



fortiss



Welcome to the Research Retreat 2024!

Made possible through...

- ▶ Organisation by Michael and Lukas of literally everything (thank you!!)
- ▶ Generous – voluntary – donations of ISI funding (Michael, Julian, Felix, Tony, Daniel)



Logistics

► Facilities

- 2 Meeting Rooms:
 - “Ferdinand von Tilly” and “Martinistube”
 - Plenty of breakout possibilities
- Brewery and Spa area for the evening
- Lunch and Dinner in Glass Garden (Menus [here](#)); FIKA [here](#)

► Other

- Please register your car at the reception
- Please put alcoholic drinks and other purchases on own room (to be paid at the end)
- Please take pictures (unless compromising)





Important note: “Research Retreat”

This is not a PhD retreat, nor a pure fortiss and/or BTH retreat.

Cross-institutional and cross-sectional retreat with those of us working together (i.e. Daniel, Tony 😊)

- ▶ Research areas (PhD/Post-doctoral) and synergies between them
- ▶ Joint vision and strategy (topic areas of interest, research collaborations, projects and funding)
- ▶ Anything else

Main research & transfer units



Collaborators (industry PhD)



Goals for the research retreat



- ▶ Elaborate an overview of status quo in research...
 - ... research projects
 - ... each group member's interests and roadmaps for research and development
- ▶ Strengthen thinking as one holistic (cross-institutional) group and facilitate collaboration
 - Welcome new members to the group
 - Reduce “black box” thinking of institutions and individuals (research and projects)
 - Strengthening ties between fortiss and BTH/S.E.R.T., e.g. joint grant applications
- ▶ Elaborate joint vision for the future, what we need to achieve that, and funding opportunities
- ▶ Discuss any other topic deemed of relevance (for more than one person)
- ▶ Socialising (!)

TL;DR

Since our start in 2019, we have achieved a lot.

It is time now to stake the ground for
our future joint (ad)venture. 😊

Agenda

Big Picture

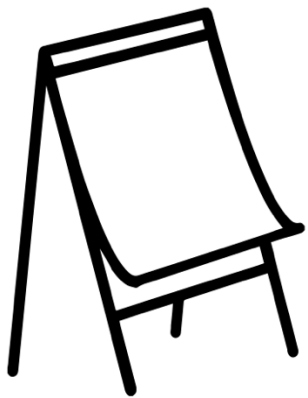
- ▶ Day 1: Status Quo: Projects and Research Roadmaps
- ▶ Day 2: Blue Sky Visions ++: What is the future of Software Engineering?
- ▶ Day 3: Strategy ++: What is necessary to get there?

- ▶ Cross-cutting:
 - Socialising and networking: Let us take the time for socialising and talking about anything that brings us forward as a group (and you as individuals)
 - Open Space breakouts for any further topic you would like to discuss in a small group

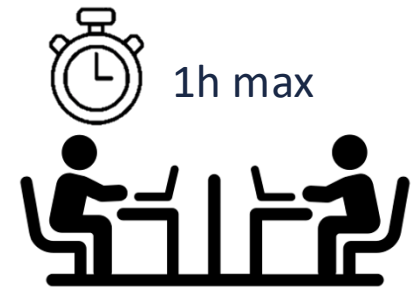
Open Spaces

Self-organised “off-topic” discussion and working groups

Topic areas may include organisational aspects, funding applications, PhD roadmaps, Papers, Studies, Pair writing sessions...



- ▶ Collect topics over course of day 1
- ▶ Announce time and place at end of day 1
- ▶ Check for topics of interest to you and join



Quick introduction

Everyone: 2-3 sentences max 😊



Quick round

- ▶ *Who am I and how am I affiliated?*
- ▶ *What is my general scope in research and development?*

Day 1

Status Quo

Day 1: Status Quo

Agenda

12:00 – 13:00 Lunch

13:00 – 14:00 Background & Status

14:00 – 15:30 Show me your research

15:30 – 16:00 FIKA and cont. discussion

16:00 – 18:00 Software Engineering in 2050

19:00 – open Dinner and Discussions cont.

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Background & Original Vision*

* We had for the group when we began in 2019

Vision for the Group

Principle reflections

- ▶ Cross-institutional group for applied research and industry transfer on SE topics that matter
 - Deep integration fortiss and BTH under one umbrella
 - Independent high-quality research and publications
 - Not married by convenience, but by excellence. We rather use synergies effectively.

- ▶ International positioning in community of researchers and practitioners
 - Partner and initiator of research initiatives (i.e. we are not a like a Fraunhofer division)

- ▶ Success Factors
 - Joint long-term vision (not necessarily democratic at first 😊)
 - Long-term support of individual growths and careers (e.g. PhD, leadership, skills)
 - No opportunistic projects, but rather grow slowly and systematically as group

General Mantra

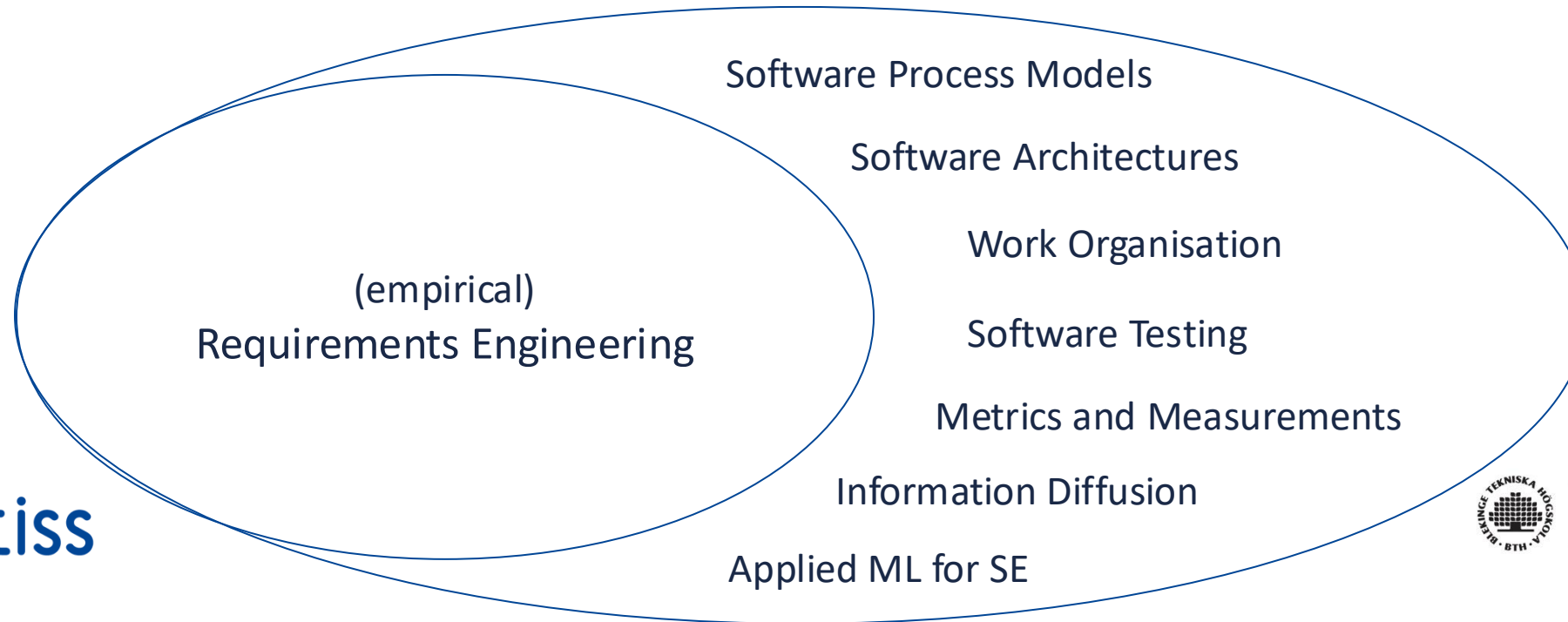
Avoid short-term opportunism as much as possible!

