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Knowledge FOr Resilient soCiEty

**ASSESSING EU TRENDS IN DRM&FSE AND COMPARING PHD MODELS AND
CURRICULA IN FSE&DRM IN EU:
OVERVIEW AND CONCLUSIONS**

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PhD programmes in FSE and DRM

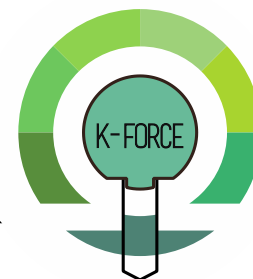


Two areas for PhD programmes under review

- Fire Safety Engineering (FSE)
5 Ph.D. Programmes identified and reviewed
- Disaster Risk Management (DRM)
6 Ph.D. Programmes identified and reviewed



PhD programmes in FSE and DRM

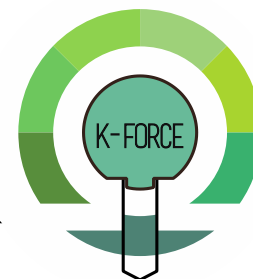


Common template for review

Title
University/Department
Country
Specific Area
Website
Since?
Ph.D. student status (employed/scholarships)
Duration
Credits (courses, thesis, total)
Thesis type



PhD programmes in FSE and DRM



Common template for review

Is there option for intermediate title? (e.g. licentiate)

Admission requirements

Brief description

Does it include a Ph.D. training programme for students?

Content

Learning outcomes

Examination method

Courses (topic area specific Phd courses, elective and recommended general courses, other courses)

Teaching/Learning method

Other comments



PhD programmes in FSE



PhD programmes in Fire Safety Engineering

Lund University (Sweden) – Fire Safety

The University of Edinburgh (UK) – Fire Safety Engineering

Ghent University (Belgium) – Fire Safety Engineering

Technical University of Ostrava (Czech Republic) - Fire Protection and Industrial Safety

Technical University in Zvolen (Slovakia) - Fire Protection and Security



PhD programmes in DRM



PhD programmes in Disaster Risk Management

Lund University (Sweden) – System Safety

University of Stavanger (Norway) - Risk management and societal safety

Delft University of Technology (The Netherlands)– Safety and Security

University College London (UK) – Risk and Disaster Reduction

University of Žilina (Slovakia) – Disaster Management/Crisis Management

University of Žilina (Slovakia) – Rescue Services





Review results on FSE programmes

- FSE Ph.D. education is not present in all European countries
- Some countries have more established Ph.D. education in FSE
- FSE is present in some EU countries but limited number has dedicated FSE Ph.D. Education. Older programmes are at Edinburgh (since 1974) and Lund (since 1988)
- Great heterogeneity in the areas covered in Ph.D. education (ranging from e.g., physical/chemical processes, detection/suppression, safety issues, modelling, firefighting, structural issues, evacuation, explosives, etc.)



PhD programmes at LU on FSE and DRM&SS



Review results on DRM programmes

- DRM Ph.D. education is diffused in several European countries
- Among older programmes is Delft (since 1984)
- Great heterogeneity in the areas covered in Ph.D. education (ranging from e.g., rescue services, risk analysis, crisis management, societal safety, etc.)





Review results on FSE and DRM programmes

- Detailed information on learning outcomes (general of Ph.D. education + specific of target area)
- Quantitative requirements on student credits to be obtained
- **No detailed quantitative requirements** on student outcomes in terms of publications but there are often general recommendations on **number of scientific outputs**
- Planned formal meetings are often explicitly mentioned



PhD programmes at LU on FSE and DRM&SS



Admission requirements

General requirements

Second-level relevant qualification (i.e., Master) or equivalent knowledge. Some universities have requirements on grades (e.g., Edinburgh)

Specific requirements

Given the broad range of sub-areas in FSE and DRM, no strict requirement on background education. Engineering background is often recommended in most areas (e.g. FSE), but **not always**.



PhD programmes at LU on FSE and DRM&SS



Teaching/Learning

- PhD Courses (variability in credits/years of education)
- Supervision (formal and informal meetings)
- Thesis
- Attendance at national and international conferences
- Paper writing for publication in scientific journals
- Placement at another international research institution (generally not formally required but recommended).





