

# Interaction Design

Chapter 10 (July 14, 2016, 9am-12pm):  
Service Design

### III Beyond the Desktop

May

June

July

Two fundamental questions...

What is a product?

What is a service?

GRAPHIC  
DESIGN



**2D**

PRODUCT  
DESIGN



**3D**

+Z-axis  
(spatial depth)

INTERACTION  
DESIGN



**4D**

+T-axis  
(temporal dimension)

SERVICE  
DESIGN

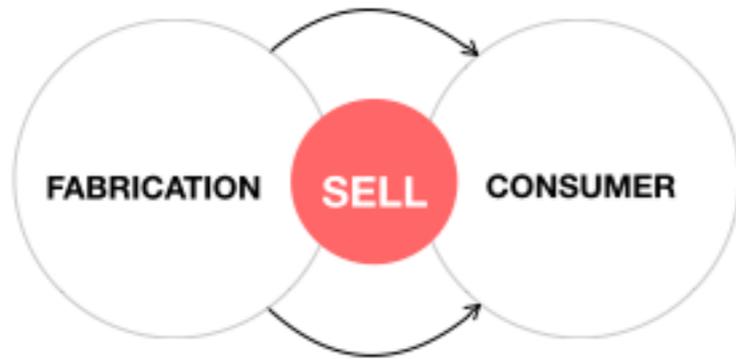


**5D**

+W-axis  
(multi-local simultaneity)

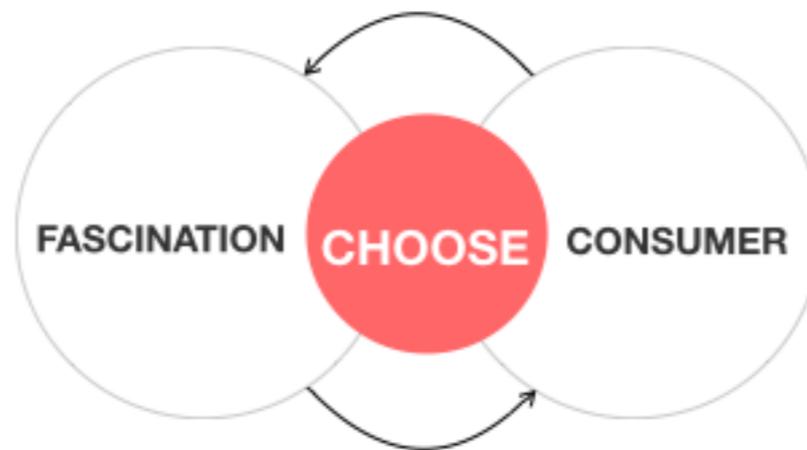
# A new marketing logic.

The day before yesterday



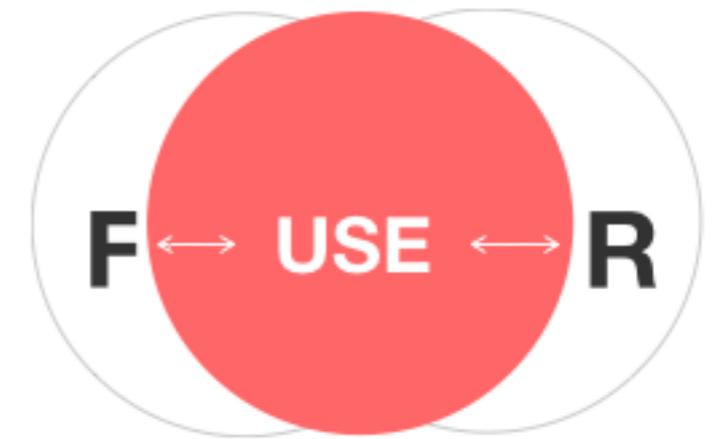
FOCUS:  
SALES

Yesterday



FOCUS:  
ADVERTISING

Today



FOCUS:  
PRODUCTS & SERVICES

What do they have in common?



# Front Stage



# Back Stage

<http://blog.entrepreneurhearts.com/etablog/wp-content/uploads/2010/08/backstage.jpg>

You are what you use...not what  
you own

**Slogan From Live/Work**



source: [3]



# Phone Service

[http://3.bp.blogspot.com/\\_Tjn2n1CMss0/TTsJZ\\_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone\\_operators\\_springfield\\_il.jpg](http://3.bp.blogspot.com/_Tjn2n1CMss0/TTsJZ_GCTII/AAAAAAAAFXI/QvUK4TfntBY/s400/telephone_operators_springfield_il.jpg)



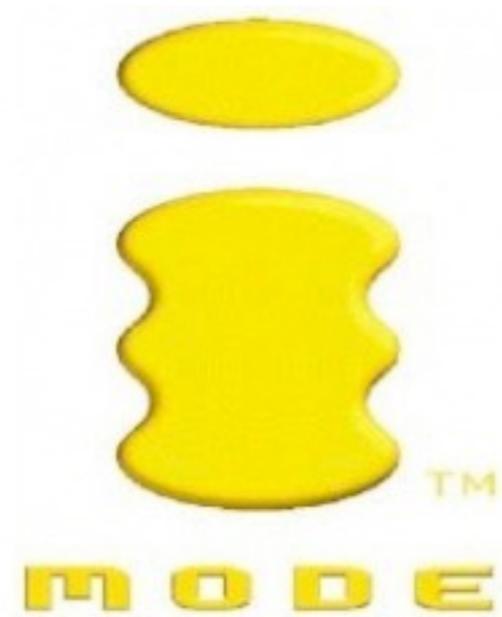
People, Places, Products...

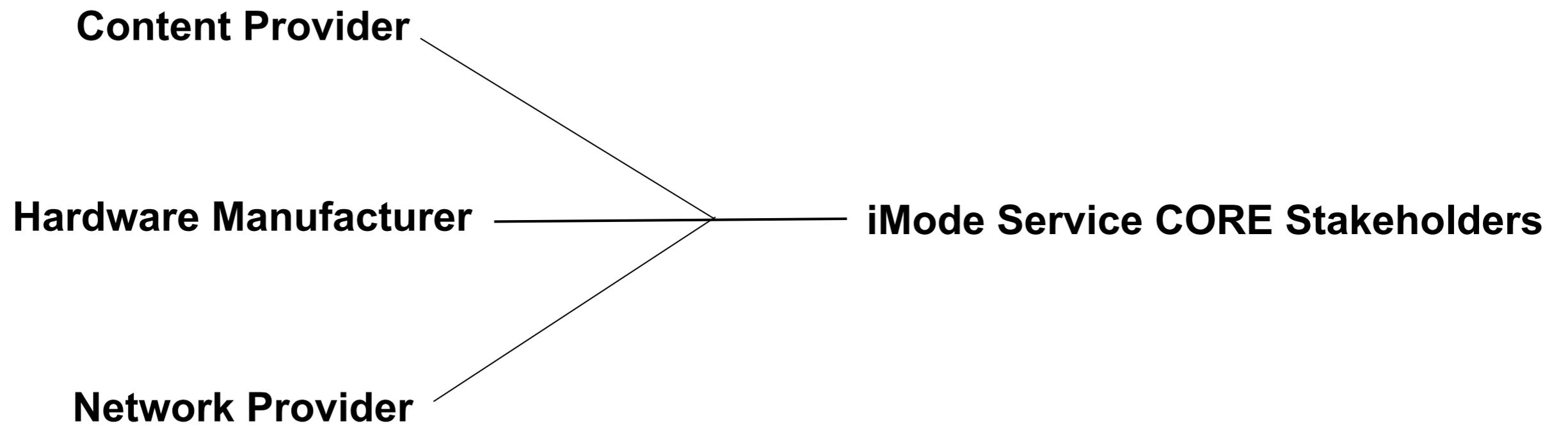
source: [3]

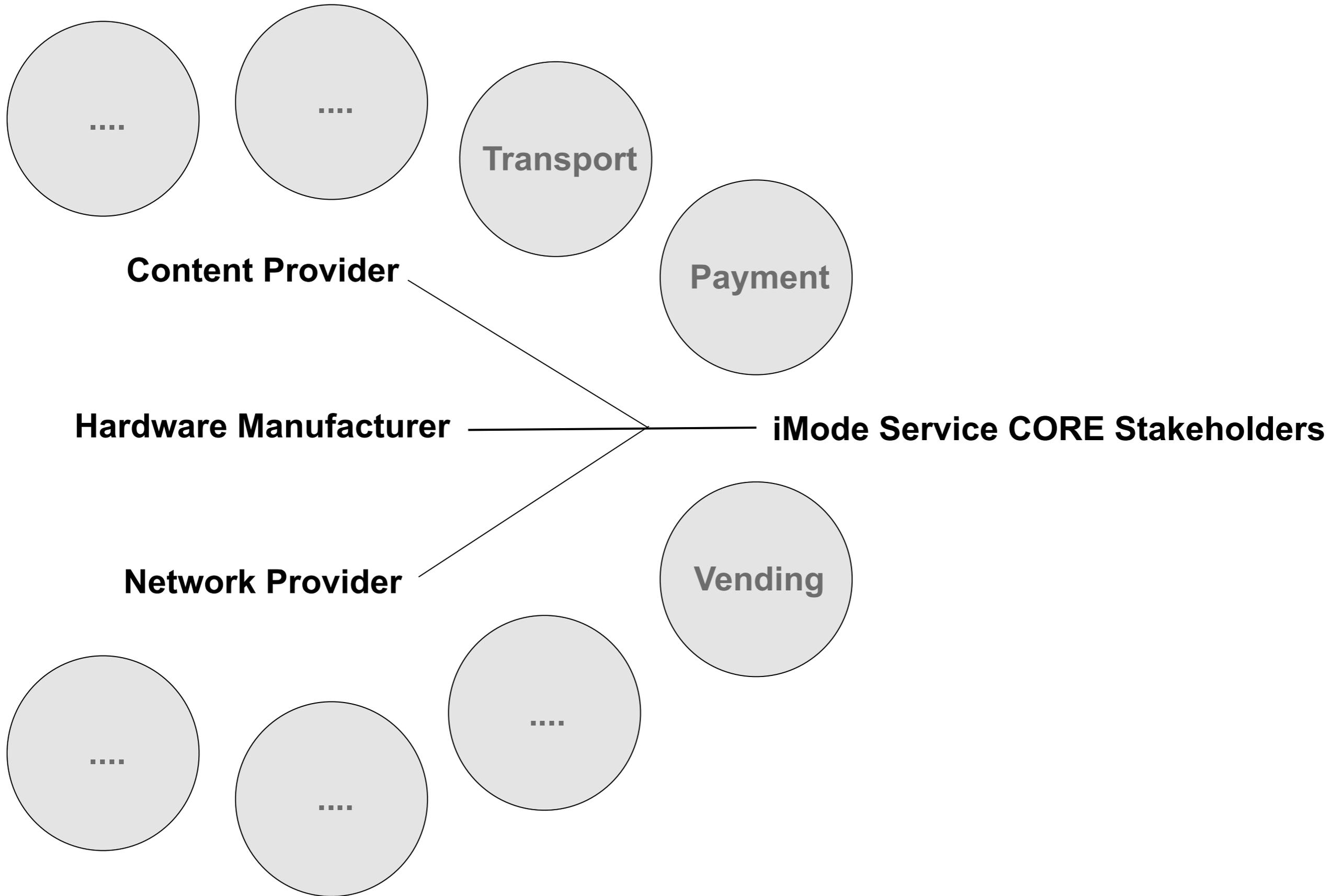


## Processes and Performance

source: [3]









# Traveling with an Airline

<http://www.tropicalisland.de/CPT%20Cape%20Town%20International%20Airport%20South%20African%20Airways%20B747-400%20aircraft%20b.jpg>

# 1998

go to travel agent



receive tickets by mail



go to the check in desk



receive boarding pass



check in bags



board plane

# Today

go to airlines website



receive mobile boarding pass



drop bags at self check in



board plane



# Urban Interfaces



# Urban Interfaces

# **Service Design in a Nutshell**

One (over-) view from a company called Live!Work...



IF A COMMUNITY SHARES A CAR  
 IN A PARTICULAR LOCATION  
**THEN** WHAT ACCESS MECHANISM  
 DO THEY USE TO GET INTO THE CAR?

# Service Design

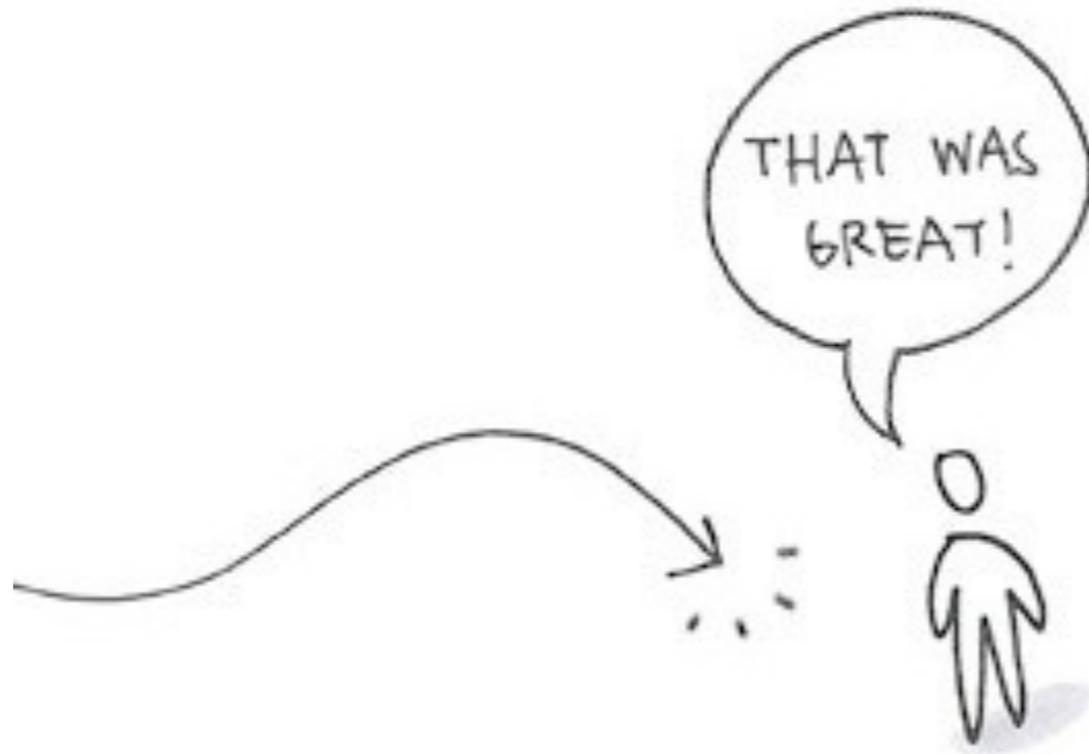
ensures that all the **touchpoints** work brilliantly...