Opportunistically doing projects and writing papers that do not fit out vision

- Secures funding / short-term gains
 - Distracts from research goals of group and at individual level (e.g. PhD projects)
 - Hinders making use of synergies within the group
- ▶ We do not want to be opportunistic! If it is out of our desired scope, it is out of scope. (again, not Fraunhofer)
- ▶ Focus on...
- continuously developing our topics of interests jointly
 - ensuring relevance for industry and academia
 - proactively developing topics with partners and create projects based on shared vision

Thematic areas

Next generation Software Engineering



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BTH SERL Sweden
LEADING SOFTWARE ENGINEERING

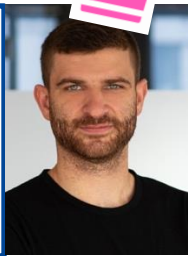
Applied research (EMSE), dissemination, and outreach

Status / Highlights

Team

Anton Luckhardt
Research Engineer

Human factors and cultural dimensions in software development



Daniel Mendez
Professor

Software/Requirements Engineering and Quality Management



Tony Gorschek
Professor

Software/Requirements Engineering and Quality Management



Mark Kreitz
PhD Student

To be decided 😊

Universität München



Mustafa Isik
PhD Student

To be decided 😊



Fabiola Moyon
PhD Student

Effective DevSecOps

Ingenuity for life



Jonatan Flyckt
PhD Student

Applied ML for SE



Hugo Villamizar
Post-doc. researcher

Applied ML at intersection with Requirements Engineering



Parisa Elahidoost
PhD Student

Automatic extraction and quality assurance of regulatory requirements



Bhuwan Paudel
PhD Student

Asset Management



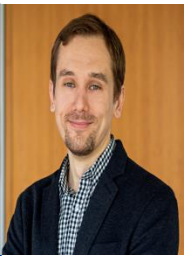
Florian Angermeir
PhD Student

Requirements and Verification, Security, Automation



Oleksandr Kosenkov
PhD Student

Regulatory requirements compliance of software-intensive systems



Michael Dörner
PhD Student

Information Diffusion



Felix Jędrzejewski
PhD Student

Adversarial Machine Learning



Lukas Thode
PhD Student

GenAI for SE



Jannik Fischbach
Post-doct. researcher

Requirements quality and automation



Konstantin Blaschke
PhD Student

Quality Aspects in SW Architectures



Julian Frattini
PhD Student

Good-enough Requirements Engineering



Andreas Bauer
PhD Student

GUI Testing



Michael Unterkalmsteiner
Assoc. Professor

Requirements and Verification, Traceability, Automation

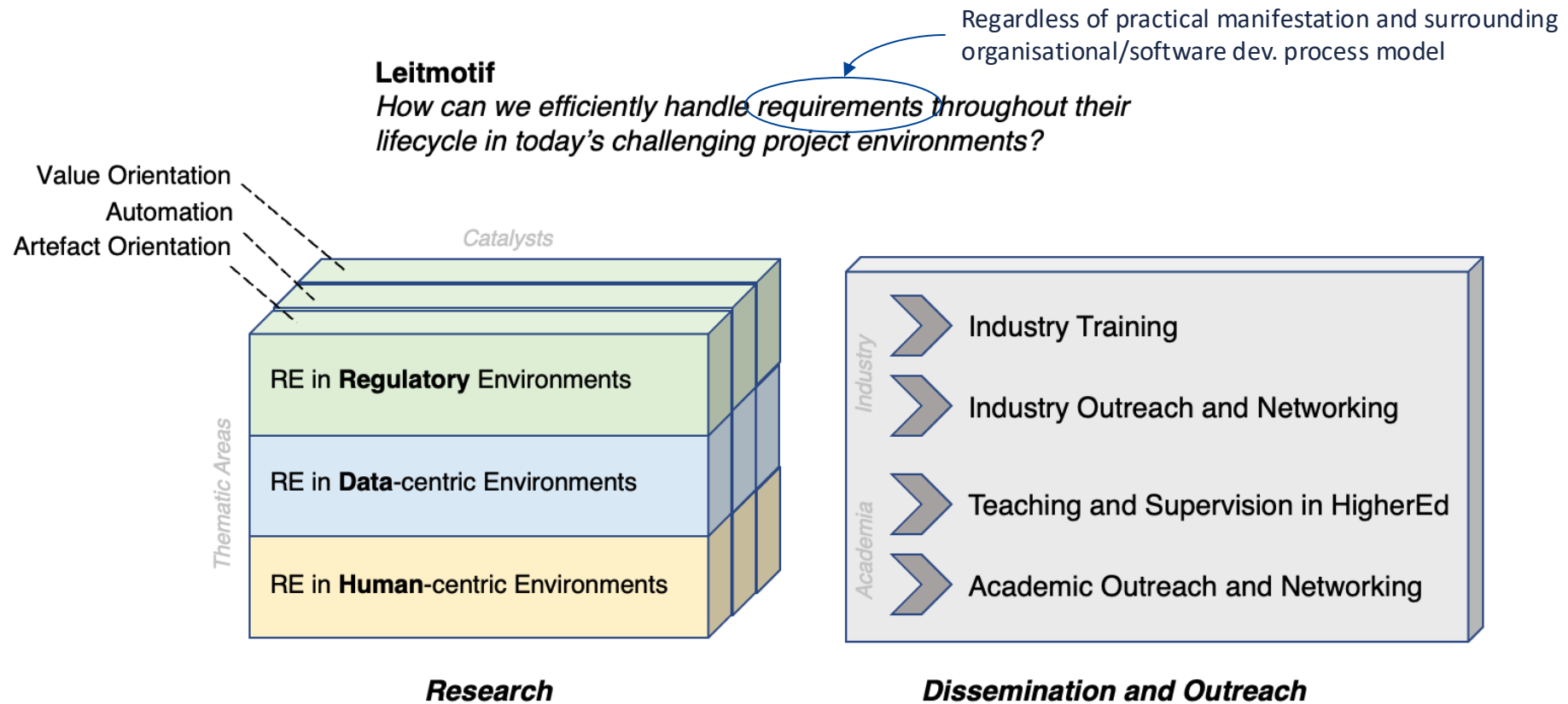


Project status and highlights

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Thematic areas

