

Exploit opportunities of XaaS business models in mechanical engineering

Growth in saturated markets and access to new markets by adding XaaS offerings to the service portfolio

How to get started?

Proven Fraunhofer workshop formats



Entry point beginner



XaaS Explorer

Identifying XaaS potential in your own company

Is XaaS interesting for my company?

Result

Overview of XaaS potentials
Ideas for XaaS business model are developed

Procedure

Impetus through industry examples and field reports
Methodical idea generation and prioritization

Scope

Half-day workshop (on-site preferred)
3600,-€



Entry point advanced



XaaS Stress Testing

Validate XaaS concept & implementation planning

Are we on the right track?

Result

Fields of action for adaptation are identified
Next steps (for implementation) are defined

Procedure

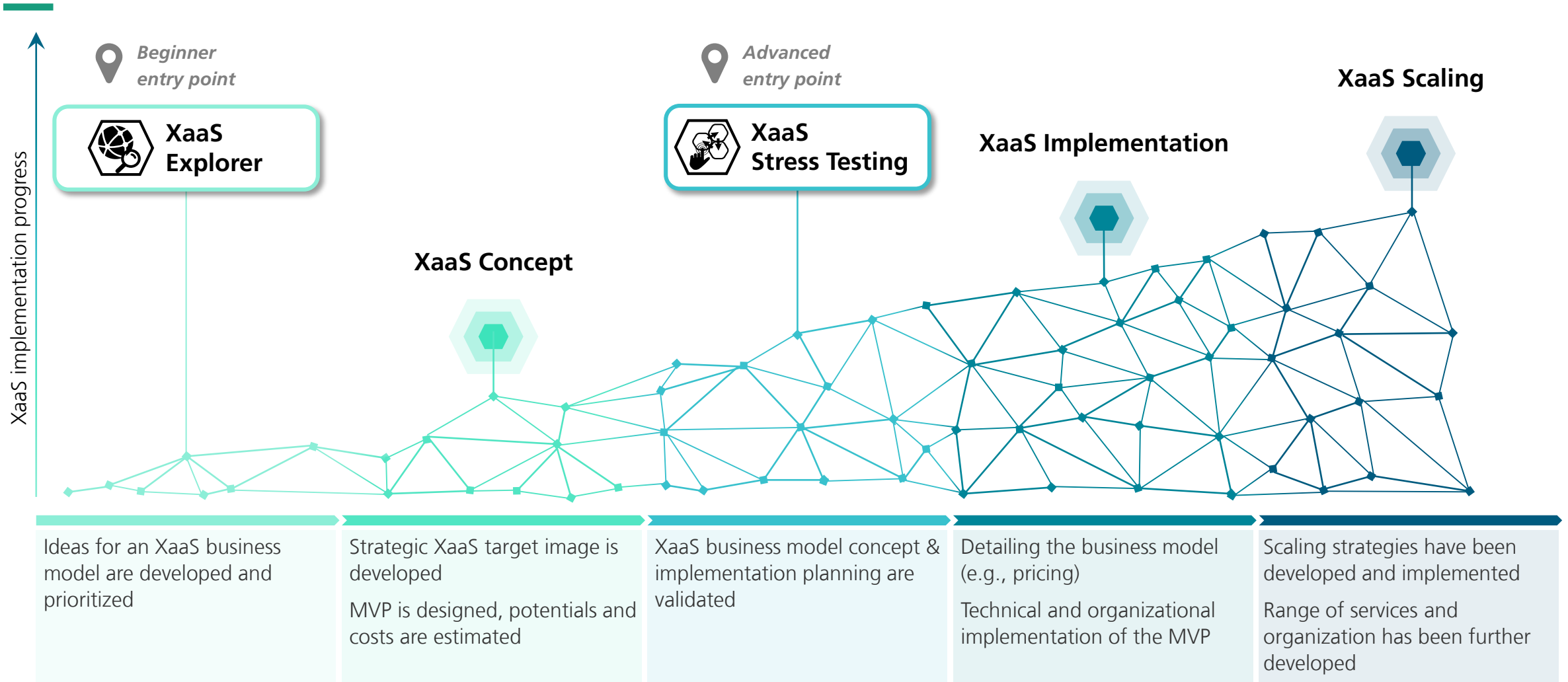
Reflection XaaS concept & implementation planning
Feedback on project and approach

Scope

Half-day workshop (on-site preferred)
3600,-€

Possible entry points for collaboration

Outlook: XaaS Roadmap



XaaS Explorer - Is XaaS interesting for my company?

