



ESReDA

European Safety, Reliability &
Data Association

ESReDA Project Group on Critical Infrastructure Preparedness and Resilience: Data for Modelling, Simulation & Analysis (CI-PR/MS&A - Data)

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About ESReDA: history & aims

- ESReDA was established in 1992 to promote research, application and training in **Reliability, Availability, Maintainability and Safety** (RAMS). The Association provides a forum for the exchange of information, data and current research in **Safety and Reliability** and a focus for specialist expertise.
- ESReDA aims to promote the development and the exchange of data, information and knowledge through the promotion of **Project Groups** (PG) on subjects related to Reliability, Safety and Data Analysis.



About ESReDA: running Project Groups

Project Group on *Foresight in Safety*

- Will organize the 53rd ESReDA Seminar at the EC JRC in Ispra, Italy
- Date: 14-15 November 2017

Project Group on *Fire Risk Analysis*

Project Group on *Reliability of Wind Turbines*

- Will organize the 54th ESReDA Seminar at Nantes, France
- Date: 25-26 April 2018

Project Group on *Critical Infrastructure Preparedness and Resilience: Data for Modelling, Simulation & Analysis* (CI-PR/MS&A - Data)



PG CI-PR/MS&A - Data: targets

Targets of PG CI-PR/MS&A - Data:

- Establish the state-of-the-art on the existing databases relevant to CIP & Crisis Management.
- Identify needs in data necessary for MS&A activities and required by end-users.
- Propose and undertake networking and collaborative actions
- Propose and undertake dissemination actions:
 - Hold annual meetings as an integrated part of seminars
 - Organize seminars on the subject.
 - Publish an ESReDA technical report on the state of the art (~3 years).





PG CI-PR/MS&A - Data: meetings

A foundational meeting on 23/10/2013, Porto, Portugal

Formal acceptance by ESReDA General Assembly; May 2014

1st PG meeting; May 2014, Torino, Italy (46th ESReDA seminar)

2nd PG meeting; May 2015, Wroclaw, Poland (48th ESReDA seminar)

3rd PG meeting; May 2017, Kaunas, Lithuania (52nd ESReDA seminar)

4th PG meeting; May 2018, Nantes, France (54th ESReDA seminar)

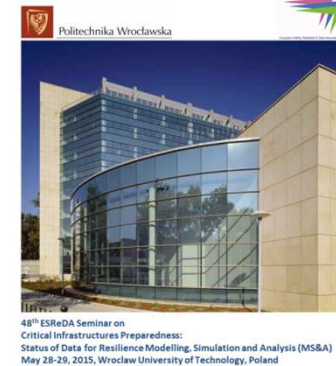
nth PG meeting; May 2019, to be decided (56th ESReDA seminar)



PG CI-PR/MS&A - Data: dissemination

Seminars on CIP & Dissemination Actions:

- May 2015, Wroclaw University of Technology, Wroclaw, PL
- May 2017, Lithuanian Energy Institute & Vytautas Magnus University, Kaunas, LT
- May 2019, University of Nantes, FR



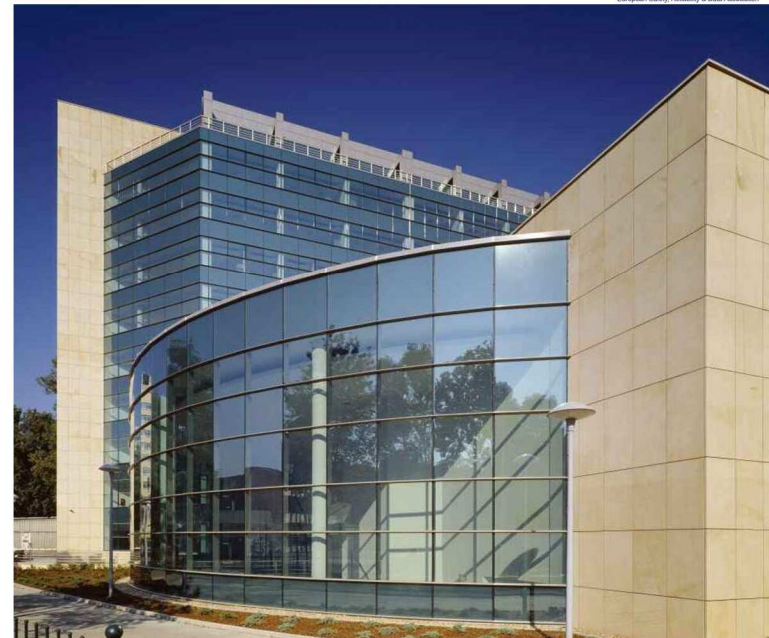
All ESReDA seminar's proceedings are available for free downloading (with registration) on: www.esreda.org



PG CI-PR/MS&A - Seminars



Politechnika Wroclawska



48th ESReDA Seminar on
Critical Infrastructures Preparedness:
Status of Data for Resilience Modelling, Simulation and Analysis (MS&A)
May 28-29, 2015, Wroclaw University of Technology, Poland



PG CI-PR/MS&A - *Data: data issues*

Data issues: Difficulties & lessons learnt

- ESReDA: can't produce and process data
- Other Societies, Associations & Research Centres: **data with commercial/financial impact**, **data with defence/public security reach** and **data with public awareness and safety concerns**.
- Crossing Data & Emerging Knowledge is a critical subject when it touches CIs and their resilience and vulnerability to threats
- ESReDA only possibility is to publish a catalogue of existing databases and updating it frequently, with free access.

ESReDA add-value?



PG CI-PR/MS&A - Data: results

What Databases will be reported in the Catalogue

- Databases on natural threats: quakes, strong winds, floods, volcanos, tsunamis, wood-fire, extreme weather conditions
- Databases on man originated sectorial threats: process industry, energy generation and transmission, communication and information technology, transportation (man and goods), ...
- Databases on system resilience modelling, simulation & analysis
- Databases on system vulnerability and dependencies.
- Databases on systemic rupture of services supply
- Databases on major sectorial crisis
- Databases on cascading effects: cascading of ruptures and of consequences



PG CI-PR/MS&A - Data: future activities

PG – Future Technical Activities

- Two Dissemination actions already on the menu: publishing the technical state-of-the-art on “DATA for CI-RP/MS&A” and the 56th ESReDA Seminar on May 2019.
- Other actions are: networking and mounting relations with other EU active specialised networks and EU-H2020 collaborative actions and projects



ESReDA new PGs in the future

Examining proposals to initiate two new ESReDA PGs on:

- Chain Supply Resilience
- Resilience Modelling of Networked Infrastructure

Both PGs will be opened to all EU experts as all other ESReDA PGs without the condition of being ESReDA member.



Example of EU – Opportunities/Grants

- Example of EU – Opportunities/Grants
- Post-doc mobility positions
- Professional/experts mobility and exchange between members
- ERC grants: <https://erc.europa.eu/>
- <https://www.ncn.gov.pl/uwertura?language=en>
- EURATOM grants in the frame of “multilateral agreements on Staff mobility – Research & Innovation Staff Exchange (RISE)”:
<http://ec.europa.eu/research/participants/portal/desktop/en/>
- ERASMUS+ grants “mobility for learners and staff”:
<http://ec.europa.eu/programmes/erasmus-plus/>



ESReDA: Other Running Activities

JRC networking and cooperation with specialized departments and experts

EU networking and cooperation with specialized EU networks

EU-H2020 opportunities and collaborative technical activities

Mutual promotion of ESReDA PG – members' technical/scientific activities



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Thank you for your kind attention!

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Visit our site at
www.esreda.org