A Requirements Engineering perspective



Thematic overview

► Typical research challenges in RE

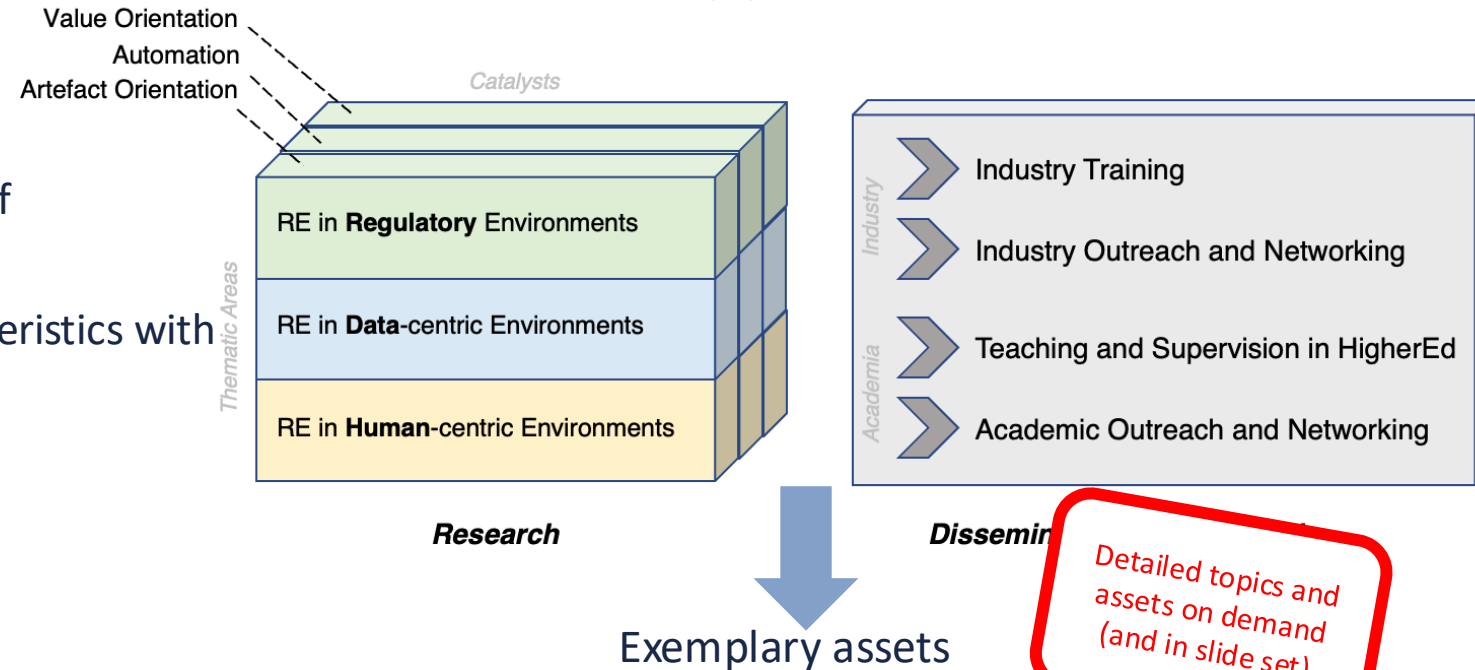
- How can we support a seamless **integration** of requirements into the development lifecycle?
- How can we accommodate all project characteristics with **tailorable** (fit for purpose) approaches?
- How can we ensure requirements of “sufficient” **quality**?

► Development of **semi-automated, artefact-centric** approaches for an RE in...

- 🔧 ... regulated environments
- 📊 ... data-centric environments
- 👤 ... human-centric environments

Leitmotif

How can we efficiently handle requirements throughout their lifecycle in today's challenging project environments?



Research	Dissemination
<ul style="list-style-type: none"> • AMDiRE Profiles: <ul style="list-style-type: none"> • DT4RE • In prep: RE4AI, Reg. RE • Automated Conformance Checks (“Regulatory Compliance”) • NaPiRE 	<ul style="list-style-type: none"> • (1d) Training concept and material • RE White Paper • RE Quick Check • AMDiRE Platform • Event formats: <ul style="list-style-type: none"> • Hot Spots in SE • SWQD Conference

Projects and Funding: Current status

*Ideally
>70% ext. funding
(20% industry)*

Goals and ambition

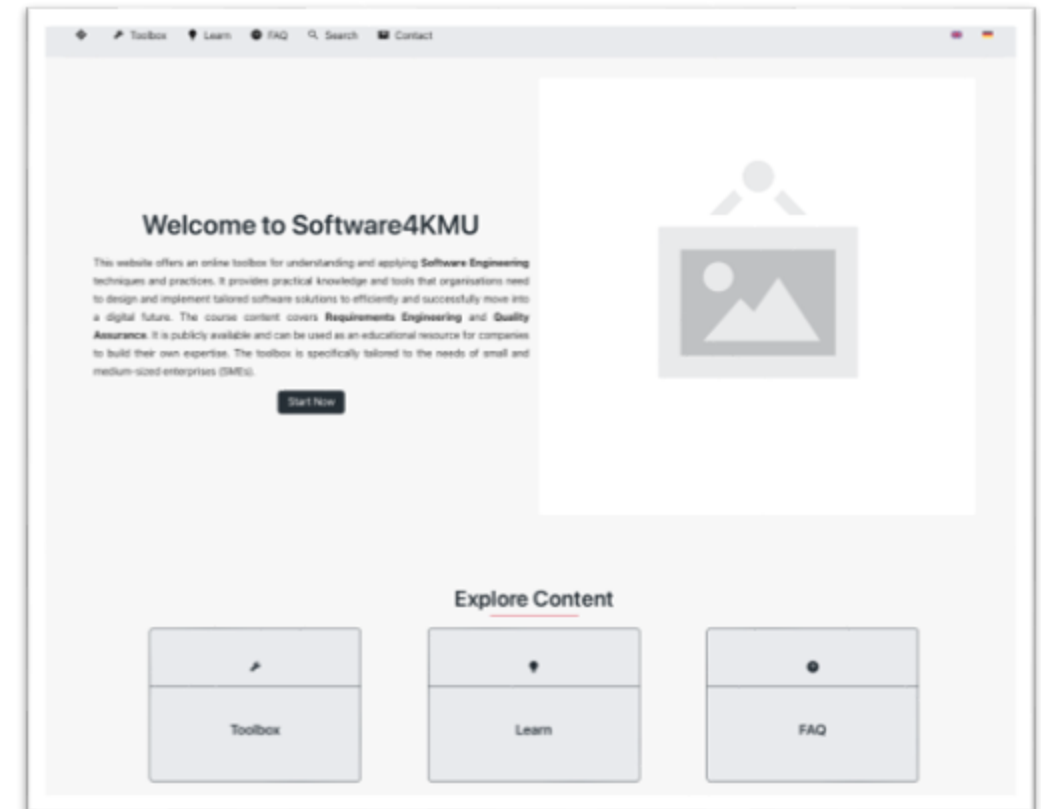
- ▶ Build competence in: RE with focus on Regulatory RE, RE-4-AI-4-RE, Communication
- ▶ Solve the following problems: Lack of RE competence & methods to face increased complexity
- ▶ Also as new fortiss group: Increase visibility in community and foster transfer

Ongoing Projects		Backlog	
Publicly funded	Contract research	Applications in progress	In Discussion
<ul style="list-style-type: none"> • ZNAFlow (until 02/2025) • BMWK Software4KMU (until 03/2025) 	<ul style="list-style-type: none"> • Regulatory Compliance in FinTech (itestra, until 12/2025) • Automated Continuous Security Compliance (Siemens, until 09/2026) • GenAI for SE (Siemens, until 03/2025) 	<ul style="list-style-type: none"> • RE Communication Theory (DFG) • UCON+ (contract research) • SuScoBots (KMU Innovativ) • ViNo-K (Innovation Fund) 	<ul style="list-style-type: none"> • Engineering Value-based Healthcare • Gama-KI
		<div style="border: 1px solid black; padding: 5px; display: inline-block;">Your topic sh/could be here 😊</div>	

Some Highlights

Research project: Software 4 KMU (eng. SMEs)

- ▶ Learning platform and toolbox for RE at SMEs
- ▶ Based on AMDiRE, NaPiRE, and teaching material
- ▶ Currently in discussion: Rebranding under fortiss after release

