



MSCA Postdoctoral Fellowship - Tips and tricks from two successful MSCA-IF Fellows

Pawel Sikora & Nikola Tošić



About us

Who We Are

Pawel Sikora



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- Marie Curie Individual Fellow: 2019 –
Technische Universität Berlin, Germany
- Postdoctoral Researcher: 2017-2019
Technische Universität Berlin, Germany
- Assistant professor: 2017 –
West Pomeranian University of Technology, Szczecin (Poland)
- Teaching assistant: 2014–2017
West Pomeranian University of Technology, Szczecin (Poland)
- **Interests:** 3D printing, nanotechnology, lightweight concretes

POLONIUM
FOUNDATION

Who We Are

Ultra-LightCon-3D – Ultra-Lightweight Concrete for 3D printing technologies



Pawel Sikora, PhD
Individual Fellow



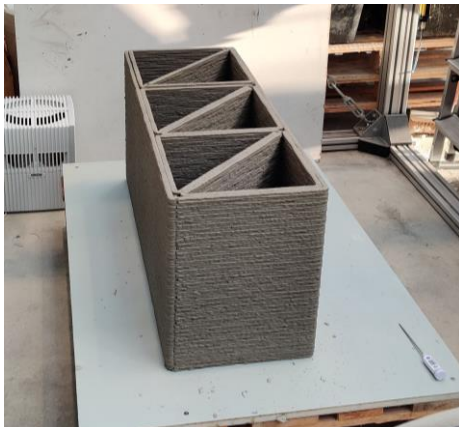
Prof. Dietmar Stephan
Project supervisor



Technische Universität Berlin
Beneficiary Institution



Sika AG
Industrial Partner



www.ultralightcon3d.com

No: 841592



Who We Are

Nikola Tošić

- Marie Curie Individual Fellow: 2020–
Universtitat Politècnica de Catalunya, Spain
- Fulbright Visiting Scholar: 2019
University of Notre Dame, USA
- Assistant professor: 2018–2019
- Teaching assistant: 2013–2018
University of Belgrade, Faculty of Civil Engineering, Serbia
- **Interests:** green concretes, structural design, fiber reinforced concrete



nikola.tosic@upc.edu

Who We Are

GREEN-FRC – Fibre Reinforced Concrete with Recycled and Waste Materials

Optimised for Improved Sustainability of Urban Projects



Nikola
TOŠIĆ



Albert
DE LA FUENTE



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH



SMART
ENGINEERING



www.green-frc.com

No.: 836270

Seoul, 30th March 2021



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Steps (stages) on proposal preparation:

- 1) Before writing,
- 2) Proposal preparation,
- 3) Proposal writing,
- 4) Project activities.



Stage 1 – Before writing

Our thoughts - before writing!

- Attend Webinars even though they seem to be the same! (**extra knowledge**)
- Know your motivation and **start planning well ahead**
- **It is really 3 months of work** – every word counts and is extremely important

Creative process



Source:uxdesign.cc

- **Initiate your cooperation** with potential supervisor before (conferences, e-mails)
- **Cooperate with your supervisor** before (visit them? study visit, short scholarship, joint publication)

Our thoughts - before writing!

- **Try to** find industrial cooperation – not only to cooperate (secondment) but show your **networking abilities** before the project
 - *The training features a strong presence from the industrial sector, which is beneficial in terms of training assertiveness, getting an industrial perspective as well as training for optimization of exploitation opportunities.*
- **Ask for help** from experienced people (**and non-experts!**). Leave time for NCP corrections and English correction service!
- Search for proposals in the internet – some people share it or take some parts from presentations such as success story (**do not use** them as templates – tunnel vision!)
- Reviewer is a human being, they have a lot of work, they are tired – **make it easy**



Stage 2 – Proposal preparation

Our thoughts – proposal preparation

- Every word/sentence is **very important** due to limited size!
- Many requirements/many topics has to be addressed at least with once sentence. Don't omit any part of the proposal requirement. (*Guide for Applicants!*)
- **The whole proposal and CV is a story** – Treat it like a book – make it readable and interesting
- Promote (sell) yourself – use „I” form – but do not be too sapient
- Promote your research like it is one of the most important topics for the world (development, sustainability, society) but not the most important 😊

