

For the lecture "M-Business II - Application Design, Applications, Infrastructures, and Security"
at the Johann Wolfgang Goethe University Frankfurt



Need Based Mobile Service Creation

M-Business II - Guest Lecture



Introduction to need based service creation & design

User needs & technologic possibilities

Need based service creation & modeling

Examples

Trends in mobile business & development

Hands on need based service creation

Sources & further reading

UE

16:15 - 17:45



Is there a need based service on the iPhone?



But there is one more thing ...



... and Starbucks



Need based services on the iPhone: Voice



- Voice is still the number one



Need based services on the iPhone: Visual Voicemail



- Voicemail messages can be selected visually
- The solution needs to be integrated into the network structure

Service creation

A buzzword or a successful future strategy?

Service creation is regarded as a forward-looking way of developing and offering new services in mobile markets.

Meaning 1: Creating a Platform for Creating Services

Service creation platforms serve the fundamental technological framework for service offerings to be made available. Because of their open system architecture, they also enable services from external developers and creators to be implemented quickly and efficiently.

Meaning 2: The Process of Creating Services

The design process from strategic idea mapping to the first drawings of visualised concepts and functional models to the evaluation of prototypes



User centered design

- Mobile services and applications are immaterial, digital products
- Digital products have to offer benefit and value to the final-end-user and enterprise customer for being attractive in the market
- Market potentials can be exploited by a strong focus on a user-centered approach in service creation
- Service creation = product design
- Product design provides generic methods and tools which can be successfully adopted in the mobile business



Designing, design & designers

„Designing (Entwerfen) mostly occurs for others.“

„Within every reflection about possibly doings design is included.“

„Designers are always on the way to future, without certainty, ever arriving somewhere.“

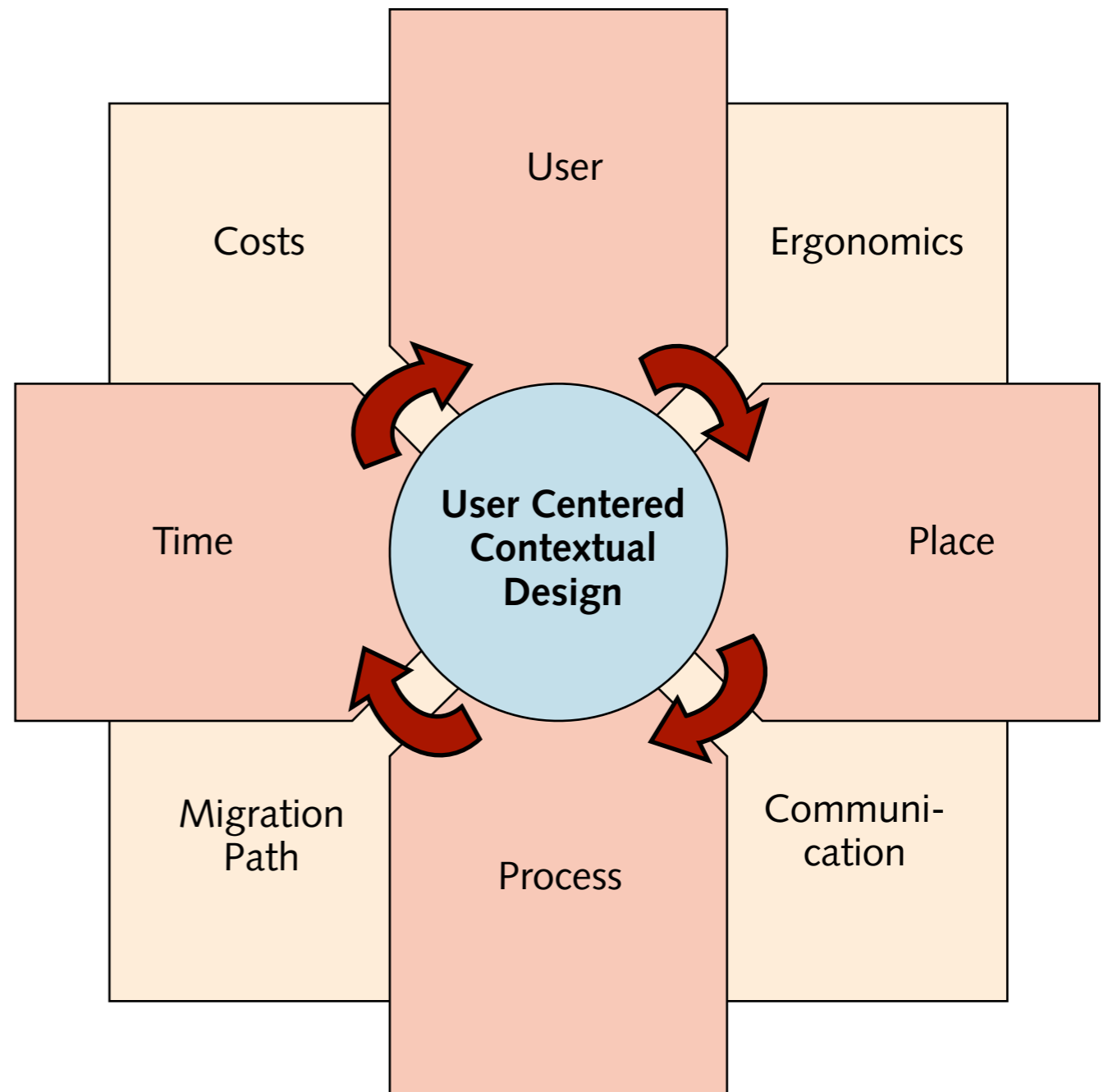
Source: Dehlinger, 2002

Design is to think ahead by visualizing future scenarios.



Design thinking

- Creating alternatives
- Need orientation & user focus
- User integration & evaluation
- Visualization & Modeling
- Combining future user needs & technical feasibility



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What's special about mobile communication?

Mobility

Limited resources

Covering wide areas

Interoperability

Security



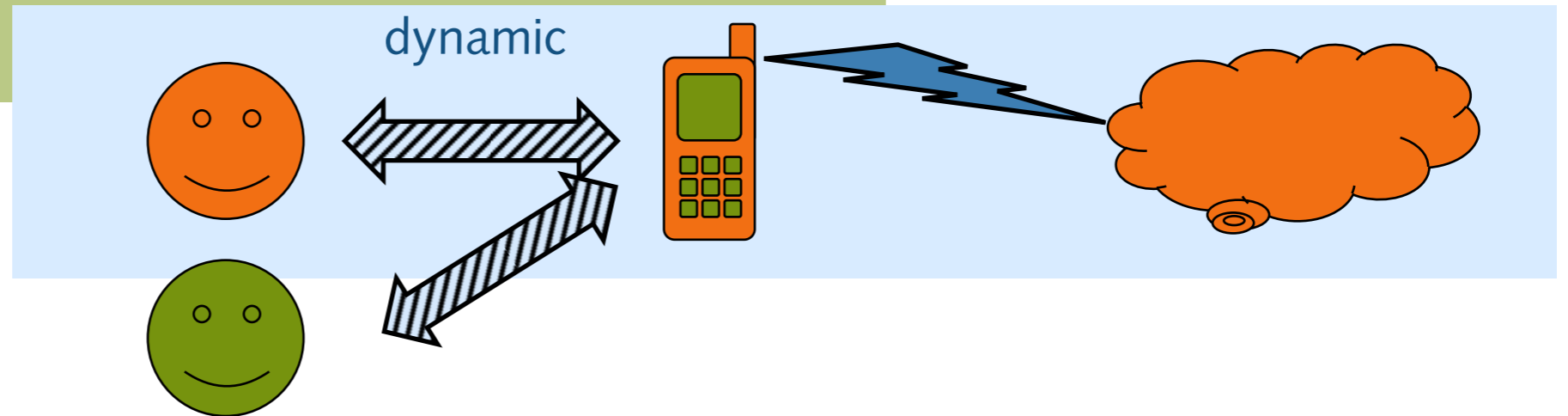
Mobility

What's special about mobile communication?