source: <http://www.livework.co.uk/>

# Service Design

ensures that the touchpoints work together to create wonderful **experiences**



source: <http://www.livework.co.uk/>

# Service Design

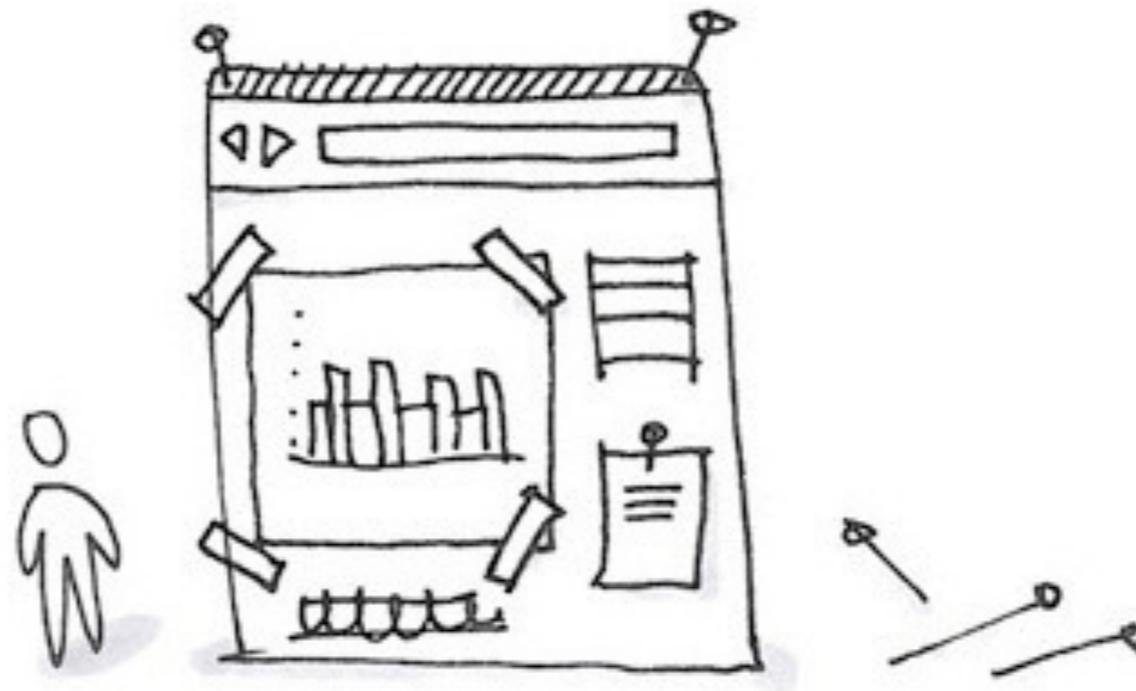
**involves** people that use and provide the service



source: <http://www.livework.co.uk/>

# Service Design

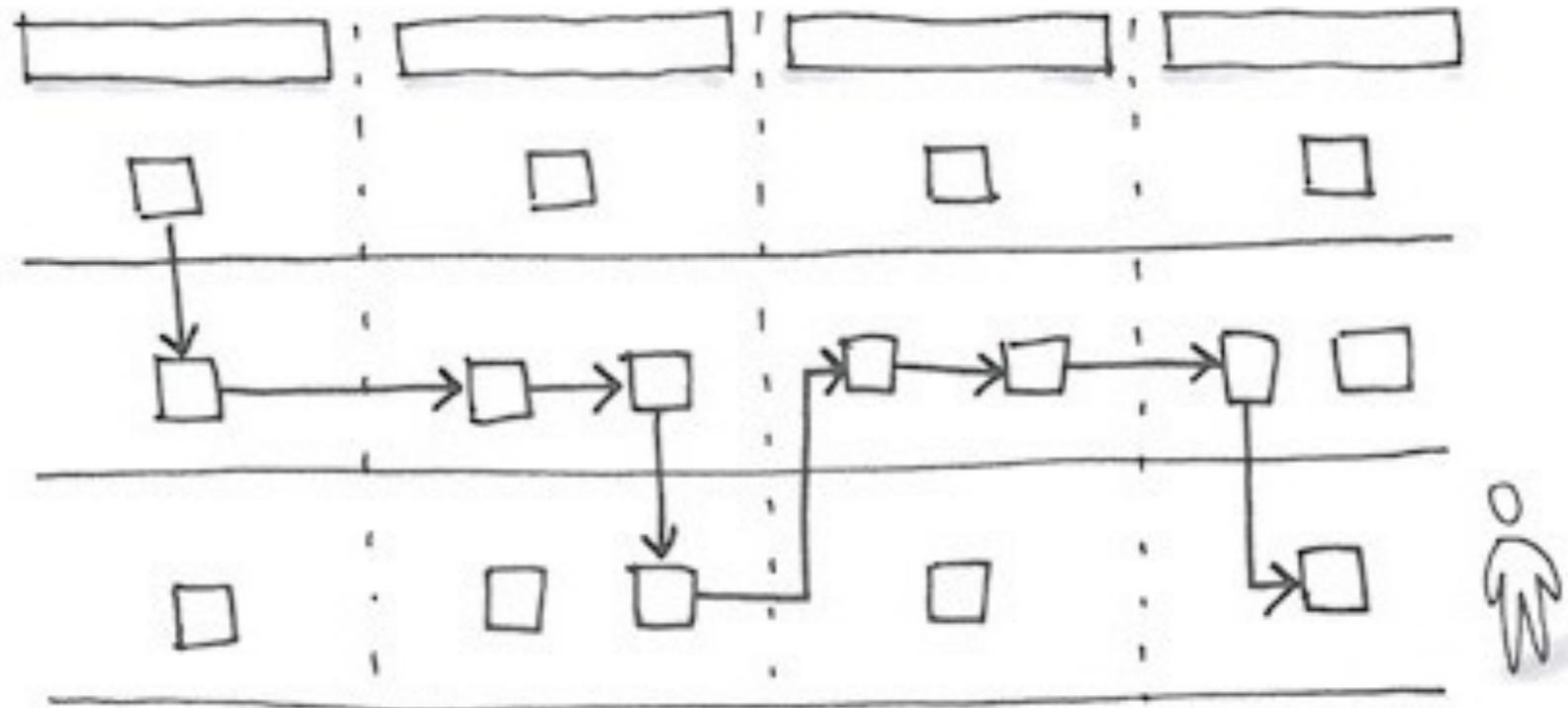
**tests** a new service with users to make sure all works



source: <http://www.livework.co.uk/>

# Service Design

ensures that all parts work together throughout the **customer journey**



source: <http://www.livework.co.uk/>

Streetcar

www.streetcar.co.uk

11:21 11 Feb 2011

**streetcar**<sup>®</sup>

What's Streetcar? | Join | Locations | Pricing | For Organisations | FAQs

**The self-service pay-as-you-go car**

Streetcar's range of self-service cars and vans are available 24/7 for rent by the hour, day, week or month.

Book any car in the fleet online or by phone, and then use your Streetcar smartcard to pick up and return the car. Hourly rates start from £4.95, or £49.50 for 24 hours.

**Register for the Club**

**Book a Car**

**Member Login**

**Find your nearest**  
Enter your postcode  
 **Go**

Or click here to browse all UK locations >>

**Streetcar For Business**  
Streetcar for Companies, Public Sector and Property Developers. More>>

**How does it work?**

- 1. Book**  
By phone or use our easy online booking engine  
*10.00AM* ✓
- 2. Unlock**  
Your Streetcard will let you into the car.
- 3. PIN**  
Type a unique PIN into the dashboard  
\*\*\*\*
- 4. Drive**  
Use the car like it's your own

[About Us](#) | [Join](#) | [Media](#) | [Contact](#) | [FAQs](#) | [Terms & Conditions](#)

Streetcar Limited - Registration No. 04525217 Registered in England and Wales.  
VAT registration number 832 4283 39 Registered Office: Melbury House 51 Wimbledon Hill Road Wimbledon SW19 7QW

# Service Example: Streetcar

Welcome [Sign in](#) or [Register](#)

**easyJet.com** 




[Flights](#) ▾   
 [Where to stay](#) ▾   
 [Getting around](#) ▾   
 [Essentials](#) ▾   
 [What to do](#) ▾

Join our Great Getaway!

**The Great Getaway!**  
**2.5 million seats for £29.99\*** or less  
 Book your flights here 



There are 2.5 million seats at £29.99\* or less

For travel between 1 March and 13 July 2011.

So whether you want to see the spring flowers in **Amsterdam**, get a new season's wardrobe in **Milan** or kick off a summer of partying in **Barcelona**, there could be a bargain seat with your name on it.

Below are just some of the top routes available. Hurry these prices are only available while stocks last.

- London Gatwick
- Edinburgh £23.99<sup>1</sup>
- Glasgow £23.99<sup>1</sup>
- Nice £25.99<sup>1</sup>
- Barcelona £27.99<sup>1</sup>
- Geneva £27.99<sup>1</sup>
- Malaga £27.99<sup>1</sup>
- Milan Malpensa £27.99<sup>1</sup>
- Toulouse £27.99<sup>1</sup>
- Faro £29.99<sup>1</sup>
- London Luton
- Edinburgh £29.99<sup>1</sup>

▼ **Book a cheap flight**

Flying from

Going to

One way only   
  Flexible on dates

Outbound:     
 Return:  

Adults     
 Children (<16)     
 Infants (<2)  

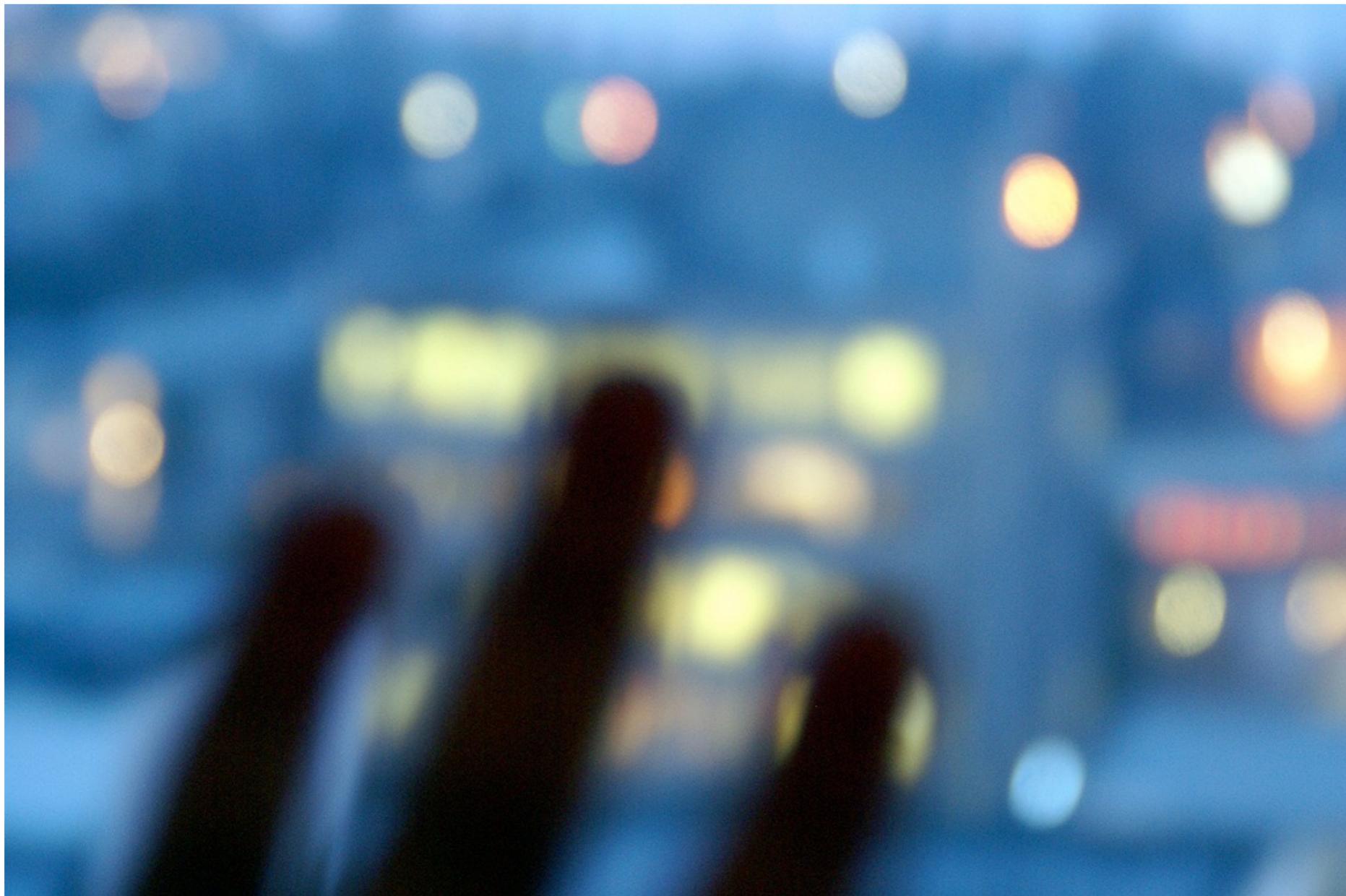
# Service Example: EasyJet

# What is a service?

- a chain of activities that form a process and have value for the end user  
(**customer journey**)
- services affect our daily quality of life  
(**user experience**)
- service design is somehow similar to systems design  
(**service blueprints**)
- service design focuses on the entire system of use  
(**via touchpoints**)

# 1. Intangible

Although services are often populated with objects, the service itself is ephemeral, customers can't see or touch the service itself-only the physical embodiments



## 2. Provider ownership

Customers who use a service may come away from it with an owned object such as a cup of coffee or used car, but they don't own the service itself.



[http://filecache.drivetheweb.com/mr4enh\\_zipcar/71/photo\\_zipcar\\_prius.jpg](http://filecache.drivetheweb.com/mr4enh_zipcar/71/photo_zipcar_prius.jpg)

source: [5]

### 3. Co-created

Services aren't made by the service provider alone; they require the involvement and engagement of the customers as well.



## 4. Flexible

Each new situation or customer requires that the service adapt to it



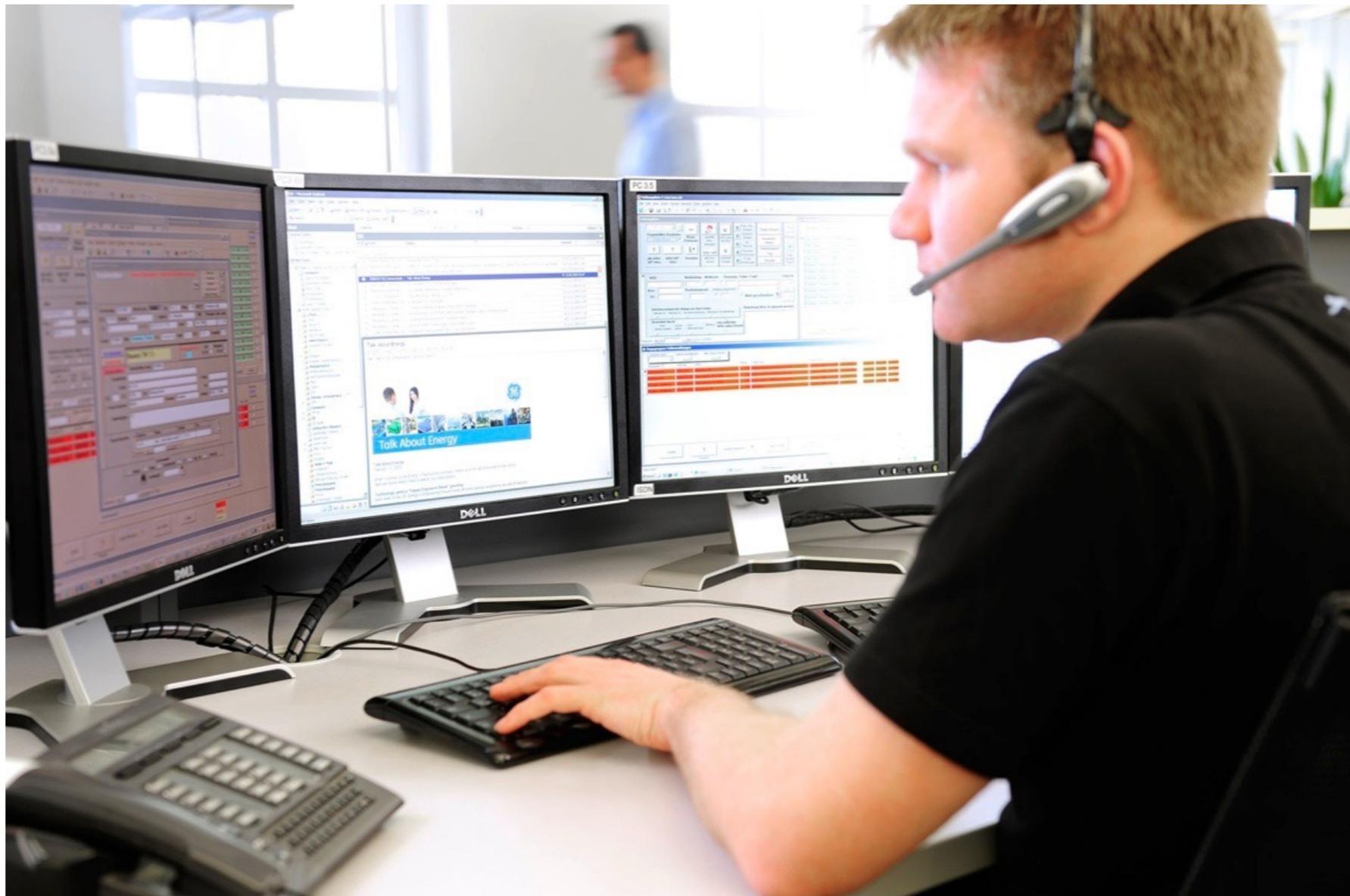
## 5. Time Based

Services take time to perform, and that time cannot be recovered if lost.



