

BSH Home Appliances Group

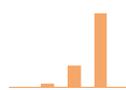
B/S/H/

Interaction Concepts for the upcoming connected kitchen

2018-10-15

BSH Hausgeräte GmbH | Company Facts

 **Nr. 1**
In Europe

 **13.8** Mrd.
Euros in Revenue

 **43**
Factories

 **61,800**
Employees

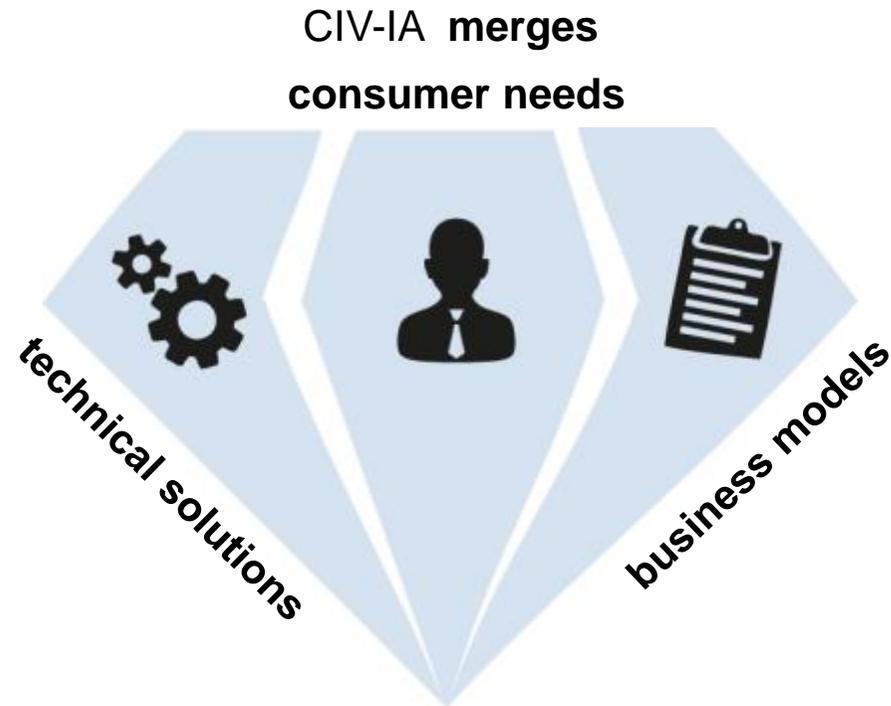
 **4.5%**
Research and Development



idea



implementation



**“How do we interact with
the upcoming
connected kitchen?”**

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Kitchen of the Future | Trends



Social Kitchen



Flexible Use



Multi-Functionality



Connected Appliances



“ Fields of Interest are social and cultural trends which determine the users' needs. The intelligent connected kitchen supports the user in performing the tasks. ”

- 1 **Healthy Living**
- 2 **Inspiration and Improvisation**
- 3 **Simplification and Focus**
- 4 **Social Connection**
- 5 **Creative Control and Transparency**

Fields of Interest | Healthy Living

Possibilities

- Nutritional information
- Dietary programs, food intolerances
- self-monitoring, self-control and responsibility/ guilt
- conscious consumption: sacrificing convenience for greater good
- Support for oneself and family
- ...



Fields of Interest | Inspiration and Improvisation

Possibilities

- Inspiration through “in-the-moment suggestions”
- Simple ideas for cooking and eating
- Surprising Interplay of Home Elements/ Appliances
- Mistakes and Workarounds
- Ingredient replacement while cooking or running out of something
- Detection of mistakes while cooking/baking and suggest workarounds
- Based on what’s in your fridge or your cooking history
- ...



Fields of Interest | Simplification and Focus

Possibilities

- Reduction of multitasking
- Reduction of visual/ cognitive overload
- Need for natural and simple interactions that notify the user
- undistracted focus (also as a function of self improvement)
- concentration on one task
- kitchen must fulfil its numerous functions in a quick and effective way



Fields of Interest | Social Connection

Possibilities

- meaningful connection & intimacy
- collaboration for inspiration & motivation
- share our experiences at home with others
- feeling of being embedded into a social environment
- social responsibilities

