



Future skill requirements in civil engineering, architecture and materials

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Outline



- Workshop group
 - FSRCEAM in numbers
 - Problems and challenges
 - Goal of the workshop
 - Preliminary results
 - Next steps of this group
 - Summary and conclusions
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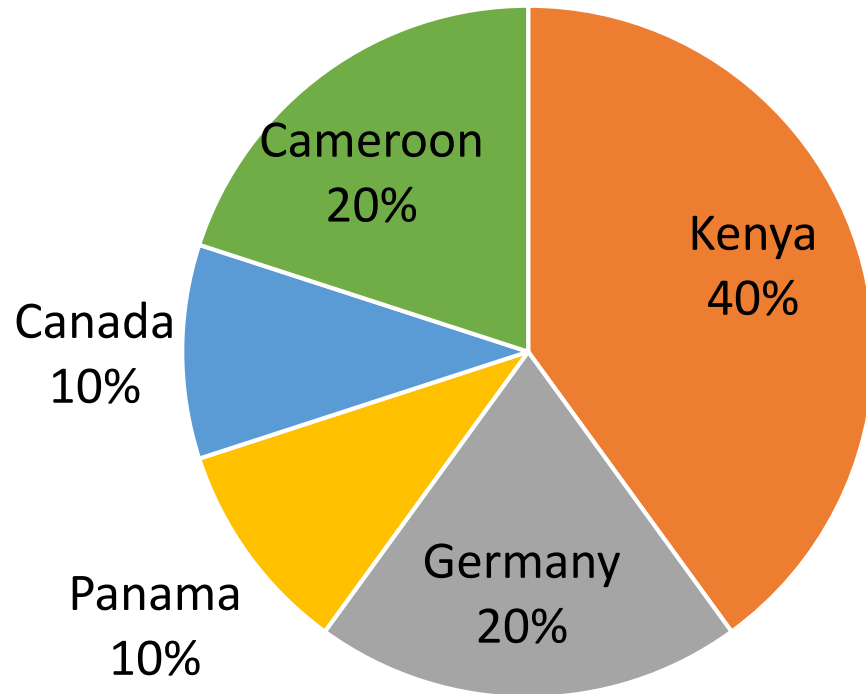
Workshop group

- Achille
- Cyrille
- Daman
- Franklin
- Jule
- Kolawole
- Mambed
- Moses
- Natalia
- Patrick
- Philip
- Yazmin