## 6. Active

Services a created by human labor and are thus difficult to scale.



## 7. Fluctuating demand.

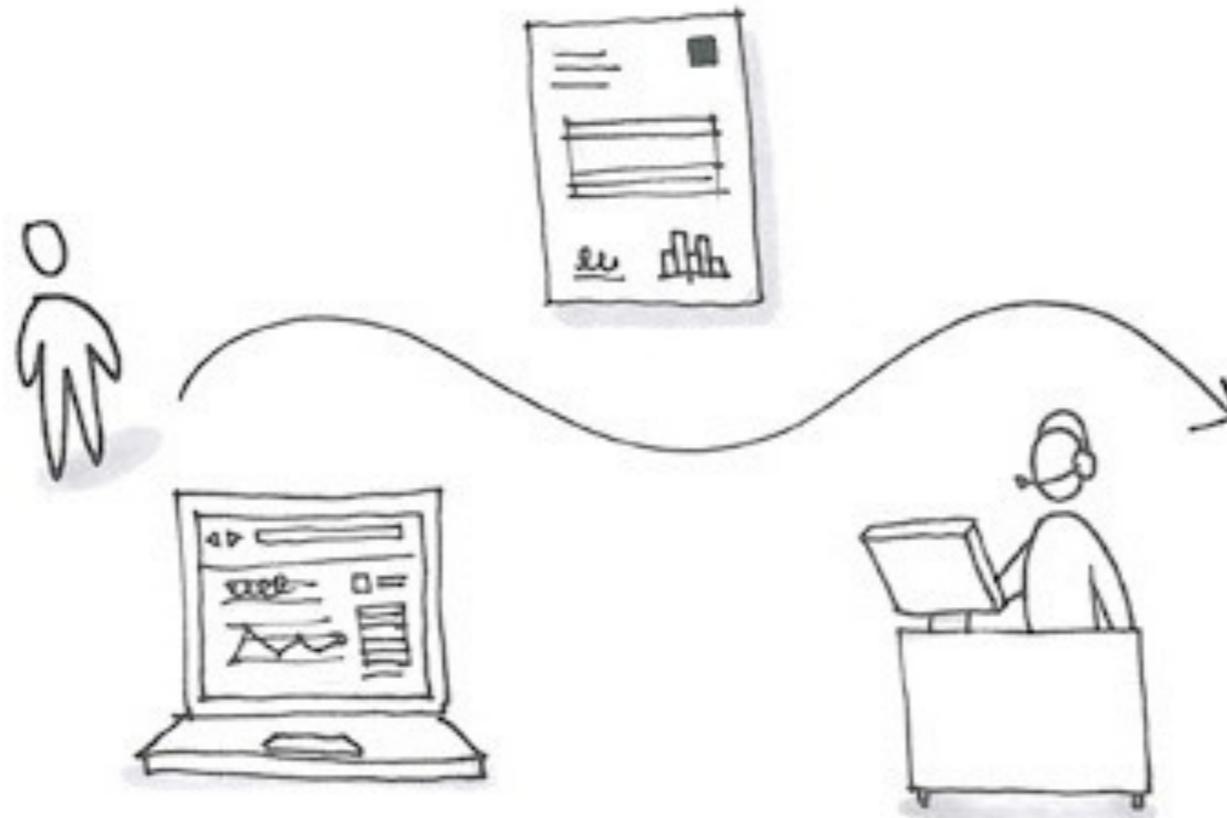
Most services vary by time of the day, season, and cultural mood.



# Elements of Service Design:

Service design focuses on multiple “**touchpoints**” and the users interactions with these touch-points **over time**.

These touchpoints are typically **places, products, processes** and **people**.



source: <http://www.livework.co.uk/>

# Touchpoints

some examples (but not limited):

- physical locations
- specific parts of locations
- signage
- objects
- web sites
- mailing
- spoken communication
- printed communications
- applications
- machinery
- customer service
- partners

.....

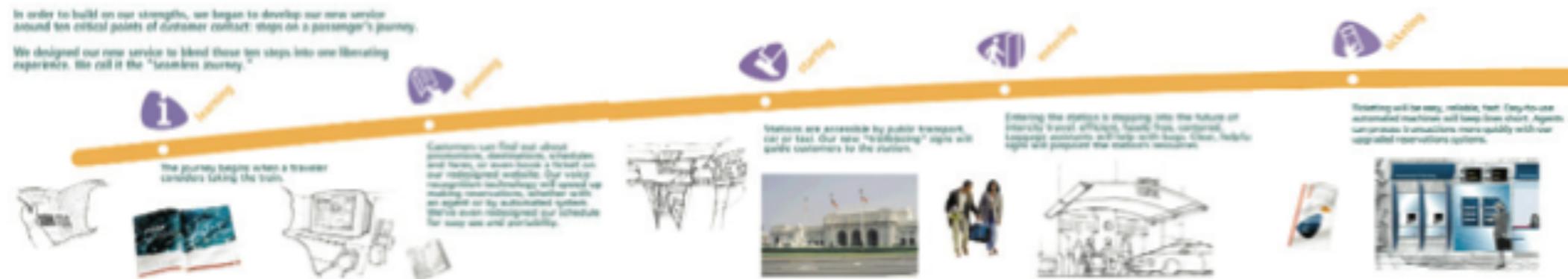
.....



source: [5]

# Touchpoints

**Touchpoints** are the raw material interaction designers work with. Once a map of existing and potential touch-points is created designers can brainstorm on further details for each touchpoint.



<i>Steps</i>	<i>Physical Aspects</i>	<i>Digital Aspects</i>
1. Learning	Advertising, Travel Agent, Word of Mouth	On-line, Phone info., Intranet
2. Planning	Station Staff, Travel Agent, Brochure, Phone	On-line, Phone info.
3. Starting	Other form of transportation	Radio – up to the minute info.
4. Entering	Station Architecture	Signage
5. Ticketing	Ticket Office, Travel Agent	On-line, Phone info., kiosks
6. Waiting	Waiting Room, Station Facilities	Signage, On-line services
7. Boarding	Doors and Luggage Storage	Auto Doors, Dynamic signage
8. Riding	Seats, Meal Services	Info., Media, Comms
9. Arriving	Station Architecture	Signage
10. Continuing	Other form of transportation	-

source: [3]

# Place

- the settings for the service delivery
- the environment needs to provide the space necessary to perform the actions of the service
- it needs to tell the user cues for these actions such as signs, costumed menus or displays





[http://upload.wikimedia.org/wikipedia/commons/d/d2/Jinan\\_Yaoqiang\\_Airport\\_waiting\\_area\\_2005\\_10\\_15.jpg](http://upload.wikimedia.org/wikipedia/commons/d/d2/Jinan_Yaoqiang_Airport_waiting_area_2005_10_15.jpg) <http://sakurasky.files.wordpress.com/2010/01/businesslounge.jpg>

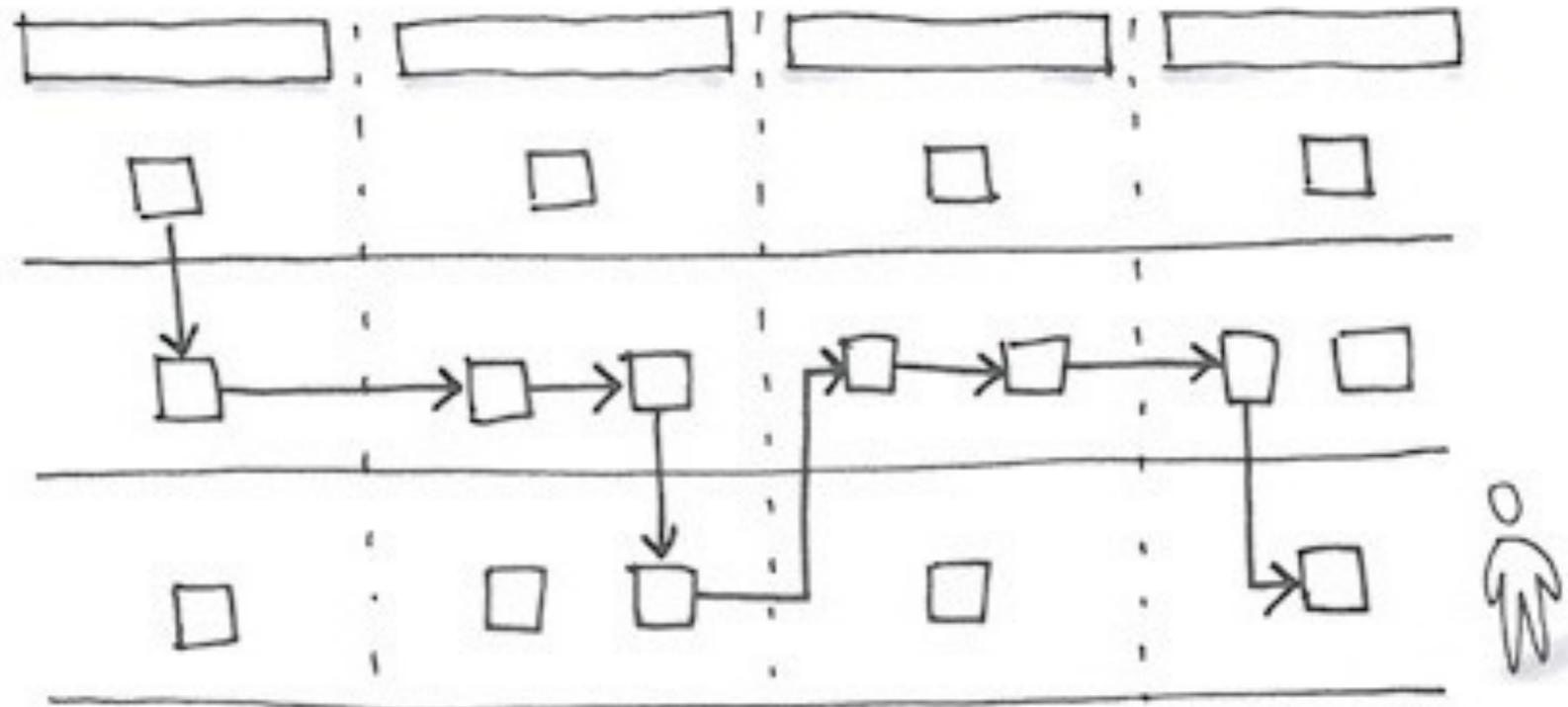
# Products

- artifacts that facilitate interaction
- products populate the environment (place)
- they provide the potential for users' active participation



# Processes

- the process describes “how” the service is ordered, created and delivered to the user
- processes can change subtle or radically within the service through different environments and over time
- often there are multiple pathways and therefore processes through a service experience



source: [5]

# People

- through people services come alive, usually through complex choreography
- users and employees perform different parts of the service for achieving a particular result



<http://www.flickr.com/photos/nivium/3857680299/>

source: [5]

# Service Design leads to:



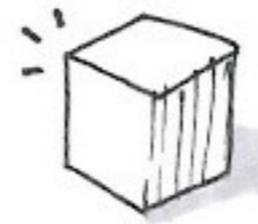
...better customer  
experience



...reduced costs



...increased  
return on investment



...great new  
opportunities

source: <http://www.livework.co.uk/>

# Service Design....

- can lead to environmentally friendly solutions. (Car sharing service)
- can boost good business models: well designed and executed services will increase sales and helping tying users to a specific brand

The introduction of new technology (sensors, smart-phones) makes this discipline highly relevant for interaction designers as their expertise involves bridging the gap between technology and people.

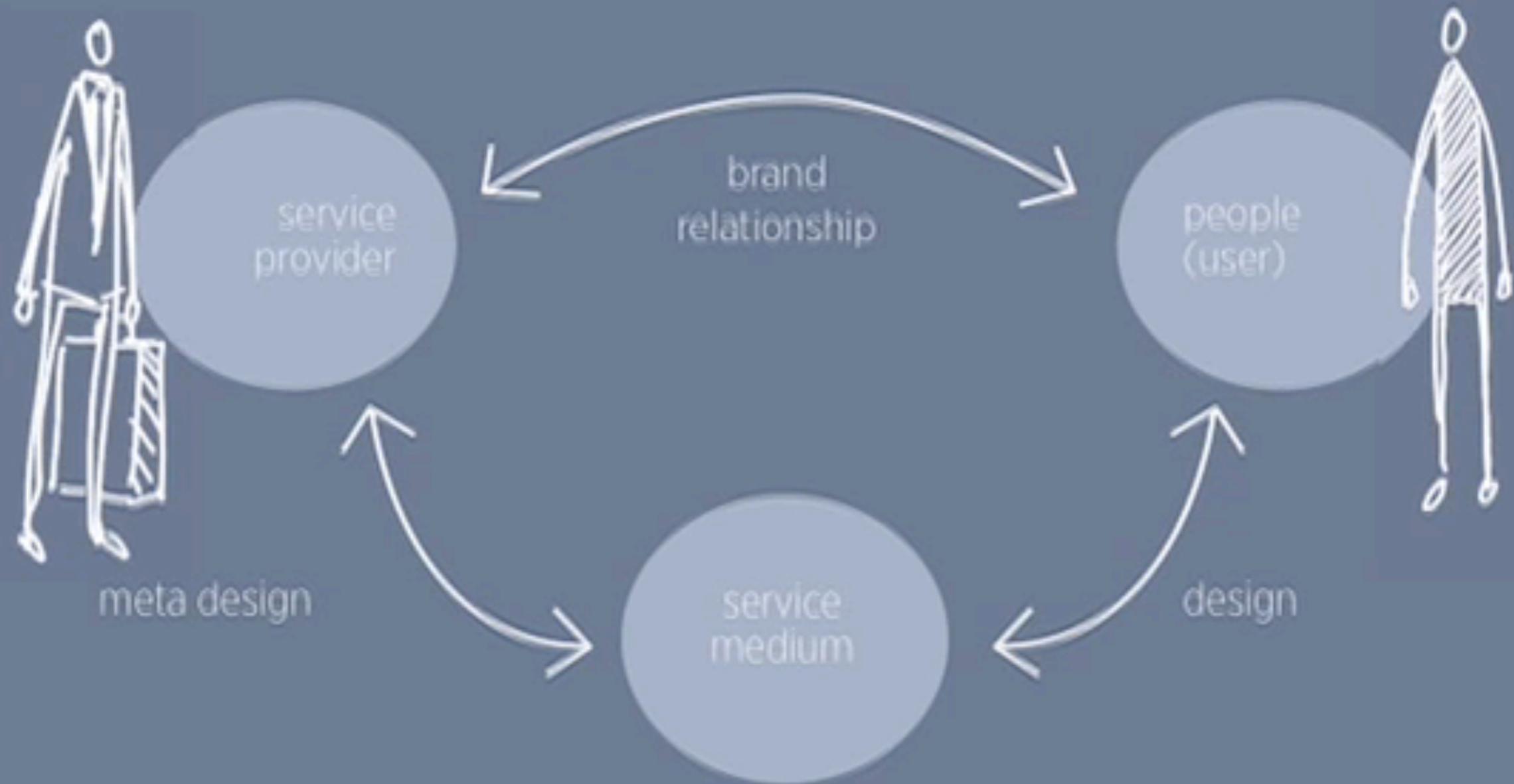
Applying interaction design techniques to service design can lead to richer experiences.