Terminal mobility



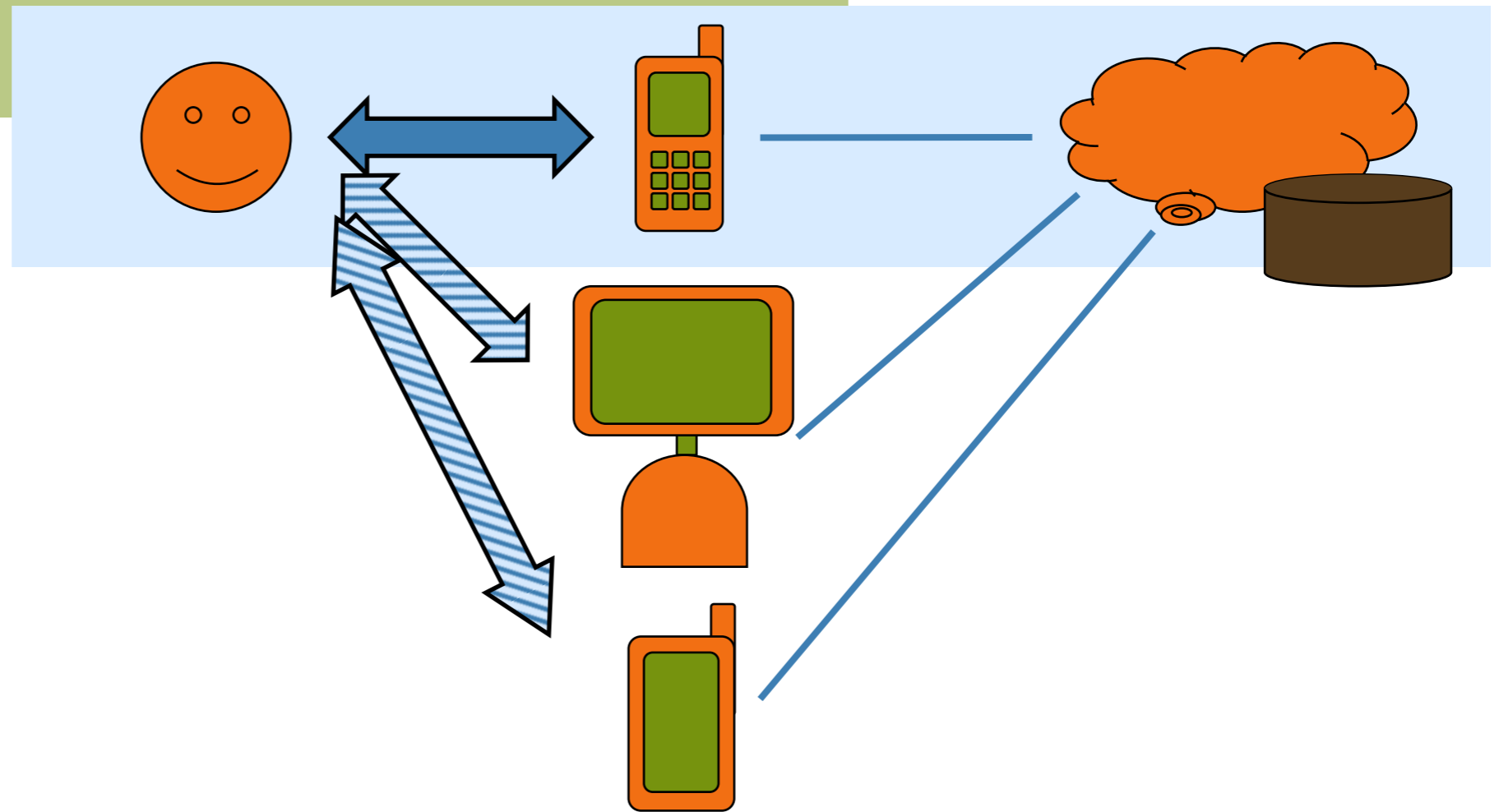
User mobility



Mobility

What's special about mobile communication?