Starting point for companies without prior work in the XaaS context



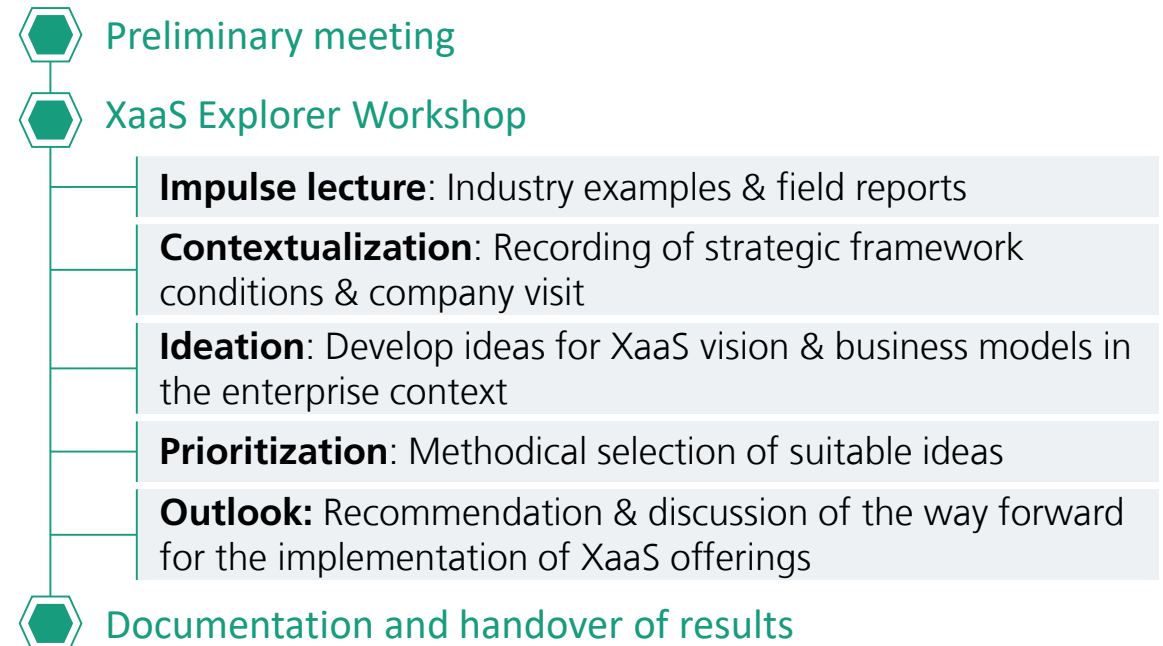
XaaS Explorer

Identifying XaaS potential in your own company

Overview

Result	Overview of XaaS potentials Ideas for XaaS business model are developed
Procedure	Impetus through industry examples and field reports Methodical idea generation and prioritization
Target group	Companies <u>without prior work</u> in the XaaS context Participant group: Executive board, management
Scope	Half-day workshop (on-site preferred) 3600,-€

How does the XaaS Explorer work?



XaaS Stress Testing - Are we on the right track?

