research question 	is carried out
 student "B" reports on the 	by the
 hypothesis 	teacher.
 methods to apply with explanation and supporting 	
arguments	Template with
 planned dissemination activities 	questions in
	the
Homework: submission of the final versions of the research plans,	annex is being
corrected and completed according the feedback received on the lesson	elaborated.

Sources for the teacher

Thody Angela (2006): Writing and Presenting Research <u>http://elearn.luanar.ac.mw/odl/public/Files/Angela%20Thody's%20Writing%20and%20Pre</u> <u>senting%20Research.pdf</u>





Annex 1. 5 - Evaluation criteria for the elevator pitch

	Evaluation table for the elevator pitch				
		Number of points given by			
		peer student 0-5	observer 0-10	teacher 0-10	
1.	Style and performance: Is the style in line with the interest and the language of the audience? Will they find it catchy/attractive?				
2.	Language: Is the text coherent, linguistically correct and easy to follow?				
3.	Arguments: How convincing and effective are the selected arguments and the overall pitch?				
4.	Content: Does it contain relevant, necessary and sufficiently detailed information (not too much, not too little)?				
5.	Duration: Did the presenter keep the time limit?				
	Sub-total				
	Total				







Module 2 - Research Funding, Policy and Governance

Lesson 1 Policy drivers, research agendas, European research policy

Learning outcomes to be developed:

- The student can identify major policy drivers (e.g. UN developmental goals, cross-cutting issues) and assess their influence in shaping research agendas.
- The student can identify examples of societal and economic drivers impacting and defining research policy (e.g. the COVID 19 situation).
- The student can differentiate between policy and strategy and identify suitable examples in the context of research institutions and processes.
- The student can discuss and formulate arguments and confront opinions in the context of real cases of scientific policies
- The student demonstrates curiosity and interest for systemic approaches and for the organization of the research ecosystem.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a) Evaluation of prior knowledge and competences - 10 minutes Answers to basic questions assessing the understanding of the main topics discussed by Lesson 1 of Module 1 (students have to read it in advance, at home) Application to use: Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create easily games helping assessment <u>here</u> (https://create.kahoot.it/auth/login?next=%2Fcreator Choose "Kahoot for formative assessment) 	(Results (scores) should not be counted into the end of semester grade)	10 mins





 b) Frontal presentation by the teacher (15 mins) on the base of Module 2, Lesson 1 and the answers provided by the students: Goal: providing a framework for the lesson (general information about the policy drivers, European research policy for example), also laying down the foundations regarding the definition and characteristic features of the 	15 mins
concepts of policy and strategy	
Activities helping the understanding of theoretical foundations c) Brainstorming on external and internal drivers of research policy using word cloud by Mentimeter (5 min) + short summary of the lecturer (of the external and internal drivers) (5 mins)	10 mins
d) think-pair-share (or <i>write-pair-share</i>) using the "A renewed European	
Agenda for Research and Innovation - Europe's chance to shape its future" excerpt from the EC's document. The students get a short list of questions, which they think of while reading the excerpt (3 mins), then form pairs and answer the question(s) (5 mins). Afterwards they share their ideas in class (5 mins). A template can be created before the class including the question, place of the individual answers, then answer of the group, and also leaving space for those elements that the group did not include. (appr. 15 mins) + short summary of the lecturer (of the external and internal drivers) (5 mins) or students work in pairs: based on the given dates of the source	35 mins
indicated, the students collect the contemporary trends, policy drivers.	or 20
(Collect minimum 5 (?)) (10 mins)+ short summary of the lecturer (of the external and internal drivers) (5 mins) e) Snowballing: starting with groups of two - one pair discuss either policy	mins
or strategy (characteristics) - based on the reading assigned, then they form groups of four (one 2-member group was discussing policy, the other strategy), they "teach" each other of the characteristic features, and list those. The class discusses the findings together, then the groups receive examples of documents on research and innovation in Europe, and they assign them to either categories. (cca. 25 mins)+ short summary of the lecturer (of the external and internal drivers) (5 mins)	30 mins





A clear definition of the two concepts, listing a series of definition elements, would be useful; there could also be examples that could be put into one group or another. In addition to the current content, this part of the task needs to be clarified for NOVA and Corvinus.	
 f) PBL 2, for Lessons #6 to #12: Preparation of an tender application to a <u>call as project teams</u> of 4 (with rotating team roles, working in an existing online application interface, <u>https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home</u>) Forming groups of 4 from, out of the groups of 2 formed, according to the similarities of their research project ideas. 	10 mins
g) Quick end-of-lesson feedback for the teacher - 5 minutes Competition by <u>Socrative (https://www.socrative.com/)</u> or <u>Wordwall</u> (https://wordwall.net/) game with quiz questions related to the content of the lesson. <i>Results (scores) should be counted into the end of semester</i> grade	5 mins
Homework: The groups work on discussing and setting the common research questions that can be interesting for the group members aims, goals for potential research projects	







Lesson 2: the Funding research framework: funding programmes and calls

Learning outcomes to be developed:

- The student can understand and contextualise European research funding frameworks and main European funding programmes and schemes to support research and innovation activities (e.g. Horizon Europe).
- The student can analyse a given European call for funding from the perspective of its underlying policy (need for the call) and proposal (goals, activities, and expected outcomes and impact).
- The student can distinguish and discuss at which stage of policy and strategy development intervene pre-award and research policy/strategy related professions.
- The student demonstrates curiosity and interest for systemic approaches and for the organization of the research ecosystem.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas:	Evaluation	Timing
Methods, tools, illustration, problem, game etc.	and	
	suggested	
	scores	







a.	Short revision of the main points of the first lesson (5 mins):	Results	5 mins
•	Kahoot test (after registering, at <u>Kahoot</u>	(scores)	
	(https://create.kahoot.it/auth/login) homepage, you can create	should be	
	easily games helping assessment here	counted into	
	(https://create.kahoot.it/auth/login?next=%2Fcreator))	the end of	
•	OR virtual whiteboard (linoit.com for example)	semester	
		grade	
		5	25 mins
b) Fror	ntal presentation by the teacher (20-25 mins):		
•	The goal of the presentation is to give an insight to the context of		
	EU funding schemes, and on the general characteristic features of		15 mins
	calls. See the ppt usable for this presentation in Annex 2.2.A		
٠	short presentation with the use of a call for tender (see Annex		
	2.2.B) helping students to show them the most important parts,		
	details of the rather long texts (see table in text). How to find the		
	most important parts of them - it will help them to be able to find		
	the most relevant bits of information. Specific questions can give		
	help for the students to accomplish the task.		
c) Shoi	rt analysis of a typical funding call for proposal (15 mins)		
٠	short presentation helping students to show them which are the		
	most important parts, details of the rather long texts (see Table 1		
	below). How to find the most important parts of them - it will		
	help them to be able to find the most relevant bits of		
	information. Specific question can give help for the students to		
	accomplish the task. See examples for calls in Annex 2. 2. E		
	available here:		
	https://www.dropbox.com/sh/jijr1vkobqp0ocz/AACf4rb9O16gI3k		25 mins
	AAhcfMHZRa?dl=0		
٠	Idea for gamification: Quiz competition with Mentimeter		
	Questions are taken in the frame of a competition and a ranking		
	can be seen immediately according to the right answers		
	 <u>The text of the call</u> used for this task is available in <u>Annex</u> 		
	<u>2.2.C</u>		





0	Guide for teachers for the compilation of a Mentimeter		
	quiz is available in Annex 1). In the case of the exercise		
	below, it is recommended to select the option "Faster		
	correct answers get more points" and to set 20 seconds as		
	a time limit for answering.		
0	Instructions for the students:		
	 On your computer: Open the Call for proposal called <u>"Annex 2.2.C CALL ERC-2020-STG for Mentimeter quiz"</u> Preview the text for 2 minutes On your phones: please open www.menti.com Enter the quiz with the code 6960436 Find the answers on the base of the document as quick as possible! The sooner you submit the right 	Students achieving	
	answer, the more points you receive.		
0	Quiz questions: (Questions and answers are available in		
	Annex 2.2.D, at this link or the quiz can be duplicated by		
	using the original one available <u>here</u>).		
	 What is the deadline for submission? 		
	 What is the maximum amount of the grant? Is any own contribution needed or does it provide full financing? Can any equipment be procured? How long is the project period? Does it require partnership? 		15 mins
	 Main purpose of the grant 		
Peer le	earning: The teacher asks the students achieving the		
highes	t scores to share their methods with the class by asking		
each c	of them the following question: "What did you do to find		
the rig	ht answers so quickly?"		
(25 mins): Individual wo • Studer	nts review the documentation of a call for proposal (the		5 mins
	er can select from the calls available in <u>Annex 2.2.E</u>).		3 111115
 They f matrix 	ill in the table below, based on the <mark>logical framework</mark>		





Results (scores) should not be counted into the end of semester grade	
	(scores) should not be counted into the end of semester





0	What can be the risky elements of the future projects based on this call?	
0	In case you were the manager of a project supported by	
0	this call, which 5 key "result" elements would you select	
	as the most important ones that you would pay special	
	attention?	
e) Classroom	work: The teacher briefly introduces the Funding and	
Tenders port		
•	e base of Module 2, Lesson 2 of the curriculum	
	Il as the portal's different guides:	
0	https://ec.europa.eu/info/funding-	
Ũ	tenders/opportunities/portal/screen/how-to-	
	participate/how-to-participate/1/1	
0	https://ec.europa.eu/research/participants/docs/h2020-	
_	funding-guide/index_en.htm	
0	https://ec.europa.eu/research/mariecurieactions/node_e	
	n	
0	– <u>https://erc.europa.eu/</u>	
e) PBL - Activ	vities developing students' skills (10-15 mins)	
-	ups of 4, out of the groups of 2 formed in Module 1,	
	the similarities of their research project ideas. Tasks for this	
lesson:		
- discussing a	nd setting the common research questions that can be	
interesting fo	or the group members: aims, goals for an ideal research	
project		
- browsing th	e <u>Funding and Tenders Portal's database</u> (bit.ly/3gyU4gv)	
and searchin	g at least 2-3 calls for tender which can be suitable for the	
realization of	some of their main research aims. It is recommended that	
students cho	ose "Open for submission" option in the "Submission	
status" field.		
f) Quick end-	of-lesson feedback for the teacher - 5 minutes	
Competition	by Socrative or Wordwall game with quiz questions related	
to the conter	nt of the lesson.	
Individual h	omework:	
		•





•	For the first part of the week: Each student has to identify at least one further call that seems to be suitable for the research aims of the group. Students should be encouraged to select calls where international consortium is required and they should select from different funding programmes and instruments to see the diversity Write a sentence why the specific call would be suitable for the research topic of the group	
before	ner's homework: take a look at the calls and reasonings of students e the next lesson, and prepare feedback on them (before the n), also can choose the most appropriate one.)	







Annex 2.2.A Teacher's presentation

Ppt file is available at this link:

https://www.dropbox.com/s/iwuin59vgfsrgnx/Annex 2.2.B Module%202%20Lesson%202%20 presentation.pptx?dl=0



Lesson 2 - The Funding research framework: funding programmes and calls			
Margarida Trindade	e 17 November 2020		
	Co-funded by Eve Enamular Programme of the European Union	This projectifus encoined/undingtow the Europeant Union xEastmas programme construction and a second second second 2016 F.4.(2014) AUXOS 66 (223).	
*foRMAtion			
Introduction to European fundin	-		

- A vision vision for the world relying on the UN Sustainable Developmental Goals (SDGs)
- A vision for Europe: to create a sustainable and prosperous future for people and the planet
- European policy define a research funding framework (funds)
- EU 2020 Strategy for Growth
- Research and innovation to attain competitiveness, growth and sustainability
- <u>https://youtu.be/P62sjnHL59w</u>









* foRMAtion

Introduction to European funding

• ¾ EU funding is jointly managed (EU funding via Member States)

- Strctural & Investment funds
 - European Regional Development Fund (ERDF)
 - European Social Fund (ESF)
 - European agricultural fund for rural development (EAFRD)
 - · European maritime and fisheries fund (EMFF) • Cohesion Fund (CF)

• ¼ managed directly by the EU: Grants & Calls for proposals

- European funding programmes
 - ERASMUS Plus Programme (EPLUS)
 - Programme for the Environment and Climate Action (LIFE)
 - Creative Europe (CREA)
 - Creative Europe (UNEA)
 Horizon 2020 Framework Programme (H2020) / Horizon Europe
 Construct Programme
 Construct Programme

*foRMAtion

The Horizon Europe (2021-2027) and its predecessor the Horizon 2020 (2014-2020)

https://youtu.be/g8BQNnX6_kY





Co-funded by the Erasmus+ Programme of the European Union





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Marie Skłodowska-Curie Actions Research Infrastructures United Structures Research Infrastructures Virugening Participation and Strengthening the European R	Pillar 3 Innovative Europe Guropean Innovation Council European Innovation and Technology esearch Area g the European R&I system	THE FRAMEWORK FROMA HORRING Excellent Chargen	<section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header>
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Image: State Stat	CALL CALENDAR 2021 INFORME CALES Starting Gravity (RC-2021-SR) (Sover 12-61-2021) Code (Sover 12-61-20		an Research (ERC) grants
22-10-2620 noninalGros and applications to fill the Desired filth multiple applications and applications to fill the European Research Council 22-06-2020	Deadlines: 16-03-2021, 17-06-2021, 20-10-2021 Synergy Grants		



Co-funded by the Erasmus+ Programme of the European Union



This project has received funding from the European Union's Erasmus+ programme under the registration number 2019-1-HU01-KA203-061233.



