

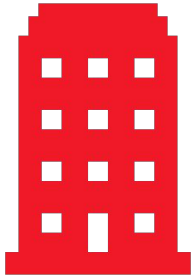
Lasaris – Lab Software Architectures and Information Systems

Tomáš Pitner, Bára Bühnová

Heads of Lab



Lasaris Origin and History

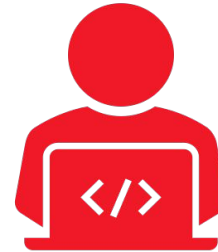


History

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, quality, architectures, agile, process management)

Soft skills (team work, communication)

Critical infrastructures, cyberphysical systems

Lasaris Mission

- **Lab of Software Architecture and Information Systems**
- theoretical and practical problems related to the development of **large secure and reliable software systems;**
- R&D projects in the field of **critical infrastructures**, such as **smart grids, smart transportation and smart cities;**
- visualisations for **education and training.**



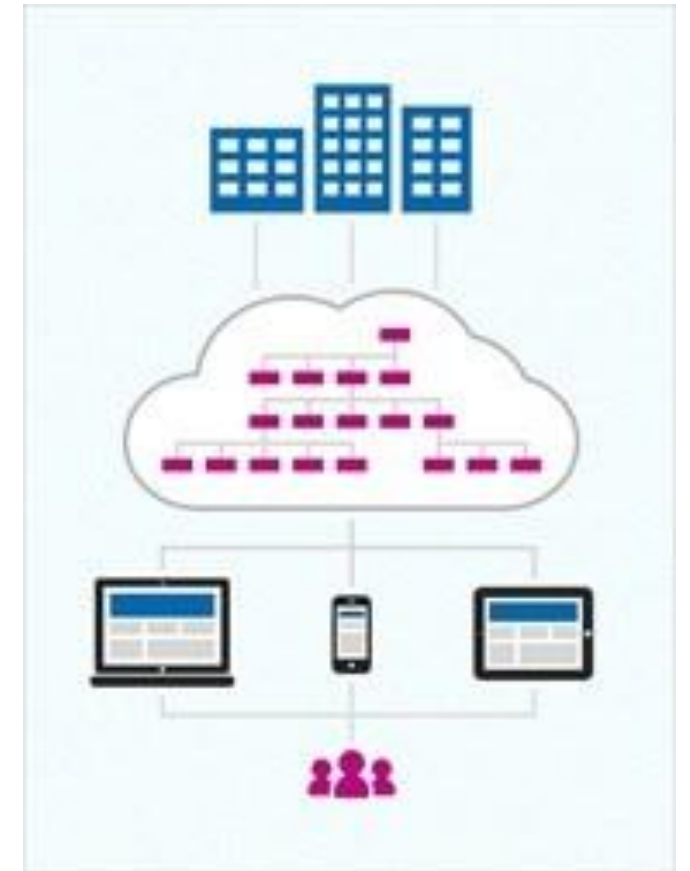
Lasaris Research Approach

- Complex** Problems from Reality
- Combining Methods** from Computer Science and other Disciplines (law, sociology, management, services)
- Usually have a „**Customer**“ who can validate what we do
- Collaboration** is the Key



Lasaris Major Research Projects

- C4e
- Smart Grids
 - TAČR **SecureFlex**
 - TAČR National Center of Competence **NC3**
- KYPO Cyber Range Platform
 - SABU** finished
 - KYPO II, III**
- PostDoc@MU**
- EU Horizon projects
 - Concordia** finishing
 - RES-Q+** starting