Service mobility

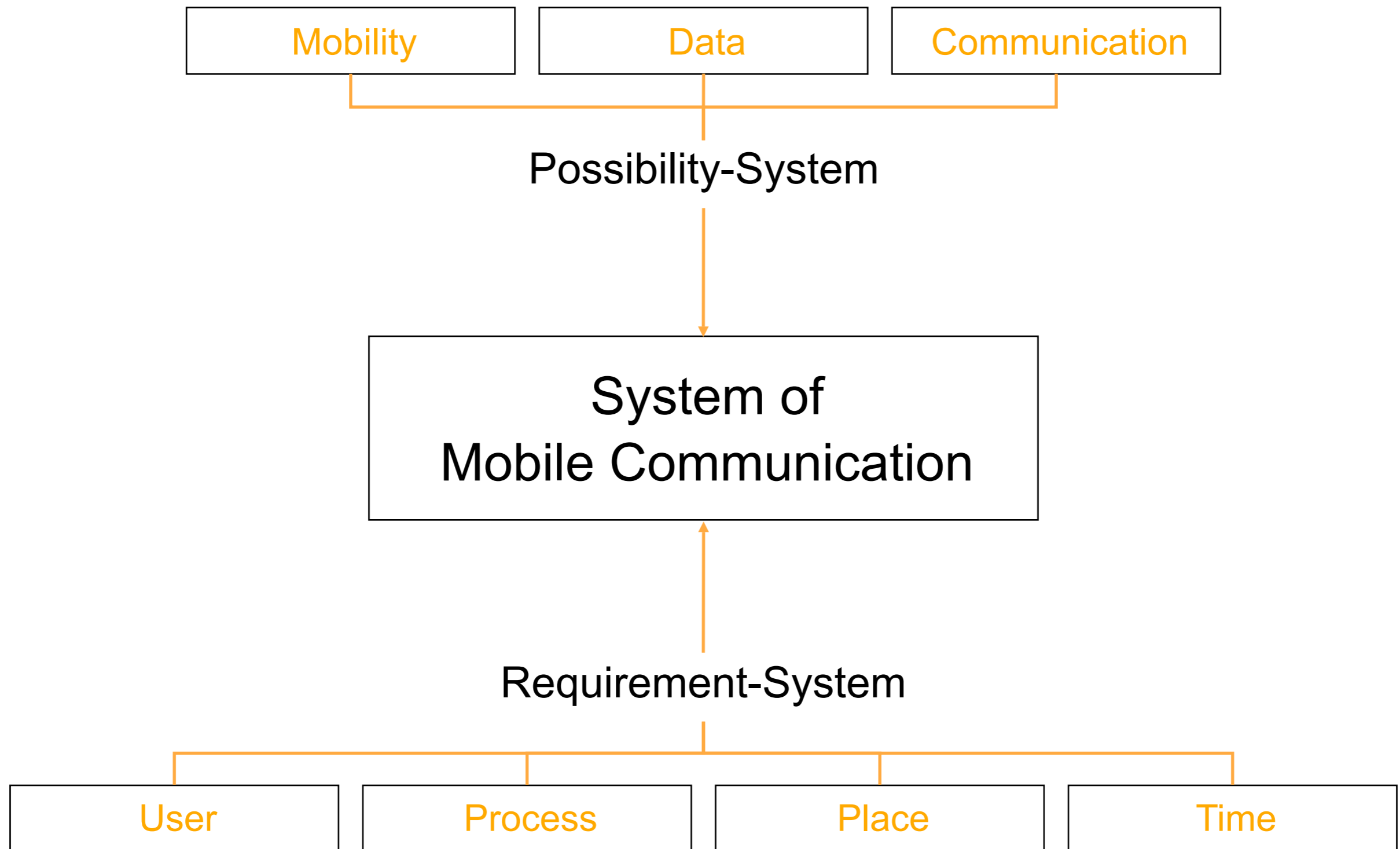


Possibilities & requirements of mobile communication

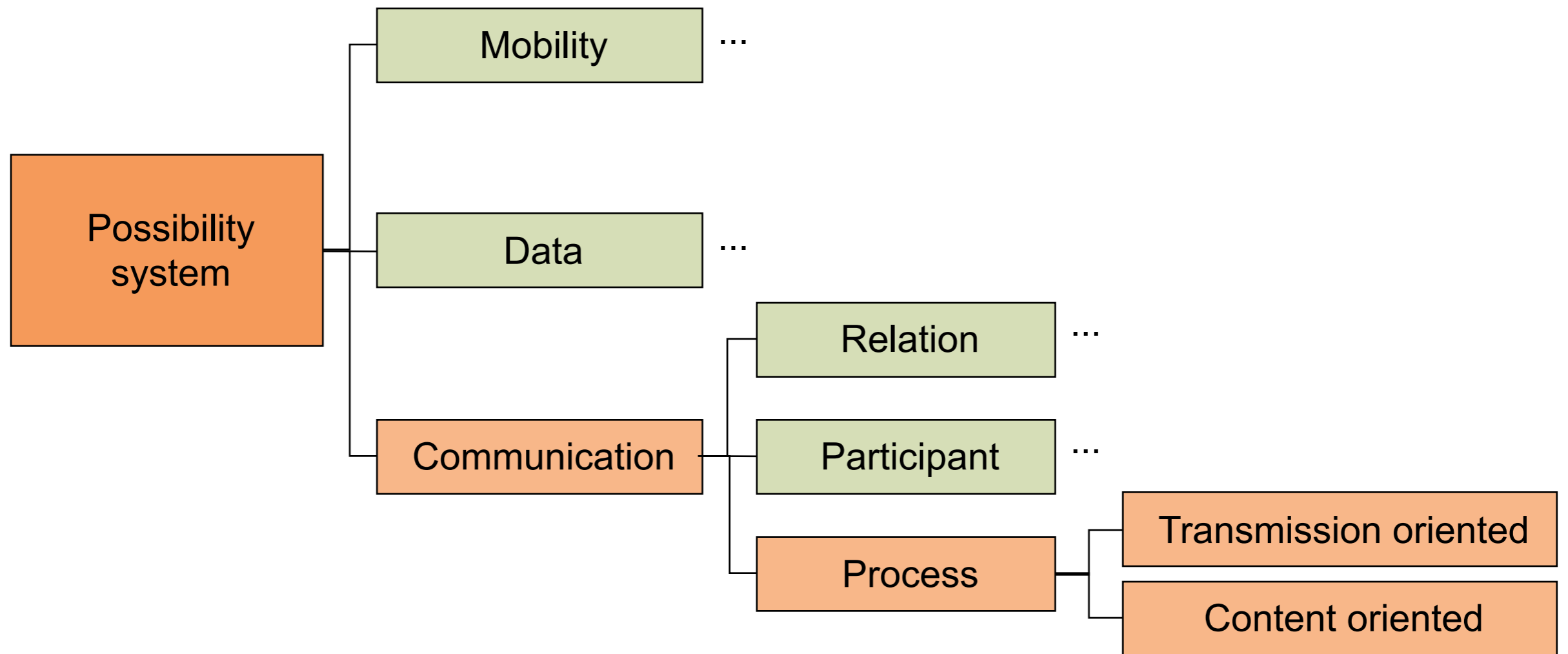
Location Based Services Pico cell SHCCH Uplink
HSCD XML MEXE QoS Downlink
GPRS USIM VLR SMS MMS HPLMN
Seamless handover CaDaX PIN TAN Anypoint to Point
WAP TDMA UTRAN GSM JNDI HPLMN
SIM code RPLMN UMTS Virtual Home Environment
Applet LBS
IMT-2000 2 MBit/s

Aesthetic Train Feeling important Company
Life Process Efficiency Health time reduction
Fleet Management College Moment
Non Profit Organization Banking Optimization
Security Community Public areas at drink, dance, relax
Travelling 40-year old Automation Young Business People
Entertainment Play Clubbing Crime prevention
Major Business People Freedom Library Obsession
Culture

Possibilities & requirements of mobile communication



Possibility system



Possibility system

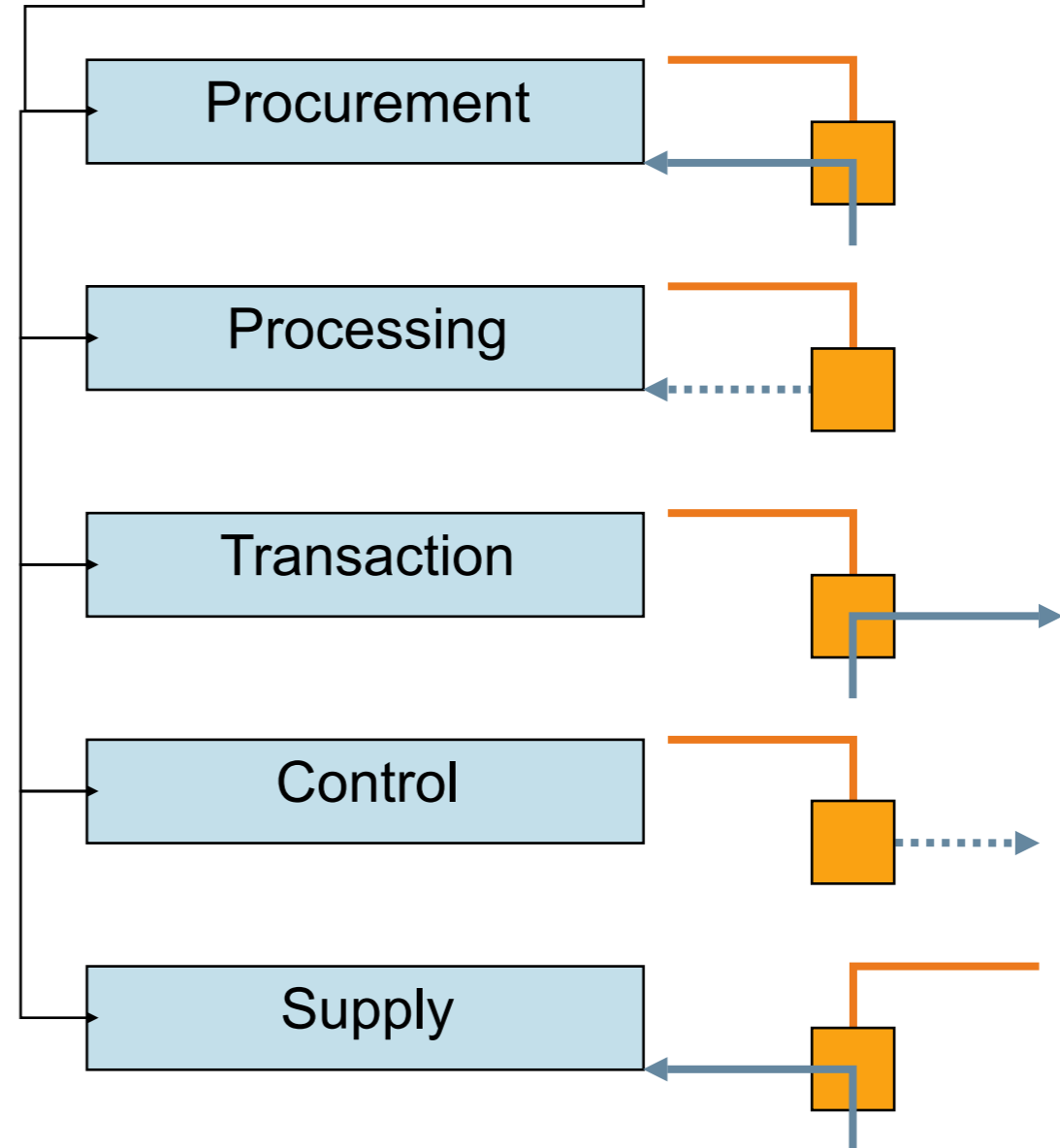
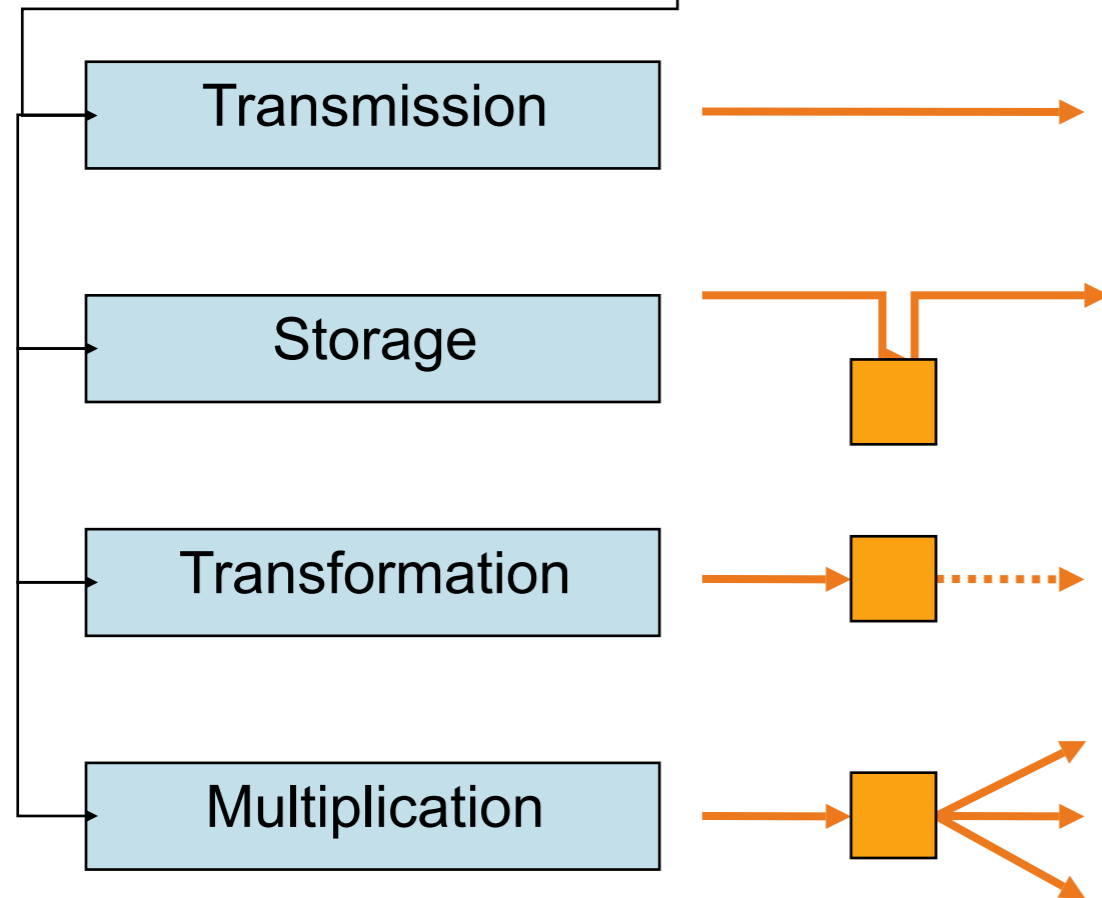
Process Archetypes