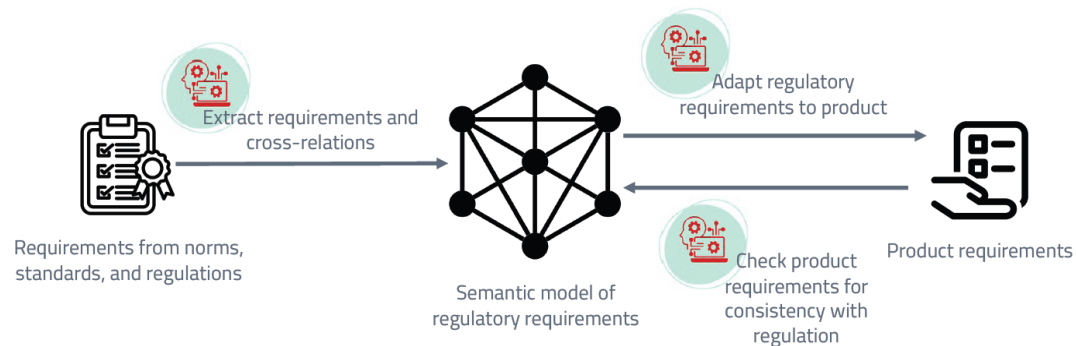


Some Highlights

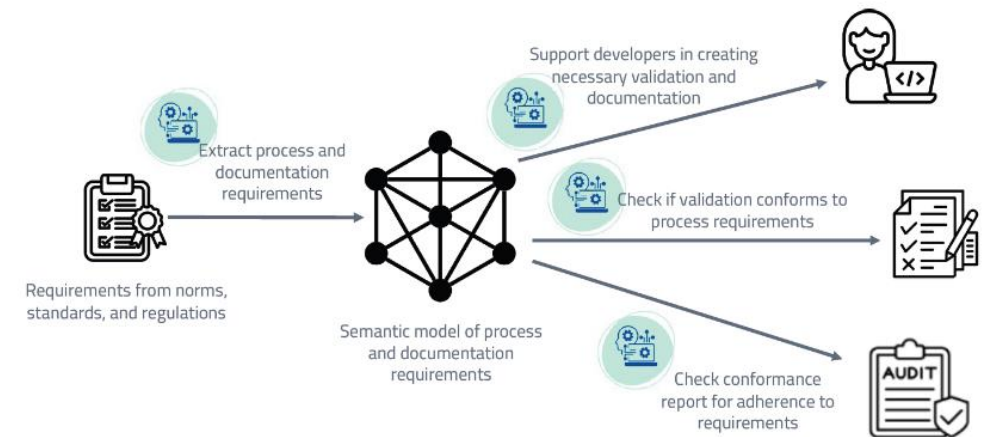
Research application: SuScoBots

- ▶ Partners: Xitaso, Modelwise , CCE, and MbSE
- ▶ Scope: GenAI-supported Safety and Security Compliance Management (for health products)

KonfASS



ValDo



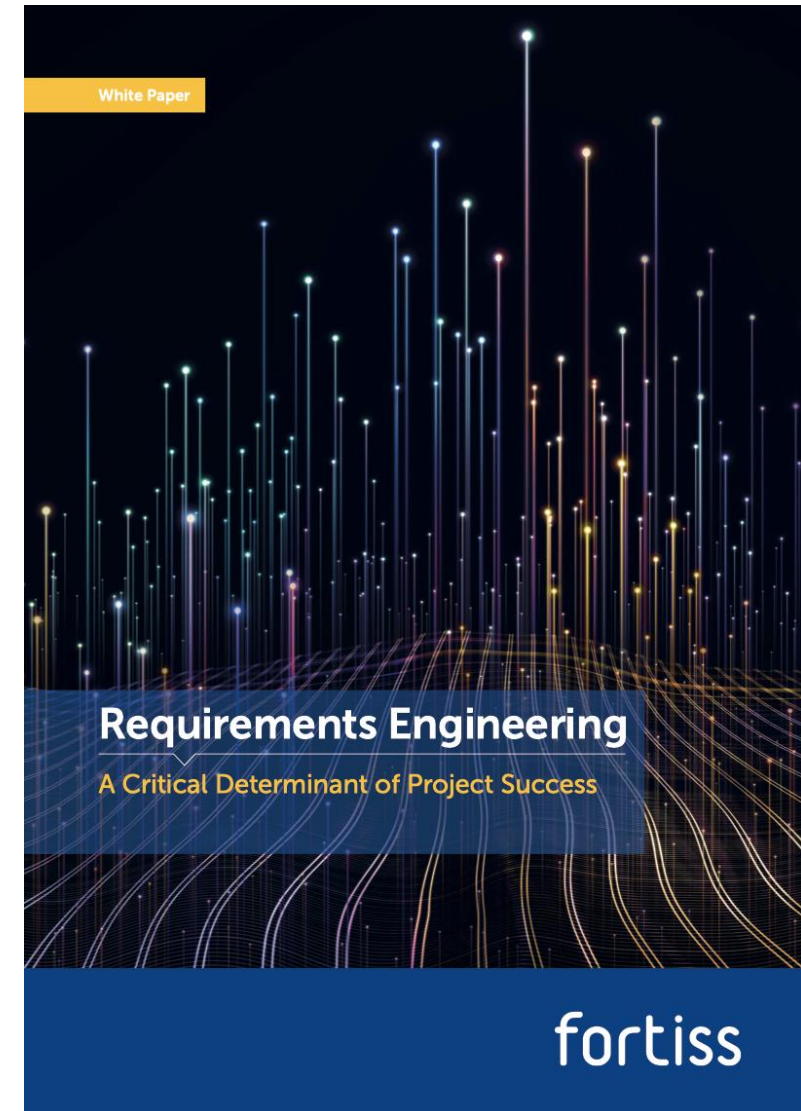
1 Requirements extraction and formalisation

2 Requirements validation and conformance

Some Highlights

Dissemination: RE White Paper

- Purpose: Increase awareness at industry partners for relevance of RE and for topics at research group
- Background: NaPiRE data, projects and research papers
- Target group: Industry partners (to be distributed via associations, at trainings, and at events)



Some Highlights

Dissemination: RE Quick Check

1. Answers questions on conducted RE practices and challenges

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TRENDS CHECK ACTIVITIES

Public transportation
 e-Commerce
 Other

2. Please select the class of systems or services you work on in the context of your project. *

Software-intensive embedded systems
 Business information systems
 Hybrid of both software-intensive embedded systems and business

3. Are there quality attributes which are of particularly high importance for your development project? *

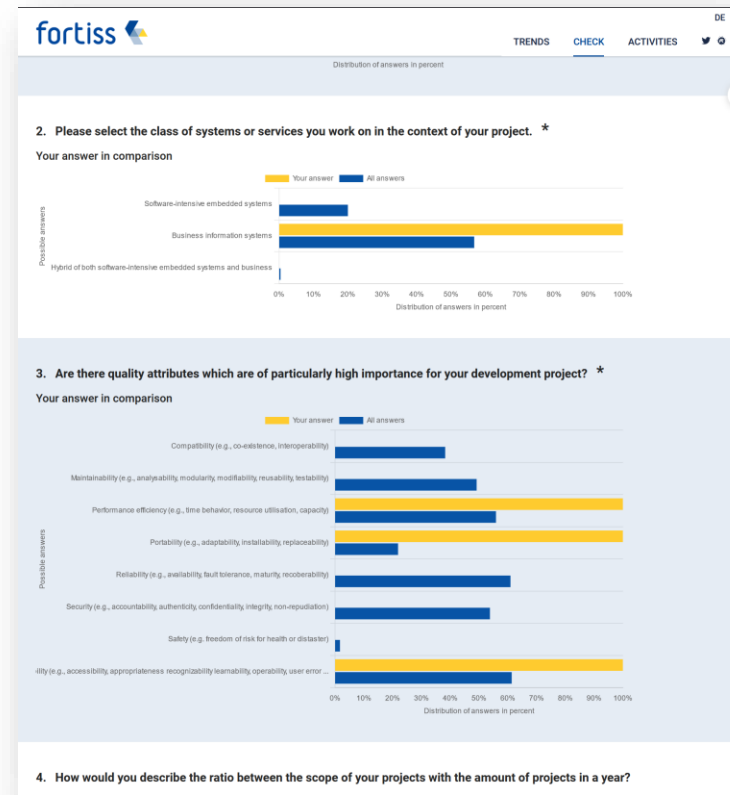
Select All
 Compatibility (e.g., co-existence, interoperability)
 Maintainability (e.g., analysability, modularity, modifiability, reusability, testability)
 Performance efficiency (e.g., time behavior, resource utilisation, capacity)
 Portability (e.g., adaptability, installability, replaceability)
 Reliability (e.g., availability, fault tolerance, maturity, recoverability)
 Security (e.g., accountability, authenticity, confidentiality, integrity, non-repudiation)
 Safety (e.g. freedom of risk for health or disaster)
 Usability (e.g., accessibility, appropriateness, recognizability, learnability, operability, user error protection, user interface aesthetics)
 If none of the above apply, please provide your answer
 None

4. How would you describe the ratio between the scope of your projects with the amount of projects in a year?

Few projects with a large scope
 A couple of projects with a medium scope
 High number of projects with small scope

5. In average, how many people are typically involved in your projects? *

2. Self-assessment by comparing with with other companies



3. Fine-tuning w.r.t. project characteristics and improvement planning

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TRENDS CHECK ACTIVITIES

Filter

Select answers to narrow down the results and show only the participants who gave the selected answers.