Our thoughts – proposal preparation

- Make it clear for reviewers – **they are not experts** in your field
- Do not leave sentences unspoken/unfinished – quantify everything!
 - *The multi-scale analysis tool is not described with a sufficient level of detail.*
 - *Objective (2): To develop a novel post-cracking characterization test for G-FRC with a target CoV below 10%*
- Proven evidences of your experience (papers, conferences, activity, memberships – add links, website, google scholar etc.)
 - *The CV of the researcher shows a very good track record for this early stage in his career. The achievements encompass publishable scientific outputs, patents and participation in research projects. This represents a good set of assets to make the most of the current fellowship.*
 - *Previous experience as well as the preparation of the proposal and the reasoning behind it show potential for the researcher to re-enforce a position of professional maturity during the fellowship.*

Our thoughts – proposal preparation



- This is not a research project – **this is a fellowship** - That you plan to do something after the proposal (promotion, own project, own team)
 - *The training is excellent, featuring the appropriate structure and resources for the good development of the proposal, as well as the consolidation and improvement of the researcher's technical, scientific and transversal skills.*
 - *The planned training is expected to consolidate and extend the researcher's technical and scientific expertise, enlarge the network of professional contacts and establish him in the field of the proposal, after the fellowship.*
- It's **not only about science**, in fact it is short, it is about who **you want to become**



Stage 3 – Writing the proposal

Our thoughts – Writing the proposal

- **Tell a story:** start with an introduction and not an abstract

Introduction. The percentage of the global population living in urban areas was 54.7% in 2017; in the European Union (EU), this percentage is 75.2%¹, i.e. **385 million people in the EU live in cities**, with an expected increase to 80% by 2050. Hence, the **demand on cities for maintaining and increasing the well-being and quality of life of their citizens** will only continue to increase.

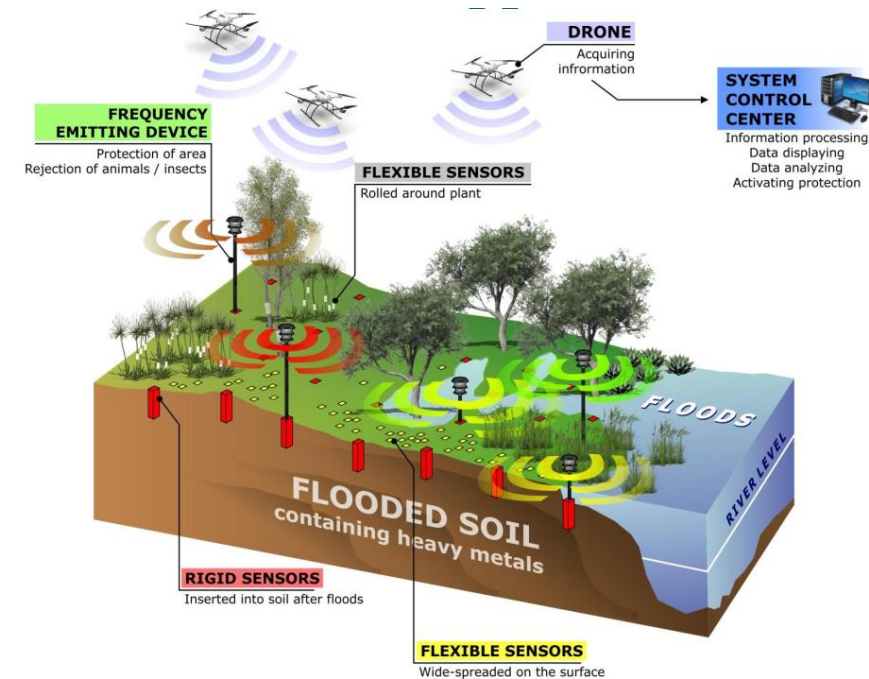
This is why one of the 17 **Sustainable Development Goals (SDGs)** put forward by the United Nations in 2015 within its “2030 Agenda²” is related to directly **addressing challenges posed by unprecedented rates of urbanization**: “SDG 11 – Sustainable Cities and Communities”.