*foRMAtion

What are the core Widening actions?

idening consists of three main actions, i.e. **Teaming, Twimning and ERA Chairs**, for which becffic eligibility conditions apply. This ensures a targeted approach towards Widening Member tates and Associated Countries. The Member States currently eligible for Widening support are: ulgaria, Croatia, Cyprus, Czechia, Estonia, Hungary, Latvia, Uthuania, Luxembourg, Halta, Poland,



Widening Programme





Mission oriented research in Pillar 2 of Horizon Europe

- Global Societal Challenges demand for goal oriented research Missions
- <u>https://youtu.be/KlvjfPgwDKg</u>
- Partly inspired by the Apollo 11 mission to put a man on the moon, each mission is a mandate to solve a pressing challenge in society within a certain timeframe and budget





How to know what is to be funded?

- Cluster/Mission/Programme
 - Work Programme
 Call for proposal
 - Topic
- Guiding documents Call for proposal Work programme Guide for applicants Guide for peer reviewers Ethical guidelines



EuropeanUnion'sErasmus+programme under the registrationnumber 2019-1-HU01-KA203-061233.







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The Call for Proposals

Uniform format independently of the context of the text

• Heading containing basic information such as the name of the programme, name of the call, type of action, date of publication and deadline

- Specific challenge
- Scope
- Activities
- · Amount of funding available and expected duration for the project
- Expected Impact

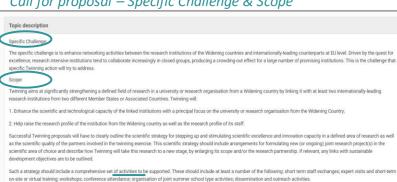
Co-funded by the Erasmus+ Programme of the European Union	This projecthas receivedfunding from the EuropeanUnion 'sErasmus-programme under the registrationnumber 2019-1-HU01-KA203-061233.
or the address of the	2019-1-H001-KA203-061233.

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Call for proposal - Heading

Twinning				
TOPIC ID: WIDESPREAD				
Grant				
General Information	General information			
Topic updates	Programme	Work programme part		
Topic description	Horizon 2020	Spreading Excellence and Wi	dening Participation	
Conditions and documents	Call WIDESPREAD (H2020-WIDESPREAD-2	018-2020)	Work programme year H2020-2018-2020	See budget averview
Submission service				
Topic related FAQ	CSA Coordination and support action		Closed	
Get support	Deadline model single-stage	Opening date 24 July 2019	Deadline date 14 November 2019 17:00:00 Bruss	els time
Call information				
			Co-funded by the Erasmus+ Programme of the European Union	This projecthas receivedfundingfrom EuropeanUnion'sErasmus+program under the registratiomumber 2019/J-HIID1-K/2013-061233

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Call for proposal – Specific Challenge & Scope

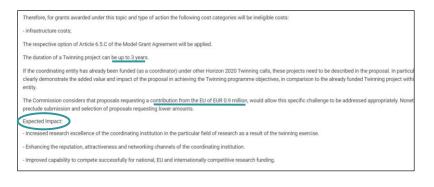






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Call for proposal – Expected Impact











Annex 2.2.B CALL WIDESPREAD-05-2020 for frontal presentation

Twinning

WIDESPREAD-05-2020

Programme Horizon 2020 Work programme part Spreading Excellence and Widening Participation Call WIDESPREAD (H2020-WIDESPREAD-2018-2020) Work programme year H2020-2018-2020 Type of action CSA Coordination and support action Deadline model single-stage **Opening date** 24 July 2019 **Deadline date** 14 November 2019 17:00:00 Brussels time

Specific Challenge:

The specific challenge is to enhance networking activities between the research institutions of the Widening countries and internationally-leading counterparts at EU level. Driven by the quest for excellence, research intensive institutions tend to collaborate increasingly in closed groups, producing a crowding-out effect for a large number of promising institutions. This is the challenge that a specific Twinning action will try to address.

Scope:

Twinning aims at significantly strengthening a defined field of research in a university or research organisation from a Widening country by linking it with at least two internationally-leading research institutions from two different Member States or Associated Countries. Twinning will: 1. Enhance the scientific and technological capacity of the linked institutions with a principal focus on the university or research organisation from the Widening Country;

2. Help raise the research profile of the institution from the Widening country as well as the research profile of its staff.

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Successful Twinning proposals will have to clearly outline the scientific strategy for stepping up and stimulating scientific excellence and innovation capacity in a defined area of research as well as the scientific quality of the partners involved in the twinning exercise. This scientific strategy should include arrangements for formulating new (or ongoing) joint research project(s) in the scientific area of choice and describe how Twinning will take this research to a new stage, by enlarging its scope and/or the research partnership. If relevant, any links with sustainable development objectives are to be outlined.

Such a strategy should include a comprehensive set of activities to be supported. These should include at least a number of the following: short term staff exchanges; expert visits and short-term on-site or virtual training; workshops; conference attendance; organisation of joint summer school type activities; dissemination and outreach activities.

A dedicated focus towards promoting the involvement of early stage researchers (as per the MSCA definition^[1]) in the coordinating institution from the Widening country is expected. This should take the form of a dedicated work package or task in the proposal describing activities dedicated to early stage researchers from the coordinating institution that could include training, mentoring and networking measures within the Twinning exercise, with a special focus on the promotion of gender equality among early stage researchers.

One of the lessons learned from previous calls and from the interim evaluation of Horizon 2020, is the lack of experience with regard to research management and administration in widening countries. That is why proposals should also focus on strengthening the research management and administration skills of the coordinating institution from the Widening country. This should take the form of a dedicated work package or task, placing emphasis to specific activities, in view of helping the staff of the coordinating institution to improve their proposal preparation and project management/administration skills. If not yet in place, setting up/upgrading a research management/administration unit within the coordinating institution would be beneficial. This will be achieved by fully utilising the experience and best practices of the internationally leading partners and is expected to be a concrete deliverable of the Twinning exercise.

In general, costs relating to administration, networking, coordination, training, management, travel costs are acceptable under a Twinning project. While the action does not focus on equipment and research costs, these could be accepted if they constitute only a minor part (up to 10%) of the total Horizon 2020 funding requested and are deemed necessary to fulfil the action's specific scope and objective.

Therefore, for grants awarded under this topic and type of action the following cost categories will be ineligible costs:

- infrastructure costs;

The respective option of Article 6.5.C of the Model Grant Agreement will be applied.

The duration of a Twinning project can be up to 3 years.

If the coordinating entity has already been funded (as a coordinator) under other Horizon 2020 Twinning calls, these projects need to be described in the proposal. In particular, proposers need to clearly demonstrate the added value and impact of the proposal in achieving the Twinning programme objectives, in comparison to the already funded Twinning project within the coordinating entity.





The Commission considers that proposals requesting a contribution from the EU of EUR 0.9 million, would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting lower amounts.

Expected Impact:

- Increased research excellence of the coordinating institution in the particular field of research as a result of the twinning exercise.

- Enhancing the reputation, attractiveness and networking channels of the coordinating institution.

- Improved capability to compete successfully for national, EU and internationally competitive research funding.

- Illustrate quantitatively and qualitatively the expected potential impact of the twinning exercise within the coordinating institution (and possibly at regional/national level) based on indicators like expected future publications in peer reviewed journals, collaboration agreements with businesses, intellectual property, new innovative products or services.

- It should be explained how the leading scientific institutions in the partnership will contribute in terms of provision of access to new research avenues, creativity and the development of new approaches, as well as acting as a source for increased mobility (inwards and outwards) of qualified scientists.

- The benefits for the internationally leading scientific institutions and the way they would materialise through the partnership should be substantiated.

[1]Early stage researchers shall, at the time of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. Full-time equivalent research experience is measured from the date when the researcher obtained the degree entitling him or her to embark on a doctorate, (either in the country in which the degree was obtained or in the country in which the researcher is recruited) even if a doctorate was never started or envisaged. Part-time research experience will be counted pro-rata.

Topic conditions and documents

1. Eligible countries: described in <u>Annex A</u> of the Work Programme.

A number of non-EU/non-Associated Countries that are not automatically eligible for funding have made specific provisions for making funding available for their participants in Horizon 2020 projects. See the information in the <u>Online Manual</u>.

2. Eligibility and admissibility conditions: described in <u>Annex B</u> and <u>Annex C</u> of the Work Programme.

1. The applicant organisation (coordinator) where a defined field of research aims to be strengthened as a result of the Twinning action should be established in a Member State or Associated Country that is ranked below 70% of the EU27 average of the composite indicator on Research Excellence[[The detailed





scores of the composite indicator can be found in p. 5 (Excellence in S&T 2010) of the "Research and Innovation Performance in EU Member States and Associated Countries 2013" at <u>http://ec.europa.eu/research/innovation-union/pdf/state-of-the-</u>

union/2012/innovation_union_progress_at_country_level_2013.pdf]].

The selected corrective threshold of 70% of the EU average has been chosen in line with the particular policy requirements of the measure, to ensure the greatest possible impact through targeting only the lowest performing Member States, and thereby maximising the real value of these actions.

Based on the above threshold, applicant organisations from the following Member States and Associated Countries (subject to valid association agreements of third countries with Horizon 2020) will be eligible to submit proposals as coordinators (the "low R&I performing" or "Widening" countries):

<u>Member States</u>: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

<u>Associated Countries</u>: Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, North Macedonia, Georgia, Moldova, Montenegro, Serbia, Tunisia, Turkey and Ukraine.

2. Twinning proposals must involve a minimum of <u>three</u> participants:

a. The applicant organisation must satisfy the condition set out in point 1 above, and must be the coordinator of the proposal.

b. At least two internationally-leading research intensive counterparts that must be coming from two different Member States or Associated Countries other than that of the coordinating applicant.

3. The requested EU contribution shall not exceed a maximum of EUR 0.9 million for a period of up to 3 years.

Proposal page limits and layout: please refer to Part B of the proposal template in the submission system below.

3. Evaluation:

- Evaluation criteria, scoring and thresholds are described in <u>Annex H</u> of the Work Programme.
- Submission and evaluation processes are described in the Online Manual.

The specific policy requirements, scope and perspectives of this topic aim at spreading excellence and widening participation in Europe, in the different "low R&I performing" or "Widening" countries[[<u>Member States</u>: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

<u>Associated Countries</u>: Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, North Macedonia, Georgia, Moldova, Montenegro, Serbia, Tunisia, Turkey and Ukraine.]]. Therefore, to serve the objectives of the programme and to better spread the impact of the action the following is set relating to *ex aequo* proposals:

For proposals with the same score, any further prioritisation will be based on the following factors applied in the following order:

-proposals with coordinators established in "low R&I performing" or "Widening" countries[[<u>Member</u><u>States</u>: Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

<u>Associated Countries</u>: Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, North Macedonia, Georgia, Moldova, Montenegro, Serbia, Tunisia, Turkey and Ukraine.]] not otherwise covered by more highly-ranked proposals;





- approach as described in Annex H, paragraphs 3b to 3e;

This approach will be applied successively for every group of *ex aequo* proposals requiring prioritisation, starting with the highest scored group, and continuing in descending order.

4. Indicative time for evaluation and grant agreements:

Information on the outcome of evaluation (**single-stage** call): maximum 5 months from the deadline for submission.

Signature of grant agreements: maximum 8 months from the deadline for submission.

5. Proposal templates, evaluation forms and model grant agreements (MGA):

Coordination and Support Action: Specific provisions and funding rates Standard proposal template Standard evaluation form General MGA - Multi-Beneficiary Annotated Grant Agreement

6. Additional provisions:

Horizon 2020 budget flexibility

Classified information

<u>Technology readiness levels (TRL)</u> – where a topic description refers to TRL, these definitions apply For grants awarded under this topic for coordination and support actions the following cost categories will be ineligible costs:

- infrastucture costs

The respective option of Article 6.5(c) of the Model Grant Agreement will be applied.

7. Open access must be granted to all scientific publications resulting from Horizon 2020 actions.

Where relevant, proposals should also provide information on how the participants will manage the research data generated and/or collected during the project, such as details on what types of data the project will generate, whether and how this data will be exploited or made accessible for verification and re-use, and how it will be curated and preserved.

Open access to research data The Open Research Data Pilot has been extended to cover all Horizon 2020 topics for which the submission is opened on 26 July 2016 or later. Projects funded under this topic will therefore by default provide open access to the research data they generate, except if they decide to optout under the conditions described in <u>Annex L of the Work Programme</u>. Projects can opt-out at any stage, that is both before and after the grant signature.

Note that the evaluation phase proposals will not be evaluated more favourably because they plan to open or share their data, and will not be penalised for opting out.

Open research data sharing applies to the data needed to validate the results presented in scientific publications. Additionally, projects can choose to make other data available open access and need to describe their approach in a Data Management Plan.

Projects need to create a Data Management Plan (DMP), except if they opt-out of making their research data open access. A first version of the DMP must be provided as an early deliverable within six months of the project and should be updated during the project as appropriate. The Commission already provides guidance documents, including a template for DMPs. See the <u>Online Manual</u>.





Eligibility of costs: costs related to data management and data sharing are eligible for reimbursement during the project duration.

The legal requirements for projects participating in this pilot are in the article 29.3 of the <u>Model Grant</u> <u>Agreement</u>.

8. Additional documents:

1. Introduction WP 2018-20 15. Spreading excellence and widening participation WP 2018-20 18. Dissemination, Exploitation and Evaluation WP 2018-20 General annexes to the Work Programme 2018-2020 Legal basis: Horizon 2020 Regulation of Establishment Legal basis: Horizon 2020 Rules for Participation

Legal basis: Horizon 2020 Specific Programme

More at: https://ec.europa.eu/info/funding-

tenders/opportunities/portal/screen/opportunities/topic-details/widespread-05-2020;callCode=H2020-WIDESPREAD-2018-

2020;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2;statusCodes=31094501,3 1094502,31094503;programmePeriod=2014%20-

<u>%202020;programCcm2Id=31045243;programDivisionCode=31048019;focusAreaCode=null;geo</u> graphicalZonesCode=null;programmeDivisionProspect=null;startDateLte=null;startDateGte=null ;crossCuttingPriorityCode=null;cpvCode=null;performanceOfDelivery=null;sortQuery=sortStatus ;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTablePageState







Annex 2.2.C CALL ERC-2020-STG for Mentimeter quiz

ERC STARTING GRANTS

ERC-2020-STG

Programme Horizon 2020 Framework Programme Work programme part ERC-2020 Call Call for proposals for ERC Starting Grant (ERC-2020-STG) Work programme year ERC-2020 Type of action **ERC-STG Starting Grant** Deadline model single-stage **Opening date** 17 July 2019 **Deadline date** 16 October 2019 17:00:00 Brussels time

Scope:

Objectives

ERC Starting Grants are designed to support excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme. Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.