Main industrial sector
Finance

Class of systems
Please select

Important quality attributes for development
Compatibility (e.g., co-existence, interop...
Security (e.g., accountability, authenticit...

Project scope
High number of projects with small scope

Number of RE team members
6 to 10 * 11 to 20 *

Role in the project
Please select

Years of industrial experience
Please select

Cancel Apply

Note:
Will be renovated with focus on Human Factors

Some Highlights

Dissemination: Events

- ▶ Digital Product Innovation and Development (HigherEd course)
 - Student teams (TUM) working on industry challenges
 - Challenges provided by industry partners (e.g. Netlight, Siemens, itestra)
 - Organisers: Jannik Fischbach, Parisa Elahidoost, Florian Angermeir
- ▶ Hot Spots of Software Engineering (networking workshops)
 - Speakers by our industry partners for our industry partners (and their partners)
 - Exchange on contemporary challenges and practices
 - Organized by thematic area and domains
- ▶ Software Quality Days (conference series)
 - Europe's leading industry-oriented conference on Software Quality
 - Rotation: Vienna, Munich
 - Save the date: May 20-22, 2025, Munich
 - PC co-Chair: Jannik Fischbach



[HotSpots ML \(YouTube\) - english](#)



Some Highlights

Research excellence

Jannik Fischbach

Ernst Denert Software Engineering Prize for best SE PhD thesis in Germany



Congratulations!!

Hugo Villamizar

CBSOFT Software Engineering Prize for best SE PhD thesis in Brazil



Project status and highlights



Projects and Funding: Current status

Goals and ambition

- ▶ Build competence in: SE, but also next gen SE (AI for SE and SE for AI)
- ▶ Solve the following problems: Figure out what we do not know... Research to feed the development of SE... and then re-do Education

Ongoing Projects		Backlog	
Publicly funded (selected)	Details	Applications in progress	In Discussion
<ul style="list-style-type: none"> • KKS S.E.R.T. • KKS PROMIS • Marine Technology Centre – SEVAI • Vinnova V&V and AI • Vinnova Security Modeling AI components in SIPS 	<ul style="list-style-type: none"> • SERT (focus on co-production) and pivot towards (new) needs • PROMIS successful (resulting in ACSC) • New branch opening on SE for AI (SEVAI, X5 projects on GenAI) 	<ul style="list-style-type: none"> • PRAISE – AI in SE, SE in AI (research and education) • EU COTS (BRIDGE) • Non-deterministic V&V 2025 (extend SEVAI++) 	<ul style="list-style-type: none"> • Vinnova Regulatory Compliance • Excellence Profile (2025? 10y SERT++) • Research School in GenAI (applied SIPS and for SE)

Some Highlights

Research project: S.E.R.T.

Main goal:

Take on the next generation challenges partner companies face when developing products and services

Project setting:

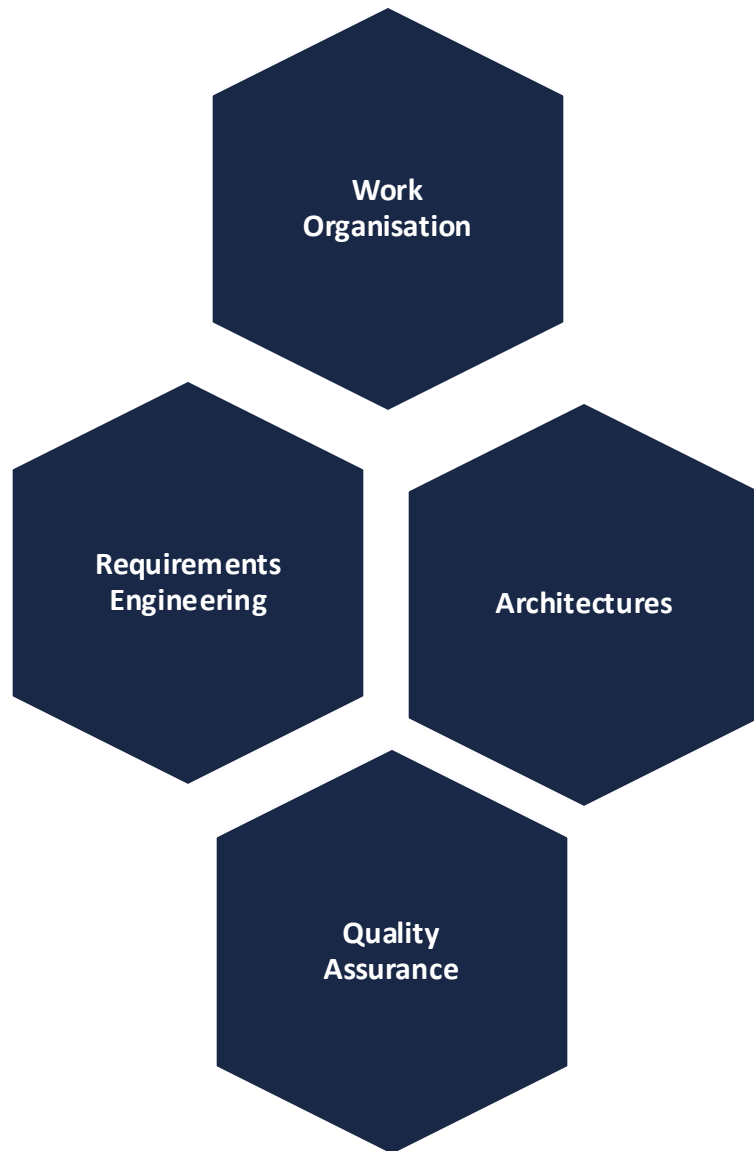
- Multi-lateral research collaborations on topics, defined by contemporary company needs
- Long-term co-funding by KKS Knowledge Foundation (until 2028)
 - Create research profile: no pre-defined topics, but co-production research
 - Dissemination and networking (e.g. “hot spots”, conferences, etc.)

Industry Partner (formal) contributions: co-funding

- Financial (e.g. co-funding of PhD positions), and/or
- In-kind (collaborations, access to material and knowledge, etc)
- Pivot as per new opportunities and challenges (GenAI.. AI...)



