LASARIS STRATEGY 2018/2019 AND BEYOND

LAB OF SOFTWARE ARCHITECTURE AND INFORMATION SYSTEMS

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LAB OF SOFTWARE ARCHITECTURES
AND INFORMATION SYSTEMS

FACULTY OF INFORMATICS
MASARYK UNIVERSITY, BRNO

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Lab of SW Architectures and Information Systems

- **History of Lasaris**
  - Established in **2009**
  - Own premises since **2010**
  - Located at Botanicka 68a, Brno

- **Teaching**
  - **Programming** (basic, enterprise, mobile – Java, C#, C, Ruby, XML)
  - **Development** methods (OO, architecture-based, agile, process management)
  - **Soft skills** (team work, communication)
  - **Critical infrastructures**, **cyberphysical** systems

- **Members**
  - **6** academicians, **1** postdoc
  - **12** PhD students
  - **Larger community (eg. service science) around**

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Lab of SW Architectures and Information Systems

- **Context**
  - **Kypo-Lab**
  - **CSIRT-MU**
  - **CERIT Scientific Cloud**
  - **CERIT Science Park**
  - **Service Science Lab**
  - **Law and Technology**
  - **Technology Transfer Office**

- **Partners**
  - **Industrial cooperation** – research, student projects, teaching
    InQool, Kentico, SDE, Red Hat, Honeywell, Siemens, Y Soft, Mycroft Mind, and others
  - **Academic institutions** – research projects, teaching, conferences
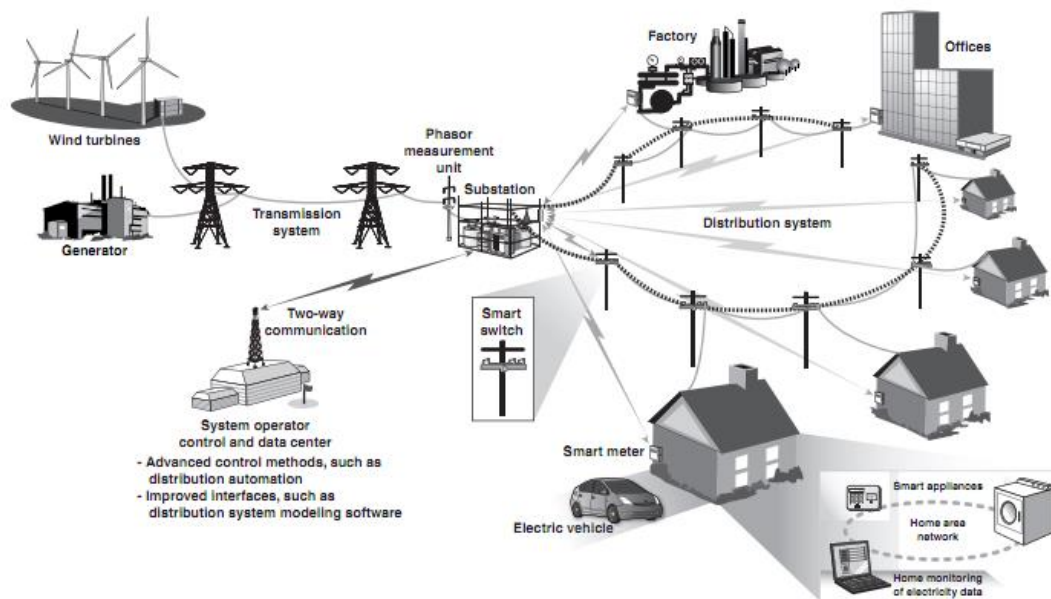   University of Vienna, Karlsruhe Institute of Technology (KIT), …

Major research projects

- **C4e**

- **Smart Grids**
  - **TAČR SecureFlex**
  - **SG Lab**
  - **Pilot and testing methodology evaluation**

- **Kypo** (Cyber Range)
  - **Kypo II** ongoing
  - **Kypo III** under preparation

- **H2020** proposals
  - **PREDICT**
  - **CybeRESIST**

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Our research in „**Smart**" areas

- Domains
  - **Smart grids**
  - **Smart buildings**
  - **Smart cities**
  - **Internet of Things**

- Research
  - **Monitoring and control**
  - **Architecture design**
  - **Modeling and simulation**
  - **Visualization**
  - **Big data**
  - **Cloud computing**
  - **Cyberphysical systems**

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C4e

- **(OP VVV) Excellent research program – Czech Cybercrime Center of Excellence**

   Three research programmes (pillars):
   - **Computer security**
   - **Secure and safe design**
   - **Law of secure societies**

- FI: **Paradise, Lasaris, DISA labs**

- Key strategic partners
   - **University of Vienna**, Faculty of Informatics
      - Renate Motschnig, Gerald Quirchmayr, Stefanie Rinderle-Ma

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Kypo-Lab

- **Unit of CERIT-EU**

- **Located at CERIT Science Park**
  - Est. Spring **2018 at FI MU**
  - Academic part of Kypo.cz CyberRange
  - Currently **Pavel Čeleda**, **Karel Slavíček**, **Jan Vykopal** (since Jan 2019)

- **Activities include**
  - Collaboration with **NÚKIB** (National Agency for Cybersecurity) on cybertrainings and education
  - Teaching and training in **Kypo**
  - **Cyberphysical** systems (teaching, supervision)
  - **Professional study programme(s)**

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CERIT Science Park

- **CERIT = Centre for Education, Research and Innovation in ICT**

- **CERIT Science Park**
  - Opened in **September 2014 at FI MU**
  - ICT Science Park and
    Business Incubator
  - Currently hosting **20 companies**
    – both start-ups and established ICT leaders

  - Managed by **CERIT Executive Unit** (8 people)
  - Supervised by the **Council for Industrial Cooperation**

- **Activities include**
  - Joint research, projects (CAES, LODIS)
  - Student projects and internships
  - Teaching in cooperation
  - Business breakfasts

Thank you for your attention!

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