Size of ERC Starting Grants

Starting Grants may be awarded up to a maximum of EUR 1 500 000 for a period of 5 years (The maximum award is reduced pro rata temporis for projects of a shorter duration. This does not apply to ongoing projects).

However, up to an additional EUR 1 000 000 can be requested in the proposal to cover the following eligible costs when these are necessary to carry out the proposed work: (a) "start-up" costs for Principal Investigators moving to the EU or an Associated Country from elsewhere as a consequence of receiving the ERC grant and/or (b) the purchase of major equipment and/or (c) access to large facilities and/or (d) other major experimental and field work costs, excluding personnel costs.

Additional funding is not subject to pro rata temporis reduction for projects of shorter duration.







All funding requested is assessed during evaluation.

Profile of the ERC Starting Grant Principal Investigator

The Principal Investigator shall have been awarded their first PhD at least 2 and up to 7 years prior to 1 January 2020. The eligibility period can be extended beyond 7 years in certain properly documented circumstances.

A competitive Starting Grant Principal Investigator must have already shown the potential for research independence and evidence of maturity, for example by having produced at least one important publication as main author or without the participation of their PhD supervisor. Applicant Principal Investigators should also be able to demonstrate a promising track record of early achievements appropriate to their research field and career stage, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field. They may also demonstrate a record of invited presentations in well-established international conferences, granted patents, awards, prizes, etc.

For further information please see the ERC Work Programme 2020.

Topic conditions and documents

List of countries and applicable rules for funding:

1. Eligible countries: The conditions specific to the ERC are described in the <u>ERC Work Programme</u> 2020 under the heading Eligibility criteria and in Annex 3. An overview is provided below:

The ERC actions are open to **researchers of any nationality** who intend to conduct their research activity in any EU Member State or <u>Associated Country</u>. **Principal Investigators** may be of **any age and nationality** and may reside in any country in the world at the time of the application. Principal Investigators funded through the ERC frontier research grants shall spend a minimum percentage of their working time on the ERC project and a minimum percentage of their working time in an EU Member State or Associated Country.

The **host institution** (Applicant Legal Institution) must either be established in an EU Member State or <u>Associated Country</u> as a legal entity created under national law, or it may be an International European Interest Organisation (such as CERN, EMBL, etc.), the European Commission's Joint Research Centre (JRC) or any other entity created under EU law.

2. Eligibility and admissibility conditions:

The conditions specific to ERC grants are described in the <u>ERC Work Programme 2020</u> under the heading Eligibility criteria and in the <u>ERC Rules for Submission and Evaluation</u> under Section 2.4. An overview is provided below:







Eligible proposals: All proposals must be complete and submitted by eligible Principal Investigators before the relevant call deadline. A complete proposal needs to include all parts or sections (see "Proposal submission and description" below). Incomplete proposals may be declared ineligible. The content of the proposal must relate to the objectives and to the grant type set out in the call, as defined in <u>ERC Work Programme 2020</u>. A proposal will only be deemed ineligible on grounds of 'scope' in clear-cut cases.

Eligible Principal Investigator: Principal Investigators may be of any age and nationality and may reside in any country in the world at the time of the application. All Principal Investigators funded through an ERC Starting grant shall spend a minimum of **50% of their working time** in an EU Member State or Associated Country and a minimum of **50% of their working time** on the ERC project.

Eligible Host Institution: The host institution (Applicant Legal Entity) must engage the Principal Investigator(s) for at least the duration of the project, as defined in the grant agreement. It must either be established in an EU Member State or <u>Associated Country</u> as a legal entity created under national law, or it may be an International European Interest Organisation (such as CERN, EMBL, etc.), the European Commission's Joint Research Centre (JRC) or any other entity created under EU law. Any type of legal entity, public or private, including universities, research organisations and undertakings can host Principal Investigators and their teams.

Restrictions on submission of proposals: The restrictions for submission are related to the outcome of the evaluation in previous calls and are designed to allow unsuccessful Principal Investigators the time necessary to develop a stronger proposal. For further details please consult page 20-21 of the <u>ERC Work</u> <u>Programme 2020</u> or the <u>Frequently Asked Questions</u>.

Proposal page limits and layout: A complete proposal is composed of:

• Administrative proposal forms (including Ethics Review Table): available in section 5 of the topic conditions and in the submission tool below. To access the submission tool, you need to register to the <u>Funding & Tenders Portal</u> first.

Research Proposal (Parts B1 and B2), available in the submission tool below, should be uploaded and submitted via the submission tool as PDF files.

Proposal Part B1

- Extended Synopsis: max. 5 pages (references do not count towards the page limits)
- Curriculum Vitae: max. 2 pages
- Funding ID: no page limits
- Track Record: max. 2 pages

Proposal Part B2

Scientific Proposal: max. 15 pages (references do not count towards the page limit).







• Host Institution Binding Statement of Support (available on this page below and as a word-template in the submission tool)

- PhD record and supporting documents for eligibility checking.
- Ethics review self-assessment (if applicable) and supporting documentation.

Complete proposals must be submitted via the submission tool available through the <u>Funding & Tenders</u> <u>Portal</u>. **Further detailed guidance in the** <u>'IT HOW TO'</u> wiki site.

3. Evaluation

The conditions specific to ERC are described in the <u>ERC Work Programme 2020</u> under the heading 'Evaluation procedure and criteria' and in the <u>ERC Rules for Submission and Evaluation</u>. An overview is provided below:

Evaluation procedure

For the Starting grant call a single submission of the full proposal will be followed by a two-step evaluation. The evaluation will be conducted by means of a structure of high level peer review panels as listed in Annex 1 of the <u>ERC Work Programme 2020</u>. The panels may be assisted by independent experts working remotely.

Evaluation criteria

For all ERC frontier research grants **scientific excellence is the sole criterion of evaluation**. It will be applied in conjunction to the evaluation of both: the ground-breaking nature, ambition and feasibility of the research project; and the intellectual capacity, creativity and commitment of the Principal Investigator. The detailed evaluation elements applying to the excellence of the research project and the Principal Investigator are set out in the <u>ERC Work Programme 2020</u>.

4. Indicative timetable for evaluation and grant agreement:

Please refer to the <u>ERC Work Programme 2020</u> under the heading 'Indicative summary of main calls from the 2020 budget'.

5. Provisions, proposal templates and evaluation forms for the type(s) of action(s) under this topic: **ERC 2020 Starting Grant**

For the specific provisions and the funding rates, please refer to the ERC Work Programme 2020.

- Information for Applicants to the Starting and Consolidator Grant 2020 Calls
- ERC 2020 Standard templates
- ERC Guide for Peer Reviewers –STG, COG, ADG
- H2020 ERC MGA Multi-Beneficiary
- H2020 ERC MGA Mono-Beneficiary
- H2020 Annotated Grant Agreement

6. Open access

The ERC supports the principle of open access to the published output of research, including in particular peer-reviewed articles and monographs, as a fundamental part of its mission. It also supports the basic principle of open access to research data and data related products such as computer code. The ERC considers that providing free online access to all these materials can be the most effective way of ensuring that the fruits of the research it funds can be accessed, read and used as the basis for further research. Under Horizon 2020, beneficiaries of ERC grants must ensure open access to all peer-reviewed scientific publications relating to their results as set out in Article 29.2 of the ERC Model Grant Agreement.





In addition, beneficiaries of ERC frontier research grants funded under this Work Programme will automatically be covered by the provisions on research data sharing as set out in Article 29.3 of the ERC Model Grant Agreement unless they specifically decide to opt-out. In particular, beneficiaries that do not opt-out will be required to submit a data management plan within the first six months of project implementation. These provisions are designed to facilitate access, re-use and preservation of the research data generated during the ERC funded research work.

Beneficiaries should carefully check the additional obligations related to open research data contained in Article 29.3. They may opt-out of the provisions of the previous paragraph at any stage, thereby freeing themselves retroactively from the associated obligations.

7. Additional documents:

<u>Legal basis: Horizon 2020 - Regulation of Establishment</u> <u>Legal basis: Horizon 2020 Rules for Participation</u> <u>Legal basis: Horizon 2020 Specific Programme</u>

Additional documents

• Flash Call Info_STG2020 results en

More at: https://ec.europa.eu/info/funding-

tenders/opportunities/portal/screen/opportunities/topic-details/erc-2020-stg;callCode=ERC-2020-

STG;freeTextSearchKeyword=;matchWholeText=true;typeCodes=1,2;statusCodes=31094501,31 094502,31094503;programmePeriod=null;programCcm2ld=31045243;programDivisionCode=31 047825;focusAreaCode=null;geographicalZonesCode=null;programmeDivisionProspect=null;sta rtDateLte=null;startDateGte=null;crossCuttingPriorityCode=null;cpvCode=null;performanceOfD elivery=null;sortQuery=sortStatus;orderBy=asc;onlyTenders=false;topicListKey=topicSearchTabl ePageState







Annex 2.2.D Mentimeter quiz for the lesson

What is the deadline for submission?	16 October2019
What is the maximum amount of the grant?	EUR 1 750000 + EUR 1000 000 can be
	requested
Is any own contribution needed or does it	Full financing
provide full financing?	
Can any equipment be procured?	Yes
How long is the project period?	5 years
Does it require partnership?	No
Main purpose of the grant	support the career of leading researchers
"Principal Investigators funded through an	False
ERC Starting grant shall spend a maximum of	
50% of their working time in an EU Member	
State"	







Lesson 3 Funding proposals and evaluation criteria

Learning outcomes to be developed:

- The student can identify examples of societal and economic drivers impacting and defining research policy (e.g. the COVID 19 situation).
- The student can understand and contextualize European research funding frameworks and main European funding programmes and schemes to support research and innovation activities (e.g. Horizon Europe).
- The student is familiar with the general process and principles of evaluation and assessment criteria of research proposals: what do funding agencies prefer, what they dislike, vocabulary required, how to interpret what is required in a specific call, aspects meaning advantage in the context of EU funded calls
- The student is able to recognize the main components of a funding proposal and link them to the evaluation criteria of a given call for funding.
- The student can explain the pre-award work and how it fits into the research cycle.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a) Short revision of the main points of the previous lesson (5 mins): Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create easily games helping assessment <u>here</u> OR virtual whiteboard (linoit.com for example) b) Frontal presentation by the teacher (20-25 mins): The goal of the presentation is to provide the essential information regarding the structure of the calls, pointing out the main parts of them. The evaluation of the funding proposals is also relevant to introduce. The evaluation criteria based on the 2018-2020 self-evaluation form are the 	Results (scores) should be counted into the end of semester grade	5 mins 25 mins





following: excellence, impact, quality and efficiency of the implementation. The scoring is also included in the following document (as is indicated in the text as well: <u>https://ec.europa.eu/research/participants/data/ref/h2020/call_ptef/ef/</u> <u>2018-2020/h2020-call-ef-ria-ia-csa-2018-20_en.pdf</u>) Further documents including evaluation criteria for EU funding proposals:	
 <u>https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/massimo-burioni-h2020-proposals-submission-evaluation.pdf</u> <u>https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/from-evaluation-to-grant-signature/evaluation-of-proposals/elig_eval_criteria_en.htm</u> <u>https://ec.europa.eu/research/participants/data/ref/h2020/other/proposals/2020/annexes/h2020-wp1820-annex-h-esacrit_en.pdf</u> 	35 mins 15 mins
c) Work in groups of three (35 mins): Part B of selected funding proposals is given to the groups. The groups has to find the answers to the questions (pg. 28). (15 mins) The members share their findings (8 mins), then they answer the questions in the class (12 mins) - the teacher asks one question from one group, but the member answering it should not be the same who worked on the question.	
 d) Short feedback (10 mins) on the homework (the students choose the proper call for application with the help of the teacher) and provide the tasks of the next (individual) homework (5 mins), which is: identifying potential partner institutions (with the availabilities of the given institution) with a detailed justification explaining the reasons of the involvement of the given partner (max 4 partners) compiling a letter of invitation / expression of interest to the project. start filling out the logframe for the project applying the logframe matrix provided in lesson 2. 	5 mins





Teacher's short presentation on: "project concept" and "expression of interest": features, function. Homework should be uploaded to the given platform prior to the class. Teacher's homework: prepare for providing feedback on the uploaded materials, especially the letter of invitation for next class.	
e) Quick end-of-lesson round-table feedback for the teacher - 5 minutes Which were the most interesting issues you learnt at this lesson?	

