MSCA-SE : UPGRADE

Upgrading geomaterials: from waste to resource

Experience and lessons learned

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The project

Objective: to promote strategies and to develop protocols, software and tools for sustainable use of waste geomaterials generated by engineering activities, to turn a waste into a durable material.

Research needs: waste geomaterials represents half of the waste volume generated in EU but generally exhibit poor engineering characteristics that prevent their direct use at construction sites.

Expected outcome: If adequately treated, waste geomaterials could represent a resource for construction purposes and contribute to the establishment of a circular management of geomaterials.

The consortium

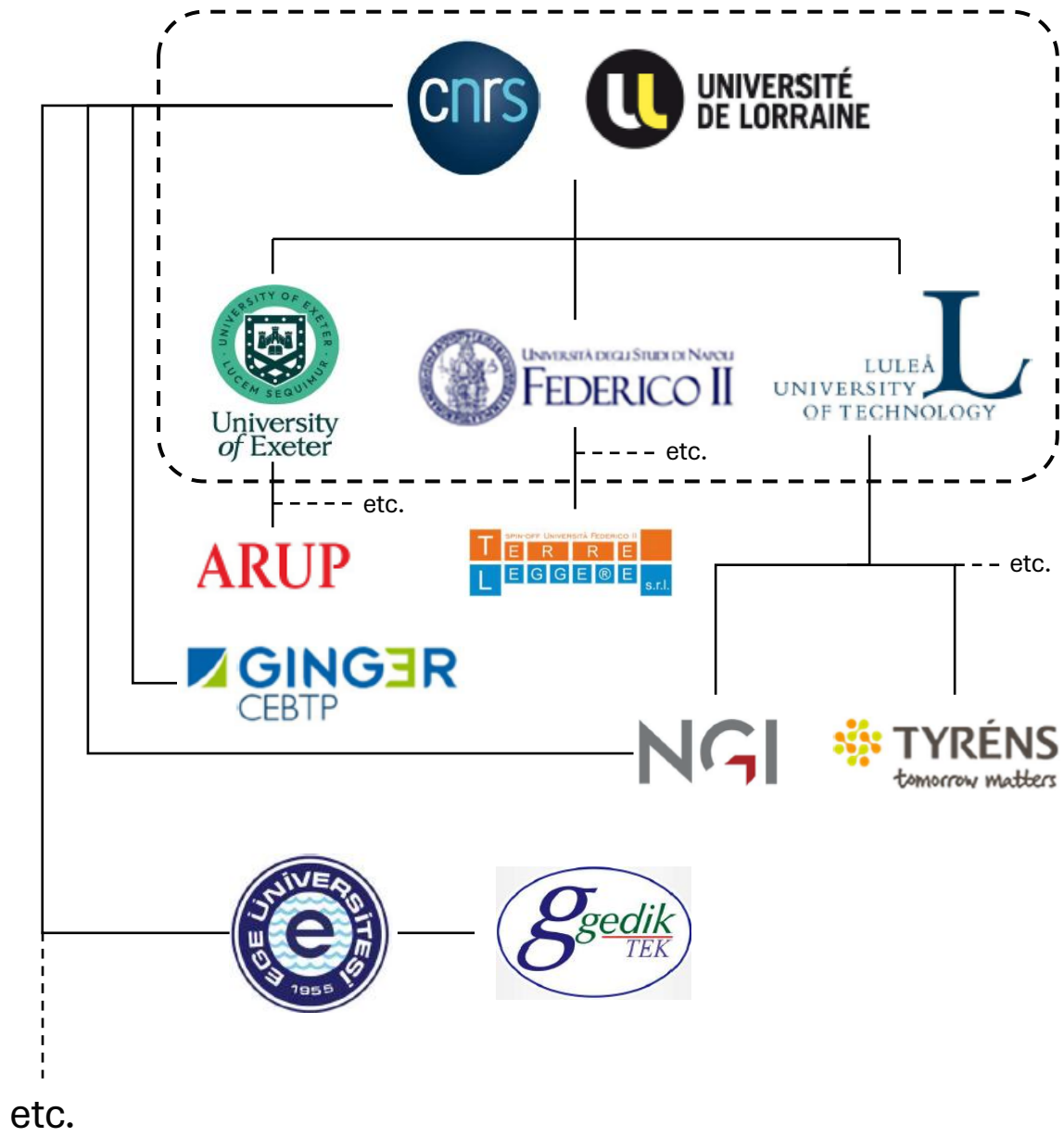
- 21 partners, including:
  - 12 universities (incl. 7 LMICs)
  - 3 research institutes
  - 6 industrial partners
- Coordinator: CNRS, France
- 97 seconded researchers *(planed)*
- 329 person months *(planed)*, incl:
  - 113 intersectoral secondments
  - 97 interdisciplinary
  - 119 with LMICs