Input and output are the same

Input and output are different

Transmission oriented

Content oriented

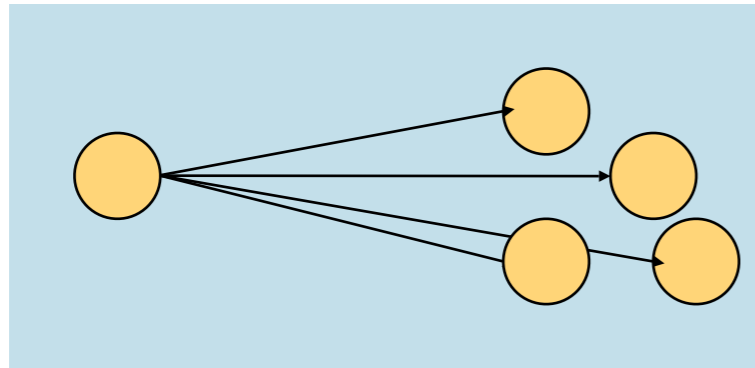


Possibility system

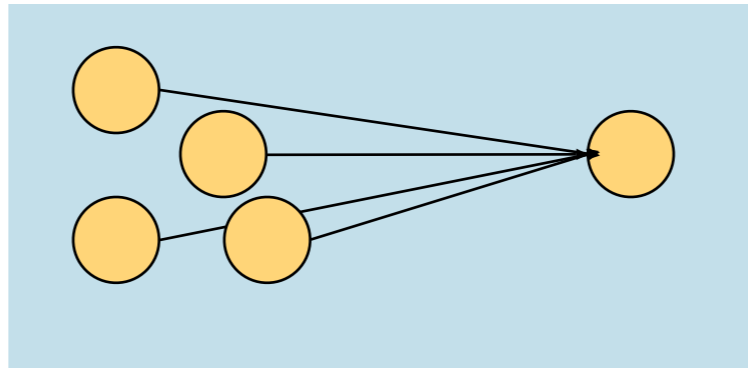
Point-To-Point



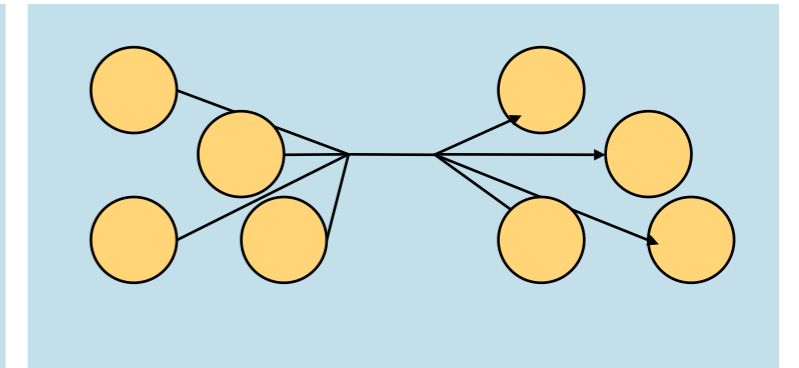
Point-To-Multipoint (Multicast)



Multipoint-To-Point



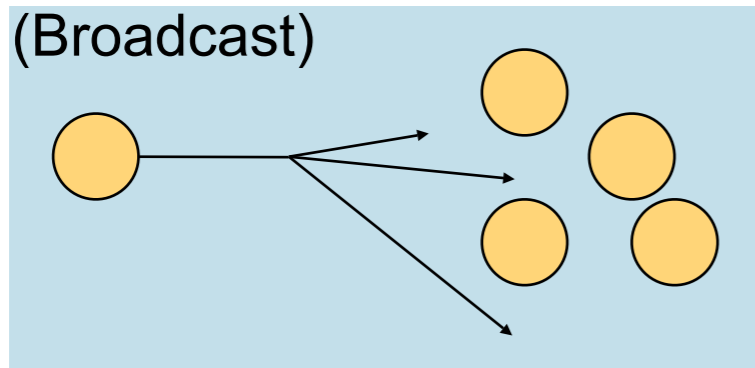
Multipoint-To-Multipoint



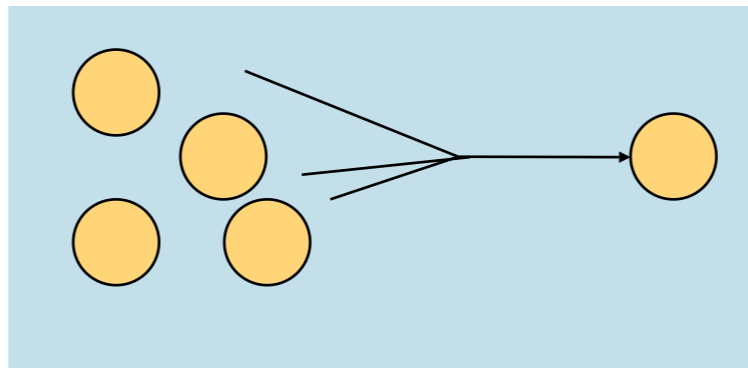
individual
communication

mass
communication

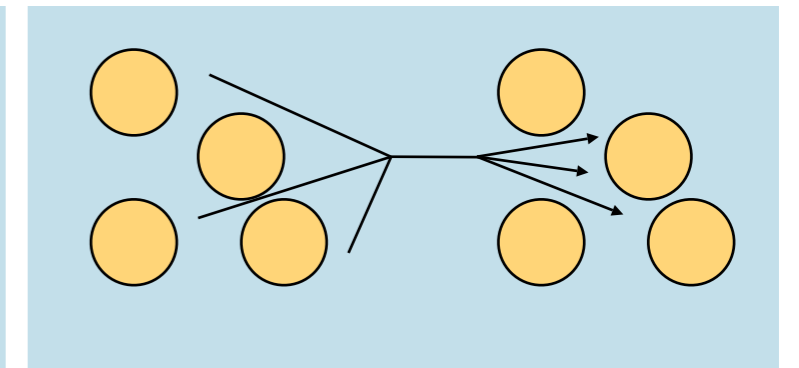
Point-To-Anypoint
(Broadcast)