## Shelley Evenson

- teaches service and interaction design at CMU, Pittsburgh
- Co-founder of seeSpace and chief experience scientist for Scient



# Service as design triangle



A 'service as design' triangle

**interaction 10**

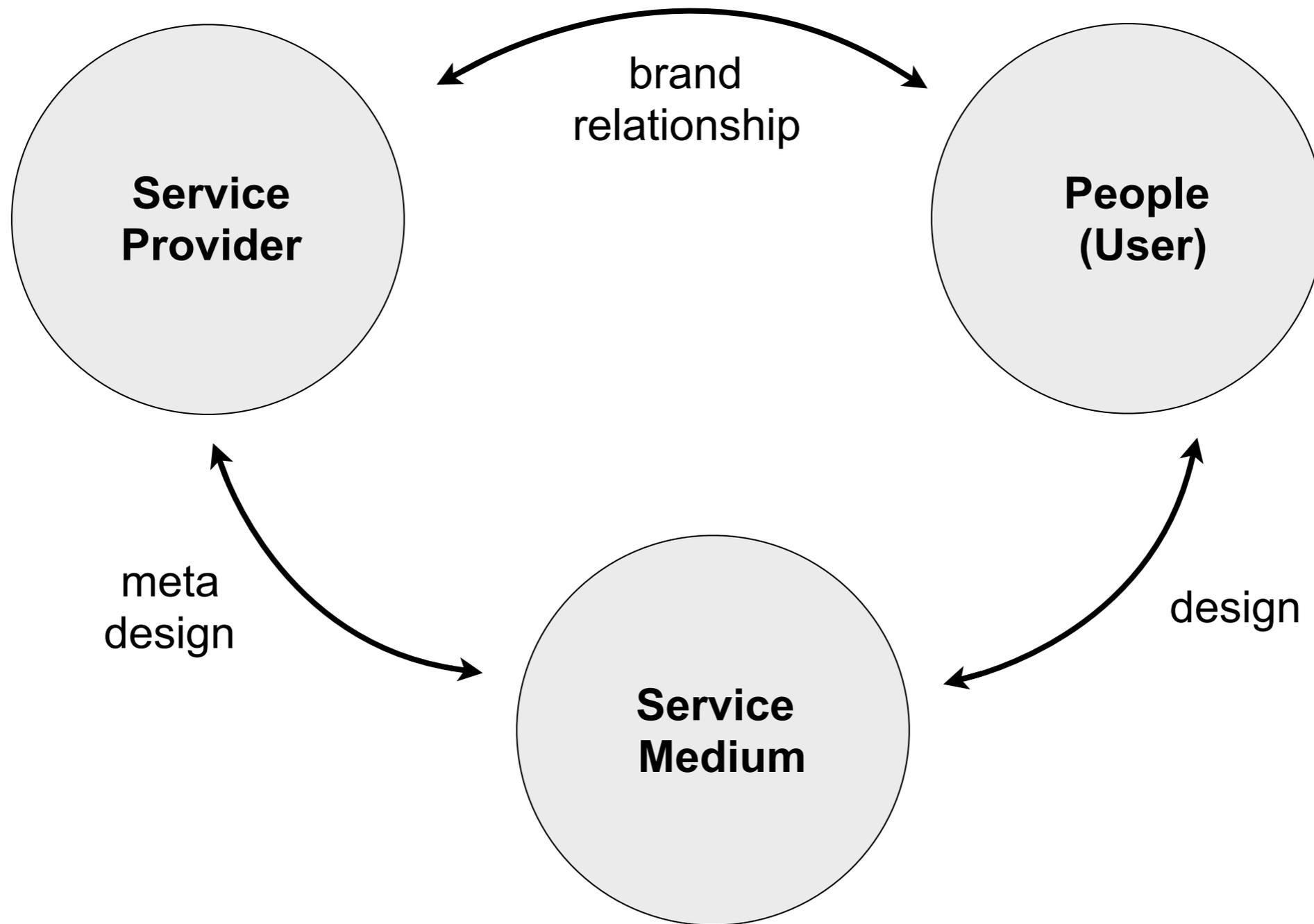
# Service design can involve

**person2person interaction** = check in desk

**person2machine interaction** = self check in kiosk

**machine2machine interaction** = airport baggage system

# Service as Design Triangle:



Service design addresses the functionality and form of the service medium. The aim is to ensure that service interfaces are **usable** and **useful, effective and efficient, desirable and differentiated** from the provider and the persons point of view.

**after Birgit Mager**

AN INTRODUCTION TO

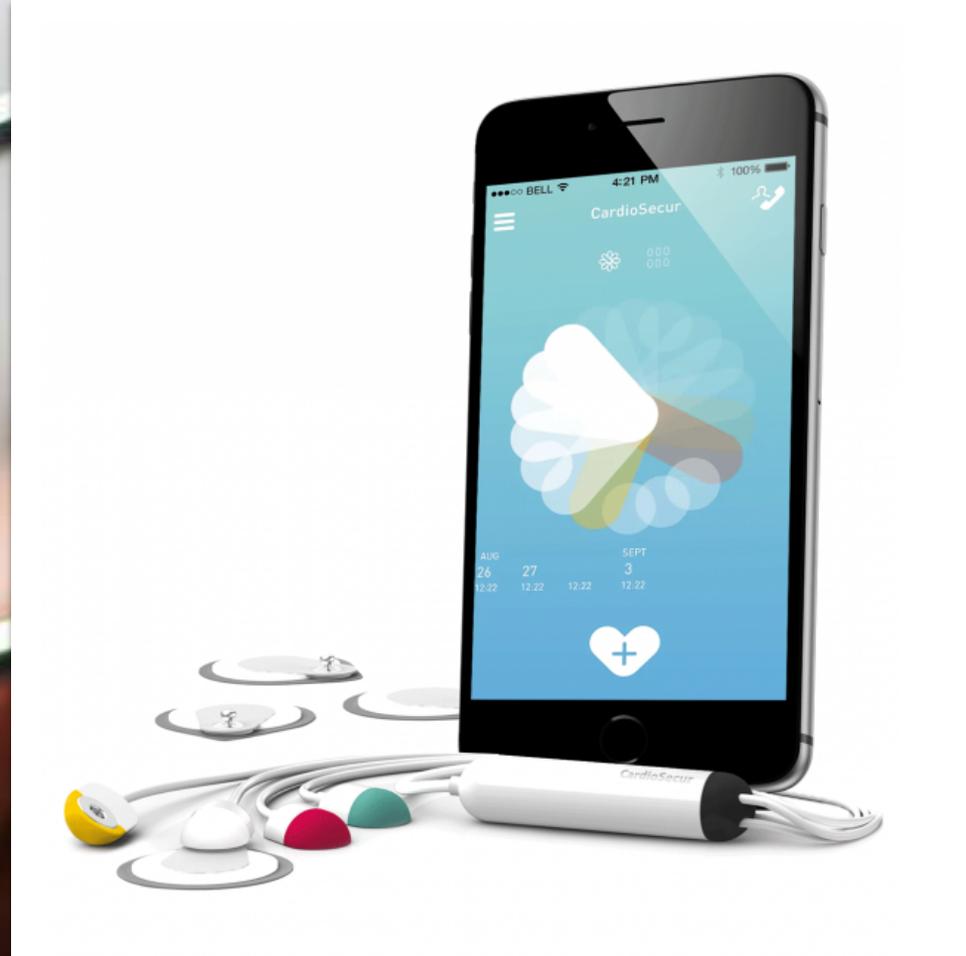
# SERVICE DESIGN

Veronika Ritzer

LMU München, 14.7.2016

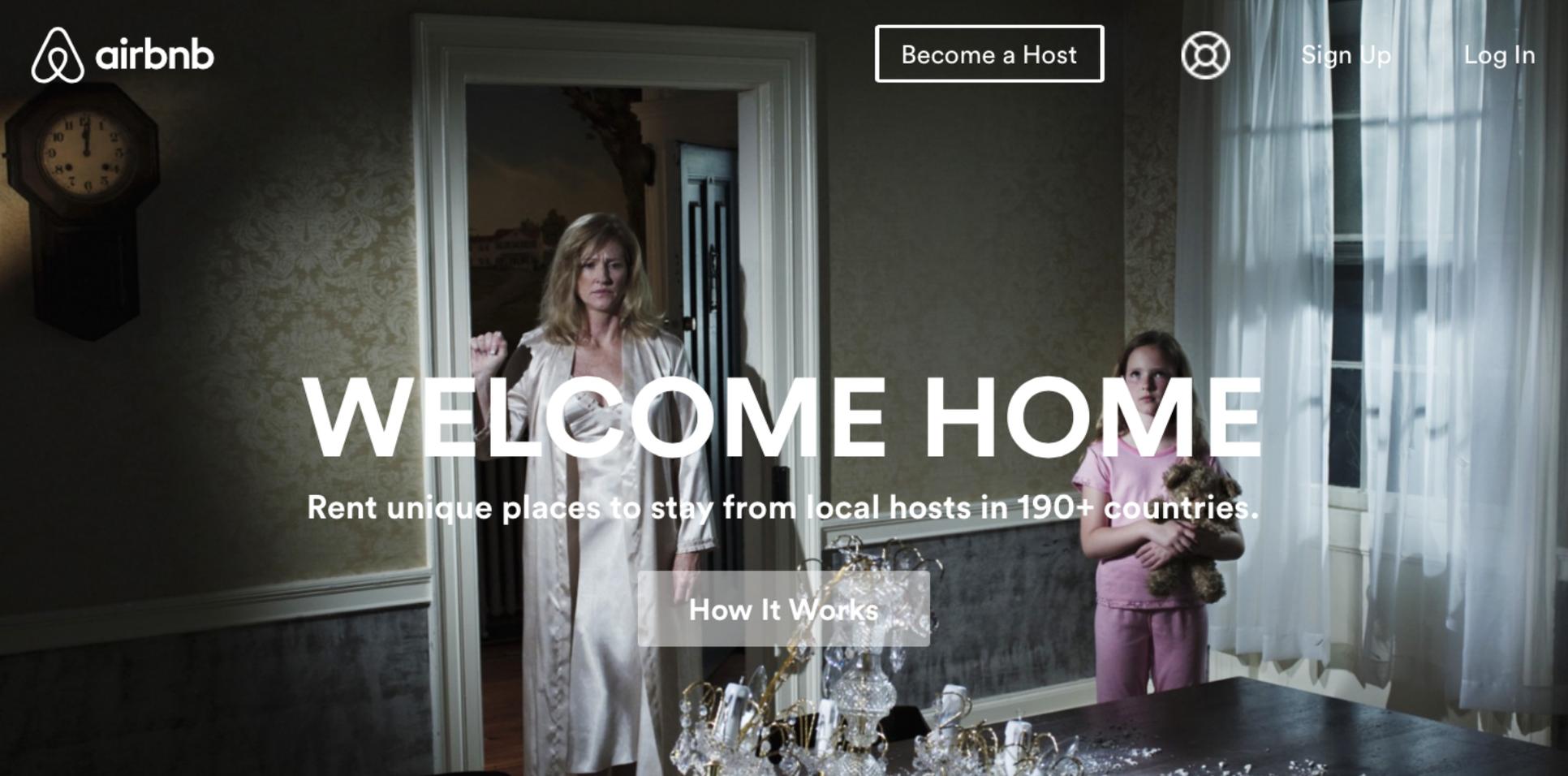


**SERVICE HAS ALWAYS BEEN THERE**



**SERVICE HAS ALWAYS BEEN THERE**

**TECH HAS CHANGED THE GAME**



# WELCOME HOME

Rent unique places to stay from local hosts in 190+ countries.

How It Works

**SERVICE HAS ALWAYS BEEN THERE**

**TECH HAS CHANGED THE GAME**

**PEOPLE'S EXPECTATIONS, NEEDS AND VALUES HAVE CHANGED**

# WHICH CHANGED BUSINESS



# WHICH CHANGED BUSINESS



# WHICH CHANGED BUSINESS



# WHICH CHANGED BUSINESS



**WHICH CHANGED BUSINESS**

**FROM A CAR TO MOBILITY**



**WHICH CHANGED BUSINESS**

**FROM A SNEAKER TO FITNESS**



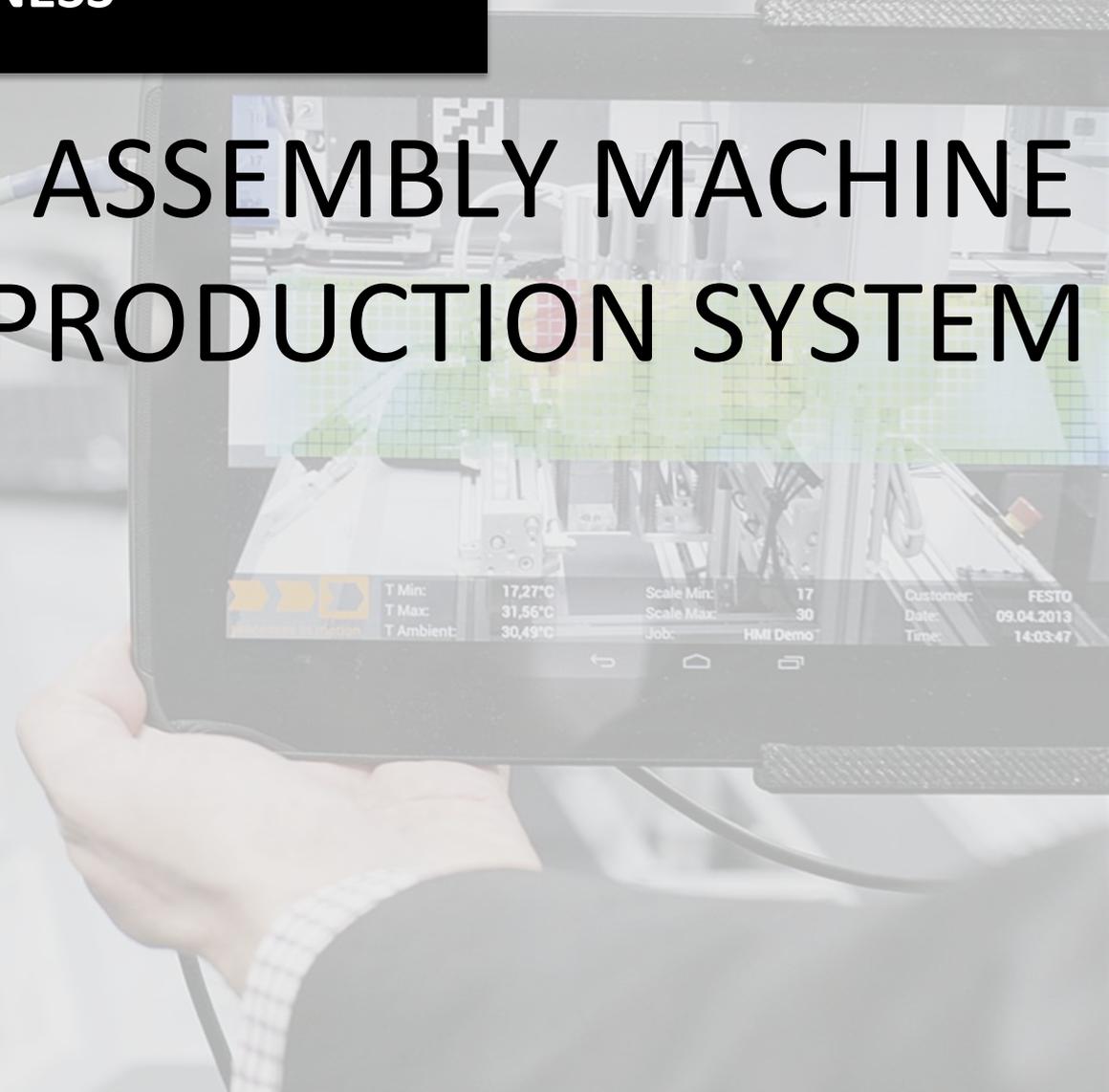
**WHICH CHANGED BUSINESS**

**FROM A TRACTOR TO HARVEST**



**WHICH CHANGED BUSINESS**

# FROM AN ASSEMBLY MACHINE TO A PRODUCTION SYSTEM



T Min:	17,27°C	Scale Min:	17	Customer:	FESTO
T Max:	31,56°C	Scale Max:	30	Date:	09.04.2013
T Ambient:	30,49°C	Job:	HMI Demo	Time:	14:03:47