In order to achieve this goal, **sustainable, resilient and robust urban infrastructure** is required. For this purpose, an innovative, inclusive and responsible construction industry will be necessary. In the EU, **the construction sector is a vital part of the economy**, employing approximately 15 million people in over 3 million enterprises, with an annual turnover of around 1400 billion EUR³. The need for boosting its sustainable development has been recognised by the EU through its **Strategy for the sustainable competitiveness of the construction sector and its enterprises**⁴. This action directly covers two out of the Strategy’s five main objectives, namely, **(1) improving resource efficiency, environmental performance and business opportunities** and **(2) improving the human-capital basis of the construction sector**.

- Good text formatting, bolding relevant aspects, proper font and citation style
(**make it easier to the reviewer to find the most important information**)

Our thoughts – Writing the proposal

- Why your **project is important** for EU/UN – cite relevant documents and requirements
- The theme of the proposal has very good potential in terms of energy and resources sustainability associated with the construction sector. The strategic and economic potentials for Europe are also significant.
- **Images tell more than 1000 words**
- Things obvious to you **are not obvious** to everyone!



EUTA, 2018. <https://euta.info/>

Our thoughts – Writing the proposal



- Link your text or problems to your **previous experience/publication** (mention that you have some **preliminary study** on this)
- Choose literature smart – good journals – do not cite too much
 - *The current state of the art is quite detailed and well aligned with the aims of the proposal.*
- Make it **interdisciplinary** – try to (slightly) change your field – or choose supervisor who is not exactly in your field – complement expertise!
 - *The interdisciplinary and multidisciplinary aspects are well considered in proposal.*
- **What you have** that others do not have

Our thoughts – Writing the proposal



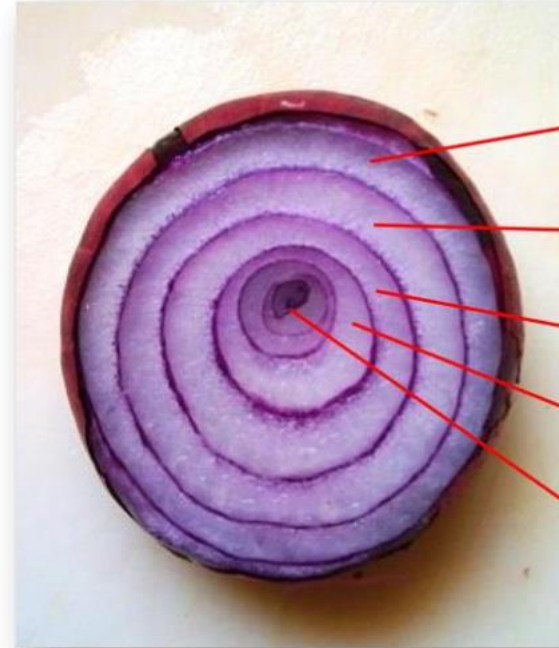
- Why you are **the most suitable** person for this project (prove it) – previous experience (industry)/degree in other field, previous cooperations, publications
- You are at 80% of your potential and the project will bring you to 100%
- **Two-way knowledge transfer** between you and the Host!
- Maybe your **weaknesses** could be a strong point? For instance less papers but good experience in teaching?
- Good **project management** structure – show that you will be “in good hands”

Our thoughts – Writing the proposal

- Think carefully about impact at:
 - Researcher level
 - Institutional level
 - System level
- Be *specific* about dissemination, communication and exploitation
- Think in detail about supervision and integration and don't forget part B2!

When a project has impact? The onion approach

The project benefits



Don't forget to make this quantitative in the proposal!!



Stage 4 – Project activities

- Do not propose an overly extensive (impossible) research plan (3-4 dissemination activities) – it is only 2 years.
- *The measures proposed to disseminate and exploit the project results are of good quality and very well-tailored for the specifics of the topic at hand.*
- If you plan a secondment, do not make it too late!
- *The secondment is scheduled too late, in the sense that the work foreseen for the secondment is expected to yield important results that should be incorporated in the process at an early stage.*
- Shortly describe overall objective (clearly)! and WPs – state in a visible way what do you want to achieve by this project – make it easy for the reviewer (good Gantt Chart)
- Good management plan and risk management strategy – make a Figure/Table
- *The management procedures are very good and credible. It is particularly positive that all partner participate in the management and that a strong institutional support is foreseen in terms of bureaucratic and logistic aspects.*
- *The risks management and associated contingency measures are very well addressed.*



Thank you very much for your attention

Q&A?

Further questions?

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