Starting point for companies with preliminary work in the XaaS context



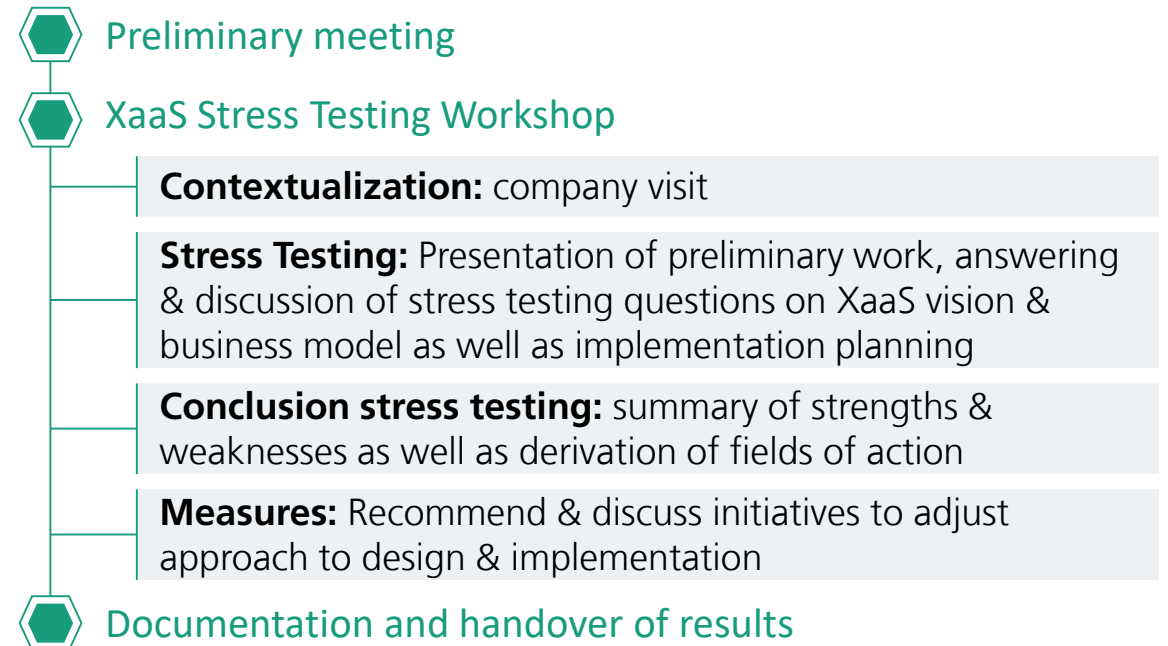
XaaS Stress Testing

Validate XaaS concept & implementation planning

Overview

Result	Fields of action for adaptation are identified Next steps (for implementation) are defined
Procedure	Reflection XaaS concept & implementation planning Feedback on project and approach
Target group	Companies <u>with preliminary work</u> in the XaaS context Participant group: Executive board, management
Scope	Half-day workshop (on-site preferred) 3600,-€

How does XaaS stress testing work?



In detail: What happens after the explorer and stress testing?

Proven Fraunhofer project formats



XaaS Concept

Concept development & validation

Result

Strategic XaaS target & MVP defined as starting point
MVP validated by customer, implementation risk & potential assessed
Implementation requirements are determined

Procedure

Joint project with Fraunhofer IPA

Scope

Duration approx. 4-8 weeks (company-specific)



XaaS Implementation

Implementation planning & support

Result

Technical & organizational implementation (of the MVP) completed
Technical implementation support & financiers are selected (if needed)
Project mmgt. carried out

Procedure

Joint project with Fraunhofer IPA (& partners from the FhG network)

Scope

Duration approx. 6-18 months (company-specific)



XaaS Scaling

Scaling strategy & support

Result

Scaling roadmap
Additional customer segments have been developed, business model has been adapted
Business ecosystem is established, collaboration is organized

Procedure

Joint project with Fraunhofer IPA (& partners from the FhG network)

Scope

Duration more than one month (company-specific)

References

Initiative of the State of Baden-Württemberg (investBW)


Collaborative Development and Commercialization of XaaS Services



Consortium leader:
TRUMPF
(+ 8 partner)

XaaS applications for necessary end-to-end sub-processes to make manufacturing more flexible

Project volume: € 5m



Consortium leader:
MAPAL
(+ 4 partner)

XaaS application with success and results-oriented business model for metal processing