**WHICH CHANGED BUSINESS**

**FROM SELLING TO MARKETS  
TO EMPOWERING PEOPLE**

THE ECONOMY HAS  
CHANGED FROM PRODUCT  
TO SERVICE THINKING

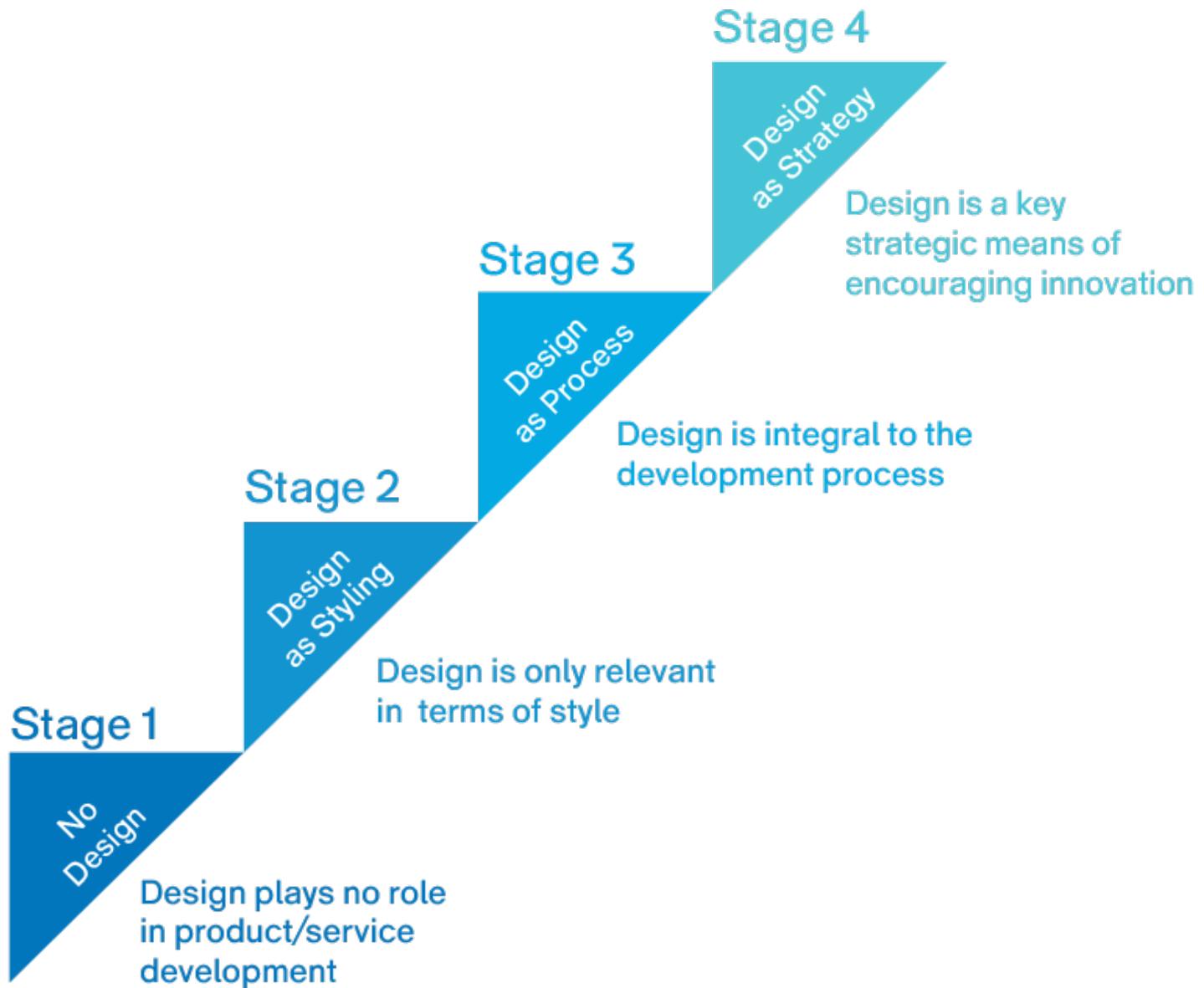
THE ECONOMY HAS  
CHANGED FROM PRODUCT  
TO SERVICE THINKING

- AND DRASTICALLY  
INCREASED COMPLEXITY

THIS MASSIVE SHIFT AND ITS CHALLENGES  
REQUIRES A NEW THINKING FOR  
BUSINESSES:

- 1 A NEW APPROACH & METHOD**
- 2 A NEW ORGANISATIONAL STRUCTURE**

# **A NEW APPROACH & METHOD:** **SERVICE DESIGN**



# A NEW APPROACH & METHOD: SERVICE DESIGN

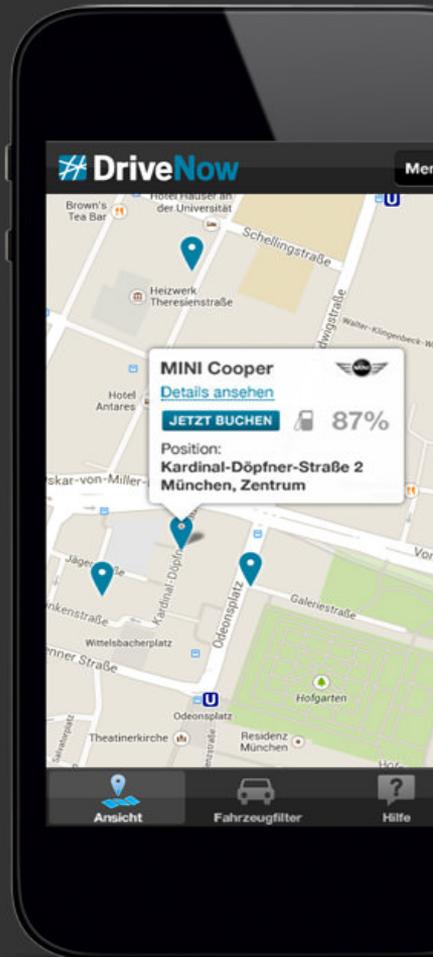
## WHY DESIGN?

- Balancing and aligning customer and business insights, creating customer satisfaction and business results
- Embracing complexity and interdisciplinary challenges
- Open end problem solving
- Human centric thinking



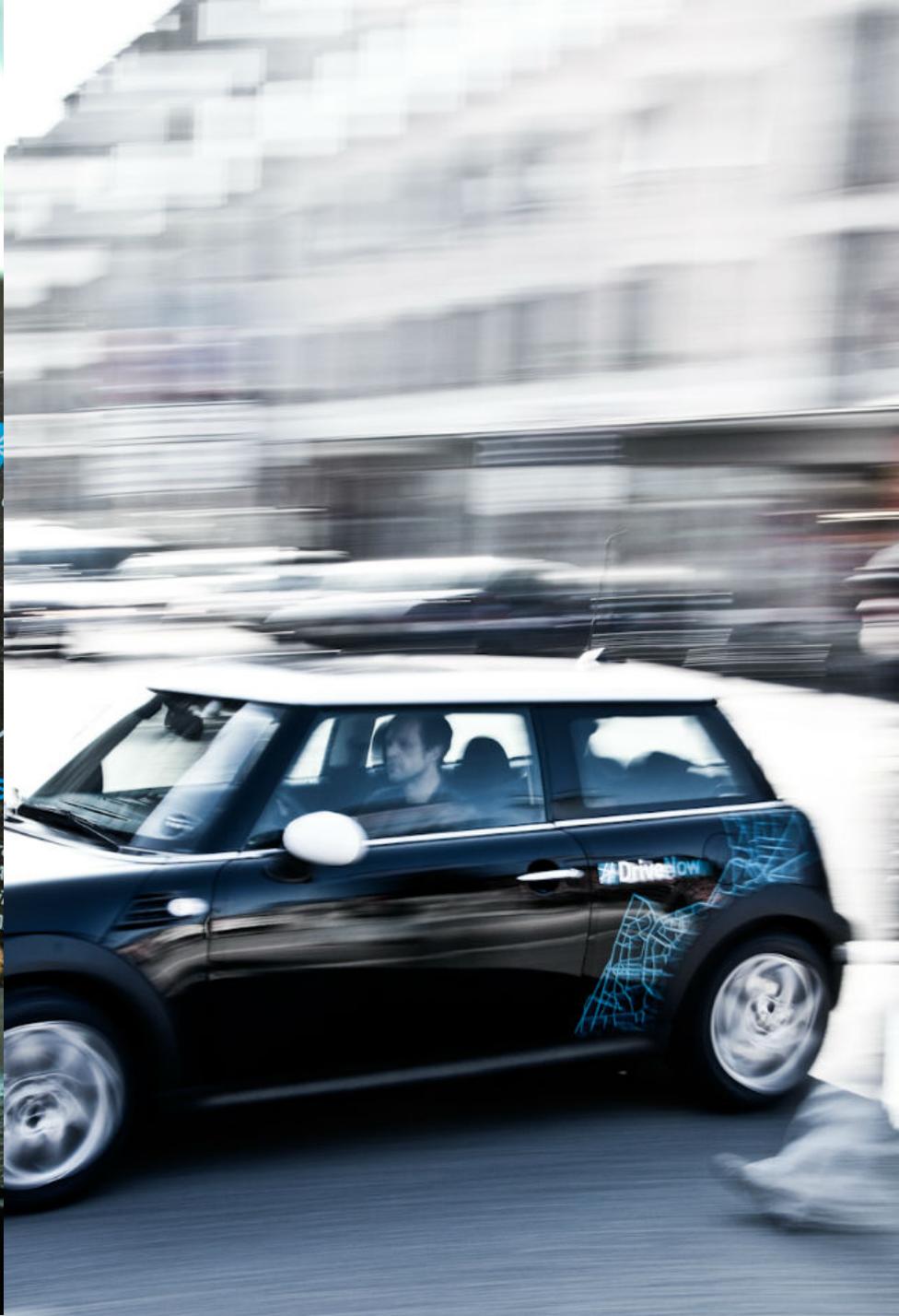
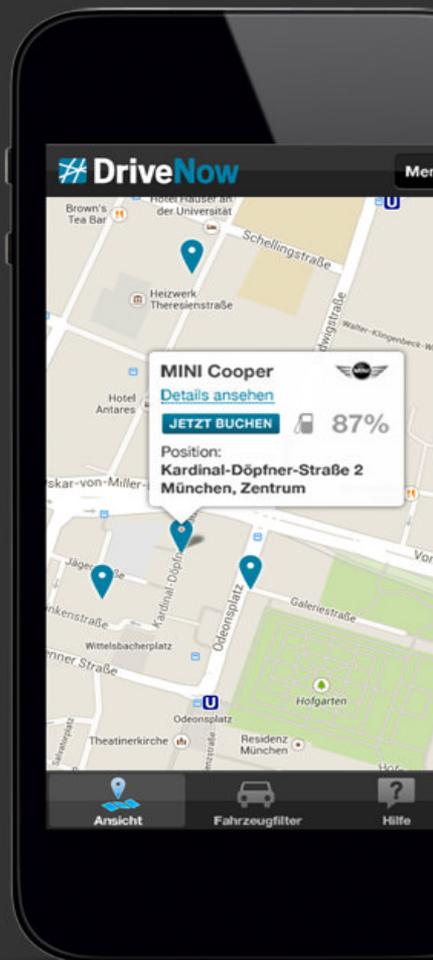
# DriveNow

Car Sharing von BMW i, MINI und



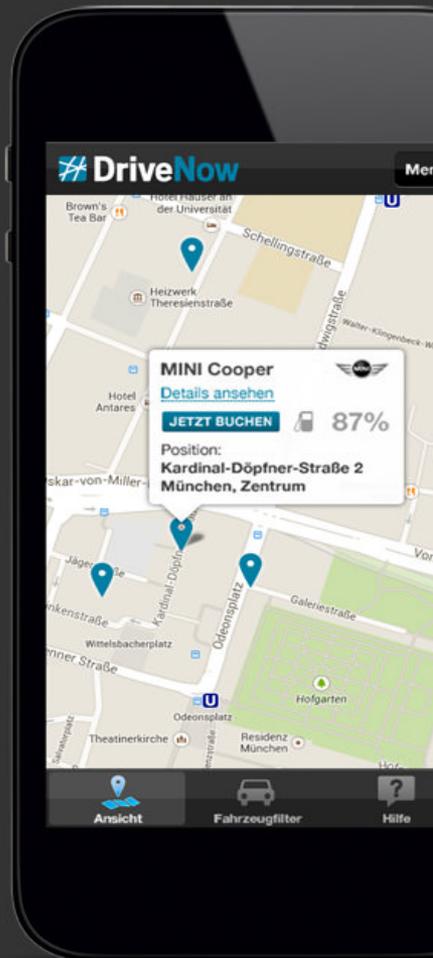
# DriveNow

Car Sharing von BMW i, MINI u



# DriveNow

Car Sharing von BMW i, MINI u



# A NEW COMPLEXITY

PRODUCTS FOR THE  
(CONSUMER) MARKET ARE  
COMPLEX ECOSYSTEMS –  
CENTERING AROUND THE USER.



Source: <http://normanswei.files.wordpress.com/2009/07/car-wash-picture.jpg>

**WE DON'T OWN ANYMORE – WE SHARE**



Source: <https://flic.kr/p/77WrYu>

**WE ARE BUILDING A NEW IDEA OF STATUS SYMBOLS**



Source: <https://flic.kr/p/5UXC81>

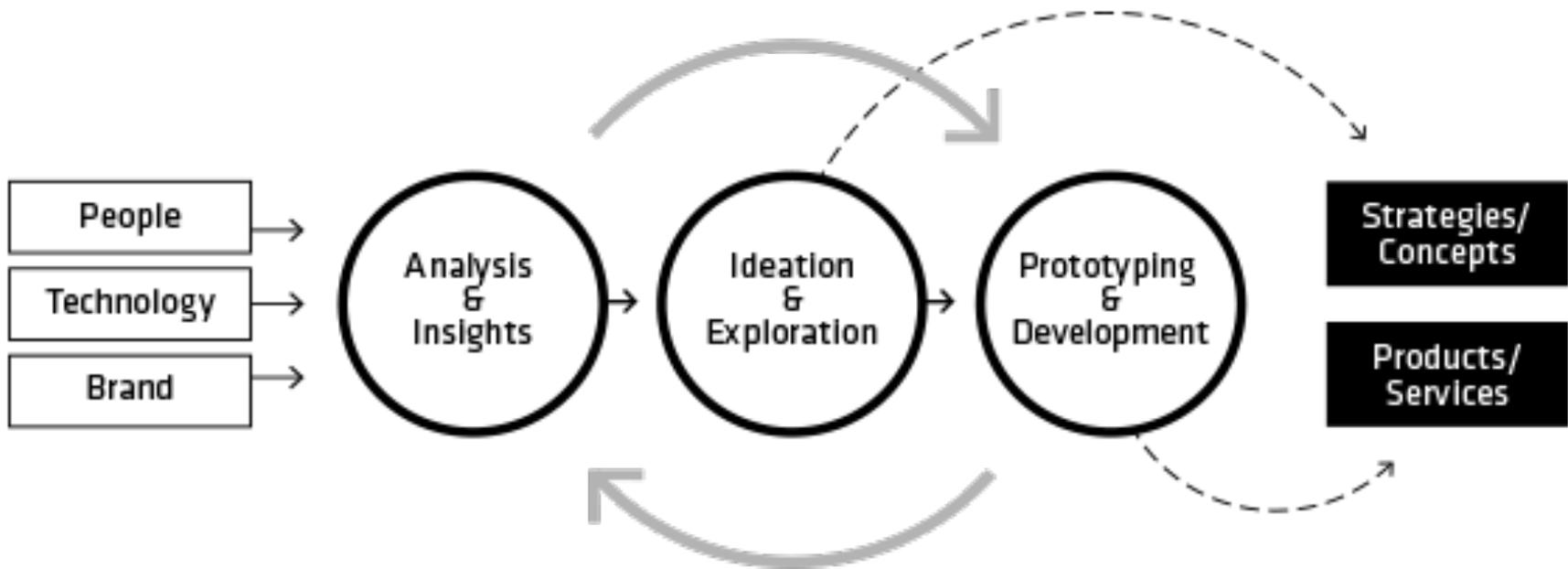
**WE DON'T NEED GAS STATIONS ANYMORE – WE  
CHARGE AT HOME**

HOW CAN WE ANTICIPATE  
FUTURE NEEDS WHEN THEY ARE  
BUILT ON NEW LIFESTYLES AND  
CHANGING VALUES WE DON'T  
KNOW YET?



BY INCLUDING THE USER IN THE  
INNOVATION PROCESS RIGHT  
FROM THE START. WE CALL IT  
**CO-CREATION.**

# HUMAN CENTERED SERVICE DESIGN - PROCESS



SERVICE DESIGN CAN INVOLVE...