Anypoint-To-Point

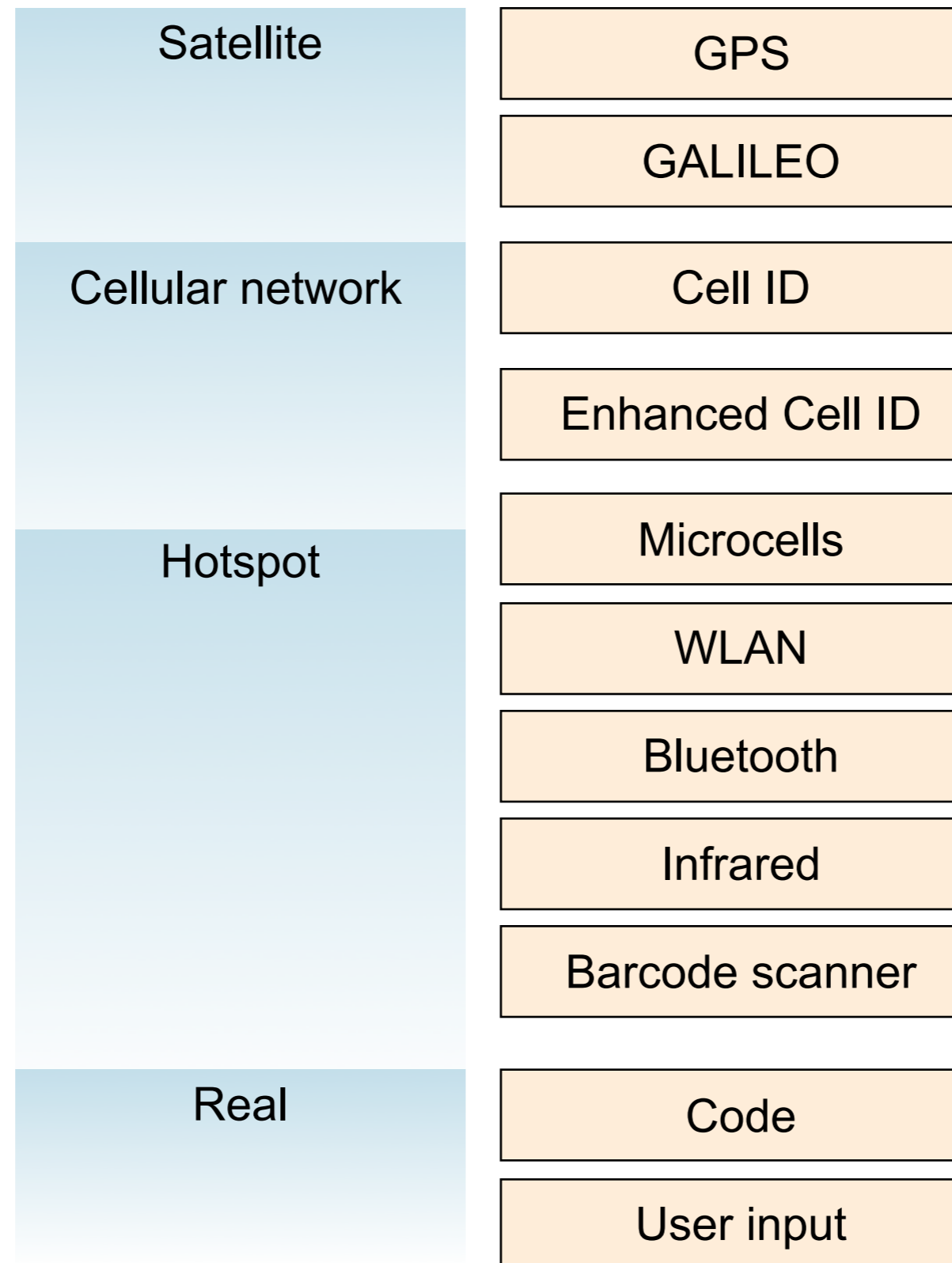


Anypoint-To-Anypoint

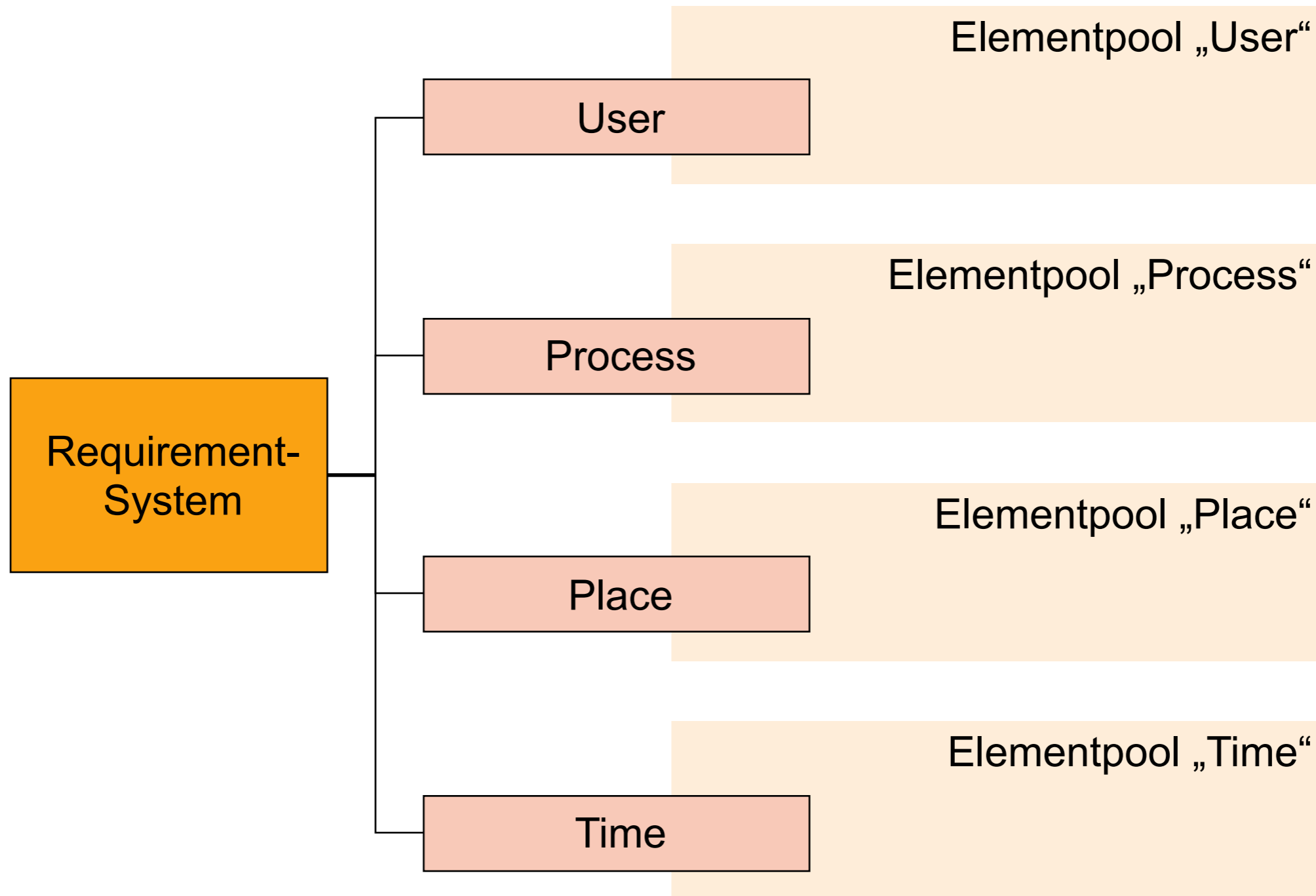


Possibility system

Example: possibilities of retrieving positions



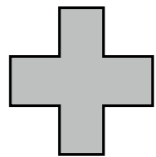
Requirement system



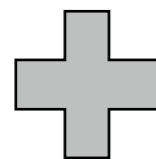
User & context orientation

The user is the source of innovations within the need based service creation approach