Further readings/reference material for teachers

• https://www.umc.edu.dz/images/h2020%20BOOK.pdf







Lesson 4 Preparation of a project proposal

Learning outcomes to be developed:

- The student is familiar with the general process and principles of evaluation and assessment criteria of research proposals: what do funding agencies prefer, what they dislike, vocabulary required, how to interpret what is required in a specific call, aspects meaning advantage in the context of EU funded calls
- The student can analyse a given European call for funding from the perspective of its underlying policy (need for the call) and proposal (goals, activities, and expected outcomes and impact).
- With the help of the teacher, the student can draft a simple budget for a proposal, according to the activities planned for the different project phases and milestones.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
a) Short revision of the main points of the previous lesson (5 mins): revision of the main points.		5 mins
 b) Visiting an online brokerage event (30 minutes) Teachers' brief introduction of this type of event, presentation of the functions provided by the concrete online interface to be visited Guiding questions for the observation: "What are the similarities and differences between this event and the online database browsing? What added value of a brokerage event can you identify?" 	 b) Guiding questions for the observation: "What are the similarities and 	30 mins







 Signing in (with the teachers login) the event, collecting 	differences	
observations	between this	
Discussing the conclusions	event and the	
	online	
b) Frontal presentation by the teacher (20 mins):	database	
The goal of the presentation is to provide the essential information	browsing?	20 mins
regarding the formulation of work packages (how to formulate them; good	What added	
and bad examples). The other part of the presentation touches upon the	value of a	
financial provisions: major cost categories, their basic characteristics, etc.	brokerage	
	event can	
c) PBL - Activities developing students' skills (40 mins):	you	
• For this lesson, the students identify maximum 4 potential project	identify?" -	40 mins
partner institutions, provide the availabilities of the institutions	students take	
and also explain the reasons why to involve that partner. In class,	individual	
the final common decision on the partners in the frame of a	notes on	
negotiation process takes place (10 mins)	virtual	
• Introduction of the previous research conducted, developments of	whiteboard	
the research focus, research questions, brief rationale for the	(save them	
project idea (5 mins)	individually)	
 setting project work plan, and activities based on them (10 mins) 		
The activity will focus on how the work plan is built		
Work Packages,		
 tasks / activities; 		
 deliverables / outputs, etc. 		
• What roles partners can be dedicated, how you plan the activities		
(running in parallel or built on each other, etc.)		
- drafting & negotiating on a simple budget (15 mins)		
Homework:		
 finish the budget, phases and activities. 		





Lesson 5 Institutional proposals, research strategy and governance

Learning outcomes to be developed:

- The student can differentiate external from internal drivers of research policy.
- The student is able to recognize the main components of a funding proposal and link them to the evaluation criteria of a given call for funding.
- The student can explain the main governance structure of a given research institution.
- The student can distinguish and discuss at which stage of policy and strategy development intervene pre-award and research policy/strategy related professions.
- The learner interiorizes and commits to the values and the mission of the institution.
- The student demonstrates curiosity and interest for systemic approaches and for the organization of the research ecosystem.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a. Short revision of the main points of the previous lesson (5 mins): Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create easily games helping assessment <u>here</u> OR virtual whiteboard (linoit.com for example) 	Results (scores) should be counted into the end of semester grade	5 mins
b) Brainstorming : what kind of research performing institutions are there according to the students?		10 mins







The teacher can apply virtual whiteboard (i.e. linoit) as a platform for brainstorming; word cloud (i.e. mentimeter) can also be applied (5 min) + short summary of the lecturer on the results (5 mins)	
b) Frontal presentation by the teacher (20-25 mins): The goal of the presentation covers information regarding the research institutions, their general description. Quality assessment can also be mentioned. The general introduction of the institutional proposal is covered.	25 mins
 c) Groups of 3 students can work on the followings: first, students divide the tasks among each other, and gather the necessary information (15 mins) find the values and missions of the University - prepare a short list of them what kinds of research projects are there at the University (list 5-10 of them) when elaborating an institutional proposal, on what areas RMA support can be detected? 	20 mins
Students dealing with the same question come together, see what they found. Those working on question 3 prepare a mindmap together. They discuss the results in class. (15 mins)	15 mins
d) Homework (10 mins) : Short feedback on homework. Continuing the elaboration of the call for tender (according to the guidance of the teacher)	10 mins
e) Quick end-of-lesson round-table feedback for the teacher - 5 minutes Which were the most interesting issues you learnt at this lesson?	5 mins







Lesson 6 Conflict of interests between policy, funding and research

Learning outcomes to be developed:

- The student can identify examples of societal and economic drivers impacting and defining research policy (e.g. the COVID 19 situation).
- The student can understand and contextualise European research funding frameworks and main European funding programmes and schemes to support research and innovation activities (e.g. Horizon Europe).
- The student can discuss and formulate arguments and confront opinions in the context of real cases of scientific policies.
- The student can effectively communicate, negotiate terms and persuade different target audiences including policy makers for programme bodies, senior management of research institutions, research managers, and researchers.
- The learner interiorizes and commits to the values and the mission of the institution.
- The student demonstrates curiosity and interest for systemic approaches and for the organization of the research ecosystem.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a. Short revision of the main points of the previous lesson (5 mins): Kahoot test (after registering, at <u>Kahoot</u> homepage, you can create easily games helping assessment <u>here</u> OR virtual whiteboard (linoit.com for example) 	Results (scores) should be counted into the end of	5 mins





	semester	
b) PBL progress (25 mins):	grade	15 mins
- The groups finish elaborating the call for tender.		
c) Work in pairs: each pair receives one of the articles. The pair of		45 mins
students answer the following questions based on the articles below (15		
mins):		
 Mountz, A., Bonds, A., Mansfield, B., Loyd, J., Hyndman, J., Walton-Roberts, M., Basu, R., Whitson, R., Hawkins, R., Hamilton, T., & Curran, W. (2015). For Slow Scholarship: A Feminist Politics of Resistance through Collective Action in the Neoliberal University. <i>ACME:</i> An International Journal for Critical Geographies, 14(4), 1235- 1259. Retrieved from https://acme- journal.org/index.php/acme/article/view/1058 Sandra Acker & Anne Wagner (2019) Feminist scholars working around the neoliberal university, Gender and Education, 31:1, 62-81, DOI: <u>10.1080/09540253.2017.1296117</u> John Morrissey (2015) Regimes of performance: practices of the normalised self in the neoliberal university, Br itish Journal of Sociology of Education, 36:4, 614- 634, DOI: <u>10.1080/01425692.2013.838515</u> Rhodes C, Wright C, Pullen A. Changing the World? The Politics of Activism and Impact in the Neoliberal University. <i>Organizatio</i> <i>n</i>. 2018;25(1):139-147. doi:10.1177/1350508417726546 Rebecca Lund (2020) The social organisation of boasting in the neoliberal university, Gender and Education, 32:4, 466- 485, DOI: <u>10.1080/09540253.2018.1482412</u> 		
 Rebecca Lund, & Tienari, J. (2019). Passion, care, and eros in the gendered neoliberal university. Organization, 26(1), 98- 		10 mins
 121.(23p). Edwards, M. A., & Roy, S. (2017). Academic Research in the 21st Century: Maintaining Scientific Integrity in a Climate of Perverse Incentives and Hypercompetition. Environmental Engineering Science, 34(1), 51–61. https://doi.org/10.1089/ees.2016.0223 Laudel, G. (2006). The art of getting funded: how scientists adapt to their funding conditions. Science and Public Policy, 33(7), 489–504. https://doi.org/10.3152/147154306781778777 		
1. Which funding changes have occured in the last decades?		5 mins
2. What other factors have changed in the last decades that seem to		_
affect the way research is conducted?		
3. What are the micromechanisms by which researchers adapt to the		
current pressures of the research environment?		





- 4. Which behaviours related to the way researchers conduct their research have been observed?
- 5. Which ethical dilemmas are raised in the articles?
- 6. If you were a Researcher/Funding Agency/Policy maker/ RMA, you abide by which values? Consider the values of the citizen, the researcher and those of the institution.
- 7. What course of action would you consider for the future?

Then, the groups working on the same article form a larger group, discuss their findings (10 mins) then the answers are discussed in class (20 mins).

Homework (10 mins):

- The groups have to prepare a presentation for the last lesson aim is to introduce the project, and convince the potential stakeholders / institutional decision makers.
- studying the application of another group
- taking notes individually for the evaluation on the base of predefined evaluation criteria

d) Quick end-of-lesson round-table feedback for the teacher - *5 minutes* Which were the most interesting issues you learnt at this lesson?







Lesson 7 Oral presentations

Learning outcomes to be developed:

- The student can understand and contextualise European research funding frameworks and main European funding programmes and schemes to support research and innovation activities (e.g. Horizon Europe).
- The student is familiar with the general process and principles of evaluation and assessment criteria of research proposals: what do funding agencies prefer, what they dislike, vocabulary required, how to interpret what is required in a specific call, aspects meaning advantage in the context of EU funded calls
- The student can analyse a given European call for funding from the perspective of its underlying policy (need for the call) and proposal (goals, activities, and expected outcomes and impact).
- The student is able to recognize the main components of a funding proposal and link them to the evaluation criteria of a given call for funding.
- The student is able to draft a funding plan (a) in line with the institutional strategy of the organisation (b) that addresses external and internal drivers of policy and strategy, c) adjusted with the specific evaluation and assessment criteria, preferences of research calls (of the funding organisations).
- The student can discuss and formulate arguments and confront opinions in the context of real cases of scientific policies.
- The student can effectively communicate, negotiate terms and persuade different target audiences including policy makers for programme bodies, senior management of research institutions, research managers, and researchers.
- The student is able to accept others' views, and work together to provide the necessary support for the proposal's preparation.
- The student is critical regarding his own work and that of others taking on a constructive attitude.
- The student takes responsibility for its own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas:		Timing
Methods, tools, illustration, problem, game etc.	and	







	suggested scores	
a) Self-introduction and interview with a professional, external evaluator of proposals .		
	b) Peer	
	evaluation of	
	the project	
	proposals	
	- each group	
	receives one	
	of the	
	proposals,	
	and evaluate	
	it (discussion	
	of scoring),	
	- give	
	arguments	
	and	
	explanations	
	for the	
	evaluation in	
	the form of	
	an oral	
	evaluation	
	report.	
c) Feedback and tips from the professional evaluator		





Module 3 - Project Integration and Management

Lesson 1: Project Lifecycle & RMAs as Professionals in the Project lifecycle

Learning outcomes to be developed:

- The student knows how to identify the activities in the light of the project objectives, outputs, main tasks, performance criteria and resource requirements set in the proposal.
- The student will identify the RMA professional roles involved directly and indirectly in post award project management

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
 a) Games helping students to be connected: getting acquainted with each other (10-15 minutes) 15 minutes "Show and tell"see here OR: "Snowball fight"- see here. OR see further ideas here b) Evaluation of prior knowledge and competences - 10 minutes Exploring the initial competences, knowledge of students: Answers to short, basic questions by either of the followings Kahoot test (after registering, at Kahoot homepage, you can create easily games helping assessment here or interactive word cloud (https://www.mentimeter.com/) OR virtual whiteboard (linoit.com for example) 	Results (scores) should not be counted into the end of semester grade	15 mins 10 mins
 c) Introduction to the RMA carrier by the help of an invited RMA on the request of the teacher, the RMA shares experiences on the different leadership styles applied in the different stages of a 		30 mins 10 minutes of self- introduction





project life cycle and refers to the theoretical content discussed	+ 20
later on, in the lesson	minutes of
 Interview questions to be sent to the RMA in advance: 	Q&A
 What are the best ways to find out who are the right 	
persons to ask a question within the organization: giving	
advice, situation exercise, studies on the topic? (Understanding nonverbal messages and unwritten rules	10 mins
within a workplace.)	
 optionally, this conversation can be done via Internet as well 	
Unit 2 of the lesson: Setting the goals and rules for the course, together	
with the students	10 mins
1. Introduction of the course (expectations, planned activities, assessment	
methods) and the topic of the lesson by the teacher - 10 mins	
2. Activities helping the understanding of theoretical foundation related	
to the leadership model set by Morgeson et al (2010)	
https://msu.edu/~morgeson/morgeson_derue_karam_2010.pdf	
classroom group work:	
 Each student receives one of the functions listed in the 	
article on a piece of paper (see in the curriculum)	
Leadership functions during the transition phase:	
1. Compose the team – bringing together the best available people	
for the job, taking into account complementary competences and	
ability to work together for a common goal	
2. Define the mission – clarifying the team purpose	
3. Establish performance expectations and set team goals – goals	
which are appropriately challenging and motivating	
4. Structure and plan – dividing out tasks and responsibilities,	
scheduling and so on	
5. Train and develop team members – including through coaching by	
the leader	
6. Sense-making — defined as "identifying essential environmental	
events, interpreting these events given the team's performance	
situation, and communicating this interpretation to the team"	
events, interpreting these events given the team's performance	





7.	Providing feedback – both to individuals and to the team collectively		
Leade	ship functions during the action:		
1.	Monitor the team – "examining the team's processes,		
	performance, and the external team context"		
2.	Manage team boundaries – "representing the team's interests to		
	individuals and groups outside the team in order to protect the		
	team from interference as well as persuading others to support		
-	them" and co-ordinating activities with other teams		
3.	Challenge the team – its performance, assumptions and ways of working		
4.	Perform team tasks – "participating in, intervening in, or otherwise		
	performing some of the team's task work"		
5.	Solve problems – diagnosing and resolving issues that prevent performance		
6.	6. Provide resources – for example, information, equipment, finance		
	and people		
7.	Encourage team self-management – empowerment, accountability		
	and responsibility		
8.	Support the team social climate – encouraging positive and		
	supportive behaviours between team members		
	 On the whiteboard, the two phases are indicated and they 		
	are explained as well (either by arrows, or timeline)		
	• The task of the students is to find the proper phase for the		
	function they receive first.		
	• When the two (7 and 8 members) groups of students are		
	formed, then they have to decide the right sequence of the		
	functions and put their paper to the board.		15 mins
	• The teacher takes a photo of the whiteboard with the two		
	phases and 15 functions, and uploads it to the site of the		
	seminar.		