**PERSON 2 PERSON INTERACTION**

= CHECK IN DESK

**PERSON 2 MACHINE INTERACTION**

= SELF CHECK IN KIOSK

**MACHINE 2 MACHINE INTERACTION**

= AIRPORT BAGGAGE SYSTEM

# 5 SERVICE DESIGN PRINCIPLES

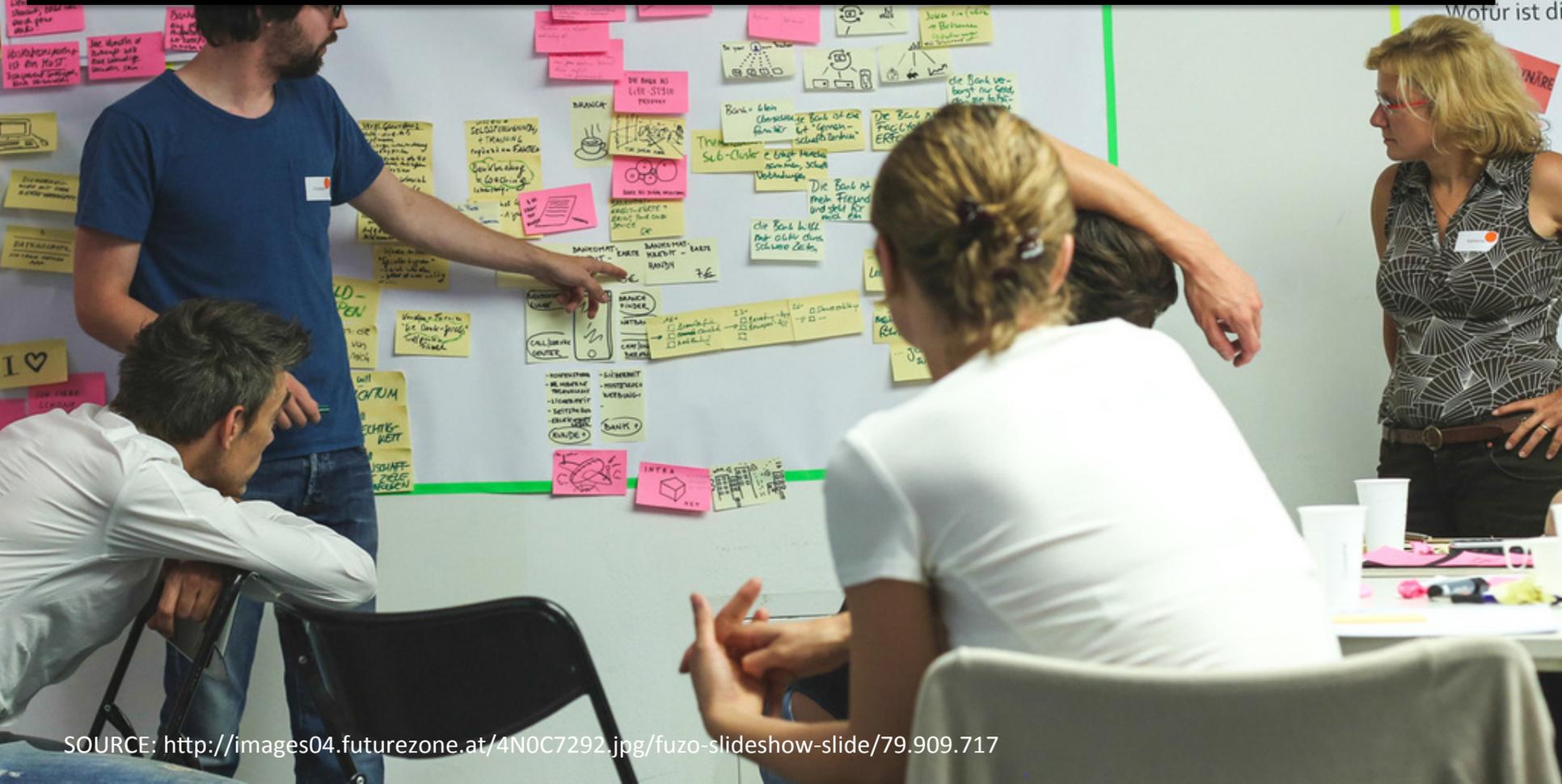
**1 - BE EMPATHETIC**

**PUT YOURSELF IN THE SHOES OF THE USERS**



# 2 – INVOLVE ALL STAKEHOLDERS

LEARN FROM THE EXPERTS BY CREATING TOGETHER WITH THEM

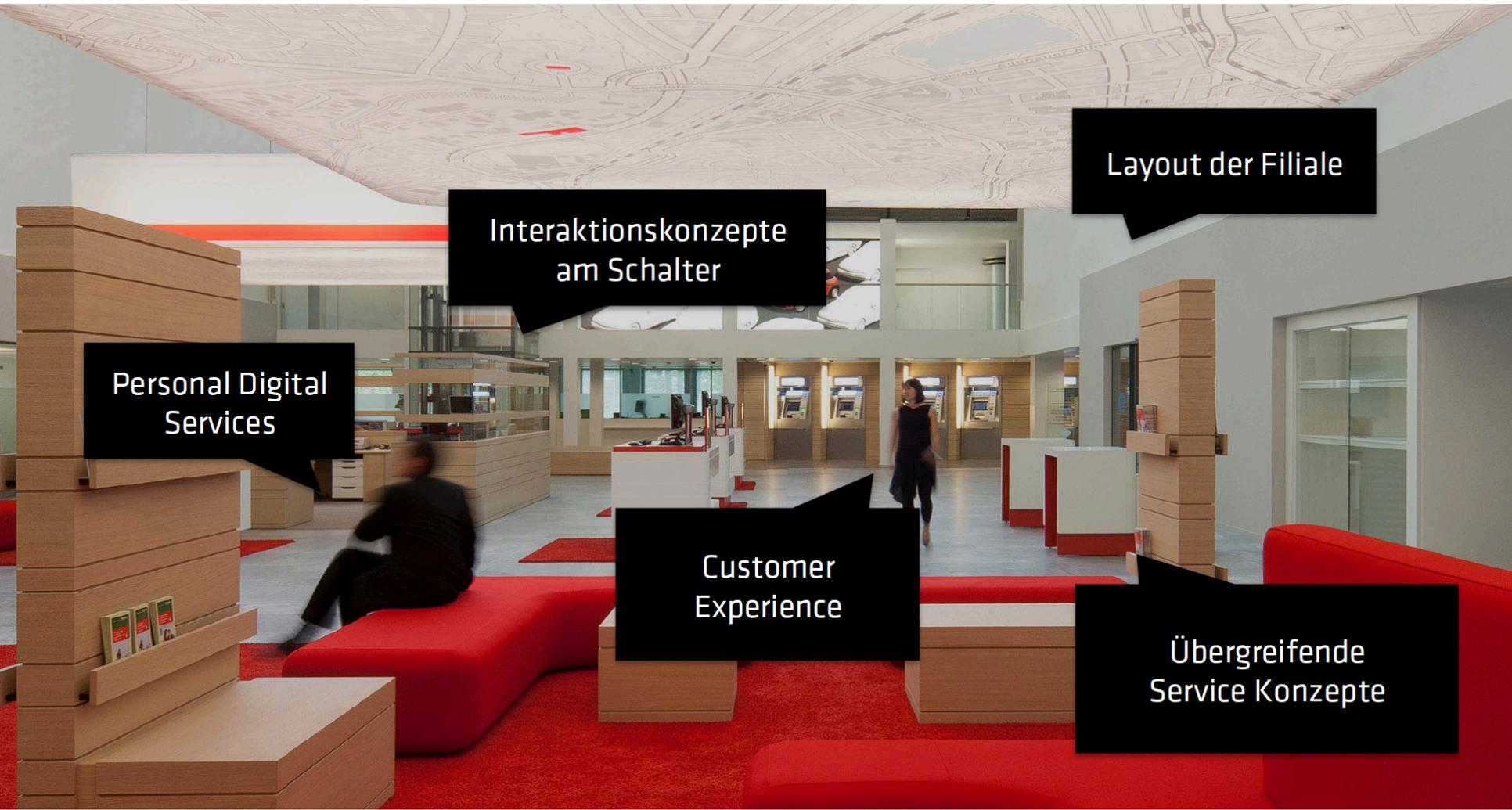


### **3 – CONSIDER ALL TOUCHPOINTS**

THE DIGITAL AND ANALOG ELEMENTS OF SERVICE DESIGN



# TOUCHPOINTS ARE TYPICALLY PLACES, PRODUCTS, PROCESSES AND PEOPLE



Layout der Filiale

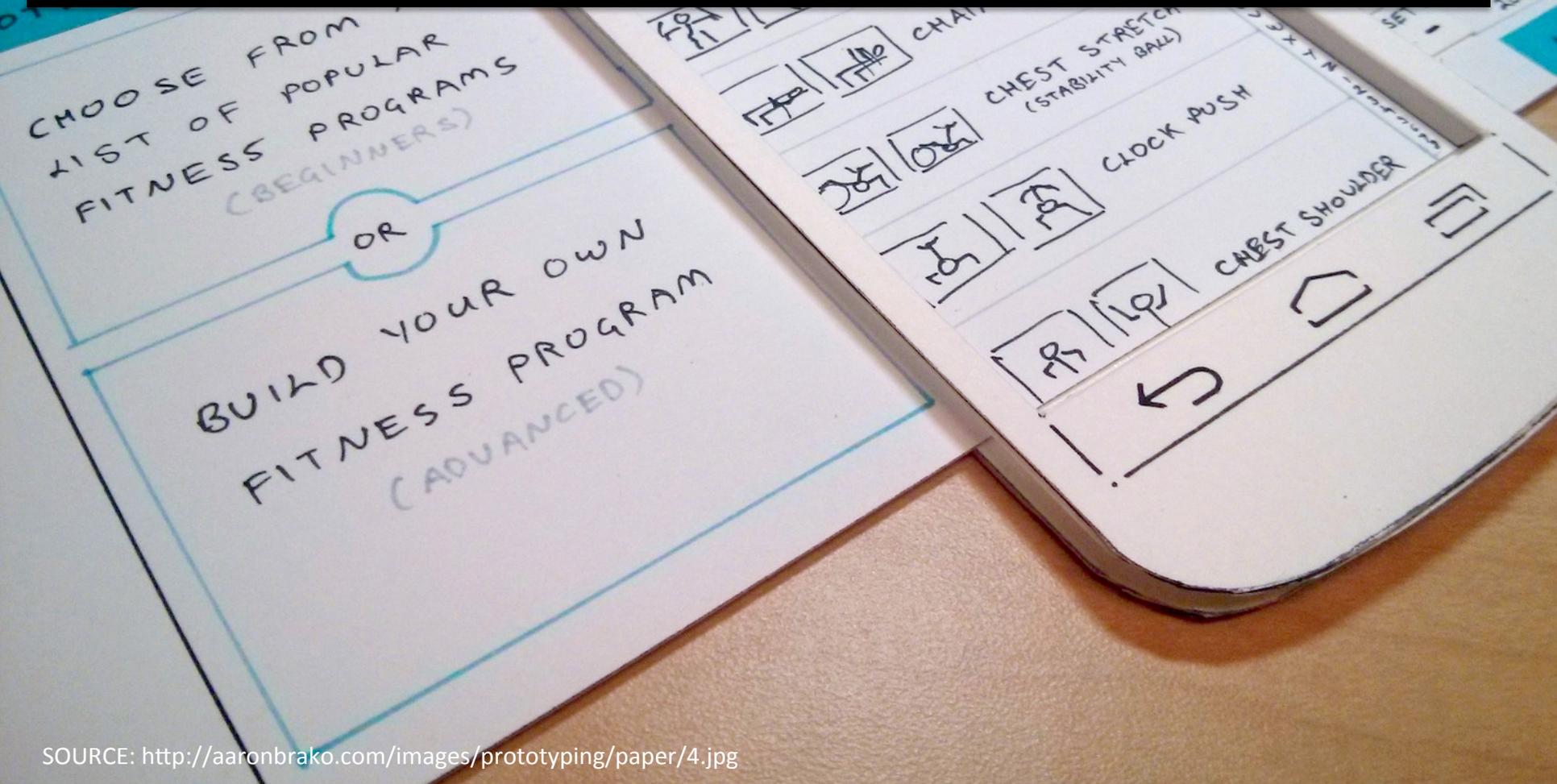
Interaktionskonzepte  
am Schalter

Personal Digital  
Services

Customer  
Experience

Übergreifende  
Service Konzepte

# 4 – LEARNING BY PROTOTYPING TEST THE EXPERIENCE AND ITERATE



# 4 – DESIGNING OVER TIME

START BEFORE THE BEGINNING, FINISH AFTER THE END



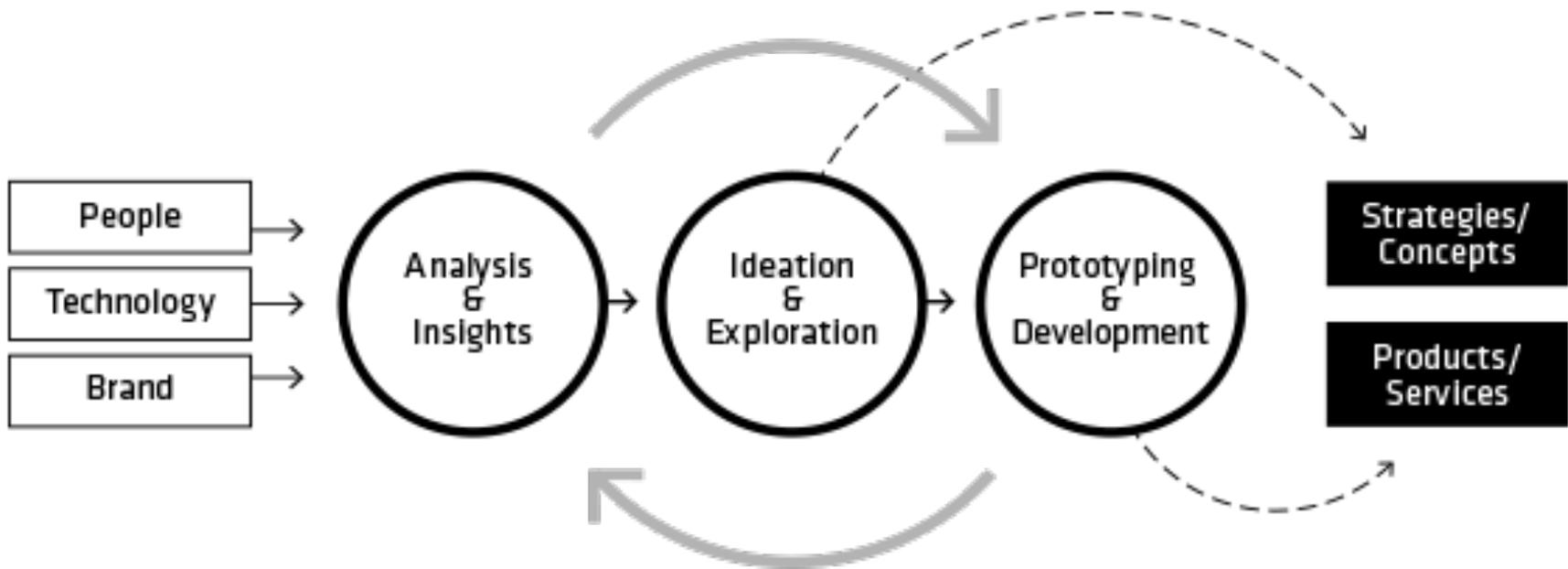
# 4 – THINK HOLISTICALLY

## CONSIDER FRONT AS WELL AS BACK STAGE

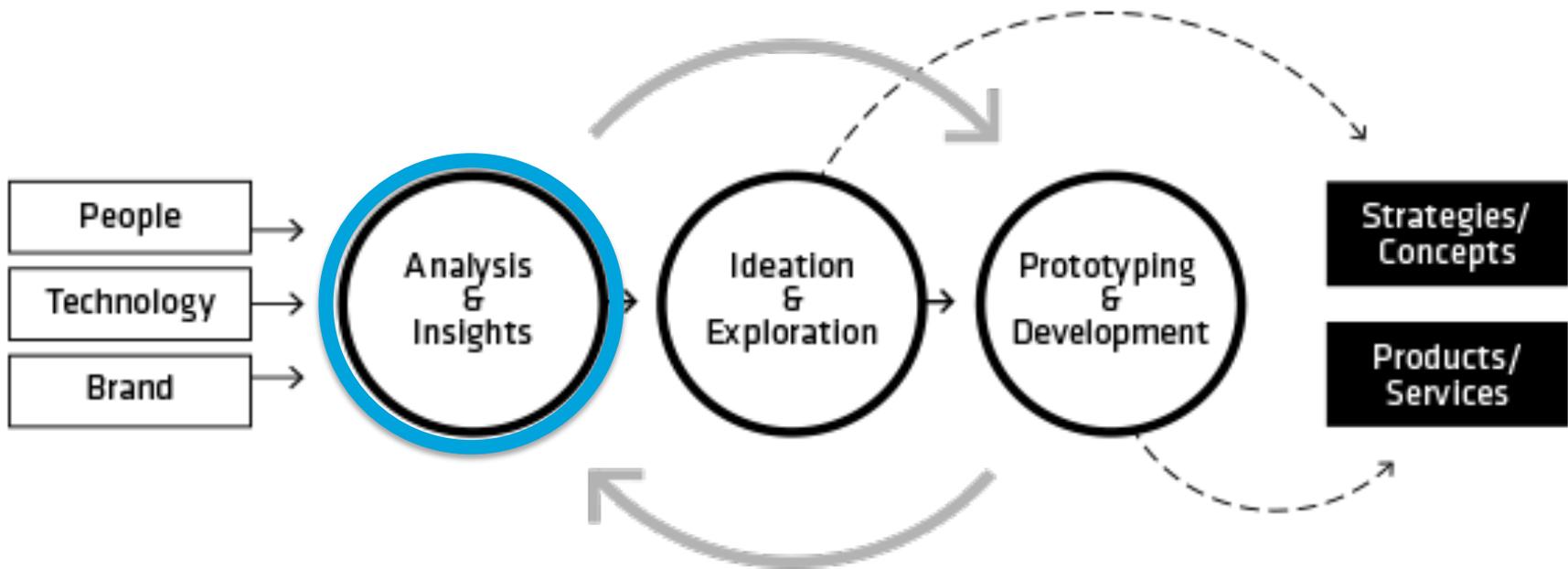