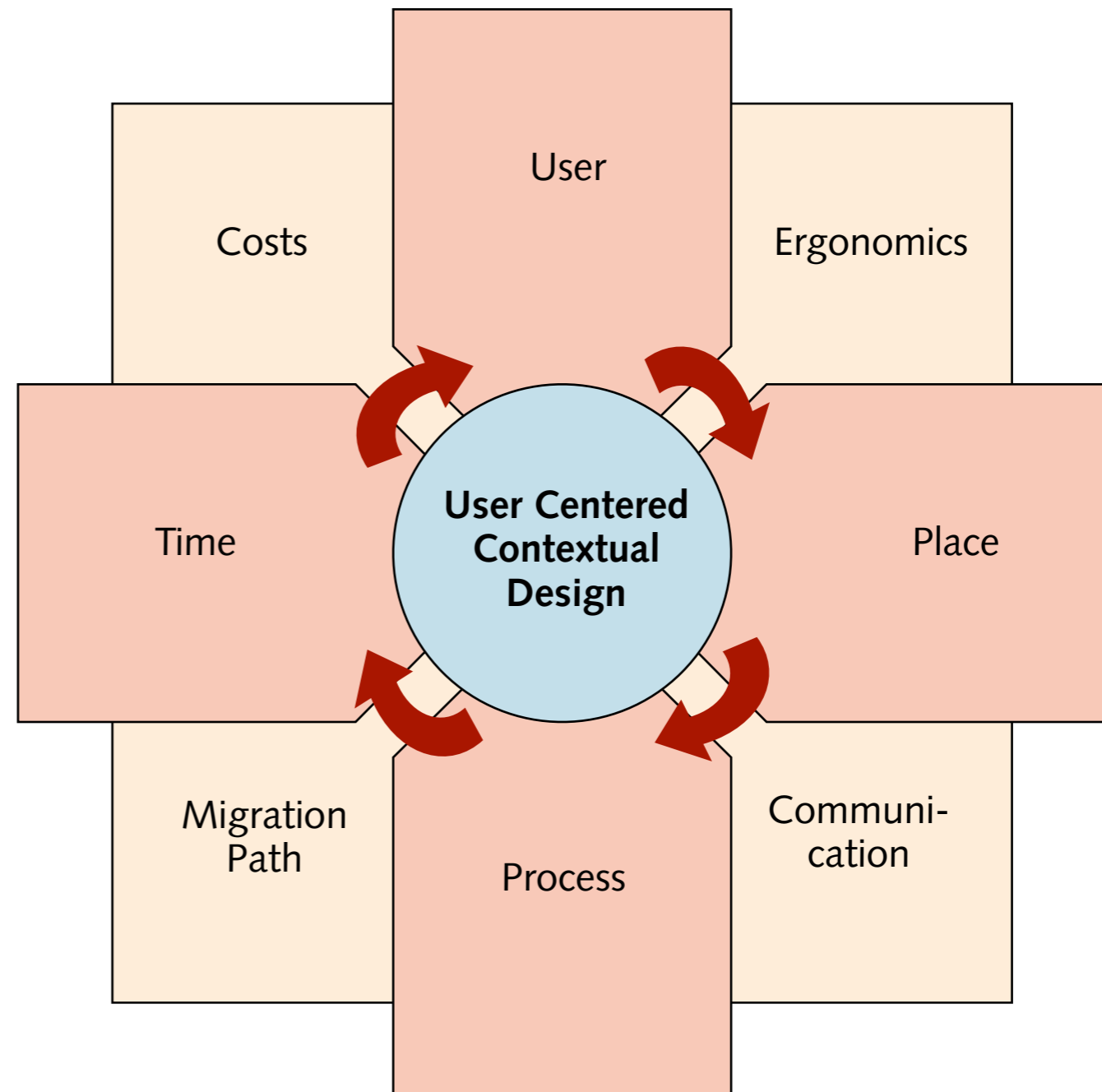
Analysing needs within the user group



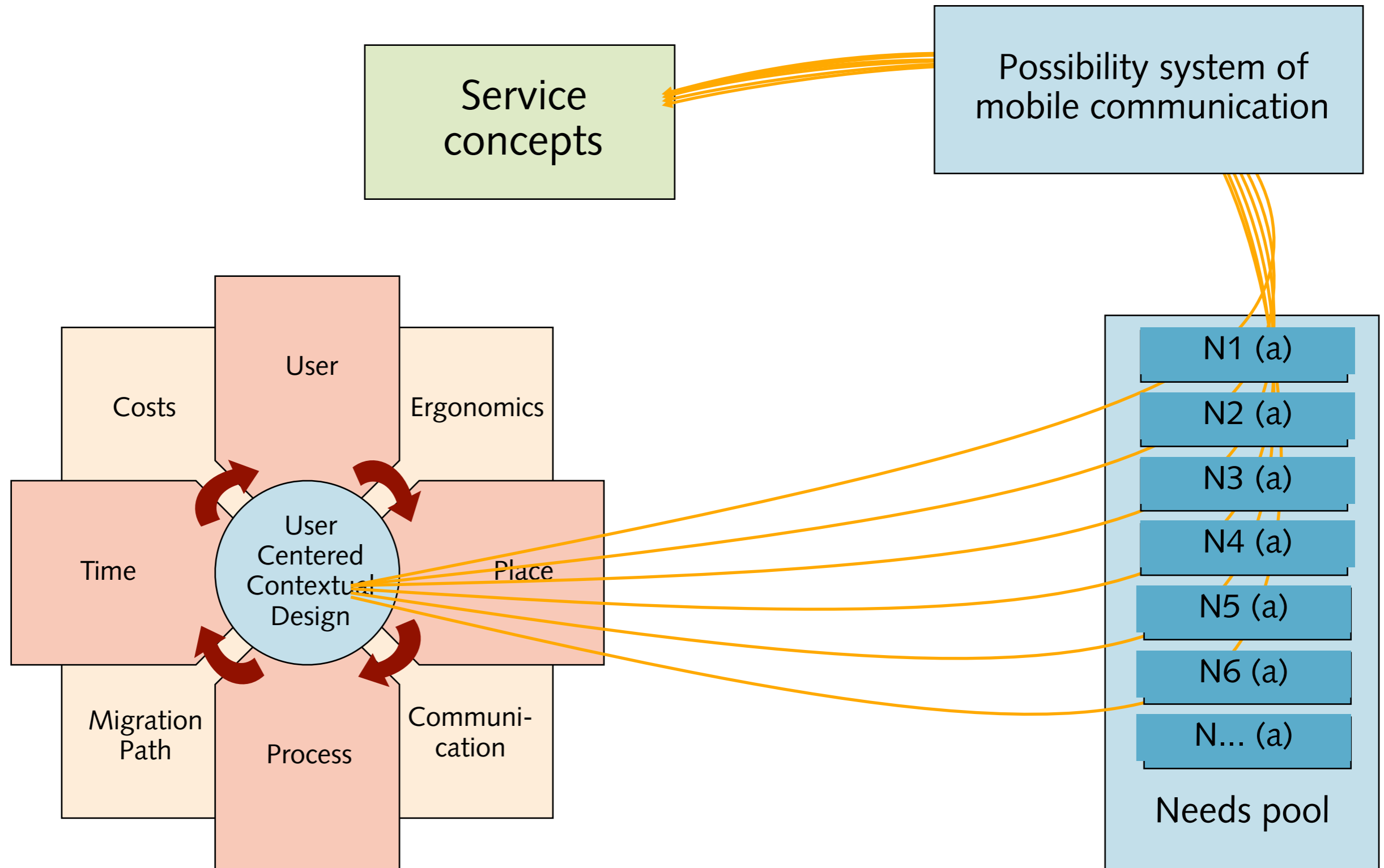
Develop contextual solutions



Evaluate service concepts with users

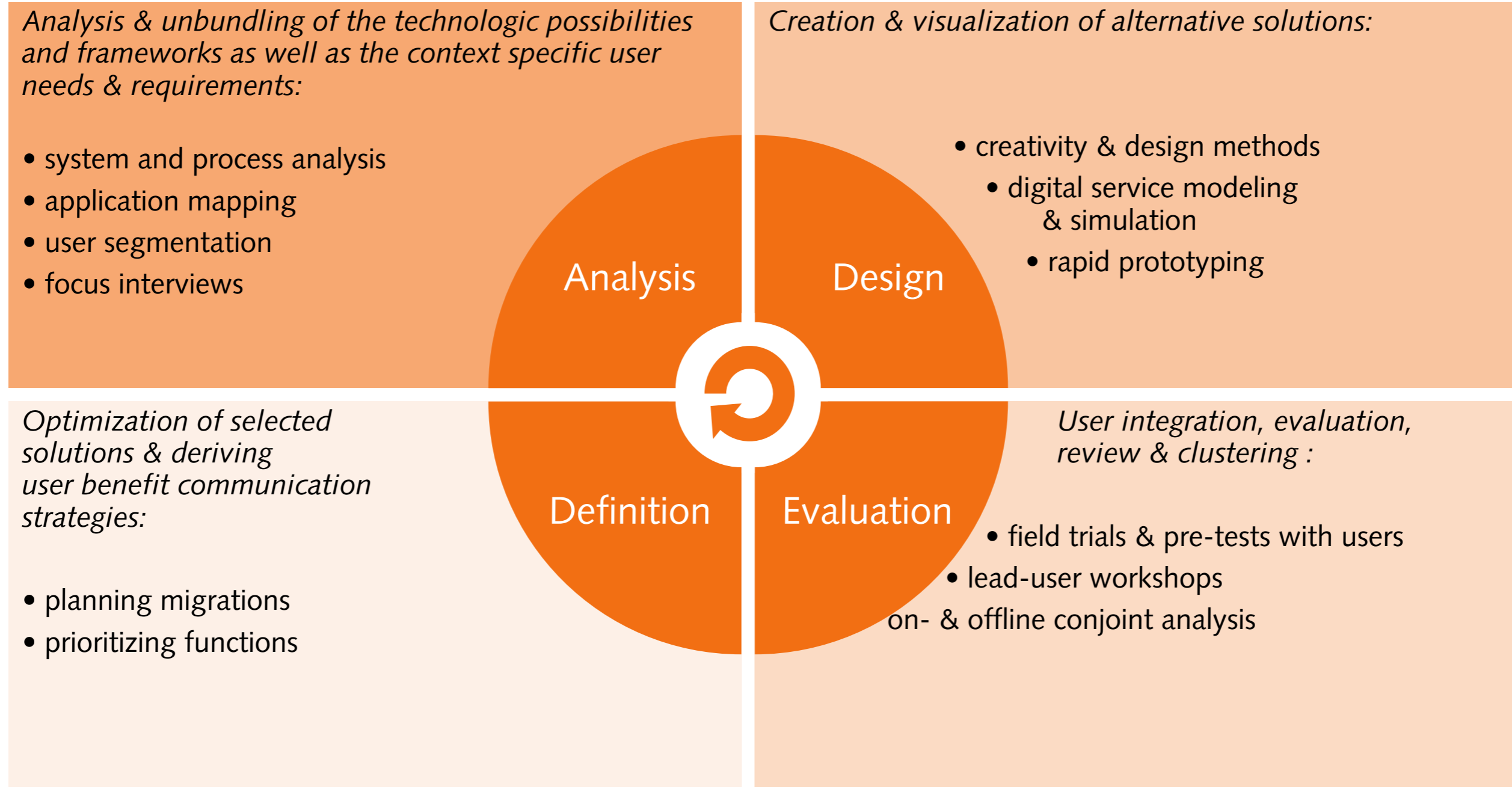


From context and scenario to needs & services





Methods behind need based service creation



