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# AI 4 Soft. Eng. Soft. Eng. 4 AI



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[www.scandariato.org](https://www.scandariato.org)

# Software Engineering Division

Arguably, the **largest SE group** in Europe

20 faculty members

80 MSEK/year external funding

**Artificial intelligence**  
is a major theme

AI  $\Rightarrow$  SE

SE  $\Rightarrow$  AI



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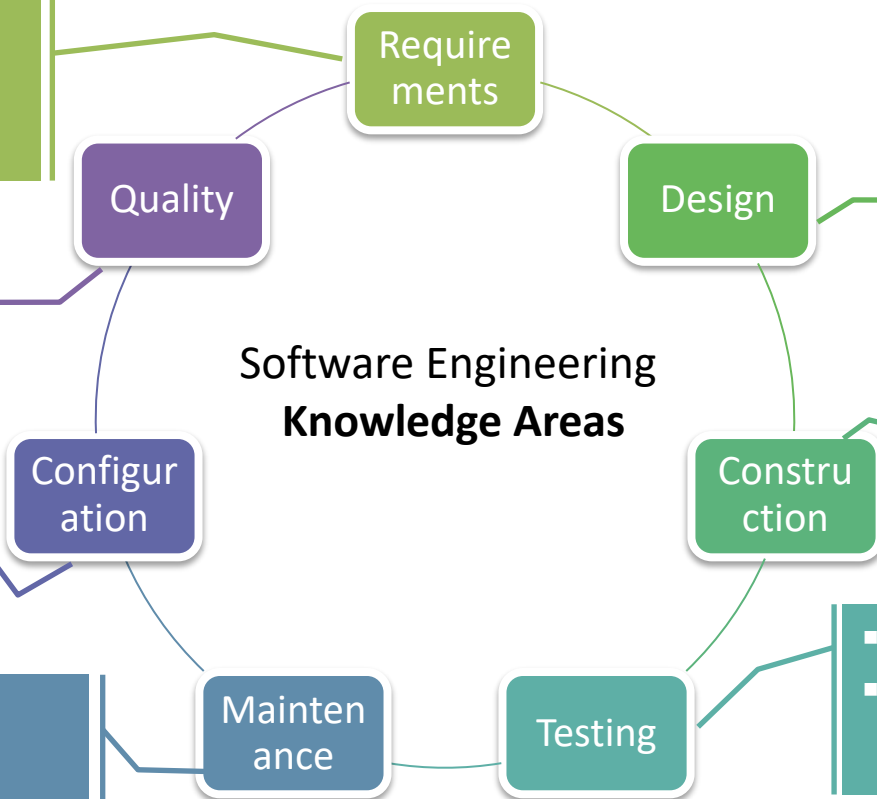
# Smart development techniques

- Ident. knowledgeable stakeholders
- Automatic tracelinks ident.

- Prediction of faults and vulnerabilities
- Smart metrics

- Predict which feature a newly committed code belongs to

- AI to explain software, and vice versa







- Generative secure design
- Theta architecture
- Decision making

- Predict performance problems @ coding
- Security dojo

- Test suite optimization
- Smart configuration of performance test suites

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# Development of smart products

-  Autonomous **driving**
-  Smart scheduling of **A/B tests**
-  Autonomous **measurement** systems
-  Adjust **antennas' power** with weather
- ...

# Vision and challenges

System **complexity** explosion (SoS, IoT...)

⇒ **AI-assisted software development**  
(AI-designed, -tested, -operated systems?)

Expanding interface **AI/human**, at both  
*dev-time* and *run-time*

⇒ **Ethical aspects** of AI-\*systems

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