From SafeCEREAL to MS4Plastics: my approach to successful MSCA proposal

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ABOUT ME – ENVIRONMENTAL SCIENTIEST

Education:

10/2006 – 12/2008 Master Studies in Chemistry – Quality Control and Environmental Management (graded excellent), University of Novi Sad, Serbia

Master thesis: Characterization and risk assessment of the metals-polluted sediment

10/2009 – 07/2013 PhD Studies in Applied Biological Science, University of Antwerp, Belgium

PhD thesis: Use of injectable Fe-based particles for in-situ treatment of contaminated groundwater

ABOUT ME – ANALYTICAL CHEMISTRY

Career:

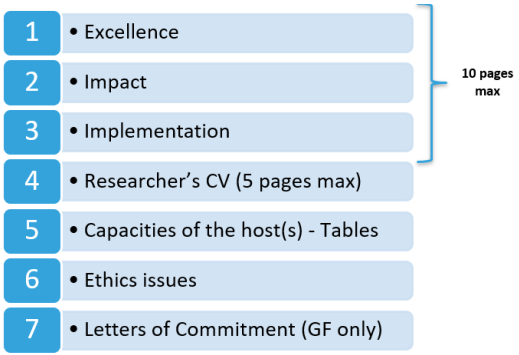
02/2007 – 09/2009	Young researcher at the University of Novi Sad, Serbia.
10/2009 – 11/2013	Researcher/PhD student at VITO with active contribution to the EU founded AQUAREHAB project.
12/2013 – 09/2019	Postdoctoral scholar at University of Vienna, Department of Environmental Geosciences with active contribution to the multidisciplinary EU projects (e.g., NANOREM, NanoDefine).
10/2019 – now	FWO senior postdoctoral fellow at Ghent University / VITO

H2020-MSCA-IF-2017 – ENV PANEL

SafeCEREAL - Safe Copper Engineered for Release and Efficacy on Agricultural Land

HOST: University of Novi Sad, Serbia - experience with H2020 projects, but not with the Marie Curie action, no support from NCP, no project office

- Following several courses on how to write competitive MSCA IF proposals
- Asked friends to read their successful proposals
  - LESSON LEARNED – ALL PROPOSALS WERE DIFFERENT WITH DIFFERENT APPROACHES TO WRITE SECTIONS
  - PROVIDED TEMPLATE IS A GOOD START
- Reviewed by several colleagues
- Professional proofreading



WHERE TO START WITH – READ GENERAL GUIDELINES BUT…

EXCELLENCE is about:

- the quality and novelty of the research;
- the training activities in the project;
- the capacity of the researcher, the scientific supervisor and their interaction.

IMPACT refers to the impact on the fellow's career development and the dissemination and communication activities.

IMPLEMENTATION is about the quality of the work plan, including the allocation of tasks and resources, and project management.

WHERE TO START WITH – READ GENERAL GUIDELINES BUT…

- MSCA-Individual Fellowships Handbook - **www.net4mobilityplus.eu**
  - **IF Survivors´ Guide**
  - **Guide proposal Writing**
  - **Guide IP-Management**
- **MSCA IF 2017 checklist by Juliane Sauer, Euresearch**

Excellence (5.5 pages):

The main goal of the SafeCEREAL is to determine the efficacy of the CuNPs uptake in wheat after foliar application, and to gain further knowledge of the possible CuNPs' release in soils under more realistic and chemically complex field systems.

	PLAN TO ACHIEVE	DISSEMINATION AND COMMUNICATION
OBJECTIVE 1 CuNPs-plant interactions	Investigate wheat growth, morphology and yield characteristics, parameters of photosynthetic activity and nutrient assimilation during plant growth pot experiments using different natural soils under controlled conditions (i.e. greenhouse).	Presentation of research topic at 'International Festival of Science and Education'; Presentation of results at SETAC conference; Publication of results in a high-ranked, scientific journal.
OBJECTIVE 2 CuNPs-soil interactions	Investigate spatial and temporal speciation and distribution of CuNPs in soil in relation to realistic application of CuNPs during plant growth pot experiments using different natural soils under controlled conditions (i.e. greenhouse).	Presentation of results at IUPAC International Congress of Crop Protection Chemistry; Presentation of research topics at 'Water Workshop'; Publication of results in high-ranked, scientific journal.
OBJECTIVE 3 CuNPs risk to groundwater	Investigate the mobility of CuNPs in different porous media under environmentally relevant release scenarios including the numerical modeling.	Presentation of research topic at European Researchers' Night; Organization of outreach event for stakeholders. Publication of results in high-ranked, scientific journal.