	тт
3. Activity transforming the theoretical knowledge into personal experience:	
The teacher presents the students the fact that the aim of this course will	
be to gain practical experiences in all possible ways on the	
theories/knowledge that they learn in this course. A possible way to	
introduce this:	
"The theories presented above will be applied for ourselves as a team, as	
this situation is very similar to a workplace. In this case all of you will have	
to test yourself as leaders (using the Storyline method) but me as a teacher	
will have the overall responsibility for the effectiveness of our team and	
your satisfaction and development as my team members. This is an	
excellent occasion to set our expectations and our resolutions/decisions in	
terms of this course.	
 Your task is now to think about the function you received earlier 	
and formulate a sentence answering the question:	
 Group A (Leadership functions during the transition 	
phase:):"Have you experienced "your" function in any form,	
during this lesson? (E. g.: setting goals: the teacher	
presented the goals of the course)	
 Group B (Leadership functions during the action): "What are 	
your expectations towards me in terms of the funcion you	
received in the previous exercise?, how can I enhance your	
development on that area" (E. g.: "Provide resources"= I	
will give you the necessary information regarding good	
examples/literature/various types of information helping	
you to better understand the content of the lesson)	
• Conversation aiming at the definition of the rules for the course	
including both students' and teacher's obligations (in the form of a	
written document to be available on the common (Moodle?)	
interface of the course)	
,	







Lesson 2: Project Management Structure (PMS), Grant Agreement (GA) and Consortium Agreement (CA)

Learning outcomes to be developed:

- The student will map the main internal and external actors' involvement across the project management stages and devise a strategy for their timely contribution for the implementation of the project (i.e. Stakeholder Management)
- The student can follow the development of several simultaneous management tasks (eg. team management, cost management) and prioritize the most relevant ones at different stages of project management

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
a) Introduction of the lesson by the teacher - main aims, topics (project		15 mins
life cycle, possible roles - see figure 3; grant and consortium agreement,		
etc.)		40 mins
b) Group work: New content with "expert jigsaw" method describing the		
main parts of the Project Management Plan (PMP). Description for Expert		
jigsaw method is available in <u>this</u> document)		
 students form groups of 5 		
 each student of the jigsaw groups get and study a different 1-2 		
pages long document including an example (see examples for		
project management plans in <u>Annex 3.3.E:</u>		
https://www.dropbox.com/sh/c5nzdf1mkpxntmi/AAB306rAu0mldj		
<u>NNPGy9tWSna?dl=0</u>) such as:		
 schedule management plan; 		
 costs management plan; 		
 quality management plan; 		
 risk management plan. 		
b. the general description of the given plan (see Annexes <u>3.2.A, 3.2.B</u>		
and <u>3.2.C</u>), and a template for it (see them in <u>Annex 3. 2. F</u>)		





-	writing online the air	s of students have to answer the following questions in g (in online learning, it is recommended to use a common interface as e. g. a shared Google Drive document): What is n of this plan? How is it used in the course of the project? s responsible for its implementation in the course of the t?	
•	studer prepar they g group projec	The second secon	10 mins
		ack and summary in the form of a guided conversation led by acher. (10 mins)	10 mins
		ctions for the teacher to moderate the conversation:	
• .	Ask th	e students: Now I am first interested in the opinion of those	
		id not receive the given plan, so please do not answer if you vorking with it.	
•	Do not	allow the students to answer the question immediately, ask	
	them t	o lift up their hands instead if they have an idea. Depending	
	on the	difficulty level of the question, wait for 10-20 minutes until	
		of them indicate that they have an answer - this will enhance ts' activity.	
Questic			
•		What can be the purpose of the requirement management/scope management plan?	
	2.	Why is it important to compline a stakeholder management	
		plan? What can be its purpose within a project?	
	3.	Who can be responsible for the elaboration of the given	
		plan? Who participates in the work (which department for example)?	
	4.	In case there is a reschedule in the given plan, which other plans have to be revised? (Or an example of an unforeseen event can be provided, and the class can brainstorm on its impact on the different plans. Examples: a) a multiplier	15 mins
		impact on the unterent plans. Examples, a) a multiplier	12 111112





		1
	event is not feasible, due to pandemia b) the principal	
	investigator quit his current job and the project as well c)	
	the price of event organization/staff costs prove to be much	
	higher than planned, due to the major changes in the	
	institutional regulations d) one of the partners does not	
	complete the task undertaken, thus the partnership cannot	
	continue the work according to the work plan e))	
5.	What do you assume to be the most important type of plan,	
	affecting the most aspects of the project implementation?	
c) First PBL ta	sk in the classroom - combined classroom and group work:	
The teams red	ceive and study the text of a submitted proposal (all of the	
teams receive	the same text, the teacher can select one of the texts	
included in <u>Ar</u>	nnex 3.2.D)	
<u>Classroom wo</u>	ork:	10 mins
• Forma	tion of groups of 4 students ,	
 preser 	ntation of the project proposal by the teacher	
 Explan 	ation of the Storyline method and the next task.	
Group work:		
 Studer 	nts read the document presenting the different characters	
(See ir	n <u>Annex 3.2.G</u>)	
• each c	of them chooses one, on the base of a group discussion	
	omplete the profiles	
	n the Storyline rules: think about choosing a fictive	
	ty/avatar	
Classroom wo		
	nation of the responsibilities of	
0	the (fictive) project coordination team within the	
	consortium,	
0	within the organisation (University as environment). For	
Ĵ	example, in case of a university, one can refer to the project	
	management office at the institution, and the framework	
	given by the official procedures.	
0	the roles and responsibilities within a project coordination	
0	team such as responsible for 'professional', 'finances',	





'communication', 'leader' (resp. for coordination / management) 'expert'

Group work:

- Choosing a leader
- Discussing the following questions with the moderation of the leader: Which role would you like to fulfil in the project coordination team (PCT)? Groups make decision on the roles assigned to each student within the small group, i. e. the "project coordination team" by the help of the following table:

Select one from these:The competences that enable- professionalyou (i. e. your avatar) for the
- finances given roles - communication
- leader (resp.
for coordination / management)
expert
choice
#1
choice #2
The teams compare their tables and decide together on the
functions. If more students would like to be the leader, the teacher
helps the group to decide. If more students would like to fulfil or
avoid a certain function, the team leader appoints/convinces the
students for the given function.

 Ine teacher explains the nonework (to prepare 1 or 2 plan/student) according to their role within the team





 The teacher gives guidance for the team leaders to set a doodle voting for a team meeting (team members plus teacher included) during the following week 	
Homework:	
Individual assignment: in every group, student responsible for	
 communication elaborates the communication management plan 	
and identifies potential stakeholders	
 finances, starts to elaborate (and collect his questions on) 	
resources management plan	
 professional issues, elaborates the quality management plan; 	
 coordination and leadership, starts to elaborate the schedule 	
management plan	
 team members & teacher send their doodle vote until the end of 	
the given day	
team leader	
 prepares an agenda and send to the members who can 	
complete it	
 appoints a group member to write notes 	
 after the meeting, sends out the reminder to the team 	
members and the teacher	
Tasks for the meeting	
 As part of the project management plan, start elaborating the 	
project scope management plan summarizing the work breakdown	
structure (WBS) on the base of a given Gantt chart and the project	
proposal (stages, outputs, partners) (table to be filled out should	
be included);	
 defining concrete assignments related to the plans 	
 the teacher provides the teams with a short article summarizing 	
the main advices on how to run an effective meeting	
(https://hr.vanderbilt.edu/training/effectivemtgs.php)	







Annex 3. 2. A: Schedule management plan

Plan defining the criteria and the activities for developing, monitoring, and controlling the project schedule.

Part 1: Individual task

Based on the definition, and on the text of the Simpatico project, fill out the following table. The Management Plan of the Simpatico project can be accessed here: https://drive.google.com/file/d/1_PNUMSKhBVr7j_AzuF70r_o7QF1H6-Oi/view?usp=sharing

What is the aim of this plan?	
How is it used in the course of the project? What is the function of it?	
Who is responsible for its implementation in the course of the project in the project team?	

Part 2: Expert team

Within the expert team, the members discuss their answers and prepare a scheme for the presentation of the given plan.

Part 3: Jigsaw group

Within the jigsaw group, the members present each other the given plan they worked on in the expert group. The other group members take notes, since in the plenary session they might be the ones answering the question regarding the given plan.





Annex 3.2. B - Risk management plan

Plan where is defined how to conduct risk management activities for a project, how they will be structured and performed.

This plan includes the following components:

- Risk strategy Describes the general approach on how the project risks will be managed;
- Methodology Defines the specific approaches, tools, and data sources that will be used to perform risk management on the project;
- Roles and responsibilities Defines the lead, support, and risk management team members for each type of activity described in the risk management plan, and establishes their respective responsibilities;

Timing - Defines when and how often the Project Risk Management processes will be performed during the project, in accordance with the project schedule;

Part 1.: Individual task

Based on the definition, and on the text of the Simpatico project, fill out the following table.

The Management Plan of the Simpatico project can be accessed here: https://drive.google.com/file/d/1_PNUMSKhBVr7j_AzuF70r_o7QF1H6-Oi/view?usp=sharing

What is the aim of this plan?	
How is it used in the course of the project?	
Who is responsible for its implementation in the course of the project?	

Part 2: Expert team







Within the expert team, the members discuss their answers and prepare a scheme for the presentation of the given plan.

Part 3: Jigsaw group

Within the jigsaw group, the members present each other the given plan they worked on in the expert group. The other group members take notes, since in the plenary session they might be the ones answering the question regarding the given plan.







Annex 3. 2. C - Cost management plan

Plan where is defined how the project costs will be estimated, budgeted, managed, monitored, and controlled.

Part 1: Individual task

Based on the definition, and on the text of the Simpatico project, fill out the following table. The Management Plan of the Simpatico project can be accessed here: https://drive.google.com/file/d/1_PNUMSKhBVr7j_AzuF70r_o7QF1H6-Oi/view?usp=sharing

What is the aim of this plan?	
How is it used in the course of the project?	
Who is responsible for its implementation in the course of the project?	

Part 2: Expert team

Within the expert team, the members discuss their answers and prepare a scheme for the presentation of the given plan.

Part 3: Jigsaw group

Within the jigsaw group, the members present each other the given plan they worked on in the expert group. The other group members take notes, since in the plenary session they might be the ones answering the question regarding the given plan.





Annex 3. 2. G Storyline character profiles

1. The Shy





OR

Name	Lucy OR Andrew (OR you can use another name)
Age	35
Ambitions/passions Feel free to complete!	family
Challenges/facts related to life circumstances Feel free to complete!	Has school-aged children
General personality traits Feel free to complete!	introverted
Strengths	Reliable, Very devoted, Careful Friendly Attentive can influence others Cooperative, adaptable Good organizer Creative
Weaknesses	low level of self-confidence undertakes too much instead the others and then is resents for the others bad at handling stress, Slow Avoids Confrontation Can easily be offended
You can add other traits!	

2. The "artist"











Name	Rebecca/Fred (OR you can use another name)
Age	28
Ambitions/passions Feel free to complete!	is an amateur artist Is considering to start an own firm
Challenges/facts related to life circumstances Feel free to complete!	very good acquaintances and financial background, expensive hobbies
General personality traits Feel free to complete!	extroverted
Strengths	Friendly Creative Risk-taking Flexible Optimistic Ambitious Cooperative Attentive
Weaknesses	Less reliable bad in time management Self-confident Gossiper copes badly with boring tasks
You can add other traits:	

OR

3. The bossy











Name	Julia/Randy
Age	42
Ambitions / passion	had a sport career earlier, is still actively sporting
challenges / facts related with life circum- stances	single, has almost no private life, her/his passion is mostly his/her workplace
General personality traits	extroverted
Strengths	Hardworking Proactive Fast Optimistic ambitious Good organiser Precise Assertive
Weaknesses	Workaholic Impulsive bad at handling stress Impatient Talks too much Prones to be autochratic
You can add other traits:	







4. The Pessimistic





Name	Margaret/Greg (OR you can use another name)
Age	50-60
Ambitions/passions Feel free to complete!	
Challenges/facts related to life circumstances Feel free to complete!	Copes with health problems
General personality traits Feel free to complete!	introverted
Strengths	very devoted Dogmatic/pragmatic Has good diplomatic skills Very experienced High level of professional skills High performance Good organiser Precise Perfectionist Can work under pressure
Weaknesses Feel free to complete!	Not so friendly / cooperative with his/her colleagues Passive Lack of flexibility
You can add other traits:	

OR







Annex 3. 2. H Project Management Plan components

Plan	Description
	 Plan where is described how the scope framework of the project will be defined, developed, monitored, controlled, and validated. This plan includes the following components: Process for preparing a project scope statement;
Scope Management Plan	 Process for preparing a project scope statement, Process that enables the creation of the WBS from the detailed project scope statement; Process that establishes how the scope baseline will be approved and maintained; and Process that specifies how formal acceptance of the completed project deliverables will be obtained.
	Plan where is described how the project requirements will be analysed, documented, and managed.
Requirements management plan	 This plan includes the following components: How requirements activities will be planned, tracked, and reported; Configuration management activities such as: how changes will be initiated; how impacts will be analysed; how they will be traced, tracked, and reported; as well as the authorization levels required to approve these changes; Requirements prioritization process; Metrics that will be used and the rationale for using them; and Traceability structure that reflects the requirement attributes captured on the traceability matrix.
Schedule management plan	Plan where is defined the roadmap for how the project will be executed, the criteria and the activities for developing, monitoring, and controlling the project schedule.
Resources management plan	 Plan where is detailed the information regarding the rates (personnel and other resources), estimation of travel costs, and other foreseen costs that are necessary to estimate the overall project budget, providing guidance on how project resources should be categorized, allocated, managed, and released. This plan includes the following components: Identification of resources - Methods for identifying and quantifying team and physical resources needed; Acquiring resources - Guidance on how to acquire team and physical resources for the project; Roles and responsibilities – The function assumed by, or designated to a
	 Roles and responsibilities – The function assumed by, or designated to a team member; The rights to apply project resources, make decisions, sign approvals, accept deliverables; Project team resource management - Guidance on how project team resources should be defined, staffed, managed, and eventually released; Training - Training strategies for team members;





Costs management plan	 Team development - Methods for developing the project team; Resource control - Methods for ensuring adequate physical resources are available as needed and that the acquisition of physical resources is adapted to the project needs. Plan where is defined how the project costs will be estimated, budgeted, managed, monitored, and controlled. It's defined also the money transference between partners.
Communication management plan	Plan where it is described how project communications will be planned, structured, implemented, and monitored to ensure their effectiveness. It could also defined specific communications technologies that are required in the project.
Quality management plan	Plan where is identified the quality requirements and/or standards for the project and its deliverables, and documenting how the project will demonstrate compliance with quality requirements and/ or standards.
Risk management plan	 Plan where is defined how to conduct risk management activities for a project, how they will be structured and performed. This plan includes the following components: Risk strategy - Describes the general approach on how the project risks will be managed; Methodology - Defines the specific approaches, tools, and data sources that will be used to perform risk management on the project; Roles and responsibilities - Defines the lead, support, and risk management team members for each type of activity described in the risk management plan, and establishes their respective responsibilities; Timing - Defines when and how often the Project Risk Management processes will be performed during the project, in accordance with the project schedule;
Procurement management plan	Plan where is defined the activities to be undertaken during the procurement (purchasing) process.
Stakeholder management plan	Plan where is defined and documented the approaches and actions that will increase support and minimize the negative impacts of stakeholders throughout the project development. In this plan it should also be identified the key stakeholders along with the level of power and influence they may have on the project.