How it all started

- Project led by a strong and close core of academic researchers
- Long-lasting collaboration between leading partners + personal relations among them
- Initially started in 2015 with a (small) research network project funded nationally (ANR, France)
- Academic partners came with “their” industrial partners

Main takeaway:

- A strong team with mutual trust built over a long time, and which will last long after the project is finished



Motivation and consortium building

- A project with broad interest within EU and with a need of coordination and knowledge sharing
- A project which needs research and which requires industry involvement
- A consortium based on common interests and the motivation to work together
- Ongoing projects on the same topic at the different partner organizations
- Already existing collaborations between partners (research projects and/or commercial projects)

Main takeaway:

- The consortium existed prior to the project idea
- Complementary partners who wanted to find ways of continuing their collaborations and create new opportunities

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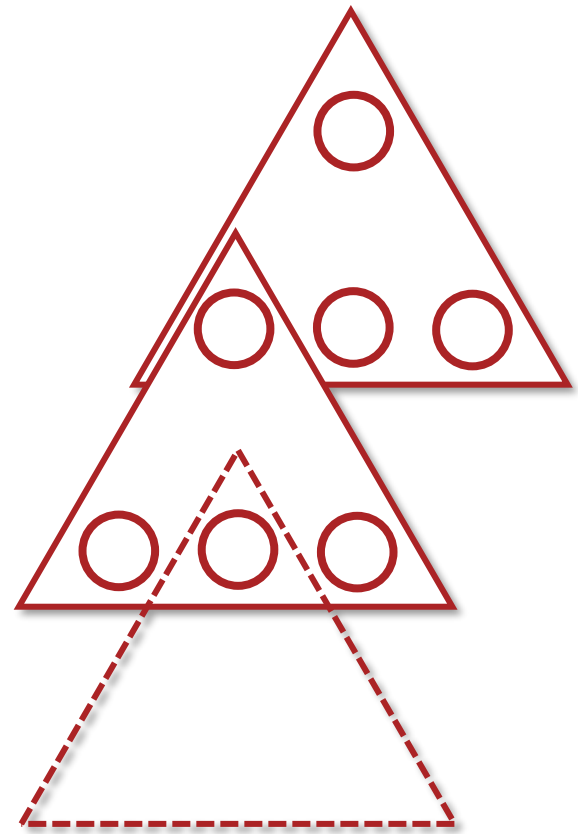
Proposal writing process (I)

- Clear and acknowledged leadership of the project coordinator
- Clear organization and delegation of tasks
- Help from an experience administrator from ULorraine
- Regular (but not too frequent) meetings, follow-up using group and then targeted emails
- Review process with clear deadlines



Main takeaway:

- Decision oriented leadership and discipline among partners
- Efficient process with different levels of responsibilities
- Robustness to reduce risks and vulnerabilities

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Proposal writing process (II)

- Lessons learned from previous MSCA-SE project (GeoRes):
  - Making sure to link the project to other ongoing research projects
  - Many planed secondments never happened, others were adjusted or modified
  - More is not better, trying to maximize budget does not necessarily bring more opportunities

Main takeaway:

- Being realistic (students' advancement, availabilities and other commitments)
- Flexibility: secondments do not only dependent on the WP leader, but also of the receiving organization and the secondee's availability.

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Project implementation (I)

- Strict follow up by the project coordinator and administrator
- Led by university professors
- Regular meetings planed well in advance -> all partners prioritize
- Flexibility in the secondments
- Students secondees are well advanced in their project and autonomous to facilitate the stay and minimize the time/supervision requirements from the hosting institution

Main takeaway:

- Our main motivation is to work together, share knowledge, learn from others
- Associating the project with other ongoing projects is absolutely crucial
- Use any other opportunity to meet and organize activities (e.g., international events)

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Project implementation (II)

Planed improvements for the future of the project:

- Build up robustness (still quite vulnerable to turnover, especially among industrial partners)
- Improve practical organization of secondments (changes in projects, time to sign agreement, visa requirements)
- Better connect partners who didn’t know each other from before
- Improve reactivity to answer research calls

On safe ground