# SERVICE DESIGN TOOLS

# HUMAN CENTERED SERVICE DESIGN - PROCESS



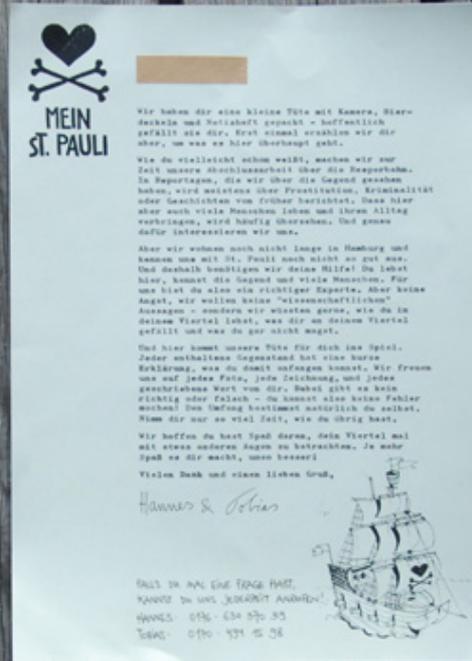
# HUMAN CENTERED SERVICE DESIGN - PROCESS



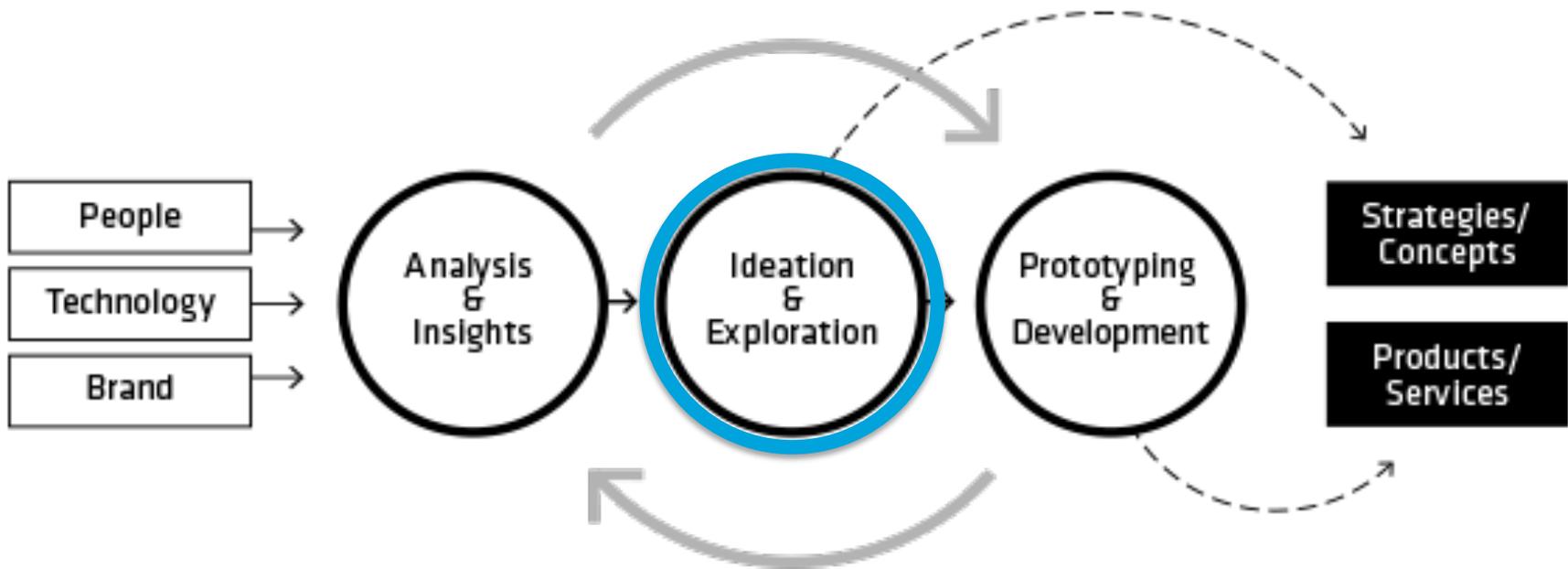
# IN-HOME INTERVIEWS



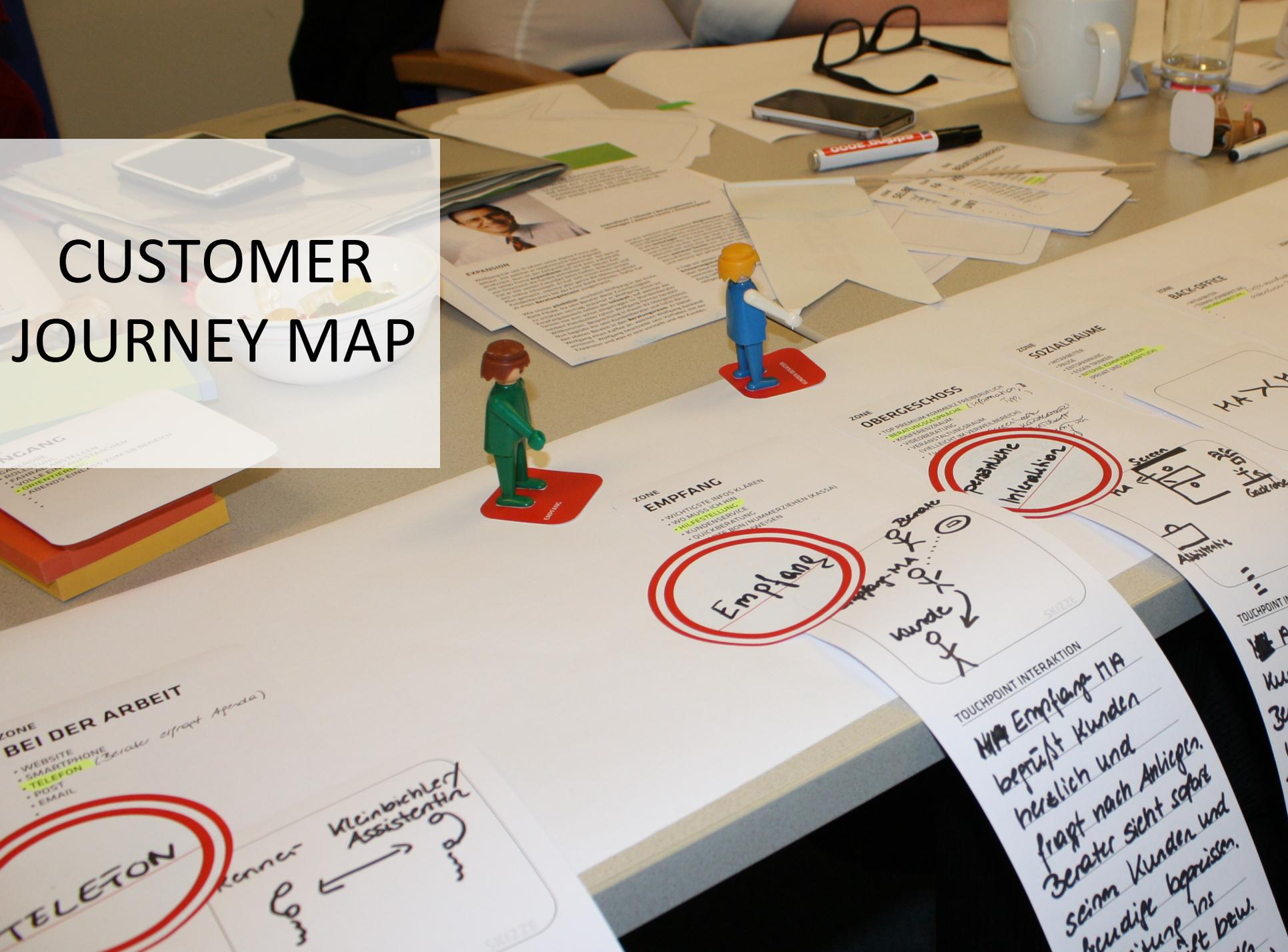
# CULTURAL PROBES



# HUMAN CENTERED SERVICE DESIGN - PROCESS



# CUSTOMER JOURNEY MAP



ZONE BEI DER ARBEIT

- WEBSITE
- SMARTPHONE
- TELEFON
- POST
- EMAIL

TELEFON

Kunden  
Kleinbichler/Assistentin

ZONE EMPFANG

- WICHTIGSTE INFOS KLAREN
- WOI HINGEHT MAN
- ANFORDERUNG
- KUNDENSERVICE
- QUERKREIS ANZEIGEN
- QUERKREIS ANZEIGEN

Empfang

ZONE OBERGESCHOSS

- TOP-PREMIUM-KOMFORT-ERLEBNIS
- WICHTIGSTE INFOS KLAREN
- WOI HINGEHT MAN
- ANFORDERUNG
- KUNDENSERVICE
- QUERKREIS ANZEIGEN
- QUERKREIS ANZEIGEN

persönliche  
Interaktion

TOUCHPOINT INTERAKTION

MA empfängt MA begrüßt Kunden herzlich und fragt nach Anliegen. Berater sieht sofort seinen Kunden und begrüßt ihn. MA begrüßt Kunden herzlich und fragt nach Anliegen. Berater sieht sofort seinen Kunden und begrüßt ihn. MA begrüßt Kunden herzlich und fragt nach Anliegen. Berater sieht sofort seinen Kunden und begrüßt ihn.