Lesson 3: Project management integration, Monitoring and Control

Learning outcomes to be developed:

- The student has a basic insight into some main time and project management tools and methodologies.
- The student will be able to identify and measure the resources needed for project implementation (team and their time allocation, the physical and infrastructural resources needed, plus other needs) and to integrate this information with a budget and a calendar plan (i.e. Project Management Plan).
- The student will apply methodologies and tools for effective project management, including time, people and tasks management, as well as reporting.
- The student will be able to contribute to the identification and prioritization of the management, financial and legal issues to be addressed at different stages of the project life cycle (i.e. Project Integration Management).

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
a) Feedback (10 mins) on the homework		10 mins
 b) Frontal presentation of the teacher (30 mins): briefing on financial management issues; Demonstration of an online PM tool such as e. g. Asana, Monday, Redmine, Todoist, Notion etc see more here - teacher makes the voice in advance according to his/her preferences https://project-management.com/top-10-project-management-software/ grounding the next activity (organizing a kick.off meeting): presentation of the main parts, goals, features of a kick-off meeting in 5 minutes 		30 mins
d) PBL task:		15 mins







Storyline new event: Letter received from the head of unit (See Annex 3. 3. A below) starting the organization of a kick-off meeting, the leader discusses with the members of the project team the tasks and the responsibilities Time management - with the help of a PM tool indicates the WBS. they finalize the agenda of the kick-off meeting - send it with an official letter to the teacher feedback on the agendas, discuss the role of RMA in the preparation and execution of the kick-off meeting. fl Exit ticket- 5 minutes Whith the help of Socrative, or other platforms, students fill out the exit ticket. Possible questions: How well did you understand today's material? What did you learn from today's material? Mow well did you understand today's material? Answer the teacher's question (for example: mention those topics that need further clarification). ge) Explanation of the individual homework: (PBL) Optional task for extra points: Make crib notes for yourself helping to remember the main financial terms term				
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With the help of Socrative, or other platforms, students fill out the exit ticket. Possible questions: 20 mins • How well did you understand today's material? 20 mins • What did you learn from today's material? 20 mins • Answer the teacher's question (for example: mention those topics that need further clarification). 20 mins ge) Explanation of the individual homework: (PBL) • Optional task for extra points: Make crib notes for yourself helping to remember the main financial terms term features example		preparation and execution of the kic	ck-off meeting.	
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Optional task for extra points: Make crib notes for yourself helping to remember the main financial terms features example		that need further clarification).		
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to remember the main financial terms	•	Optional task for extra points: Make	e crib notes for yourself helping	
term features example				
	term	features	example	
5 mins			example	
5 mins				
5 mins				
				5 mins





	5 mins
 Suggestions for the detailed budget (amount of grant, goals) for 	
their project and instructions using the key terms of the Lesson's	
text on financial issues (e.g. flat rate, direct costs, eligibility etc.)	
with justification	
 Instruction for the students: keep in mind the interest of your 	
avatar and try to assign the most preferable and still justifiable	
amounts to the activities related to your area	
 prepare with arguments for the next lesson where the budget will 	
be discussed in the form of a team negotiation process	

Further reading for the teacher on the stages of group development:

<u>https://hr.mit.edu/learning-topics/teams/articles/stages-development;</u> <u>https://hr.mit.edu/learning-topics/teams/articles/models</u>)







Annex 3. 3. A – E-mail from the Head of Unit

Dear Colleagues,

The leader of your team from today is [...].

You have 2 tasks to do within 20 minutes:

- Please, on the base of the profiles, finalize the table below indicating the roles and the names.
- In 20 minutes, we will have a meeting where we will discuss the communication issues of the TELLME project. Yesterday the project groups were formed and received the project application. The deadline is approaching to prepare the communication, the dissemination and the exploitation plans. In order to do that, the task of the group is

- to identify the possible stakeholders and audiences of the TELLME project,

- assign the different stakeholders, target audiences to the different plans

	Target groups	Platforms
Communication		
Dissemination		
Exploitation		

Please use now the shortened version of the TELLME_excerpts.doc.

<u>https://docs.google.com/document/d/1Jh6vWUwzsFKh5PCHXj0jrP150H5nHGLR/edit</u> The team, with the direction of the leader of the team, has to divide the task among the members - you have to report about your ideas in 20 minutes!

Best, Head of Unit







Lesson 4: Project management integration, Monitoring and Control

Learning outcomes to be developed:

- The student has a basic insight into some main time and project management tools and methodologies.
- The student will be able to identify and measure the resources needed for project implementation (team and their time allocation, the physical and infrastructural resources needed, plus other needs) and to integrate this information with a budget and a calendar plan (i.e. Project Management Plan).
- The student will apply methodologies and tools for effective project management, including time, people and tasks management, as well as reporting.
- The student will be able to contribute to the identification and prioritization of the management, financial and legal issues to be addressed at different stages of the project life cycle (i.e. Project Integration Management).

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas:	Evaluation	Timing	
Methods, tools, illustration, problem, game etc.	and		
	assessment		







a. Short revision of the main points of the first lesson (10 mins): the teacher prepares a crossword including 8-10 words in connection with the financial management of the project with the help of <u>crossword labs</u> . The students fill out the crossword individually (5 mins). They discuss the results. (5 mins)	10 mins
b) frontal presentation of the teacher - financial monitoring and the role of RMA (the question of compulsory supportive documents - give examples for all of them); project reporting - role of RMA; communication (Closing this session, the students could talk about their style on the first team meeting.)	15 mins
 c) PBL task: Storyline event: the team leader so far gets new duties within the organization which do not make possible for him/her to fulfil this role - the team has to decide on the person of a new leader. The groups have to find out a new "Storyline" event generating situation where conflict management and assertivity has to be applied: preferably in connection with the definition of the details of the budget: contracts, procurement etc. identifying the different costs arising in the different work packages of the project. The groups have to fill out a given excel table. 	30 mins





		Work Breakdown								
and quality.	ic information about the project inc onym that will be used for the proj Project Sponor - the person ultima I Number – The date the plan is fil	ately accountable for the success	n with responsibility for th of the project. Prepared	ne successful delivery of the by – The person(s) preparin	project to time cost					
Project Title:			Project Working Title:							
Project Manager:			Project Sponsor:							
Prepared by:			- Date / Control Number							
Element	WBS Elements	this template see WBS Exc Definition of Activity or Task	-	or Estimated (E) or Actual	Project Phase (Cross	55				
Number	Activity, Task, or Sub-Task Name	(Description)	Group	(A) Cost (Cross reference to budget)	reference to schedule)					
The unique reference ID for the activity or ask.	Enter the name or title of the Task, Sub-task, Activity or Deliverable.	Provide a brief description of this Activity, Task or Sub-Task.	Enter the person or group who are responsible	Enter the estimate or actual cost of the activity or task or add a cross reference to the budget.	Provide the name or number of the Project phase that this activity falls into.					
						-				
scus	er's question sion among t on?	• •		•	-					
scus tuati ener	sion among t	he group me	mbers? H	low did the	e group so	olve	e the	of		
scus tuati ener ie ho Fro slide	sion among t on? al conclusion omework. ntal teacher the 3 types (2001)	he group me of the finance presentation of conflict ac conclusions a	mbers? H cial topic : cording to nd aspect	low did the by the teac o the theor	e group so cher - intr ry of Jehn o project	olve rodu n and	e the uction d Mai rk	nnix		10 mi





 description or an example (short situation illustrating the given conflict management type). <i>The handouts are being developed</i> As all groups receive the same example for conflict situations, each 	
 group demonstrates the given conflict management way (2 students) and the 3rd provides an explanation: what is its name, advantages ,disadvantages, in what kind of situation is it useful? Each group presents their way of solving the conflict situation, the others evaluate and analyse the small situation practices. → Reflecting on their own behaviour → Re-playing or discussing the behaviours observed in the situations faced in the first half of the lesson with different attitudes/solutions 	
Explanation of the homework:	5 mins
a project partner indicates that it would not be able to fully perform its tasks.	
 How would the groups deal with the situation? 	
• Formal letter to the consortium, compromise on the situation, re-	
arrangement of the timing (Gantt as well if necessary), re-	
allocation of costs (letter to the national agency?)	
optional tasks for extra points:	
 make a 1-page crib note of the major terms on the lesson. 	
 write an essay of min. 400 words on reflections to their own 	
conflict management strategies applied so far	

Resources for activities described in e):

• table

https://www.uscg.mil/Portals/0/seniorleadership/chaplain/5%20types%20of%20Conflict%20St yles%20Questionnaire.pdf?ver=2020-01-16-150312-330

• background material

https://kilmanndiagnostics.com/wp-content/uploads/2018/03/TKI Sample Report.pdf

evaluation

http://www.mordirections.com/uploads/1/0/2/2/10225537/thomas kilman conflict mode in strument.pdf







Lesson 5: Quality and Risk Management

Learning outcomes to be developed:

- The student is aware of the concept and methodology of risk management
- The student can effectively define and articulate, brainstorm and select the most adequate management solutions and evaluate its effects in achieving the project's goals

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
a) Short feedback (10 mins) on the homework Short quiz on the theoretical framework/concepts of lesson 4 (5 mins) by Kahoot or Moodle (according to the teacher's preferences)	individual work, evaluating the comprehension of the terms used in Lesson 4 (classroom test)	15 mins
b) Presentation by the teacher: main aspects of quality management		10 mins
c) Brainstorming (by virtual whiteboard) on positive and negative risks Summary of the outcome of the brainstorming by the teacher; short introduction to the next topic.		5 mins
 d) PBL task: draw a risk assessment chart, identify the risks and their probability and then articulate contingency plans prepare a risk management table. present the chart and table in class feedback on the presentations. 		25 mins





		of team Development (Courses) Mindtoolo or MIT	
-		of team Development (Sources: <u>Mindtools</u> or <u>MIT</u>	
websit	<u>e article</u>) based on the m	adal of Tuskman discussed in Lasson 1, the	25 mins
•		nodel of Tuckman discussed in Lesson 1, the	25 mins
		e assigned two types of tasks: one individual and	
	one group task	ch student receives a table with the 5 phases of the	
		and (s)he has to fill out the first column of it, based	
		ner opinion, in which one the group is (with	
		ng), which one it passed. Ne PBL group gets together and discusses the	
		al results.	
	 The group 	ups give a briefing on their findings.	
e) PBL	activity:		
<u>Individ</u>	<u>ual work</u> :		10 min
	 Students 	s read and study the model of <u>Belbin's 9 team roles</u>	
	(1970) (a	a one page long text summarizing the 9 main types	
	of group	p roles). See also the ppt in <u>Annex 3.5.1</u> .	
	o Reflexio	n: On the base of the description of the text, what	
	are the r	roles (max 2) you think you have fulfilled so far in	
	this PBL	team, and what do you think about the members	
	of your t	teams? Use the table below for thinking about it.	
Group	work:		
	 PBL grou 	ups turn to each other and discuss the results	15 min
	ο The grou	ups formulate their questions towards the teacher	
	regardin	ng their results/controversions	
	o (Possible	e question from the teacher: What are the missing	
	roles? W	Vhat are the roles on which you could not agree?)	
			5 mins
	Name of the st	udent Team roles perceived so far (max	
		2)	
		#1	
		#1 #2	
		#1	
	L		





	;	#2	
		#1 #2	
		#1 #2	
	remain th • read the s type beca	From the teacher es are dynamic, and are not necessan e same in every environment strengths and weaknesses featuring use they might help your self-aware onal development	your
	ational project meeting is	9, travel restrictions are introduced. scheduled in 2 weeks. How do you	
1.	Write a letter to partners compromise.	s, find out their intentions, find a	
2. 3.		ency as well – find out their standpo on the risks posed by the situation.	int

Further readings for the teacher

Gillian Smith, Pat Yates: Team role theory in higher education. www.trainingjournal.com March 2011 <u>https://www.belbin.com/media/1819/tj-article-team-role-theory-in-higher-education.pdf</u>







Annex 3. 5. 1

Ppt file is available at

https://www.dropbox.com/s/ztf0ggiy5hhmytw/Annex 3.5.A Belbin.pptx?dl=0









Lesson 6: Team Management and leadership

Learning outcomes to be developed:

- The student has a basic insight into the theories discussing the features and dynamics of team roles, procession and decision making
- The student will get familiar with the most important leadership models
- The student can select and apply the most adequate leadership model according to the given circumstances

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas:	Evaluation	Timing
Methods, tools, illustration, problem, game etc.	and	
	assessment	