Impact (1.5) page

Read guidelines “Communicating the EU research and innovation guidance for project participants” and the “communication section” of the H2020 Online Manual.

Try to be creative in popularization of your project.

Include quantifiable targets for measuring the effectiveness of communication, dissemination, IP and exploitation.

Implementation (3 pages)

WP1: CuNPs-plant interactions	
Deliverables	**Milestones**
D1: Creating free webpage for SafeCEREAL and posting summary; D2: Presentation of research topic at Science and Education Festival; D3: Presentation of results at SETAC conference; D4: Publication of results in high-ranked scientific journals (CuNPs-plant interactions); D5: Dissemination of publications via University Communications Office.	M1: Pot experiments established; M2: Growth of wheat in high maturity phase with results summarized and discussed prior to SETAC conference; M3: Publication 1 (CuNPs-plant interactions) submitted to a high-ranked scientific journal.
WP2: CuNPs-soil interactions	
Deliverables	**Milestones**
D1: Updating webpage with content and results of WP1 and 2; D2: Presentation of research topics at 'Water Workshop'; D3: Presentation of results at IUPAC International Congress of Crop Protection Chemistry; D4: Publication of results in high-ranked, scientific journals (Environmental fate of CuNPs); D5: Dissemination of publications via University Communications Office.	M1: Data evaluation of geophysical measurements finalized and compared to chemical analysis before IUPAC International Congress of Crop Protection Chemistry; M2: Publication 2 (CuNPs-soil interactions) submitted to a high-ranked scientific journal.

WP3: risk to groundwater	
Deliverables	**Milestones**
D1: Updating webpage with content and results of WP2 and 3; D2: Presentation of research topics at European Researchers' Night; D3: Publication of results in high-ranked, scientific journals (Environmental fate of CuNPs); D4: SafeCEREAL outreach event for stakeholders; D5: Dissemination of publications via University Communications Office.	M1: Transport experiments for assessing the mobility of CuNPs finished; M2: Publication 3 (Environmental fate of CuNPs and risk to groundwater) submitted to high-ranked scientific journal.
WP4: Training	
Deliverables	**Milestones**
D1: Create survey for project organisation and management; D2: Financial management plan; D3: Yearly report on Career Development Plan and training activities; D4: Summary of Teaching Philosophy; D5: Final report on Career Development Plan and training activities.	M1: Training of the ER in design of experiments and multivariate analysis with advanced machine learning completed; M2: Training in plant growing experiments, mineral nutrition and plant physiology finished; M3: Training in techniques and application of SEM/TEM finalized; M4: Training and application of processing tools for geophysical measurements finished; M5: Training in XANES data evaluation finished; M6: Training and application of transport models for risk assessment finished; M7: Training in professional laboratory management finished.

H2020-MSCA-IF-2017 – ENV PANEL

Gantt Chart:

			MONTHS																							
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
WP1	M					M1				M2			M3													
	D	Conf.									D3															
		Pub.			D1		D2																			
		Dis.												D4		D5										
WP2	M										M1							M2								
	D	Conf.															D3									
		Pub.											D1		D2											
		Dis.																D4		D5						
WP3	M																				M1			M2		
	D	Conf.																								
		Pub.																D1	D2						D4	
		Dis.																						D3		D5
WP4	M			M1		M2			M3		M4			M5				M6							M7	
	D		D1												D3											D4
			D2																							D5

WP refers to the work packages described above with associated milestones (M) and deliverables (D). Conf. = conferences, Pub. = public engagement, Dis. = dissemination. Note that symbols indicate the month in which the M or D is completed.

H2020-MSCA-IF-2017 – ENV PANEL

Subject: Horizon 2020 Framework Programme
Call for proposals: H2020-MSCA-IF-2017 (H2020-MSCA-IF-2017)
Proposal: 794520 — SafeCEREAL
Evaluation result letter — Proposal rejection letter

Dear Madam/Sir,

I am writing in connection with your proposal for the above-mentioned call.

Having evaluated your proposal, we **regret** to inform you that it cannot be funded because the score obtained does **not** suffice for **funding**, given the budgetary resources available for the call.

Please find enclosed the evaluation summary report (ESR), based on the comments and opinion of the experts that evaluated the proposal for the Agency.

General information about the relative position of your proposal in the ranking is published in a call update.