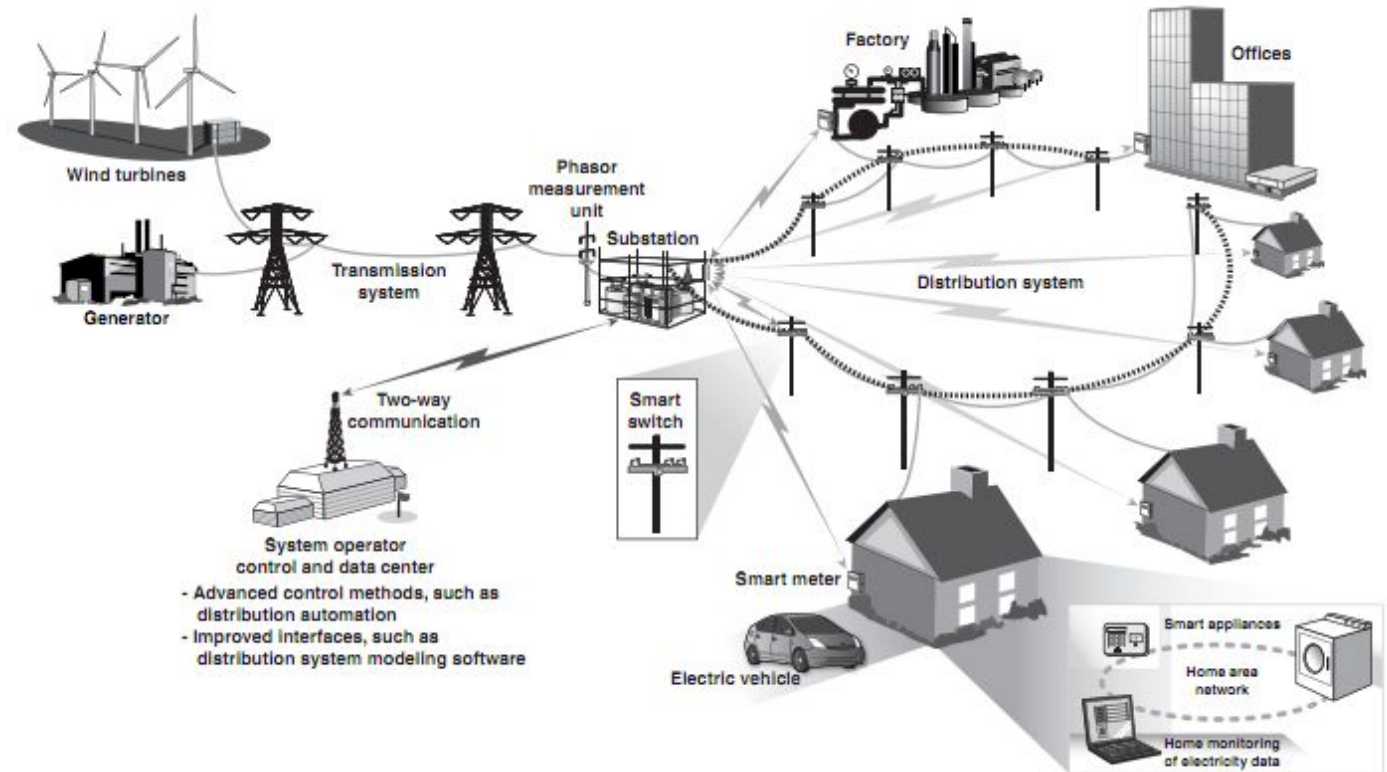
Lasaris Smart and Critical Infrastructures

-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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Lasaris Values

- Scientific performance** combination of publication/citation/IF-based metrics & applied project impact (large applied projects for/with industry)
- International visibility** long-term broad contacts through Czech Cybercrime, Cybersecurity Center of Excellence (C4e): Uni Vienna
- Open culture** international colleagues since 2012 (AT, IT, RS, DE, ZA, UA and many more), space for young scientists, gender diversity
- Societal outreach** Czechitas, Central European and International Olympiads in Informatics, student seminars, Summer Schools
- Popular science** Researchers' Night, Open Days

Lasaris Seminar – Talks

- Tutorial-like: quick insight into an area
- Preparation: quick feedback from lab community
- Guest: broader context of our research and collaboration (incl. industry)