Short feedback (10 mins) on the homework	10
Frontal presentation by the teacher: introduction to leadership	mins
models.	
	10
Class activity: leadership styles (Hersey, Blanchard) Morgeson?	mins
In case of Morgeson:	
• The teacher describes the 15 elements shortly (1 sentence each).	
• The task of the students is twofold: (1) divide the elements into 3 groups: strength, neutral, weakness; (2) (s)he	
chooses 1 strength and 1 weakness that characterise	
him/her; (s)he does the same for a groupmate as well (has	
to choose blindly from a paper).	
 The students discuss how to improve in the future based on 	
the task.	
PBL task:	
• a new event in the Storyline: (due to a conflict or problem)	
the leader of the team resigns and roles in them change: an	
acting leader is temporarily appointed	
 the acting leader is facing a challenge: 	
Tasks: distribution of tasks, agreement on deadlines,	
communication with project partners. Write formal letters to	
partners (the team leader should "sign" the letters) - have to agree	
on content, stylse, etc.	
on the base of the theories learnt, evaluating the performance of	
the the style and the tools of the 2 former leaders	
Homework	
 optional task for extra points: select (short) movie scenes 	
presenting certain leadership styles	
e) Quick end-of-lesson feedback for the teacher - 5 minutes	
	5 mins





Competition by Socrative or Wordwall game with quiz questions related to the content of the lesson. *Results (scores) should be counted into the end of semester grade*

Further readings for the teacher





- Anna B. Kayes Edd, D. Christopher Kayes Phd
- Team Leadership Questionnaire Leader Edition: Improving leadership through learning https://www.academia.edu/24234948/Full Range Leadership Model







Lesson 7: Present and discuss a Project Management Plan

Learning outcomes to be developed:

- The student can follow the development of several simultaneous management tasks (eg. team management, cost management) and prioritize the most relevant ones at different stages of project management.
- The student is critical regarding own work and that of others taking on a constructive attitude.
- The student takes responsibility about own work.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
a) Presentation of homework and movie scenes selected (in the teaching material) Based on the movie scenes, the group discuss the different leadership styles (based on a given theoretical framework / article)- Full range of leadership		
 PBL task The groups finalize and submit their detailed project management plan They present them to each other, in the form of an international webinar or stakeholder forum - we can invite for this event 2-3 representatives (in the form of online presence) of different actors related to research projects, such as an RMA/financial officer from our institution a representative of a national agency dealing with the governance/allocation of a given fund representatives of a company, NGO, professional association etc. working with our university 	Peer evaluation: students give points to each others presentation with supporting arguments. Results of peer evaluation will be counted into the final	







grade in a limited way. Teachers evaluation: teacher gives points • for the accuracy and adequacy of students
Teachers evaluation: teacher gives points • for the accuracy and adequacy of
evaluation: teacher gives points • for the accuracy and adequacy of
teacher gives points • for the accuracy and adequacy of
points for the accuracy and adequacy of
 for the accuracy and adequacy of
accuracy and adequacy of
and adequacy of
adequacy of
of
students
peer
evaluation
for the
presentati
on
according
to the
feedback
of the second
invited
experts





Module 4 – Research Impact and Public Engagement

Lesson 1: Research Impact: why research matters?

Learning outcomes to be developed:

- The student will become familiar and differentiate several RMA facilitation roles that add value to research (such as science communication, societal engagement, technology and knowledge exchange).
- The student can explore several paths to maximise research impact (for example by finding the ways to incorporate the most relevant 17 sustainable development goals into the research project).
- The student can understand the concept of research impact and the different areas of impact beyond academia.
- The student can distinguish between output, outcome and impacts.
- The student can explain the benefits that impact-driven research can bring to the economy and society.

Background information to the PBL tasks

In the course of Module 4, students will work with 3 different projects:

- a "fictive" project: the project that was given to them in Module 3 (according to the instruction of Module 3: " In case it is possible, work with the project proposals created in the previous semester can be continued, but other options have to be taken into consideration as well. An important requirement is that now, fully elaborated but not implemented project proposals are needed (with established phases, stages, activities, budget")
- **a "real" project**: The universities implementing foRMAtion project select a research project within their institution which
 - *is expected to be still running at the time of the pilot courses*
 - is strongly related with social impact, i. e. serving a goal directly serving a public interest objective
 - includes significant activities related to social engagement and responsibility
- **foRMAtion** *project: Students will write articles, prepare promotional videos on and study the dissemination strategy of foRMAtion project*







Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

 a) Short introduction by the teacher (15 mins): Topics: research impact, impact related concepts, evaluation of research impact b) Activities helping the understanding of theoretical foundations: "Think like an activist of a Big Issue!" Individual task deepening the understanding of science impact and the SDG goals Choose one topic from this 17 item-list: <u>17 Sustainable Development</u> Goals (SDGs), according your personal values/preferences (every goal has to be chosen by at least 1 student); in this exercise you have to think like an activist of this goal Let's suppose that your institution is running these projects (see in IO2). Astronomers Capture First-Ever Image of a Supermassive Black Hole Editing genes: CRISPR genome editing CERN Detects the Higgs Boson: <u>The Higgs Boson</u> A Vaccine and New Treatments to Fight Ebola: <u>'Make Ebola a thing of the past': first vaccine against deadly virus approved</u> New Human Relatives: <u>A new species of Homo from the Late Pleistocene of the Philippines</u> Climate change: <u>The last five years were the hottest ever recorded</u> 	Evaluation and assessment	Timing
 like an activist of a Big Issue!" Individual task deepening the understanding of science impact and the SDG goals Choose one topic from this 17 item-list: <u>17 Sustainable Development</u> Goals (SDGs), according your personal values/preferences (every goal has to be chosen by at least 1 student); in this exercise you have to think like an activist of this goal Let's suppose that your institution is running these projects (see in IO2). Astronomers Capture First-Ever Image of a Supermassive Black Hole Editing genes: <u>CRISPR genome editing</u> CERN Detects the Higgs Boson: <u>The Higgs Boson</u> A Vaccine and New Treatments to Fight Ebola: <u>'Make Ebola a thing of the past': first vaccine against deadly virus approved</u> New Human Relatives: <u>A new species of Homo from the Late Pleistocene of the Philippines</u> 		15 mins
 Individual task deepening the understanding of science impact and the SDG goals Choose one topic from this 17 item-list: <u>17 Sustainable Development</u> Goals (SDGs), according your personal values/preferences (every goal has to be chosen by at least 1 student); in this exercise you have to think like an activist of this goal Let's suppose that your institution is running these projects (see in IO2). <u>Astronomers Capture First-Ever Image of a Supermassive Black Hole</u> Editing genes: <u>CRISPR genome editing</u> CERN Detects the Higgs Boson: <u>The Higgs Boson</u> A Vaccine and New Treatments to Fight Ebola: <u>'Make Ebola a thing of the past': first vaccine against deadly virus approved</u> New Human Relatives: <u>A new species of Homo from the Late Pleistocene of the Philippines</u> 		30-40
 SDG goals Choose one topic from this 17 item-list: <u>17 Sustainable Development</u> <u>Goals</u> (SDGs) , according your personal values/preferences (every goal has to be chosen by at least 1 student); in this exercise you have to think like an activist of this goal Let's suppose that your institution is running these projects (see in IO2). <u>Astronomers Capture First-Ever Image of a Supermassive Black Hole</u> Editing genes: <u>CRISPR genome editing</u> CERN Detects the Higgs Boson: <u>The Higgs Boson</u> A Vaccine and New Treatments to Fight Ebola: <u>'Make Ebola a thing of the past': first vaccine against deadly virus approved</u> New Human Relatives: <u>A new species of Homo from the Late Pleistocene of the Philippines</u> 		mins
 Choose one topic from this 17 item-list: <u>17 Sustainable Development</u> Goals (SDGs), according your personal values/preferences (every goal has to be chosen by at least 1 student); in this exercise you have to think like an activist of this goal Let's suppose that your institution is running these projects (see in IO2). <u>Astronomers Capture First-Ever Image of a Supermassive Black Hole</u> Editing genes: <u>CRISPR genome editing</u> CERN Detects the Higgs Boson: <u>The Higgs Boson</u> A Vaccine and New Treatments to Fight Ebola: <u>'Make Ebola a thing of the past': first vaccine against deadly virus approved</u> New Human Relatives: <u>A new species of Homo from the Late Pleistocene of the Philippines</u> 		
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5. New Human Relatives: <u>A new species of Homo from the Late</u> <u>Pleistocene of the Philippines</u>		
Pleistocene of the Philippines		
6. Climate change: <u>The last five years were the hottest ever recorded</u>		
7. New space missions: <u>Underground Lake of Liquid Water Detected</u>		
on Mars		
8. Fossilized Pigments Reveal the Colors of Dinosaurs : <u>The Colors of</u>		
Dinosaurs Open a New Window to Study the Past		
9. <u>40,000-year-old cave art may be world's oldest animal drawing</u>		
10. Lock the Planck: the kilogram has a new definition		





- Review this list of scientific achievements from the aspect of the SDG		
goal you are fighting for, on the base of the following questions: What are		
the achievements		
1. that serve the given goal,		
2. that could be connected with it		
3. that are against it		
- Prepare a scheme for a 1-minute-long speech (elevator pitch) to be		
presented at an internal management meeting for the 15 top leaders of		
your institution.		
- summarize your arguments and thoughts in a convincing way		
- Present your speech in front of the class who will have the opportunity		
to defend the interests of the project in question		
- In case of disagreement, listen to each other's arguments and reflect on		
them in a polite though persuasive way, e.g. by offering compromises,		
alternative solutions etc.		25 mins
c) Storyline task (25 mins): <challenge task=""></challenge>		
 the groups prepare a mindmap for their project (that they had 		
been working in the course of Module 3)		
 assign and indicate SDGs and possible impacts to their project and 		
indicate them on the mindmap		5 mins
e) Quick end-of-lesson feedback for the teacher - 5 minutes		
Wordwall game with quiz questions related to the content of the lesson.		
	Results	
f) Individual homework /PBL task:	(scores)	
Write a short article (of min. 150 words) to be published on your project	should be	
website presenting your project from the aspect of the SDGs:	counted into	
• Which are the SDGs that are fostered by your research activities?	the end of	
How will this be implemented?	semester	
 What are the expected results in this area? 	grade	





Lesson 2: Responsible Research and Innovation approach: the EU drivers for Impact

Learning outcomes to be developed:

- The student can explain Responsible Research and Innovation (RRI) principles and practices in its main thematic elements: public engagement, open access, gender, ethics, science education, science communication and engagement, and impact.
- The student can identify cross-cutting issues in a given project (e.g. ethical and gender issues) and identify different strategies to address them in different research projects.
- The student can argue about the reasons for promoting accountability, responsibility, ethics and integrity in research.
- The student can contribute to the design of activities and instruments fitted to each of the RRI principles.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Evaluation	Timing
and	
assessment	
	and





a) Classwork: frontal presentation & brainstorming	10 mins
 identify ethical issues that can emerge during the project – and 	
how to solve them.	
• Possible topics: GDPR, issues that might emerge in connection with	
interviews, etc.	
• generating a debate where students can come up with pro and con	
arguments	
 concrete examples related to ethical issues regarding the "real 	
project" (see <u>here</u>) will be discussed in the presentation below (b))	
b)	
The universities implementing foRMAtion project select a research project	25 mins
within their institution which	
 is expected to be still running at the time of the pilot courses 	
 is strongly related with social impact, i. e. serving a goal directly 	
serving a public interest objective	
 includes significant activities related to social engagement and 	
responsibility	
Activity related to the chosen project:	
 invitation of an RMA of the give project team who gives a 10 	
minutes long presentation on the project, in line with the following	
topics (these have to be sent the expert in advance, as well as two	
resources that will be used in the following lessons:The six main	
categories of purpose for public engagement and D3.2 Public	
Engagement Methods and Tools of Engage2020)	
 <u>Basic info</u> on the project: source of the grant, programme, 	
duration, partners, results so far	
 Why did you launch the project, what was the idea behind 	
it? What are the main goals of your project? How does it	
serve public goals /society?	
 Who are the target groups and the involved <u>stakeholders</u>? 	
\circ How did you find the way to the stakeholders, how did you	
address them?	
• What are the platforms and the means of <u>dissemination</u> ,	
who are the target groups of the dissemination?	





c		
	communication	
C	, , , , , , , , , , , , , , , , , , , ,	
	project with the given stakeholders, according to the 6	
	categories?	
C	с ,	
	transfer to them.	
C	, , , ,	
	and in which channels in order to emphasize and support	
	your message?	
C		
	field of ethics and conflict of interests	
c	5	
Que:	stions and answers by the students	
	ne activities	50 mins
	activity connecting the two phases:	
Introduction		
	, an important output of students' activities will be a	
	l video that will present students' experiences on foRMAtion	
	ifferent target groups and stakeholders such as	
	tional professional organization, e.g. EARMA,	
	ts of their university (aim: to promote the course within the	
university)		
-	anagement of their own institution (aim: to raise awareness	
	MA as a profession and to promote the project within the	
institution)		
	company or a national EU funding agency working in	
-	with the university in other projects or activities (its aim is to	
	ness regarding RMA as a profession and promote the	
university's	training in this field).	
-	oup will prepare a separate, 2-3 minutes long video, addressing	
a different t	arget group. They will define and formulate the message and	
choose the	style of the video according to the relevant strategies of	
foRMAtion	project.	





E-mail from the "head of unit".