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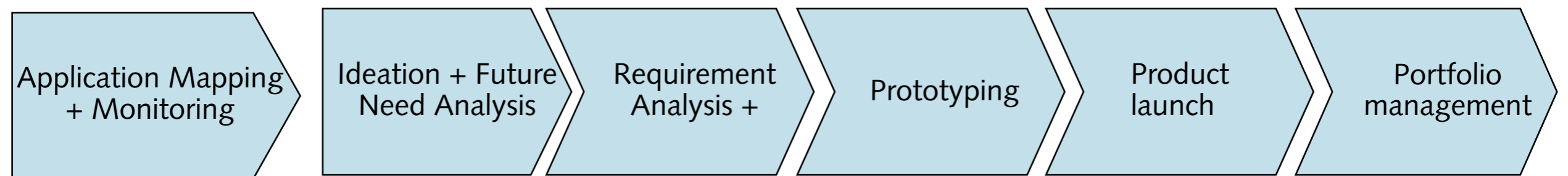
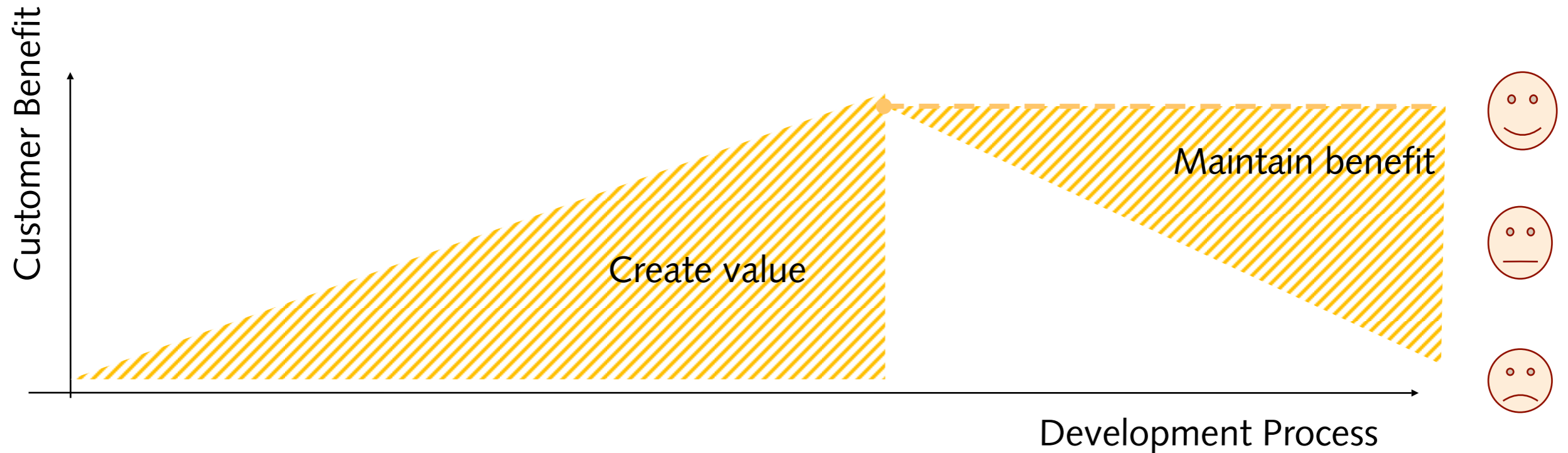
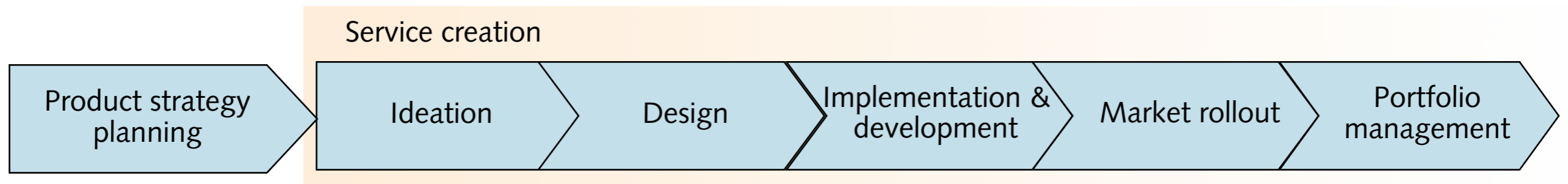
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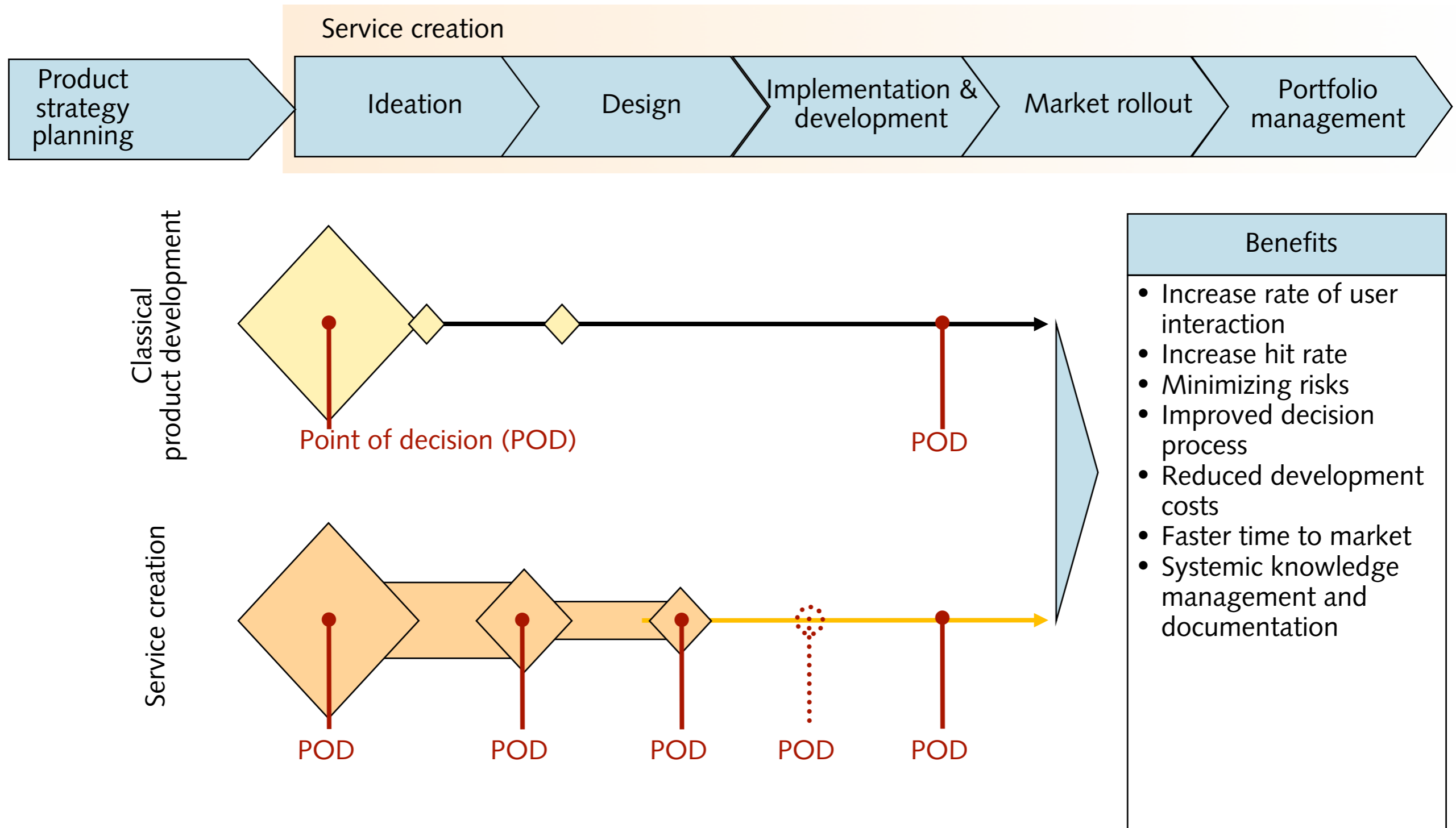
Sources & further reading

