



Systematic and customer-centric development of digital services

# Management summary – consortium project digital service development

### **Initial situation**

For the successful development and market launch of digital business models, industrial companies have to question their development approach. Two basic principles in particular have to be taken into account when developing digital services:

- Involving customers in the development process at an early stage
- Focus on the key performance components for rapid market entry (MVP principle)

Initial questions of the consortium project:

- How can an agile, iterative innovation and development approach be designed for digital, data-based business models in industrial companies?
- Which methods and concepts have proven successful in best practices?

### **Approach**

- The starting point is the **collection of requirements** for the development process on the basis of the requirements of
  the **consortium partners involved** as
  well as the development of a common
  target image
- Successful practices are identified and analysed, from which methods and recommendations for action for the successful development of digital services are derived
- Merging of successful practices and integration into the development approach of smart service engineering

### **Results for the consortium partners**

- Gaining and deepening of expertise for the development of digital, data-based business models
- Access to and detailed understanding of the "smart service engineering" development approach
- Successful practices for the development of digital, data-based business models
- **Digital service development audit** to check your current innovation process for weak points and the derivation of measures

# Through systematic service development on the way to digital services

#### **Basis Services**



Commissioning



Inspection



Spare Parts



Machine Moving



Maintenance



Overhaul

### **Value Services**



**Process Optimization** 



Factory Planning



Training



Upgrades



Trade-In



Operator Model



Service Level Agreements



Investment Planning

# **Digital Services**



Predictive Monitoring



Tool pooling



**Energy Management** 



**Smart Documents** 



Process Optimizer



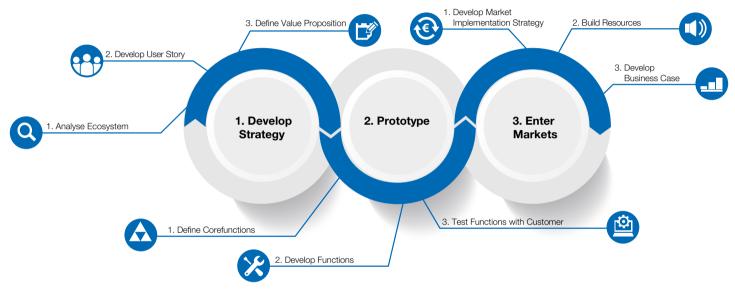
Performance Monitor



Production Optimizer



# The smart service engineering approach accelerates the development process of the digital services

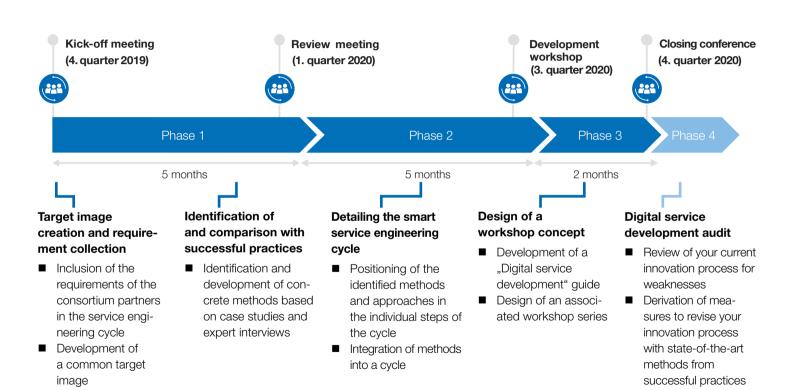


### **Challenges**

- **1.1** How can the ecosystem be defined?
- **1.2** How can customer needs be identified?
- **2.1** What are the core functionalities to be developed?
- **2.3** How can customers be involved in prototype construction?

- **3.1** How mature must a digital service be in order to be transferred to the market?
- **3.3** What does a business case look like taking customer acquisition costs into account?

# Procedure and timing of the consortium project



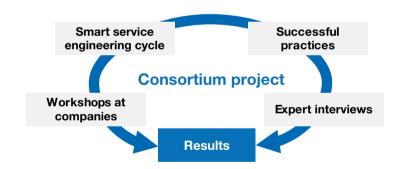
# The structure of the consortium

### **Consortium partners**

- Representatives of companies wishing to optimize their development process for digital services or set up a process
- Managers and experts in service, strategy development, business development and data analytics

### **Research institutes**





# Successful practice companies

- Companies that successfully develop data-based services
- Methods and procedures
- Strategic partners
- Technologies

### Interdisciplinary consortium

- Approx. 10 consortium partners
- € 35.000,- per partner
- 12 months term (from Q4 2019)
- International scope
- Kickoff and two workshops
- Closing conference and final documentation

# Your benefit in the consortium project digital service development

### Your benefit

Within twelve months you will learn how to design your innovation and development process for digital, data-based business models:

- Formulation of a methodology for the development of databased services including a detailed guideline
- Valuable contacts and direct exchange with other companies on the subject of "digital services" and gaining valuable knowledge, experience and practical suggestions
- Access to successful practice approaches from various industries in the field of digital service development
- Implementation of a one-day digital service development audit to check your current innovation process for weak points and derive measures



Development of digital services



Networking and information exchange



Qualification of employees



Experience from successful practices approaches

# Our references

			Trumpf				
		AVL	Siemens	GEA			
	Zitec		Dräger	Fresenius Medical Care	Zentis		
Sick	Ford	Daimler	More than 40 consortium partners	Compacer			
	Voith	Evonik	Miele		Innogy		
		SMS Group		Kuka	ABB	Philips	
					Bosch	Thyssen Krupp	Thales
						Lufthansa	

# **Excerpt from projects**

- Case competition with SMS Group, Philips, Bosch, Kuka, Materialise, Ford
- Consortial benchmarking "Data-based Services", "Smart Maintenance" and "Subscription Business"
- Market study "Industrial Machine Learning"
- Consortium project "Smart Service Distribution"
- Consortium project "Smart Service Check"
- And many more

# Framework conditions of the consortium projects

- Results are generated by experts of the Center Smart Services and the research partners
- Presentation and discussion of the results with representatives of the consortium partners in joint working meetings
- Cross-industry workshops moderated by experts from the Center Smart Services and keynote speeches by successful practice companies
- Networking in a cross-industry consortium and with research institutes of the RWTH Aachen Campus





# Your expenses for the digital service development consortium project

- The fee for participation is € 35.000,- per company (plus VAT).
- The fee for Center Smart Services members is € 27.500,– (plus VAT).
- All expenses (excl. travel expenses) for the realization and documentation of the project are included in this amount.
- A one-day digital service development audit is included in the participation fee. Further one-day audits (e. g. at several locations) can be booked for an amount of € 5.200, – each (plus travel expenses).



# Participating centers

# Contact



### **Center Smart Services**

The Center Smart Services in the Smart Logistics Cluster on the RWTH Aachen Campus is a fusion of research and industry with a focus on data-based, industrial services. Within the consortium, concrete topics can be developed with several partners in consortium projects within a short period of time, without external requirements such as public funding initiatives restricting the speed of innovative projects.



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