Student training

- Ph.D. training programmes are not always available, but most universities offer courses covering general PhD-related issues (e.g. academic writing, ethics, teaching, Scientific Information Management, Data analysis, research methodology)
- Some universities have a formal training programme (e.g., Edinburgh, Ghent, Ostrava for full time only, Delft, UCL), others not
- List of recommended courses for general Ph.D. education and for specific areas (this can be generally picked from different levels of education, e.g. Ph.D., Master)
- Subject-related courses





Examination method

- Depends on the country (public viva or not)
- Thesis are monographs or collection of papers
- Examination boards vary in size and requirements
- Individual papers are reviewed in the regular journal reviewing process; however, formally this is generally not part of the examination

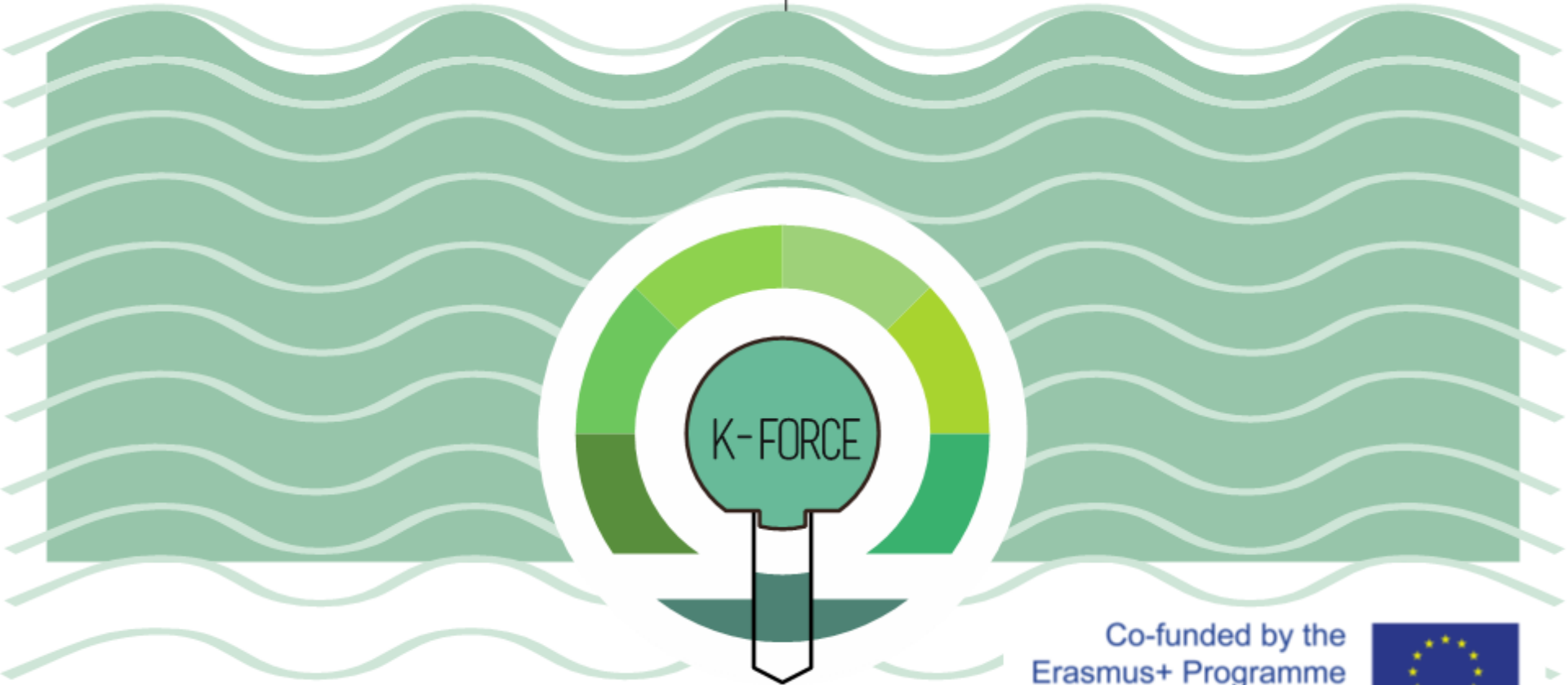




Conclusions

- FSE and DRM are relatively "young" areas in Ph.D. education in many countries
- Great heterogeneity in sub-areas within FSE and DRM
- Learning outcomes are defined based on national requirements
- Variability in mandatory and recommended student performance indicators





Thank you
for your attention

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