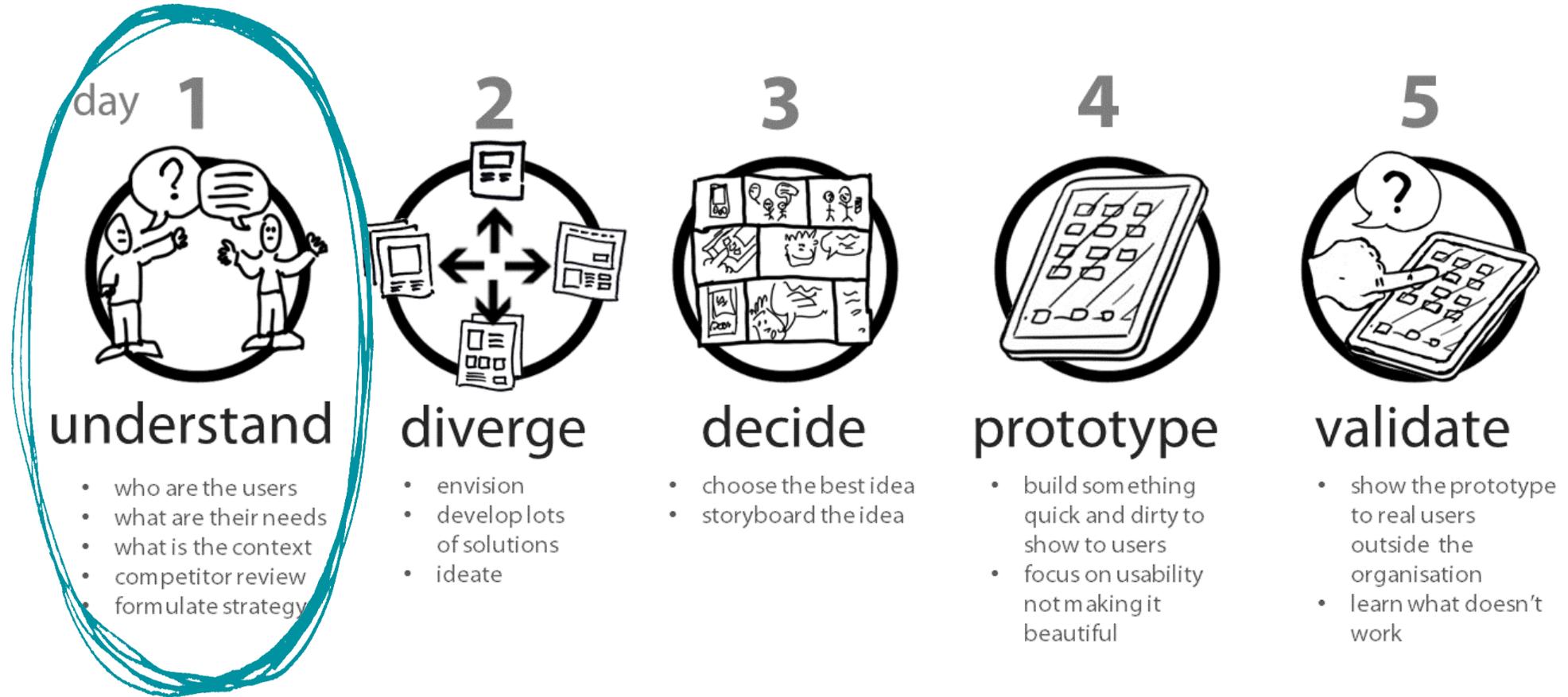


Fields of Interest | Creative Control and Transparency

Possibilities

- not controlled by the digital world, staying in charge
- feedback and reassurance (control/ transparency/ notifications)
- supporting inhabitants to feel empowered and reassured to handle complexity and to see and feel personal choice and self-control.
- retaining self-efficacy (~ Selbstwirksamkeit)