Evaluation Result

Total score: 91.20% (Threshold: 70/100.00)

All parts of the proposal are important to be successful!!!

LESSON LEARNED FROM EVALUATORS' COMMENTS

Excellence

The proposed research is novel in its objectives and approaches, and such innovation is argued convincingly.

Research quality/innovation is the solid rock of excellence.

The scientific training and transfer of knowledge from the host to the researcher is very well detailed and relevant for the researcher, who will gain expertise in various new techniques and fields.

Be clear about research training.

The measurement of bioavailability in soil is based on empirically based extraction techniques. The rationale for the selection of these techniques is not well specified, and it is not made clear enough what these data represent concerning bioavailability.

Evaluators are reading the proposal in detail and look for the mistakes.

The supervisor's experience in relevant research fields, such as greenhouse gas experiments with cereal crops, fertilization, fertilizer applications, is not sufficiently described.

Supervisor vast experience in research projects and supervision is important.

Co-supervisor can be an add on to the project.

LESSON LEARNED FROM EVALUATORS' COMMENTS

Impact

The overall high-impacting development that SafeCEREAL will offer the researcher will constitute a major enrichment of the researcher's career prospects after the fellowship.

Implement future career plan.

Diverse set of measures to communicate the results to a range of target audiences, including the general public as well as nongovernmental organizations, is well outlined. The measures designed to reach a wide variety of audiences in very different and effective ways are very well elaborated, and the frequency of outreach events is adequate.

Make use of social networks such as Twitter/Facebook.

The respective responsibilities for the dissemination strategy are not sufficiently clarified.

The involvement of the researcher has to be clearly underlined.

The strategy for exploiting the proposal's expected outcomes is appropriate, and wisely relying on the host's Technology Transfer Centre

Collaboration with business developers and the potential for commercialization of the results is important.

LESSON LEARNED FROM EVALUATORS' COMMENTS

Implementation

Good bilateral cooperation and share of activities and responsibilities between the researcher and the host organization is a substantial contribution to implement SafeCEREAL appropriately.

Rely on partners from different groups within the HI and also your own network.

The research and administrative risks that might threaten achievement of the objectives are also identified, and the contingency plans are well described and suitable.

Think about administrative risks, not only research risks.

The financial resources for implementation of the project action are not sufficiently discussed.

Try to keep the research financially feasible.

The host organization has the required infrastructure to implement the proposal successfully, provides a very good institutional environment to the researcher and is well embedded in international networks of relevance to SafeCEREAL.

Rely on your institution infrastructure, not only your group.

H2020-MSCA-IF-2018 – ENV PANEL

SafeCEREAL - Safe Copper Engineered for Release and Efficacy on Agricultural Land

HOST: University of Novi Sad, Serbia
Resubmission

- Changes made based on the evaluators comments
- Reviewed by FFG MSCA proposal expert
- Checked MSCA-IF 2018 Assessment grid (Guide for evaluators)

1	• Excellence	4.80
2	• Impact	4.90
3	• Implementation	5.00

Evaluation Result

Total score: 97.40% (Threshold: 70/100.00)

H2020-MSCA-IF-2020 – CHE PANEL

MS4Plastics - Mass spectrometry for the characterization of micro- and nanoplastics

HOST: VITO
No secondments, several short stays included

- Followed FWO webinar on writing successful MSCA proposal
- Reviewed by NanoBranes
- Checked MSCA-IF Assessment grid

1	• Excellence	4.80
2	• Impact	4.90
3	• Implementation	4.80

Evaluation Result

Total score: 96.60% (Threshold: 70/100.00)

FINAL REMARK FROM MSCA SEMINARS: MAKE IT EASY FOR EVALUATORS

Template

- Use the Correct Template
- Use the Template sub-headings (provides good structure)
- Use the Full Page Limits
- Put the proposal acronym in the Header
- Put Page Numbers (format Page X of Y) in the Footer

Format

- Use charts, diagrams, tables, text boxes, figures, but don't not overuse it
- Use appropriate font size, line spacing, page margins
- Ensure any colour diagrams are understandable when printed in black and white
- Use highlighting where appropriate (bold, underline, italics) but don't overdo it!

Language

- Avoid jargon
- Explain any abbreviations
- Simple clear text
- Avoid long sentences
- Get rid of repetitions (refer to other parts of proposal if necessary)
- Don't copy text from other documents or websites
- Be consistent with language (UK/US English)

GOOD LUCK IN YOUR NEW JOURNEY