

# Service Design and Engineering (SDE) track

30.8.2022

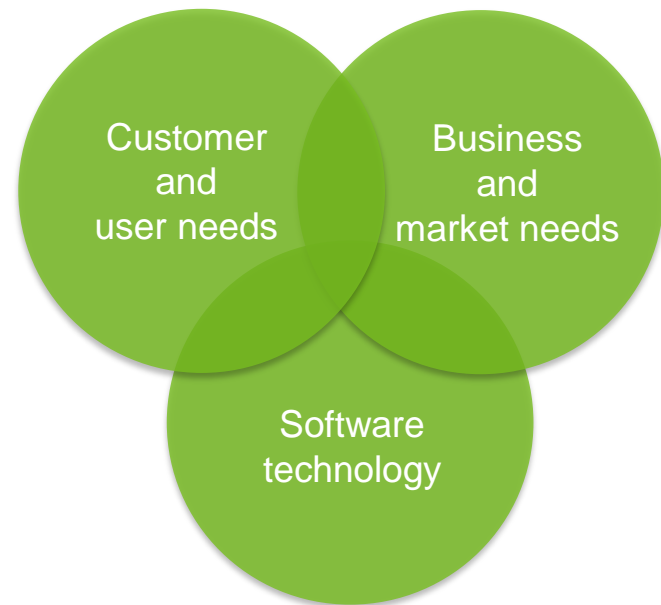
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# Service Design and Engineering (SDE) - why

- Digital services can change any business and public sector.
- Digital services are developed by **multidisciplinary teams**.

Professionals that are able to develop digital services by combining

- service design
- user-centred design
- software engineering
- business and entrepreneurship



# Track: Service Design and Engineering (SDE)

Master's thesis (30 cr)

Elective Studies (20-25 cr)

Courses of **user-centred design** and **software engineering** +  
**other optional courses**

Compulsory courses

Data-Driven Concept Design

User-centred Methods for Product and Service Design

Software Engineering



# Track: Service Design and Engineering (SDE)

Master's thesis (30 cr)

Any Aalto minor (20-25 cr)

Elective Studies (20-25 cr)

Courses of **user-centred design** and **software engineering**

Human-Computer Interaction  
User Interface Construction  
Collaborative Evaluation of  
Interactive Systems