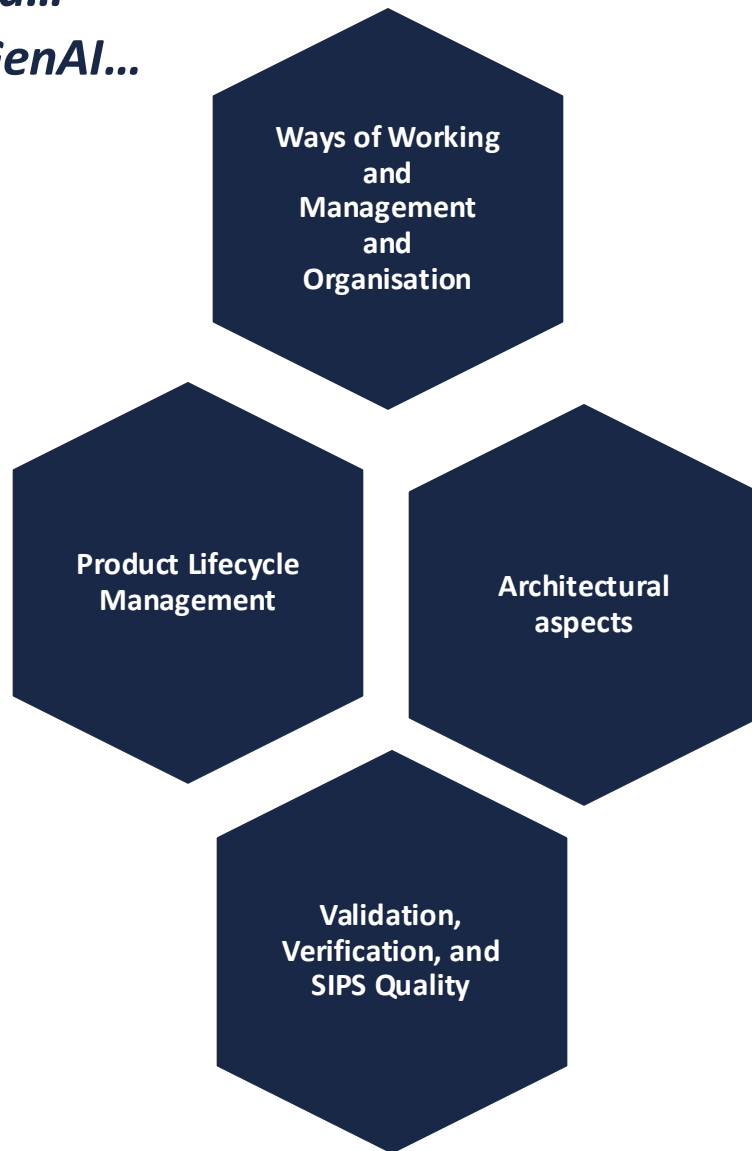
Knowledge Foundation ><



Areas (that intersect clusters)

- ▶ AI-Assisted Software Engineering
- ▶ (Security) Evaluation of ML and GenAI components
- ▶ Scaling agile
- ▶ Asset management
- ▶ Continuous engineering
- ▶ Metrics and Measurement
- ▶ Working from anywhere
- ▶ Information diffusion
- ▶ Tool-supported Regulatory compliance
- ▶ Regulatory change impact analysis (in FinTech)
- ▶ Good-enough RE
- ▶ RE Debt
- ▶ (GUI-based) Testing, going towards GenAI supported
- ▶ V&V with and for GenAI (non-deterministic)
- ▶ Security Testing, Security inventory (SBOM)

GenAI powered...
Impacted by GenAI...



Areas (that intersect clusters)

- ▶ AI-Assisted Software Engineering
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Some Highlights

Research project: Marine Technology Centre

- ▶ Initiative in Karlskrona to foster research on offshore energy, defence and sustainable oceans; additionally supported by further NATO-related activities and investments
- ▶ Currently in scope: Establish senior lecturer positions at various departments
- ▶ Software Engineering Department: Research position on validation and verification of non-deterministic, mission critical systems (in start-up)
- ▶ More details and collaboration possibilities soon!

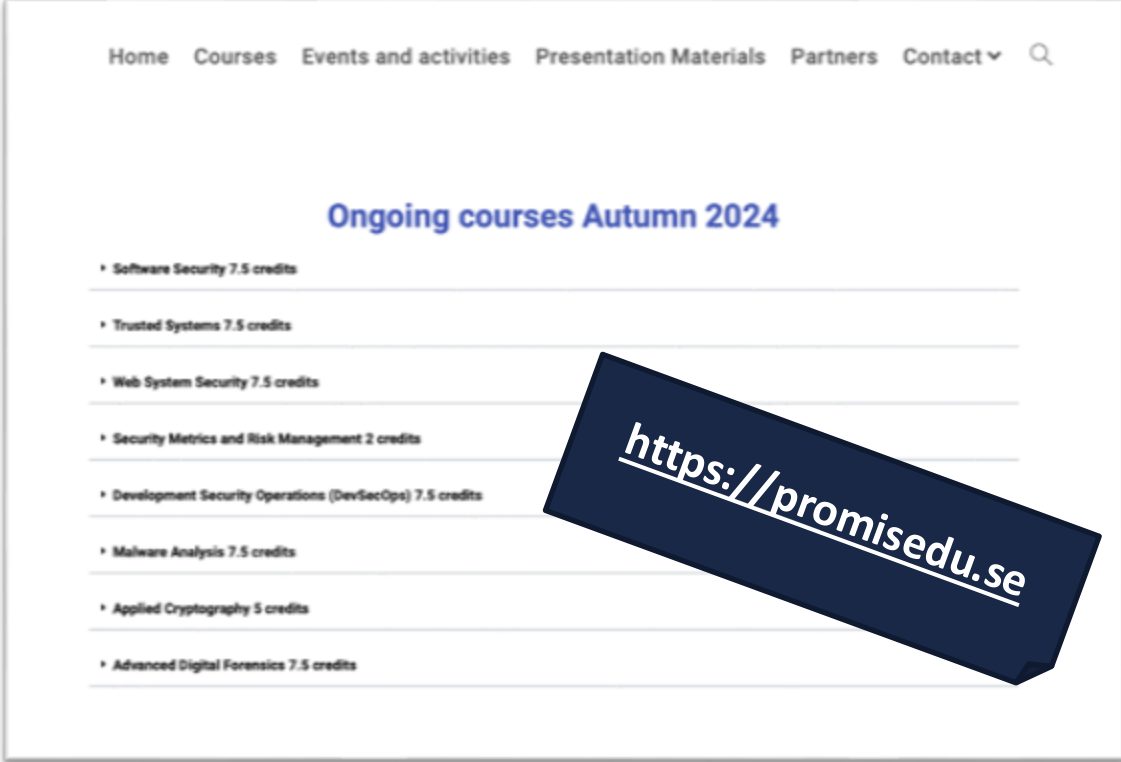


Some Highlights

Research project: PROMIS

- ▶ Customised courses for professionals in security and engineering security
- ▶ Supported by various researchers (incl. Fabiola, Florian, Oleksandr) – thank you!
- ▶ Successfully ending in 2026

- ▶ Currently building Applied Cyber Security Center and Cyber Range (resource!)



The screenshot shows the website's navigation menu at the top: Home, Courses, Events and activities, Presentation Materials, Partners, Contact, and a search icon. Below the menu, the heading "Ongoing courses Autumn 2024" is displayed in blue. A list of courses follows, each with a bullet point and the number of credits:

- Software Security 7.5 credits
- Trusted Systems 7.5 credits
- Web System Security 7.5 credits
- Security Metrics and Risk Management 2 credits
- Development Security Operations (DevSecOps) 7.5 credits
- Malware Analysis 7.5 credits
- Applied Cryptography 5 credits
- Advanced Digital Forensics 7.5 credits

A dark blue banner with white text is overlaid on the right side of the screenshot, containing the URL <https://promisedu.se>.

Some Highlights

Research application: PRAISE (professional AI for SE)

- ▶ Revisiting entire educational Software Engineering curriculum to cope with advances in AI (and how it affects the role of and demands towards Software Engineering in the future)
- ▶ Scope is both SE for AI and AI for SE
- ▶ Application 20+ partner companies, deadline February 2025
- ▶ Coordination fortiss/SERL w.r.t. AI (applied)
- ▶ Research, infrastructure into future of SE AND then develop courses over 5y

100% overlap with what we will discuss in this retreat!