Service Creation

The focus on customer benefit and the creation of value has to start within the strategic planning and is „designed out“ till the Implementation



Integrating users into the decision process



Visualization & Modeling

	Sketching & Storyboarding	Rendering	Work Model	Functional Model	Prototype
What is presented?	Design framework	Basic concept	Logic & navigation	Functional interaction	Technological feasibility
What is the aim?	Define the contextual needs of users	Visualize the service idea	Make service understandable	Enable the service structure to be experienced	Evaluate the real service use & implementation
What's being worked with?	Sketch, user scenario, need and idea landscapes	Use case, graphics, collages	Flowcharts, mock-ups, slideshows	Interactive slideshows „stand-alone-applications“	Linked Applications „network-applications“

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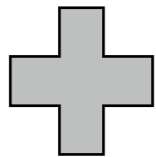
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Hands on ...

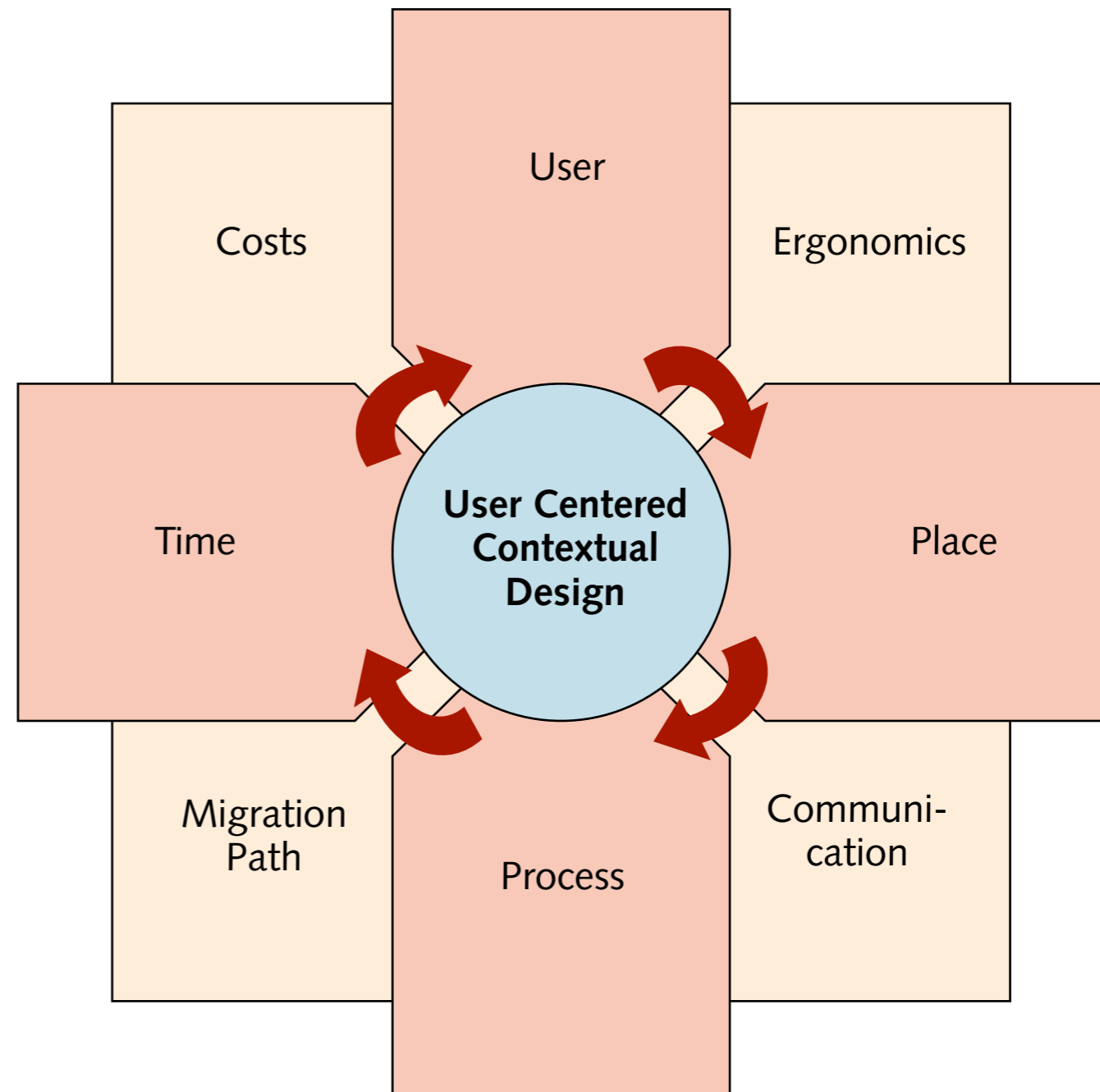
Analysing needs within
the user group



Develop contextual
solutions



Evaluate service
concepts with users



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Sources & further reading

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Thank you!