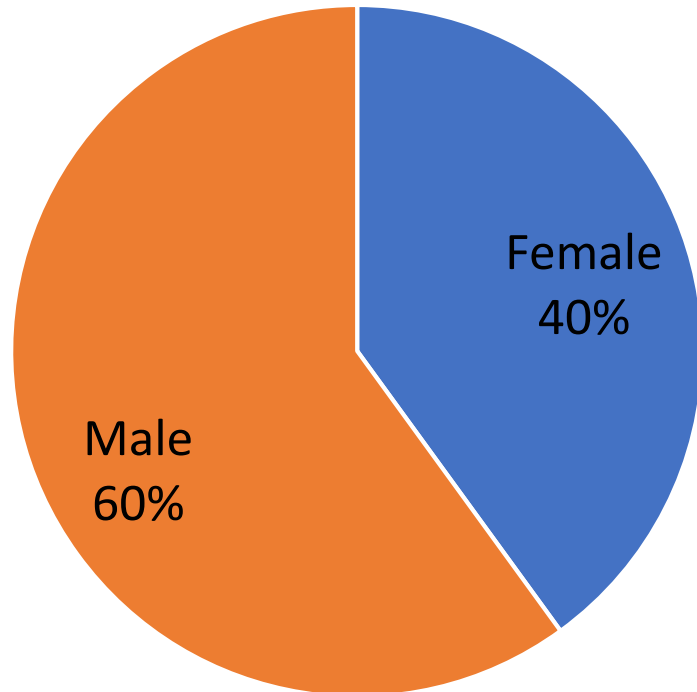
FSRCEAM in numbers

Country

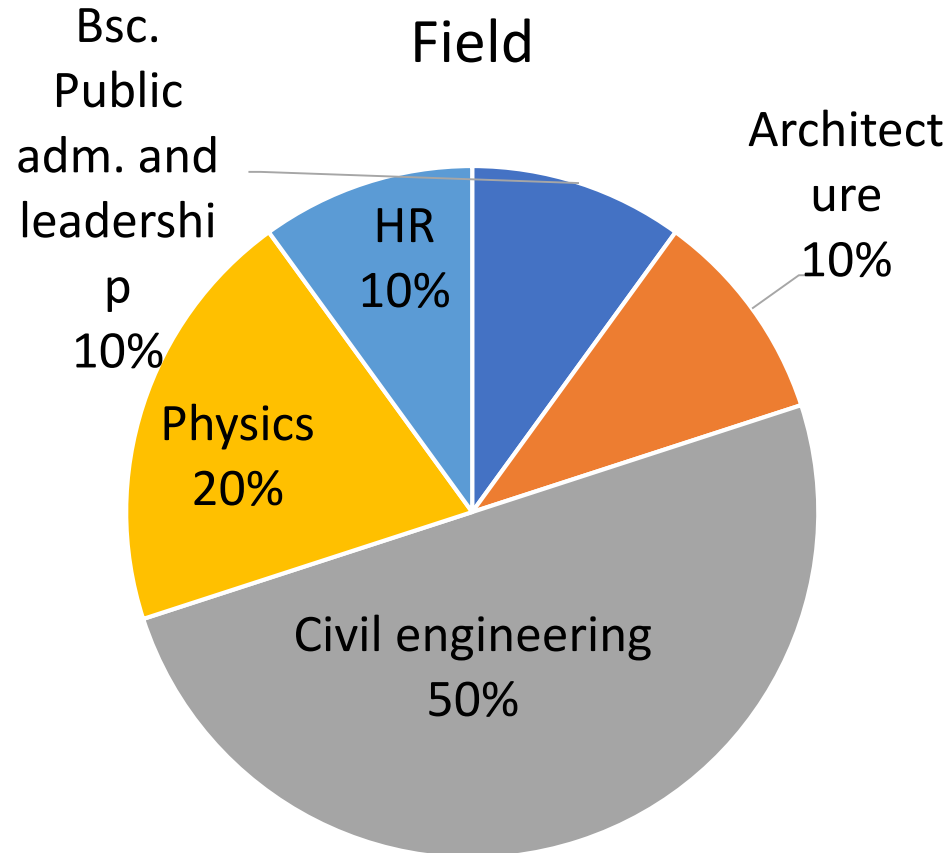


FSRCEAM in numbers

Gender

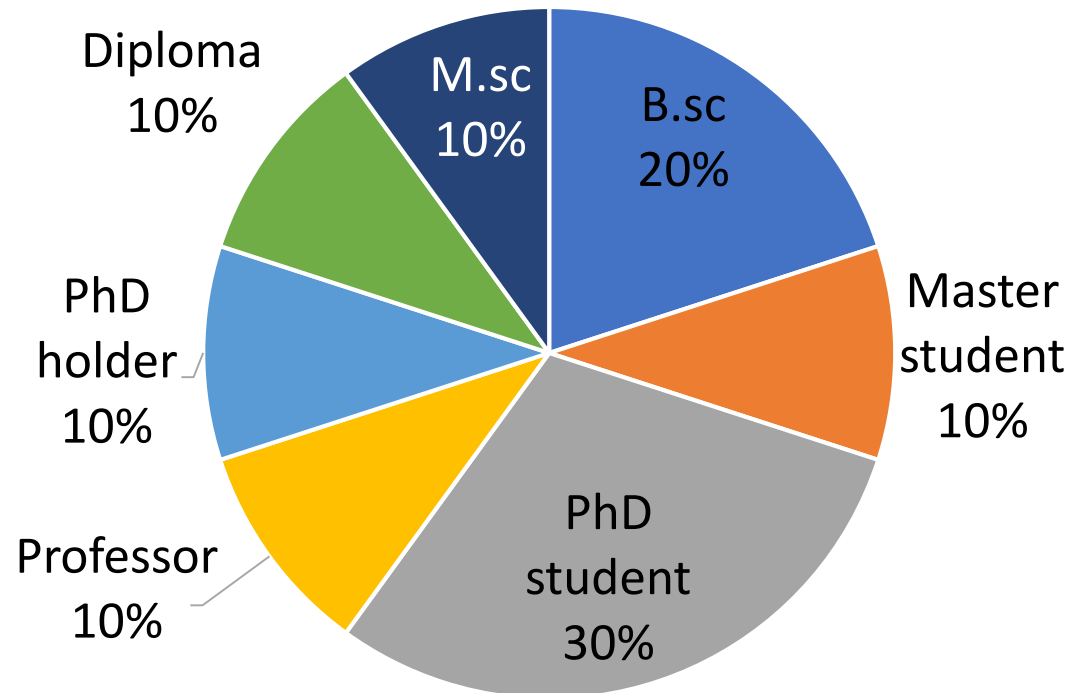


FSRCEAM in numbers



FSRCEAM in numbers

Qualification



Introduction



- Due to technology development, increasing population and environmental restrictions, a bigger challenge in future is to propose more sustainable and proper materials.
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Goal of the workshop

- To identify and discuss **future skill requirements** in civil engineering, architecture and materials.

Interdisciplinarity **SUSTAINABILITY** Research capacity
Collaborative skills Communication skills Language skills Forensic
engineering **Broad or depth?** INTERDISCIPLINARITY
SUSTAINABILITY RESEARCH CAPACITY **COLLABORATIVE SKILLS**
COMMUNICATION SKILLS **LANGUAGE SKILLS** FORENSIC
ENGINEERING **BROAD OR DEPTH?** Interdisciplinarity
Sustainability Research capacity Collaborative skills **Communication skills**
LANGUAGE SKILLS **Forensic engineering** Broad or depth?