PRAISE = Professional AI in Software Engineering SIPS = Software Intensive Products and Services AISIPS = AI SIPS				
ID	Name (eng)	RESOURCE	ECTS	SE AREA
1	AI Intensive Product Management and Requirements Engineering	PM, RE	6	PM, RE
2	Adaptive Lean Testing with and for AI Intensive Systems	V&V	6	V&V
3	Introduction to Security for and by AI in SIPS	SEC	6	Security
4	MLOps - Continuous Engineering and Evolution of AISIPS	MLOps	6	MLOps
5	Machine Learning for Applied Generative AI application	ML	6	Applied ML
6	Agile and Lean Development of AISIPS + AI for Agile and Lean Development Management (project management using AI and for AISIPS)	PM, RE	6	Project Management and Organisation
7	Architectures and Design of AISIPS	DES	6	Design, Architectures
8	AI and LLM Supported Software Engineering	TOOLS	6	Tools
9	Applied Programming Utilizing AI/LLMs	DEV	6	Development
10	AI Engineering Project Course	PM, RE	6	Project course
TOTAL			60	

Some Highlights

Dissemination: SERT Conference 2024

- 2 day even featuring talks and networking sessions on
 - Remote and Hybrid Working
 - Cutting Edge Software Engineering
 - AI and LLMs in Software Engineering
- November 20 & 21 in Stockholm (hosted by Spotify)
- Information and Registration:
<https://rethought.se/conference/sert-conference-2024/>
- 100+ participants

SPEAKER ANNOUNCEMENT

20/11 Track 1

Remote and Hybrid Working

- "Recent changes in remote work policies" by Nils Brede Moe (SINTEF)
- "Transition from hybrid to office-first" by Mats Fröling (Ericsson)
- "The state of hybrid at Ericsson—Survey results" by Panagiota Chatzipetrou (Örebro University)
- "Meetings in Hybrid Agile Work Settings: Challenges and Success Factors" by Viktoria Stray (University of Oslo)
- "Engagement in hybrid meetings" by Darja Smite (BTH)
- "Making hybrid work. For real" interactive session by Mari Blikom (Storebrand)
- "Support needed to take informed decisions about corporate spaces" by Fredrik Karlsson (SONY Nimway)
- "Work-life balance vs work-life integration" by Darja Smite (BTH)

20/11 Track 2

Cutting Edge Software Engineering

- "Data-driven software engineering at Fortnox" by Henrik Edegård (Fortnox)
- "Capitalising and using research results for real - an industrial perspective" by Tony Gorschek (BTH)
- "Talk is Cheap, Show Me the Code: Code Review as Communication Network" by Michael Dörner (BTH)
- "When GUI-based Testing Meets Code Reviews" by Andreas Bauer (BTH)
- "Closing the Loop: The Role of Feedback in Continuous Software Engineering" by Franz Zieris (BTH)
- "We are getting faster"... So What? Data-Driven, Sustainable Software Product Development by Javier Gonzalez Huerta (BTH)

- "Data-Driven Approach: Driving Internal Quality and Customer Value" by Bhuwan Paudel (BTH)
- "Measuring the Impact of bad Requirements" by Julian Frattini (BTH)
- "Towards Continuous Everything" by Eriks Klotins (BTH)
- "Analysis of the most destructive software supply chain attacks" by Oleksandr Adamov, Oleksii Baranovskyi (BTH)
- "Tax Compliance for Software Engineering" by Michael Dörner (BTH)
- "Challenges in Continuous Security Compliance" by Florian Angermeier (BTH)

21/11

AI and LLMs in Software Engineering

- Opening keynote TBD
- "Towards AI-Native Software Development: Lessons from the Ericsson Trenches" by Ricardo Britto (Ericsson)
- "AI4SE: New insights through tool-supported classification - two industrial cases" by Nauman bin Ali (BTH)
- "Efficiency and Effectiveness of LLMs in SE" by Lukas Thode (BTH)
- "A Journey through SPACE: Unpacking the Perceived Productivity of GitHub Copilot" by Viggo Tellefsen Wivestad (SINTEF)
- "Explore the Power of Generative AI" by Michel Nass (BTH)
- "Gen AI GUI testing is the T.A.R.G.E.T." by Emil Alégroth (BTH)
- "Large Language Models to Support Requirements Traceability" by Waleed Abdeen (BTH)
- "LLMs at Ericsson in real life" a tool demo by Liang Yu (Ericsson) and Emil Alégroth (BTH)
- "OpenAI and the Virtual Pandoras Box of Sweet and Sour - an industrial perspective", closing keynote by Tony Gorschek (BTH)

What to expect? Exciting talks from industry and academia reporting applied research insights, Mingling and networking, Opportunities to discuss your topics in open space sessions
Who are invited? The conference has topics for engineers, data scientists, product owners, team leads and managers on different levels

REGISTER



SUPPORTED BY



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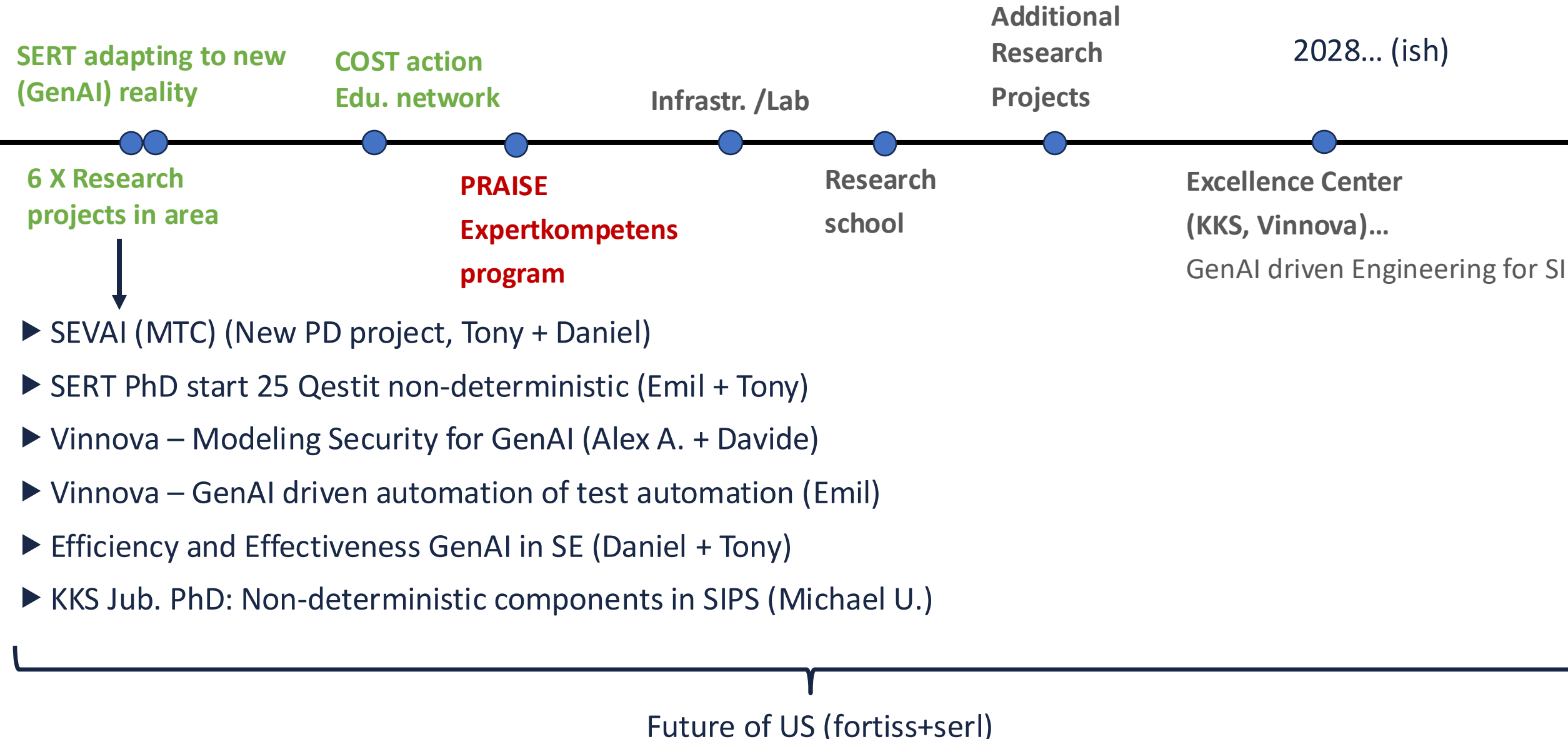
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WorkFlex



Big picture



Plan for 2025 and beyond

Grow and increase impact

- ▶ Stabilisation and continuous improvement at operational level
 - Stabilisation (e.g. secure funding for individual core topics)
 - Foster joint growth as group (beyond funding)
 - Continuation networking and outreach activities (events, assets)
 - Continuously improve along our way 😊

- ▶ Develop joint research and transfer vision (and funding strategy):
How can we make sure that our research is still relevant in 10 years and beyond?