	E-mail from the "head of unit":		
	 The new and last team leader is finally appointed by the 		
	"head of unit" - the new leader should be the 4th student,		
	preferably the one who has been responsible for		
	communication so far. In his e-mail, the senior leader		
	justifies his choice with the fact that in this phase of the		
	project, expertise in the field of communication is essential.		
	• The article below is also attached to the letter, together		
	with the given target group, stakeholder.		
Activit	ies to be implemented this lesson, according to the e-mail of the		
"head	of unit":		
1.	Read the article identifying the six main categories of purpose for		
	public engagement https://www.publicengagement.ac.uk/do-		
	engagement/quality-engagement/purpose		
2.	Each group is informed about the stakeholder which will be the		
	target group of their video		
3.	They have to study the dissemination plan (relevant strategic		
	document) of foRMAtion project (available in <u>Annex 4.2.C</u>)		
4.	Send a written answer to the questions below, on the base of the		
	article and the dissemination plan in a Google Document that is		
	shared with the team members and the teacher.		
	 What are/can be the purposes of the engagement of 		
	foRMAtion project with the given stakeholder?		
	 On the base of your conclusions, formulate 2-3 main 		
	messages that the video of your team should transfer.		
	\circ What kind of information should be included in your video		
	in order to emphasize and support your message?	Until the next	
		class, teacher	
Home	work:	sends	
•	PBL teams further develop their answers for the questions above	feedback,	
	(PBL/Storyline activities)	correction &	
•	Brainstorming about the participants, messages, parts, content,	evaluation	
	style (music, place of the video) in the same Google Document that	for this	
	was used in class	homework,	
		as students	



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Optional individual homework for extra points: Compile a written answer to the questions above in the form of a formal letter (of 300 words) that will be submitted to the Management Boards, on the base of the article, the dissemination plan.	will work with it in Lesson 3	





Lesson 3: Pathways to research: planning a strategy for public engagement

Learning outcomes to be developed:

- The student is aware of the major elements and characteristic features of a research engagement plan and the key performance indicators.
- The student will be able to map the different target stakeholders and its roles at different stages of the research project
- The student is able to select the engagement strategies, platforms and communication style suited for each target audience.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
 a) Frontal presentation by the teacher (15 mins), explanation on the base of questions public engagement strategy - purpose, stakeholders, process and evaluation. The 6 stages/levels of public engagement on the base of the introduction of <i>D3.2 Public Engagement Methods and Tools of</i> Engage2020 (pages iii-xi) such as Dialogue, Consulting, Involving, Collaborating, Empowering, Direct decision. Presentation for the topic is available at https://www.dropbox.com/s/c4a63p5dkwyzjr4/Annex 4.4.D Mod ule%204%20Lesson%204%20presentation CO.pptx?dl=0 		15 mins 30 mins
b) Case study - public engagement plan (PEP) of the "real" project presented in Lesson 2. In case they do not have one, the students study the institutional PEP of their university OR the dissemination strategy of foRMAtion project OR the PEP of another institution or project		





•	in groups of 2, students are given the public engagement plan they have to identify the purpose, stakeholders, activities based on the documents. They answer the following questions on the base of the examples of the tables published in <u>D3.2 Public Engagement Methods and</u> <u>Tools of Engage2020</u> http://engage2020.eu/media/D3-2-Public- Engagement-Methods-and-Tools-3.pdf (pages iii-xi): What is the level of public engagement targeted by the document you are studying? How could you further develop/complete this plan? Students answer the questions on writing, in a Google Form created for this purpose. Guide for teachers for the application of Google Forms in classroom work is available in <u>Annex C</u> discuss findings in class, using the spreadsheet generated on the base of the responses arrived to the form.		20 min
(PEP) c	task on PEP: The groups start preparing the Public Engagement Plan of their "fictive" project (the one they have been working on from ginning of the semester) in the form of a mindmap. They will use a template given by the teacher. (Question to NOVA: can you suggest a basic plan /example that we can use for this purpose?) They decide on the main parts of the plan and the leader of the team shares the tasks among the students that they have to	The groups	
	prepare as homework. It is recommended that the leader of the group writes a short reminder of the task to make the distribution of parts and tasks clear of the members of the group.	The groups receive a common score (max. 40 points) that has to be divided among	5 mins
e) PBL	task related with the promo video:	each other according to the	
•	Feedback on the homework (brainstorming): discussing the distribution of the points (see the remarks in the "Evaluation" column). In case of disagreement, the leader takes the final decision. the teams decide on the tasks related with the video-making: editor, cameraman, graphic elements, actors etc. All members have to be responsible for the content/text.	team-members self-evaluation. (Each team member estimates the number of points considered as a fair and consistent with its performance)	20 min







 On the base of the homework and the classroom work, <u>making</u> <u>final decision on the following</u> questions: What are/can be the purposes of the engagement of foRMAtion project with the given stakeholder? (see the 6 main purposes) What should be the level of public engagement in relation
 What are/can be the purposes of the engagement of foRMAtion project with the given stakeholder? (see the 6 main purposes)
foRMAtion project with the given stakeholder? (see the 6 main purposes)
main purposes)
 What should be the level of public engagement in relation
with your target group?
 On the base of the above and the homework, formulate 2-3 main
messages that the video of your team should transfer.
What kind of information should be included in your video in order
to emphasize and support your message?
How should be the video:
 style (emphasizing funny, professional, convincing,
surprising etc. features)
o music?
 participants
 basic ideas, story
 In case of disagreement, the leader takes the final decision.
e) Homework
1. Preparing a given part of the PEP of the "fictive" project, according to
the instructions of the team leader. (The complete PEP has to be
submitted as the "product" of the group.)
2. Each student reflects on his own leadership style on the base of the
Team Leadership Questionnaire by Morgeson (2010). This will be used in
the course of the next lessons's classroom work.





Lesson 4: Science communication and dissemination: framing the message

Learning outcomes to be developed:

- The student can distinguish the aims and activities pertaining to science communication, dissemination and broader impact
- The student can effectively communicate ideas and the main results of a given project to non-specialist audiences, applying different strategies to increase audience interest and understanding.
- The student can design a research engagement plan and identify suitable key performance indicators to assess stakeholder engagement.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and suggested scores	Timing
a) Theoretic content: Purposes and features of		
communication/dissemination and exploitation		20 mins
- Students read individually (5 mins) the same text (IO2 Curriculum,		
Module 4, Lesson 4, p 206-209)		
< <u>https://docs.google.com/document/d/1tmUS3ZbA0drt9uqC8a7_l</u>		
PXz2cljMTQi/edit#heading=h.2y3w247 > and get different		
questions regarding		
- communication plan		
 dissemination plan 		30 mins
 exploitation plan 		
The teacher projects each question separately on a slide (See the ppt		
available in <u>Annex 4.4.A</u>		
https://www.dropbox.com/s/mdryokid2dsws7i/Annex 4.4.A Module 4 L		
esson 4 to drive.pptx?dl=0) and addresses them to different students,		
by random selection. (Optionally, students can answer via <u>Kahoot</u>)		
 Which type of activity is addressing the widest audience? Which are the typical platforms of communication? 		





3. What is the difference between the aims of the communication and dissemination?		
4. When does the process of communication start?		
5. When does the dissemination start?		
6. When does the exploitation start?		
7. How long do the exploitation activities last?		
8. To which activity do the following platforms and tools belong?		
a. articles of scientific journal		
b. professional workshops		
c. trainings and strategic consultations		
d. participation in common publications		
e. Twitter posts?		
9. What kind of activities belong to the exploitation?		
The teacher calls for them personally to answer the given questions (questions are presented on the slides one by one). Between the answers, whenever it is needed, the teacher explains features of the 3 types of activities by the help of the infographics included in the presentation (see Annex 3.4.A)	Apart from the	
AIMEX 3.4.A	teacher, a	20 min
Teacher interview with the communication expert of foRMAtion project,	member of	
with the following questions:	the "real"	
Interview with the RMA of foRMAtion	project	
\circ Who are the potential users of foRMAtion project? What	coordination	
are the main platforms where they are addressed?	team gives	
 Who do you consider as the target audience of the 	students	15 min
dissemination of project results?	evaluating	
 Who are the wider audience for whom we would like to 	feedback as	
 communicate the project results? Were there any changes compared with your preliminary 	well	
expectations?		
PBL tasks:		
Group work:		
The groups receive an e-mail from the head of unit (see the tasks and the		
worksheet in Annex 4.4.F)		
 worksheet in <u>Annex 4.4.F</u>) group members submit their answers by e-filling in the table on the 		





		1
• The class discusses the answers in the form of a workplace meeting.		5 min:
Group representatives report on the results of their group in front		instructio
of the class.		ns
• The teacher summarizes and demonstrates the answers of students		
in the form of an online <u>Coggle mindmap</u> elaborated by answer to	10 points	15
answer, (see an example for a ready mindmap on TELLME in <u>Annex</u>		15 min: elabora-
<u>4.4.E</u>		tion of
https://www.dropbox.com/s/my5w5xa3r30dmch/Annex_4.4.E_TEL		texts
LME_excerpts.docx?dl=0 and at this link:		texts
https://coggle.it/diagram/X1is0zfdS9ZF3xIH/t/framing-the-		
<u>message-of-tellme-</u>		
project/9db5fdd86639422e773940180f81e0f5b9e40c31b5b887631		
<u>cc6fc69c9737c4a</u>)	Teams give	
	themselves	
PBL group work:	up to 10	
 an urgent message from the head of unit: 	points /	
	person for	
Individual work:	their activity,	
PBL group members write individually a blog post / a Twitter post /	based on self-	
a Facebook /a website / or LinkedIn post on the "real" project	assessment	
chosen by the teacher, on the base of a project progress report and		
the project website. Each member is given a different genre by the		
group leader.		
 Optional task: Finalization of Public Engagement Plan of the 		
"fictive" project		
Group work:	+5 points	
 Evaluation of leadership skills using the <u>Team Leadership</u> 		
Questionnaire by Morgeson (2010) using the "hot seat" method:		
someone is chosen to be evaluated; the other 3 writes down their		
thoughts on the base of the following questions:		
a) What were his strengths as a leader?		
b) What are his areas of development?		
c) What did I enjoy/appreciate in him/her personally?		
The teacher has to enhance that the goal of the evaluation is to encourage		
each other and give each other feedback in a positive way.		





Homework:
PBL groups work on and finalize their promotional videos according to the
feedback of the teacher.
Optional task for extra points: design a Facebook page for the project
(based on a given framework - not a public one)

Further reading.

- Dunleavy, Patrick (2014) Shorter, Better, Faster, Free. Blogging changes the nature of academic research, not just how it is communicated. <u>https://blogs.lse.ac.uk/impactofsocialsciences/2014/12/28/shorter-better-faster-free/</u>
- Oakes, Kelly (2014) How to Create a Successful Science Blog <u>https://www.theguardian.com/science/2014/apr/17/science-blog-wellcome-trust-writing-prize</u>
- Thody Angela (2006): Writing and Presenting Research <u>http://elearn.luanar.ac.mw/odl/public/Files/Angela%20Thody's%20Writing%20and%20</u> <u>Presenting%20Research.pdf</u>
- Example for project communication plan: <u>https://www.dropbox.com/s/vqzz0x79ptbrnsz/Annex 4.4.C foRMAtion Communicatio</u> <u>n Plan with Visual Identity.pdf?dl=0</u>







Annex 4. 4. F – E-mail from the Head of Unit

Dear Colleagues,

The leader of your team from today is [...].

You have 2 tasks to do within 20 minutes:

- Please, on the base of the profiles, finalize the table below indicating the roles and the names.
- In 20 minutes, we will have a meeting where we will discuss the communication issues of the TELLME project. Yesterday the project groups were formed and received the project application. The deadline is approaching to prepare the communication, the dissemination and the exploitation plans. In order to do that, the task of the group is
- to identify the possible stakeholders and audiences of the TELLME project,
- assign the different stakeholders, target audiences to the different plans

	Target groups	Platforms
Communication		
Dissemination		
Exploitation		

Please use now the shortened version of the TELLME_excerpts.doc.

https://www.dropbox.com/s/my5w5xa3r30dmch/Annex 4.4.E TELLME excerpts.docx?dl=0 The team, with the direction of the leader of the team, has to divide the task among the members - you have to report about your ideas in 20 minutes!

Best, Head of Unit





Lesson 5: Public engagement plans – group presentation and discussion

Learning outcomes to be developed:

- The student can act to facilitate processes in the context of a simulated science engagement situation.
- The student can design a research engagement plan and identify suitable key performance indicators to assess stakeholder engagement.

Legend for the use of lesson plans: Grey texts describe useful but elective activities while black text colour indicates activities considered essential.

Teaching ideas: Methods, tools, illustration, problem, game etc.	Evaluation and assessment	Timing
a) PBL task: Presentation of the promo videos. They will present students' experiences	Peer assessment:	
on foRMAtion project to different target groups and stakeholders such as - an international professional organization, e.g. EARMA,	- students give points to	
 BA students of their university the top management of their own institution 	each other's videos on the	
- an NGO or company or a national EU funding agency working in cooperation with the university in other projects or activities (aim is to	basis of the evaluation	
raise awareness regarding RMA as a profession and promote the university's training in this field)	form. - In case the	
 in the frame of an international webinar (if the dates can be reconciled among the 3 universities) presenting the project 	videos of the parallel courses	
 OR: a fictive stakeholder/workshop forum where the class members will play the role of the several stakeholders 	(NOVA & Sapientia)	
b) Course-evaluation roundtable (including the report of the teacher as well):	cannot be presented, students give	
• "What were the most important things you learnt in this course?"	oral feedback	





 "Share something you liked and appreciated." 	regarding
 "What are the areas where we could further improve it?" 	each others'
	videos.
PBL homework:	Teachers'
Groups have to submit	question
 the updated and finalized project management plan until a 	launching the
predefined deadline	conversation:
• Optional assignment: a report on the project results compiled on	"Which
the base of the form prepared by the teacher (see Annex)	features of
	the video that
	reflect the
	aspects and
	the needs of
	the given
	target
	group?"

Further reading:

- An example to study: <u>https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=</u> <u>080166e5c48ab206&appId=PPGMS</u>
- Guide <u>http://globeducate.s3.amazonaws.com/PDF%2FPublic-engagement-a-practical-guide.pdf</u>







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4. Annexes

Further annexes and supporting documents are available at the following links:

Module 1

https://www.dropbox.com/sh/ja41h9uxtibt71h/AADa6wPb6LaL4ncjWY5mFRSma?dl=0 Module 2

https://www.dropbox.com/sh/wofn6z3k4wzz2ea/AAB32RjRRs_URwHoL4X10gw_a?dl=0 Module 3

https://www.dropbox.com/sh/ofhj288fdq5uolw/AAAGaKTx2zMfNHICEMs3Ebd1a?dl=0 Module 4

https://www.dropbox.com/sh/74igph7dso15lqz/AAAhO36HSMM9pHGVW7FNpioha?dl=0







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