User Needs | Jobs, Journeys and the Customer Profile Map

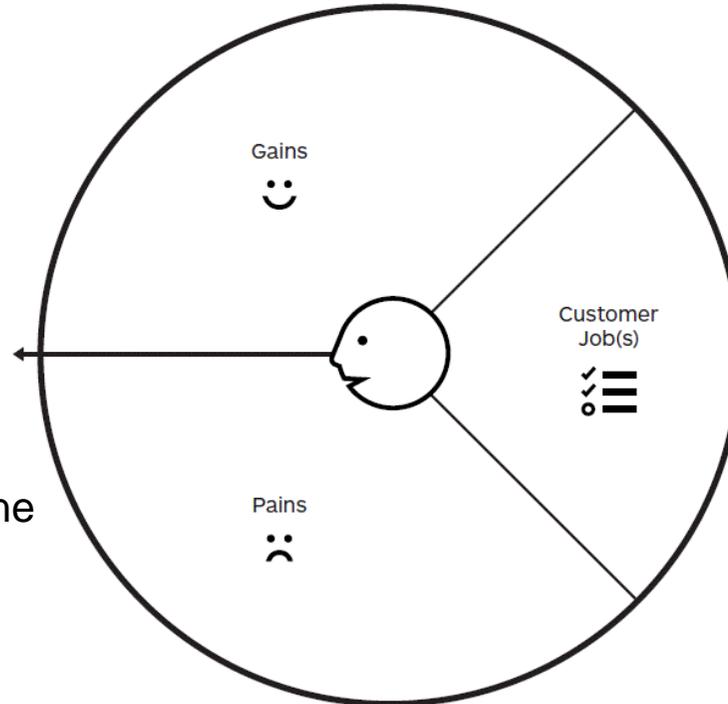


GAINS:

- Desired results & outcomes
- Social gains
- Functional goals
- Positive emotions
- Cost savings

PAINS:

- Annoying
- Hindering from getting job done
- Undesired outcomes
- Problems
- Obstacles
- Risks
- Unfulfilled needs



JOBS:

- Task to perform
- Things to be done
- Problems to solve
- Needs to satisfy

Jobs can be clustered in Journeys.

Interaction | Characteristics of Future Intelligent Systems



Interaction | Characteristics of Future Intelligent Systems



- 1 **Personalization**
- 2 **Context-Awareness**
- 3 **Autonomy**
- 4 **Adaptive Multi-Modal Interaction**
- 5 **Designed for Experience**
- 6 **Connected to Appliances**



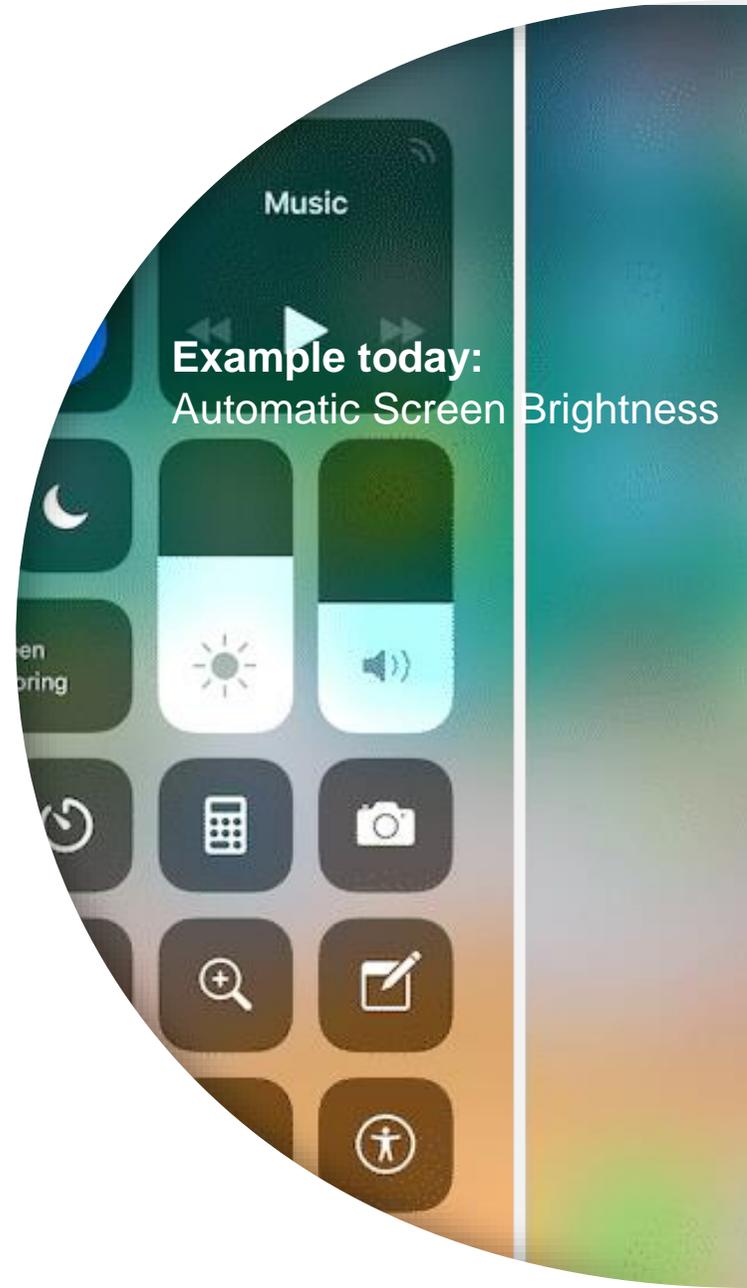
Example today:
Google Home Voice
Recognition

