



PELASTUSOPISTO

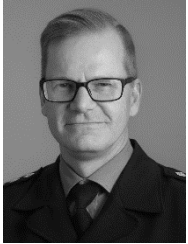
Research, Development, Innovation Unit 2018



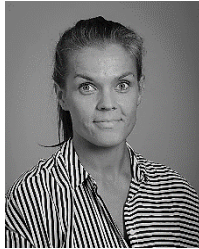


PELASTUSOPISTO

Personnel 2018



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RDI activity is systematic activities to increase knowledge and knowledge to find new applications.

The aim of the action is to find something essentially new.

Research

To seek new information.

The aim of basic research is to find new hypotheses, the formation of theories, legalities and Testing. For example, basic research is characteristics, structures and dependencies.

Applied research primarily focuses on a particular one practical application. Applied research is for example, the creation of new methods and methods to solve a specific problem.

Innovation

Development

Innovation means measures, with the aim of producing new or improved products, processes, or innovations.

Development activity means a systematic operation of research as a result and / or to use the information obtained through practical experience new substances, products, production processes, methods and systems or to substantially improve existing ones.



Main tasks

Coordinate RDI activities for the Rescue Services in Finland

Revisions of national research guidelines for rescue services

Maintain the registry on rescue services (PRONTO)

Participate in RDI activities nationally and internationally

Analyse The RDI needs

- to support decision making
- to develop operations of rescue services
- to develop education

Facilitate the implementation of the research results into practice



Expertise in three areas

- Experts from three different areas are needed to utilize researched information
 - Best Methods (Research)
 - Best Matchability (context)
 - Best Practices (Practice)



Dale Hanson (Safety2016)



Research guidelines for rescue services

National guidelines

Dynamic guidelines
for next 10 years

The first theme is
defined on the basis
of the development
needs outside rescue
services

**Rescue services in
the dynamic
environment**

The second theme is
defined on the basis
of the development
needs within rescue
services

**Operations of rescue
services**

The third theme
deals with the
responsibility of
individuals and
groups formed by
individuals

**Role of individuals in
safety**



Rescue services in the dynamic environment

Changing and increasing complexity of the accident profiles

- Positive and negative outcomes of digitalisation and power interdependencies
- Threats caused by novel materials and their impacts on rescue operations
- Assessment of and preparedness to new threats

Social risks

- Impacts of aging of population on rescue services
- Impacts of increasing social polarisation on accident proneness
- Impacts of immigration on rescue services

Political and economic factors

- Impacts of structural changes on rescue services
- Impacts of changes in public funding
- Role of rescue services as part of safety and security

Changes in dynamics of the international environment

- The EU's Civil Protection Mechanism
- Aid provided following international agreements
- Co-operation with neighboring countries



Operations of rescue services

Changing roles of rescue services

- Gaps of safety and security and interagency co-operation
- From reactive to proactive
- Innovations for accident prevention

Function and quality of services

- Standard and effectiveness of services with less resources
- Future of contract fire brigades
- Function of emergency response centres

Expertise, competence requirements and education of personnel

- Multi-skilled personnel, capability to utilise digitalisation
- Competence identification and career development
- Conformity of education to requirements of work

Methods renewing rescue operations

- Rescue techniques and occupational safety
- Planning and management
- Rescue technology



Role of individuals in safety

Attitudes towards safety

- Current state of safety culture
- How indifference reflects to causes and consequences of accidents
- Accidents caused by negligence

Interaction

- New modalities of volunteering and exploiting volunteer activity
- Interaction between individuals, groups and the authorities
- Adopting new procedures

Intentional weakening and threatening of safety

- Radicalisation
- Terrorism
- Interference and violence towards authorities



PELASTUSOPISTO

Research strategy in Pelastusopisto

Strategy of rescue
services



Research guidelines
for rescue services



Strategy of
Pelastusopisto

Activities of the authorities

To support
decision-making



To develop
operations of
rescue services



To develop
education

Dialogue with researchers and practitioners

Optimise external
funding



Sharing &
interacting



RDIE
environment

½ external funding

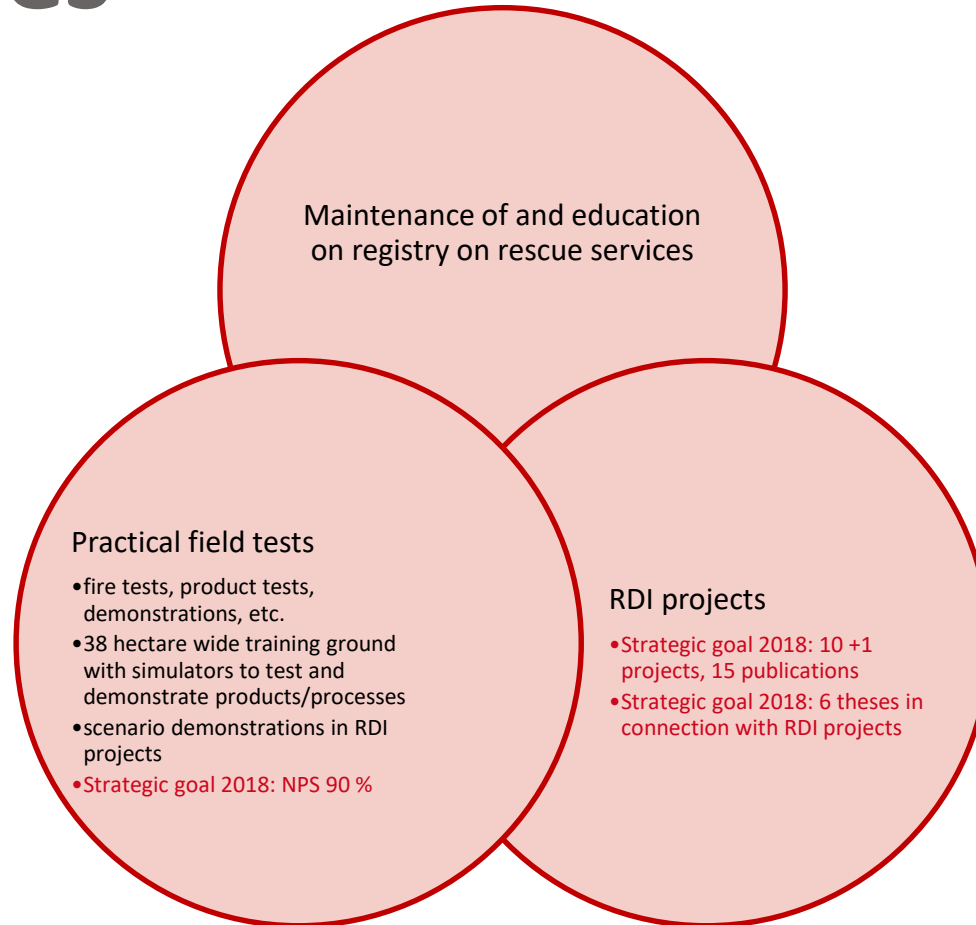
11+9 projects / y

15 publications / y

project involves a thesis



Activities





PELASTUSOPISTO

Training ground



RDI services are responsible for the testing and burning operations of the Pelastusopisto

Safety-related training that can be combined with tests





Resources



Permanent
staff of 5

5 working
on projects

Teachers as
experts

Students as
assistants

- Budget (2017: 2,1 MEuro)
 - External funding (2017: 1,1 MEuro)



PELASTUSOPISTO

No smoke - without research!

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[@peo_tutkimus](https://twitter.com/peo_tutkimus)