Grow and increase impact

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In scope of retreat

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16:00 – 18:00 Software Engineering in 2050

19:00 – open Dinner and Discussions cont.

Show me your research

Overview of research topics currently in scope



Short presentation (5') and joint discussions

- ▶ What is your general research area / roadmap?
- ▶ What are you currently working on?
- ▶ What are current challenges or roadblocks?
- ▶ Where is collaboration potential?

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13:00 – 14:00 Background & Status

14:00 – 15:30 Show me your research

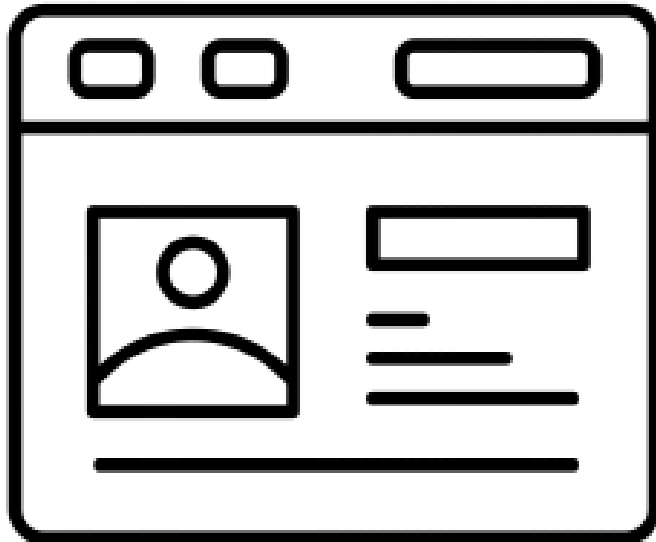
15:30 – 16:00 FIKA and cont. discussion

16:00 – 18:00 Software Engineering in 2050

19:00 – open Dinner and Discussions cont.

The future Software Engineer

In 2050 (or maybe a little bit earlier...)



- ▶ What are the main SE areas?
- ▶ What are tasks performed by the engineer on a regular basis?
- ▶ What is the background of the engineer?
- ▶ What are the main skills/competencies of the engineer?
- ▶ What does the professional environment of the engineer look like (management, planning, engineering, etc. tools and environment)?
- ▶ What does a normal day for a software engineer look like?
- ▶ What are the main challenges the engineers face?

Tools for the work

Discussion

- ▶ Start with general Personas?
- ▶ Use SWEBOK areas as a basis? How do we select principles and practices to focus on?
- ▶ Brainstorm related topic areas to form groups?
 - Individual Personas per area?
 - Vision formulation?
- ▶ Basis for GAP Analysis (tomorrow)
 - What are YOU doing today in research?
 - What do YOU need to do tomorrow to fill the gap?

Day 2

Blue Sky Visions ++

Day 2: Blue Sky Visions ++

Agenda

07:00 – 09:00 Breakfast

09:00 – 10:30 Gap Analysis: 2025 → 2050

10:30 – 11:00 FIKA and cont. discussions

11:00 – 12:00 Filling the gap (group work)

12:00 – 13:00 Lunch

13:00 – 15:30 Group Work cont.

15:30 – 16:00 FIKA and cont. discussions

16:00 – 18:00 Open Discussions and Networking

19:00 – open Dinner and Drinks

Day 2: Blue Sky Visions ++

Agenda

07:00 – 09:00 Breakfast

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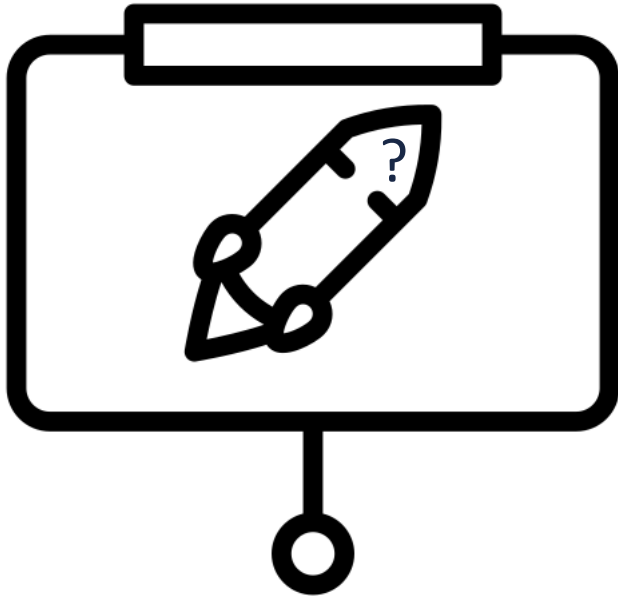
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16:00 – 18:00 Open Discussions and Networking

19:00 – open Dinner and Drinks

Gap Analysis

Competences, skills, and technologies contributing to the vision



Open Discussions (in breakout groups)

- ▶ Select subdiscipline / thematic (SWEBOK?) area and form groups
- ▶ Think in terms of likely use cases
- ▶ Guiding questions
 - SOTA/SOTP: What is missing today?
 - What are the implications (on area)?
 - What research direction should generally be taken?
 - What research can and maybe should already be done today?

Day 2: Blue Sky Visions ++

Agenda

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12:00 – 13:00 Lunch

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15:30 – 16:00 FIKA and cont. discussions

16:00 – 18:00 Open Discussions and Networking

19:00 – open Dinner and Drinks

Group discussion



- ▶ What new research avenues should we focus on?
- ▶ What new skills and knowledge do we need to acquire along the next 5 years?
- ▶ Reflection:
 - How do our current topics contribute already to that?
 - Is my own topic relevant or dead?
 - What further steps are required?

Team building to elaborate research roadmaps

Use the afternoon to extend the discussions and group work



- ▶ Let us form “clusters” along different competence and research areas
- ▶ Elaborate throughout the day (next to other open spaces):
 - What research topics can we focus on short-term (as teams)?
 - What company partners could be interesting / benefit?
 - How do we prime partners and community for future needs?
 - What funding is possible and how do we attain it?
- ▶ Prepare one short presentation per cluster for tomorrow 😊

Day 2: Blue Sky Visions ++

Agenda

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09:00 – 10:30 Gap Analysis: 2025 → 2050

10:30 – 11:00 FIKA and cont. discussions

11:00 – 12:00 Filling the gap (group work)

12:00 – 13:00 Lunch

13:00 – 15:30 Group Work cont.

15:30 – 16:00 FIKA and cont. discussions

16:00 – 18:00 Open Discussions and Networking

19:00 – open Dinner and Drinks

Day 3



Strategy++

Day 3: Strategy++

Agenda

07:00 – 09:00 Breakfast

09:00 – 10:30 Strategy++ (with FIKA on the fly)

10:30 – 11:00 FIKA and cont. discussions

11:00 – 12:00 Strategy++ (with FIKA on the fly)

12:00 – 13:00 Lunch and Travel back

Day 3: Strategy++

Agenda

07:00 – 09:00 Breakfast

09:00 – 10:30 Strategy++ (with FIKA on the fly)

10:30 – 11:00 FIKA and cont. discussions

11:00 – 12:00 Strategy++ (with FIKA on the fly)

12:00 – 13:00 Lunch and Travel back

Presentations on directions / tasks

▶ <Groups to be filled in on-site>



THANK YOU!

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