“ ... personalized and individualized provision of services, information and products. ”





“ ... sensing and utilization of information such as time, location, device, identity, user, role, privilege level, activity, task, process and nearby devices/users. ”





“ ... independent planning, deciding and acting based on given situation and admission. ”

Example today:
Driverless transport
Hamburg terminal





“ the interaction with intelligent systems utilizes multiple human senses, the use case determines the interaction modality.. ”



Example today:
BMW 7 In-Car
Multimedia Control



“... enhancing user satisfaction with a product by improving the usability, accessibility, and pleasure provided in the interaction with the product, addressing all aspects of a product or service as perceived by users.”



Interaction | Connected to Appliances

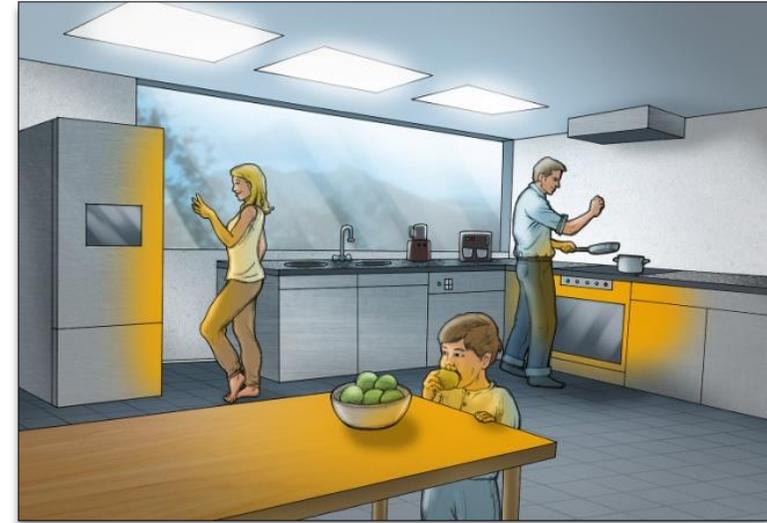
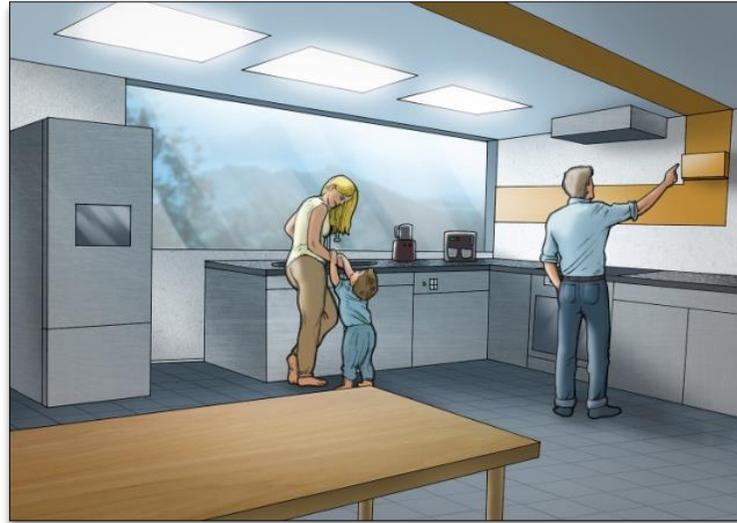


“ ... being able to collect, exchange and utilize information with the appliances in the connected kitchen. ”

Example today:
BSH Home Connect



Interaction | Where is the interaction and the intelligence?



Mobile

Integrated

Ubiquitous

KUI | Summary



- Social Kitchen
- Flexible Use
- Multi-Functionality
- Connected Appliances



- Jobs/ Pains/ Gains

**Interaction Concepts
for the upcoming
connected kitchen**



- Personalization
- Context-Awareness
- Autonomy
- Adaptive Multi-Modal Interaction
- Experience Design
- Connected to Appliances

- Healthy Living
- Inspiration and Improvisation
- Simplification and Focus
- Social Connection
- Creative Control and Transparency



... select one.

KUI | How do we interact with the upcoming connected kitchen?



BACKUP