Project volume: € 2,3m



Consortium leader:
WEINIG
(+ 2 partner)

XaaS application with usage-based business model for woodworking

Project volume: € 1,9m



Consortium leader:
WITTENSTEIN
(+ 2 partner)

XaaS application for end-to-end value network across product lifecycle

Project volume: € 1,9m

Project duration:
October 2021 to September 2023

Transfer and research partners:



Productivity-as-a-Service (PRODaaS)

Stable and efficient machining process as a value proposition

Productivity as a Service

PRODaaS

Ein X-FORGE BW Projekt

Problem



Increasing price pressure

Classic machining companies such as tool and mould makers are under increasing price pressure in the face of international competition



Lower productivity

Downtimes due to tool breakage or insufficient surface quality of the workpieces due to a lack of opportunities for process optimization and learning effects



Lack of optimization of the overall system

Although the process is already monitored by many sensors, the existing solutions only offer a limited view of the overall system consisting of machine, tool and workpiece



Combination of competencies necessary

Only by combining the capabilities of machine, tool and metrology manufacturers, as well as the holistic use of existing sensor data, can the complexity of the problem be mastered.

Objective (target image of „autonomous machining“)

- „Productivity-as-a-Service“ offer for stable and efficient machining processes
- Flexible bookable and affordable solution from a single source
- Automated end-to-end processes form the backbone of the offer

Working consortium



Reference: Business Model Development – Strategic Alignment

Development of a Digital Business Model Strategy

Task

Strategy development for digital transformation: restructuring of the portfolio of offerings with a shift in focus to technology and market maturity, reorganization of project management

Solution

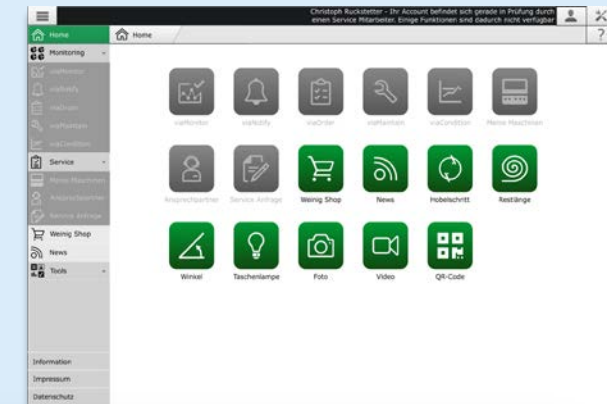
Fraunhofer IPA developed a coordinated strategy together with Weinig in terms of strategic direction, future business models, prioritized projects and necessary competencies.

Benefit

- Analysis, classification and prioritization of value propositions
- Creation of a vision or mission statement
- New and further development of digital add-on offers, new business models and applications
- Re-planning the future organization



Michael WEINIG AG



Reference: Business Model Development - Agile Transformation

Developing a data-driven business model, empowered by digitalization

Task

Based on new technological possibilities and market requirements, EOS sees a need for change with regard to its own business model.

Solution

Together with Fraunhofer IPA, EOS developed a new data-driven business model that enables EOS to generate additional value for its customers.

Benefit

- Increasing the agility of the organizational structure
- Improved communication within the organization
- Closer cooperation with partners and customers



EOS GmbH

» ***Together with Fraunhofer IPA, we have succeeded in laying the foundation for a data-driven business model that will position EOS as a provider of highly integrated solutions in the field of additive manufacturing on the global market.*** «

Güngör Kara
Chief Digital Officer

Contact



Fraunhofer Institute for Manufacturing
Engineering and Automation IPA



MBE, Tech. Dipl.-Betriebswirt

Oliver Schöllhammer

Head of Department
Corporate strategy and development

Phone: +49 711 970-1947

oliver.schoellhammer@ipa.fraunhofer.de



M.Sc.

Jan Lukas Schmitt

Research Associate
Corporate strategy and development

Phone: +49 711 970-1006

jan.lukas.schmitt@ipa.fraunhofer.de

Future is our product

Sustainable. Personalized. Smart.