Preliminary results

Challenges and future skills requirements



Challenge

- Environmental issues

Future skill requirement

- Deepen sustainable awareness already in undergraduate education
-

Challenges and future skills requirements



Challenge

- Ageing infrastructure

Future skill requirement

- Focus more on existing buildings instead on new design
 - Basic skills in forensic engineering
-

Challenges and future skills requirements



Challenge

- Lack of equipment for experiments
- Lack of knowledge in modelling and simulation

Future skill requirement

- Development of modelling and simulation skills
-

Challenges and future skills requirements



Challenge

- Question of broadness or depth
- Work in reality demands interdisciplinarity

Future skill requirement

- Interdisciplinarity
education
internships
work
 - Communication and collaboration
-

Challenges and future skills requirements



Challenge

- Abstractness in mathematical courses

Future skill requirement

- Understanding and application of data analysis and statistics
-

Challenges and future skills requirements



Challenge

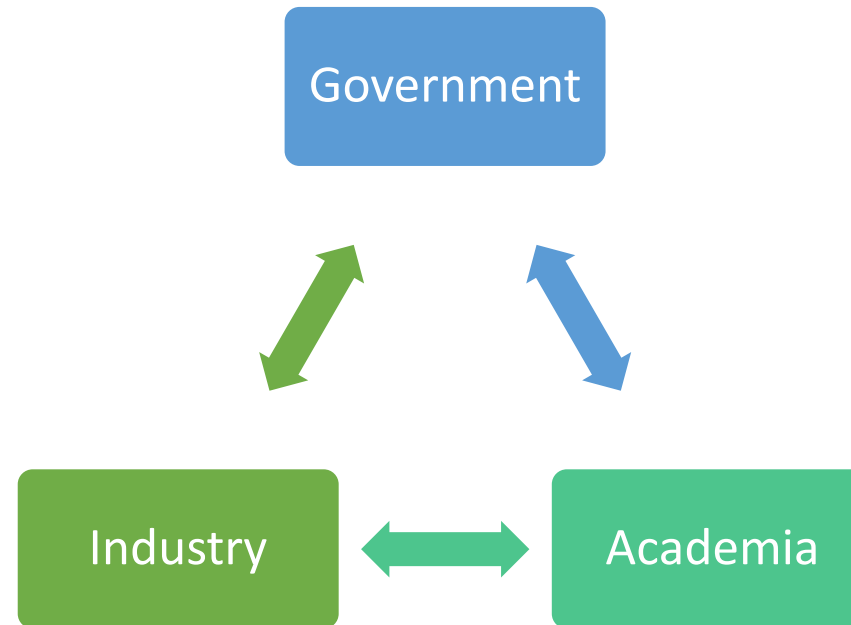
- Choice of material

Future skill requirement

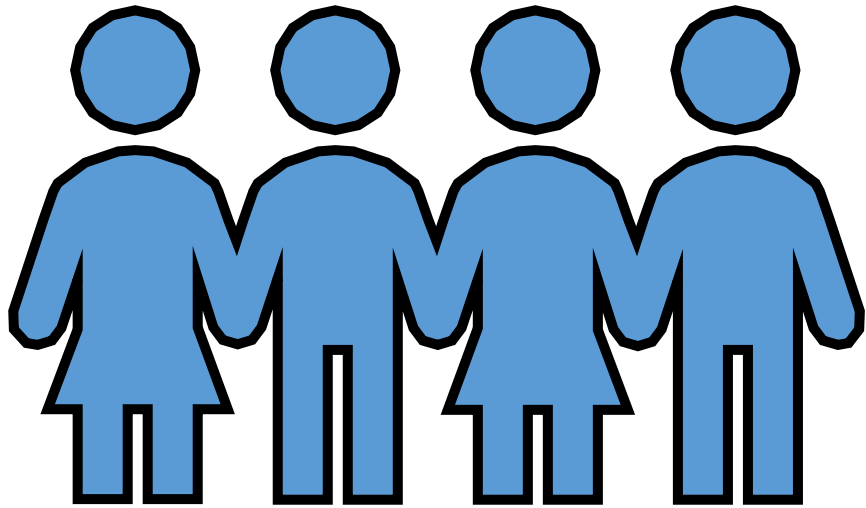
- Value the appropriateness, sustainability and durability
-

Responsibilities and major players

- Which persons and/or institutions are responsible for the challenges
 - Government?
 - Academia?
 - Industry?



Beneficiaries and benefits



Next steps of this group



- After this discussion, the notes and main contributions of each member of the group will be collected in order to prepare our contribution to the conference proceedings.



Summary and conclusion



Summary

We identified challenges and discussed possible solutions and skills to tackle these challenges

Conclusions

It is unavoidable to focus on some additional skills that are going to be essential in the future