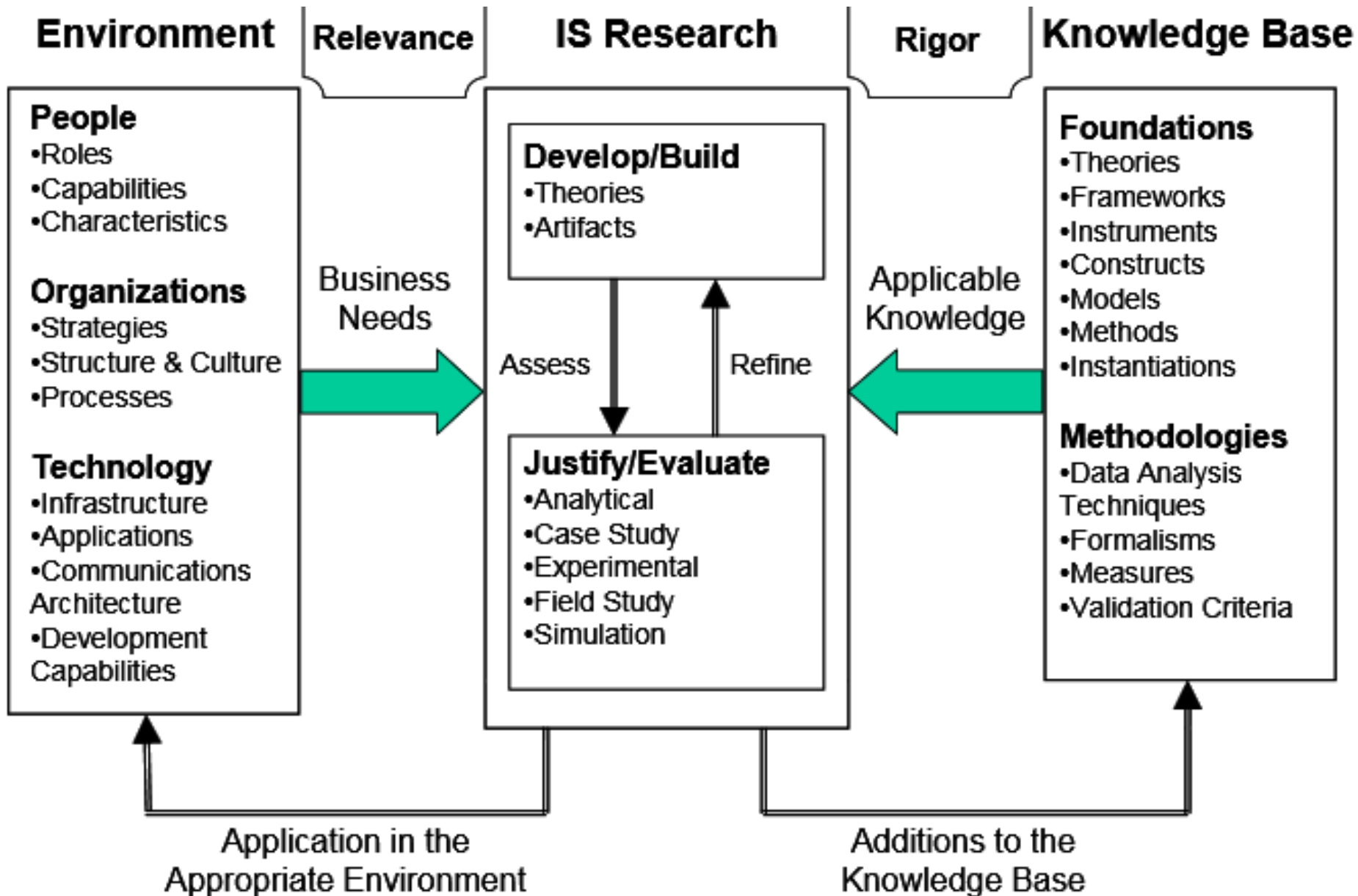
Compulsory courses

Data-Driven Concept Design

User-centred Methods for Product and Service Design

Software Engineering

Studies address the **foundations and methodologies** which can be applied in **relevant** real-life cases and contexts



**Figure 2. Information Systems Research Framework**

Hevner & al. (2004): Design Science in Information Systems Research

# Digital Services for Sustainability - Special Assignment on Software and Service Engineering

## Learning Outcomes

- Modelling interactive digital services, exploring double diamond process
- Defining user requirements, creating service concepts
- Realising concepts with prototyping tools, interactive front-end frameworks
- Evaluating concepts and interactive applications with real stakeholders
- Communicating in multi-disciplinary teams

## Learning Methods

- Academic tutoring, timely academic readings, technical guidelines
- Problem-based learning
- Prototyping and experimenting
- Interacting with stakeholders
- Working in multi-disciplinary teams

**Final Product:** Proposal of a context-fitting digital service

Example of a special project in which the theories and methods can be explored, applied, and learned in more details

# UFISA

## User-Centred Design for Innovative Services and Applications



Co-designing digital services for unemployed youth in Namibia



# Collaborative Service Prototyping and Elaboration

- Participatory and user-centred design with students from NUST and participants from the “Havana” region
- Creating service concepts, blueprints and prototypes for participatory evaluation and validation
- Evaluation & elaboration with members of the local community
  - Presentation of service ideas and prototypes
  - Discussions, interactive exploration with the community





# Special Course: Digitalising Rural Africa

(PBL BioAfrica)



- Identifying, innovating & defining service concepts for emerging digital services in rural Africa
- Solar cookers transforming life in Zambian villages: from wood burning to digital cooking
- Connected with carbon offset markets
- Increasing opportunities for girls' education and entrepreneuring for women incl. tree planting
- Including two weeks of multi-disciplinary fieldwork in Zambia: contextualising digital services
- Collaboration between Finnish SME Afstor Oy and Zambian NGO GLM, Aalto University, HAMK, University of Zambia and Mulungushi University

# Service Design and Engineering (SDE)

- Learning happens
  - in multidisciplinary teams
  - by solving practical and challenging problems with impact
  - by applying theory into practice
- Teaching personnel supports you, do not hesitate to contact us!
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