ZONE SOZIALRAUME

- WICHTIGSTE INFOS KLAREN
- WOI HINGEHT MAN
- ANFORDERUNG
- KUNDENSERVICE
- QUERKREIS ANZEIGEN
- QUERKREIS ANZEIGEN

Abteilung

TOUCHPOINT



# SERVICE BLUEPRINT



Front of Stage interactions



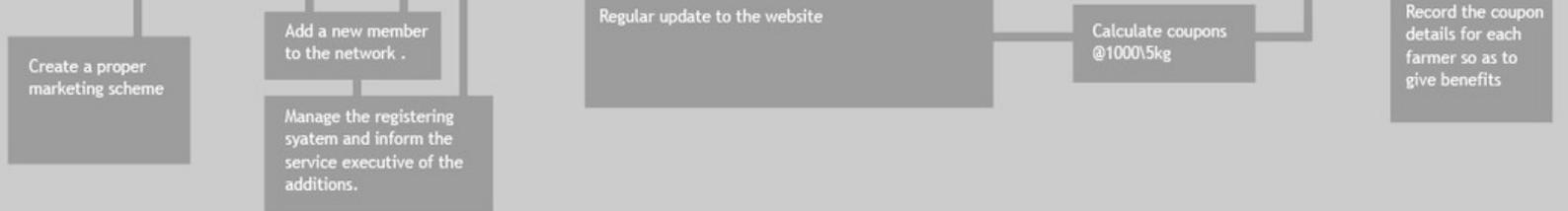
LINE OF VISIBILITY

Back of Stage interactions

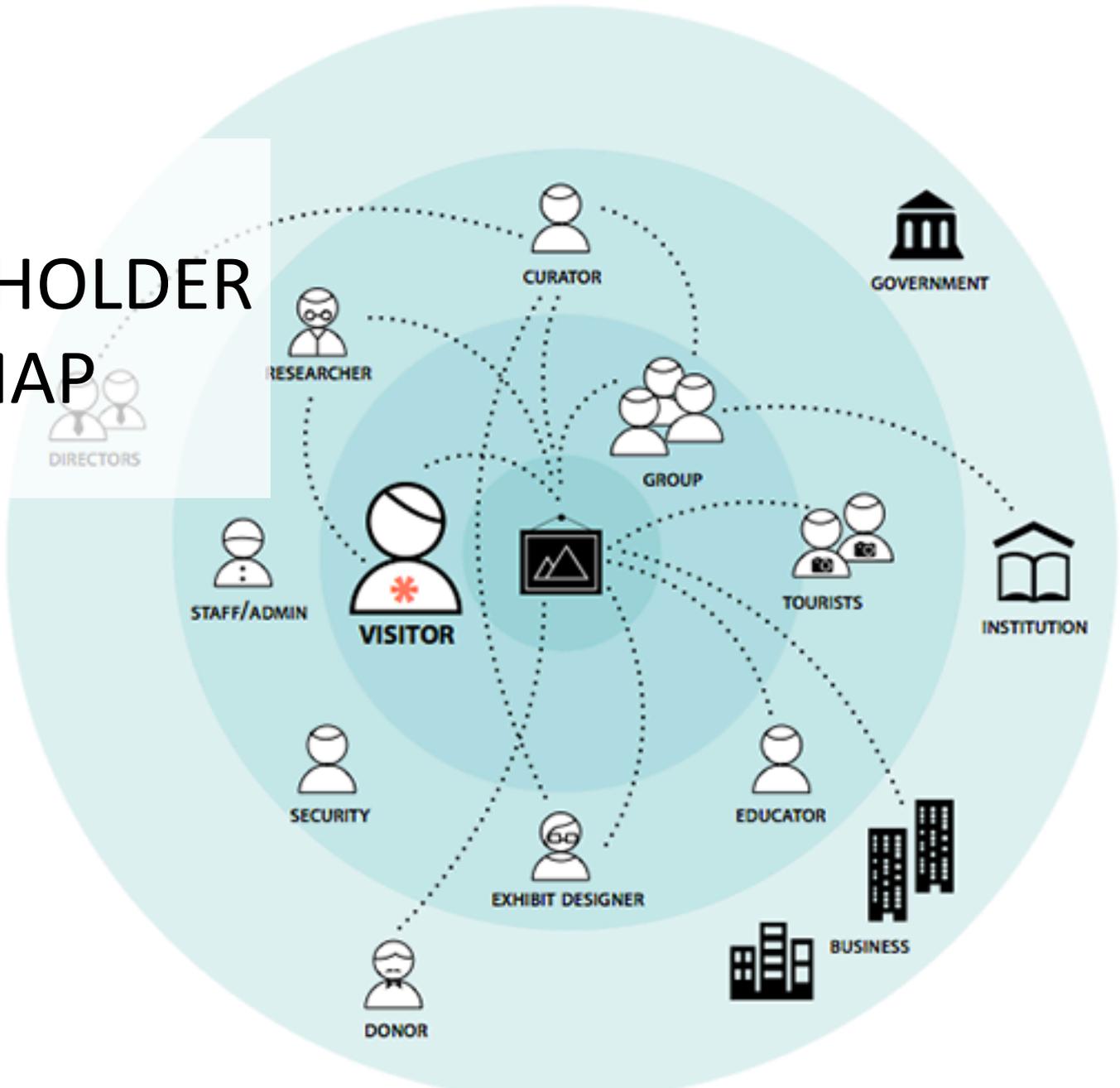


LINE OF INTERNAL INTERACTION

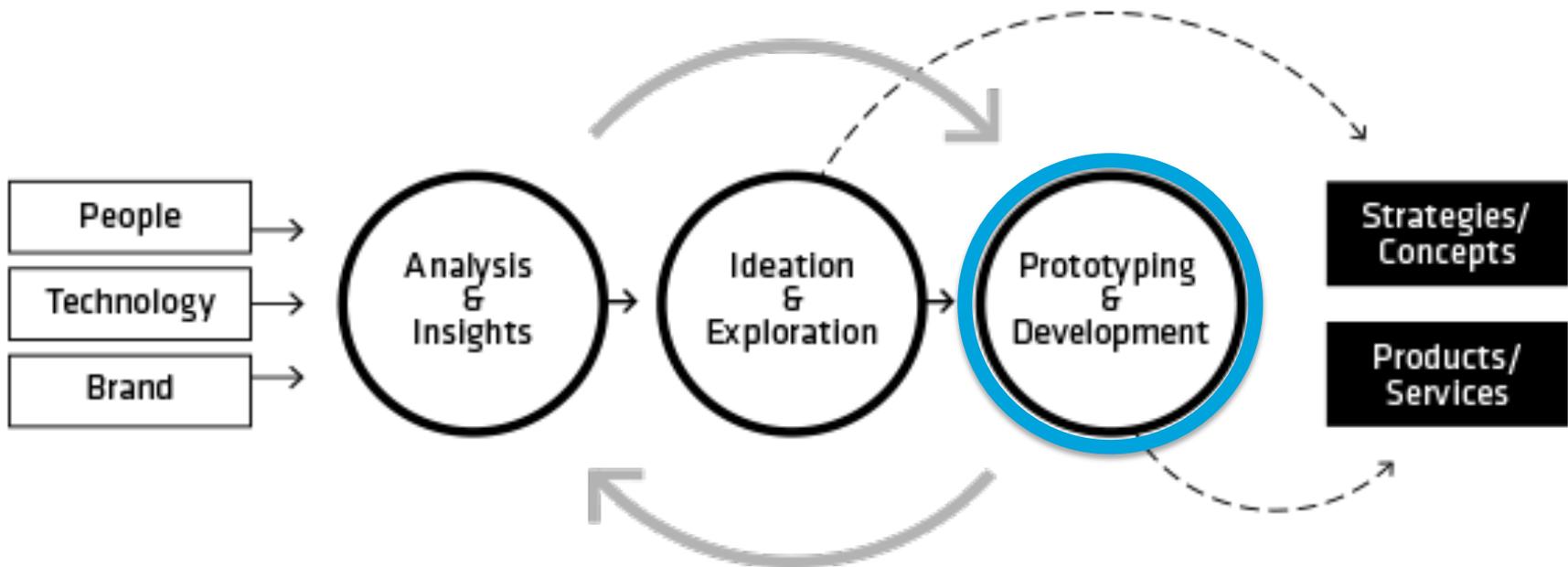
Support Processes



# STAKEHOLDER MAP



# HUMAN CENTERED SERVICE DESIGN - PROCESS



# LOW – TO HIGH-FIDELITY PROTOTYPING



PAPIER ODER PROGRAMMIERT? DIE PHASE IM PROZESS DEFINIERT DEN PROTOTYPEN

# LIVE PROTOTYPING

Interaktionskonzepte  
am Schalter

Layout der Filiale

Personal Digital  
Services

Customer  
Experience

Übergreifende  
Service Konzepte

WHAT'S IN IT FOR THE  
CUSTOMER?



# 1998

go to travel agent



receive tickets by mail



go to the check in desk



receive boarding pass



check in bags



board plane

# Today

go to airlines website



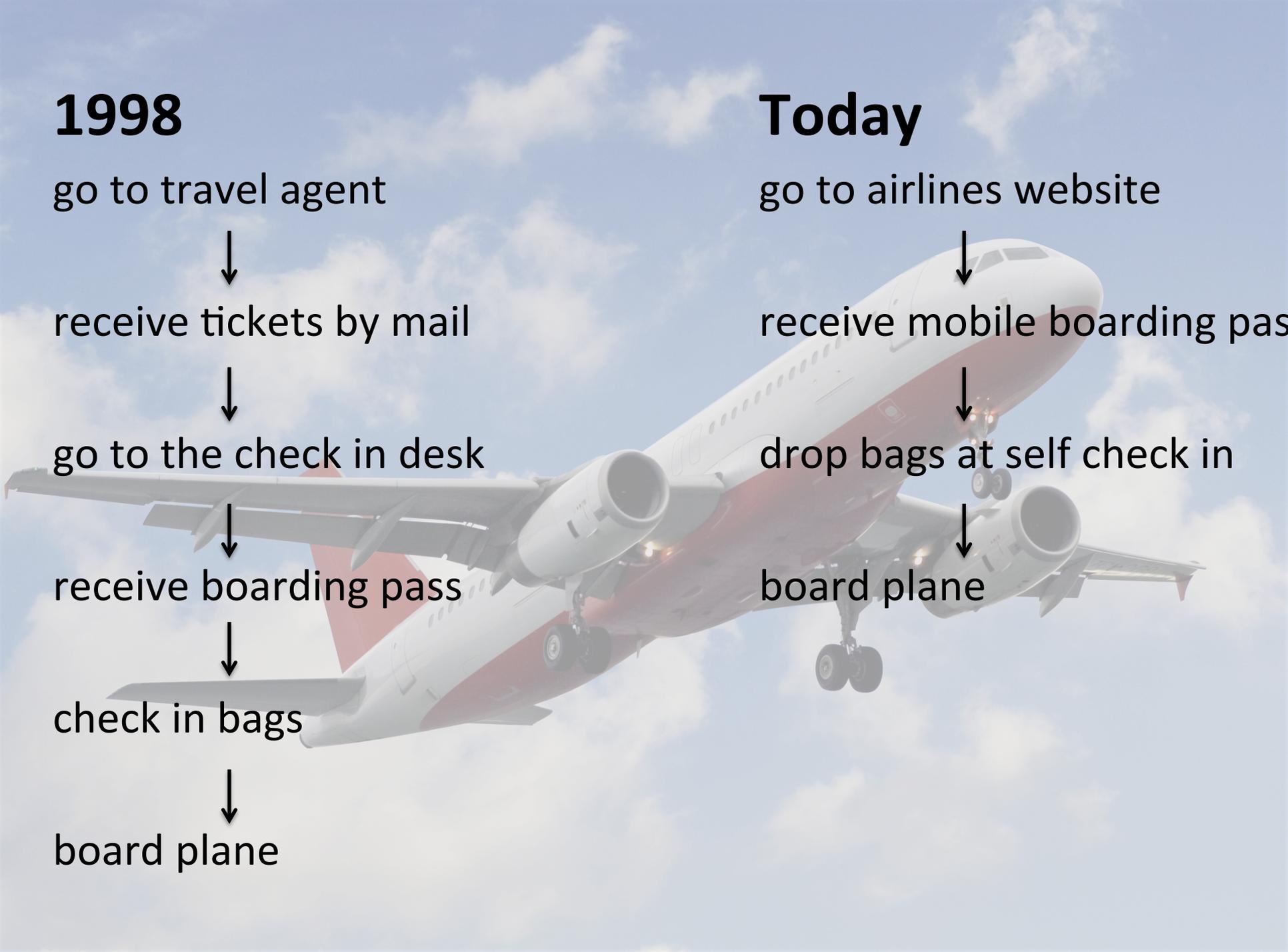
receive mobile boarding pass



drop bags at self check in



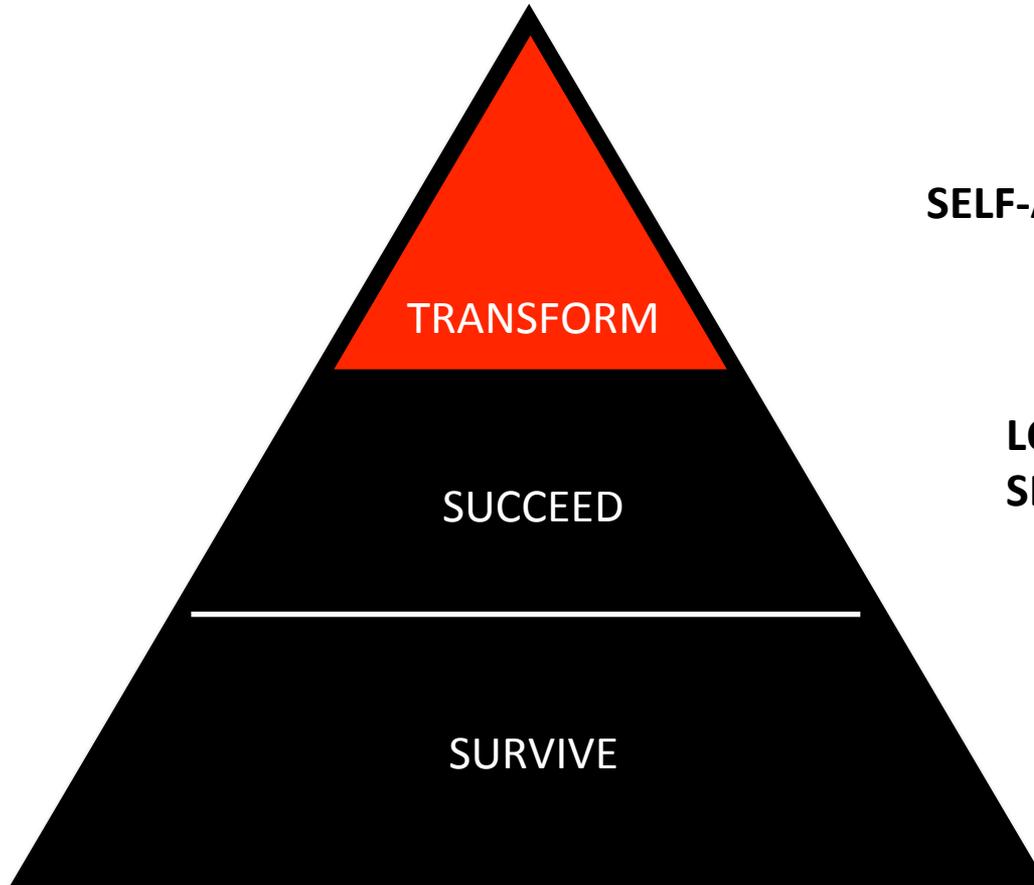
board plane



- Saving time
- Saving money
- More fun using a service
- Allowing choice
- More practical

- Saving time
- Saving money
- More fun using a service
- Allowing choice
- More practical
  
- Sharing instead of owning
- New forms of living idealistic and activist ideas (urban gardening,...)
- Do it yourself culture
- Global thinking – being connected
- Open knowledge
- Empowered consumer

WHAT`S NEXT?



**SELF-ACTUALISATION**

**LOVE, BELONGING,  
SELF-ESTEEM**

**FOOD, SHELTER,  
SAFETY**

WHAT EXACTLY IS IN IT FOR  
BUSINESSES?

# THE IMPACT OF SERVICE DESIGN



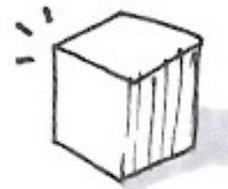
...better customer  
experience



...reduced costs



...increased  
return on investment



...great new  
opportunities

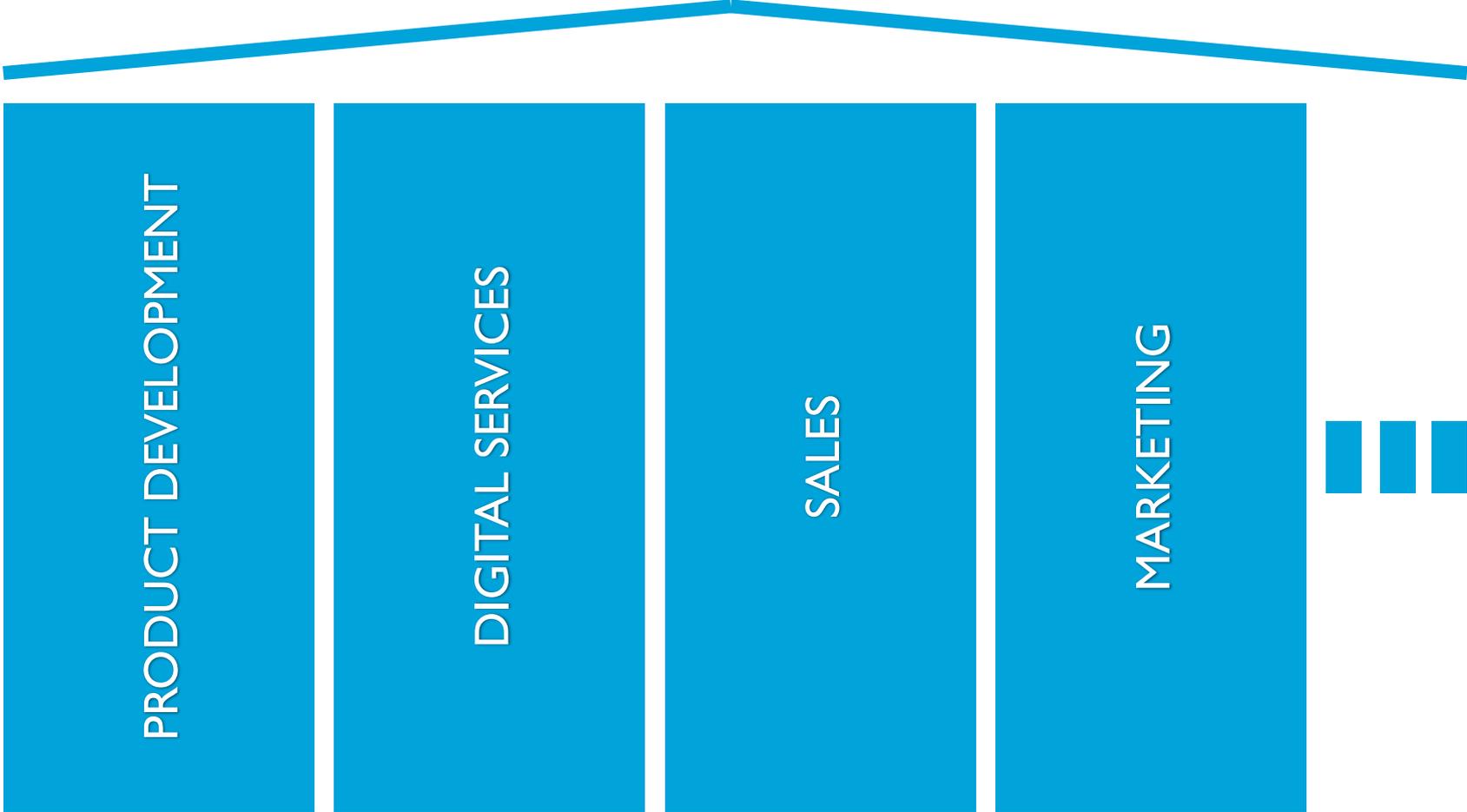
# OPPORTUNITIES WITH CONSEQUENCES

# **A NEW ORGANISATIONAL STRUCTURE: CROSS-SILO COLLABORATION**

## „ERGEBNISOFFENE PROJEKTE“

It is not about designing an app – it is about **the right solution** that meets user AND business needs.

# Organisational design and silos



Organisational design will define whether teams work towards a common goal & vision – and if interdisciplinary work can be lived in reality!

## References (Books):

- [1] Buxton, W. Sketching User Experiences, *Morgan Kaufmann 2007.*
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- [5] Saffer, D. Designing for Interaction, *New Riders 2009.*