Castor 2.0

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Objectives

CASTOR will accelerate competence supply, industrial innovation, development and management of trustworthy software intensive systems for critical functions.

- **Train World-Class Graduates**
- **Perform Excellent Research in the area of software technology**.
- **Foster Academia-Industry Collaborations**
- **Emphasise Open Science and Innovation**
- **Structure the Software Area at KTH**
- **Deliver Software Tools**

Organisation

Director

- Pierre Bodin, KTH

Steering Group

- Catrin Granbom - Ericsson

- Stefan Andersson - Saab

- Ann Lantz – KTH EECS

Industry Expectations

- Continue research in line with an agreed research plan
    - Based on industrial needs and excellent research
    - Combination of Castor seed projects and external funded projects (Vinnova, SSF, EU etc.)

- Structured way of working in steering group, working groups and in research projects
    - Transparent decision and funding process
    - Good footprint within all parties' organizations

- Shall lead to
    - Usable results in industry
    - Good research and graduates (PhD's, Master Students…)
    - Improved mobility between industry and KTH
    - Knowledge exchange and more partners

Research Avenues

Driving projects, and allocation of reseachers and industry specalists

- **Secure and robust e2e SW systems**
  - Secure and reliable SW supply chain incl. SW analysis, testing and repair

- **SW system design**
  - Scalable systematic design process for productivity, quality, reliability and performance in heterogeneous and distributed embedded software systems
  - Design-space exploration, correct-by-construction formalism etc.

- **Data-driven development**
  - Explore the area of data-driven development including machine learning in large scale systems incl. GAN, MLOps, Embedded ML, Reliability etc.

- **Resilient programmable networks**
  - Secure programming and development of SDN, "Rugged S/W Stack"

Castor Work Groups "Research Council"

Research Avenue	KTH	Ericsson	Saab
Secure and robust e2e sw systems	Benoit Baudry	Christian Olrog	Per Sandberg
SW system design	Ingo Sander	Leif Linderstam	Ingemar Söderquist
Data-driven development incl. Machine Learning	Paris Carbone Gustav Henter	Andreas Ermedahl	Joakim Lindén
Resilient programmable networks	Cyrille Artho	Elmar Trojer	Anders Gunnar

Strategic Activities

- Research Proposals and Seed Research Projects

- External Collaborative Initiatives

- Mobility

- Industrial PhDs and Post-docs

- Contribute to education and continuous learning

- Master Thesis

- Castor Days

- Example of collaborations
  - *Vinnova Initiatives*
  - *SSF Projects*
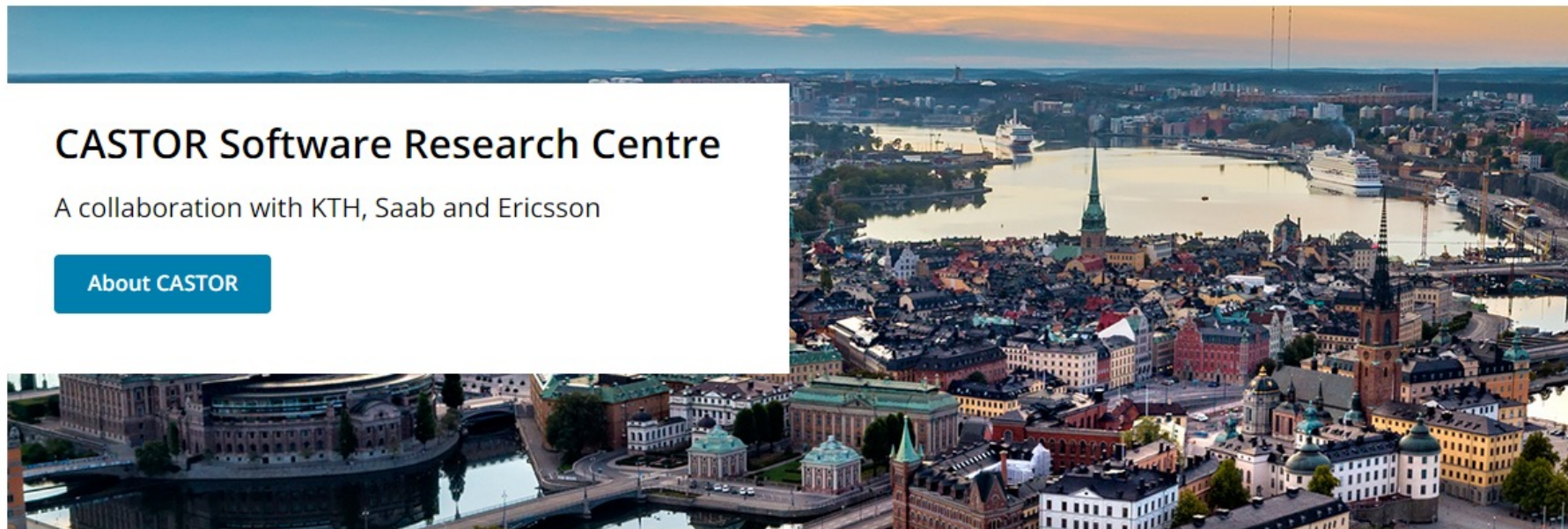 - *EU, EDF Projects*
  - *WARA-S/W*
  - *TECoSA*
  - *…*

New web : https://www.kth.se/castor

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CASTOR Software Research Centre

A collaboration with KTH, Saab and Ericsson

About CASTOR

Thank you for attending the CASTOR SOFTWARE DAYS 2022!

Pierre Bodin and the CASTOR Team