

Welcome to the panel:

# Citizen-centric Digital Services

**Moderator**

Marika Hettinga, Windesheim University of Applied Sciences, the Netherlands



## Panel on 2 conferences:

### ICDS 2017

The Eleventh  
International Conference  
on Digital Society and  
eGovernments

### eTELEMED 2017

The Ninth  
International Conference  
on eHealth, Telemedicine,  
and Social Medicine

# Research Group IT Innovations in Health Care

**Smart &  
Connected Health**

**eHealth &  
business  
implementation**

**eHealth &  
health care  
practice**

# Panelists

Michael Green, Canada Health Infoway, Canada

Seung Hee Lee, University of Tsukuba, Japan

Britt Östlund, Royal Institute of Technology, Sweden

Lasse Berntzen, University College of Southeast, Norway

# Panel: Citizen-centric Digital Services

## eTELEMED 2017

Nice, France

March 20, 2017

Michael Green, President and CEO  
@MGreenonHealth



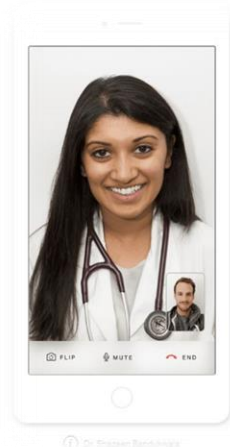
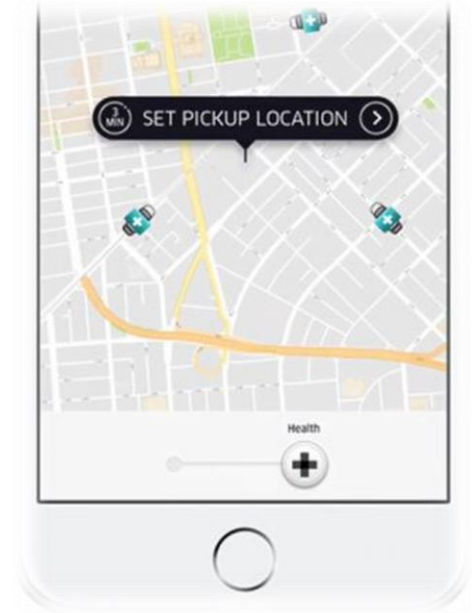


# Moving People from Patients to Partners in Managing their Health





# How Can we Apply Consumer Innovation in Other Industries to Health Care?



**AKIRA**

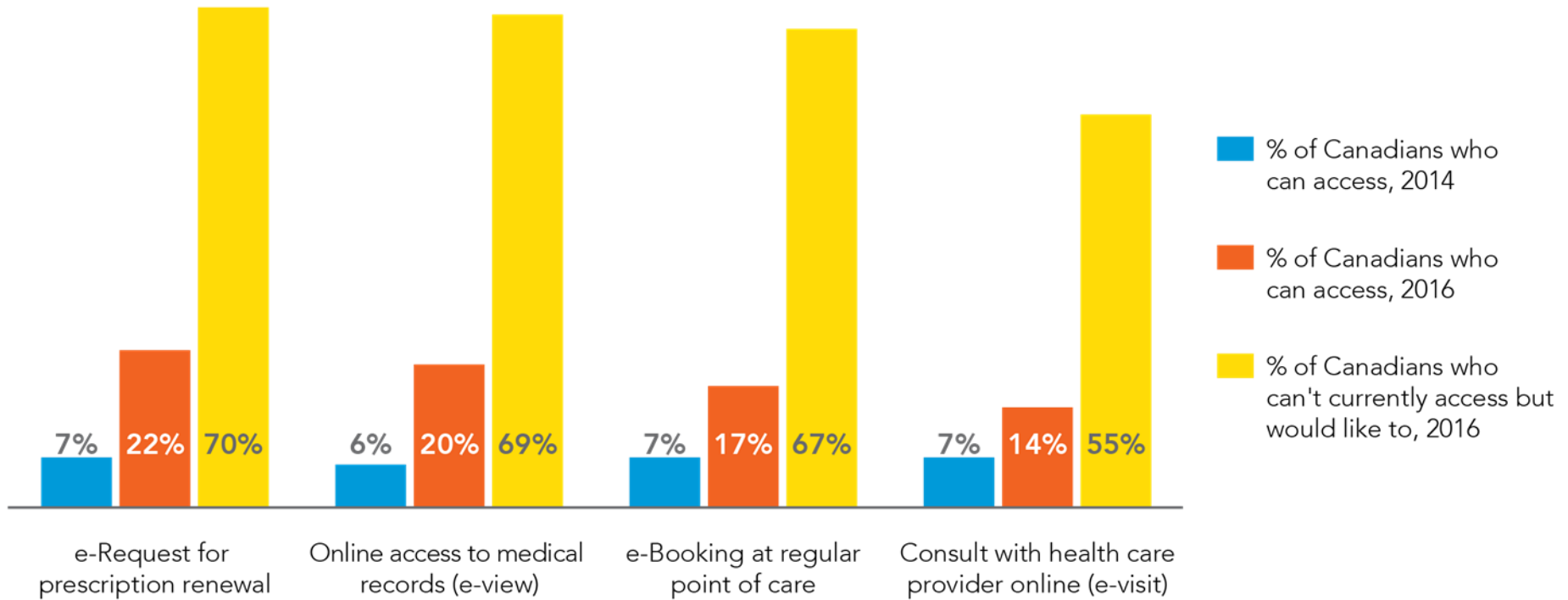
## A doctor in your pocket.

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# Bending the Cost Curve by Shifting from Acute to Virtual Care







Canada Inforoute  
Health Santé  
Inforoute du Canada

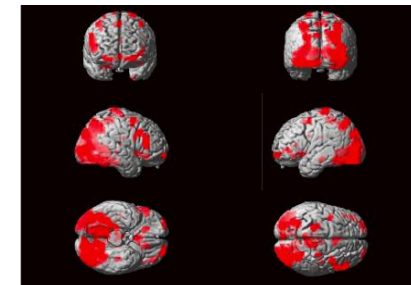
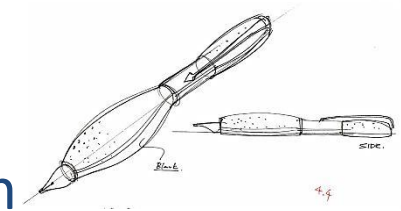
THANK YOU!



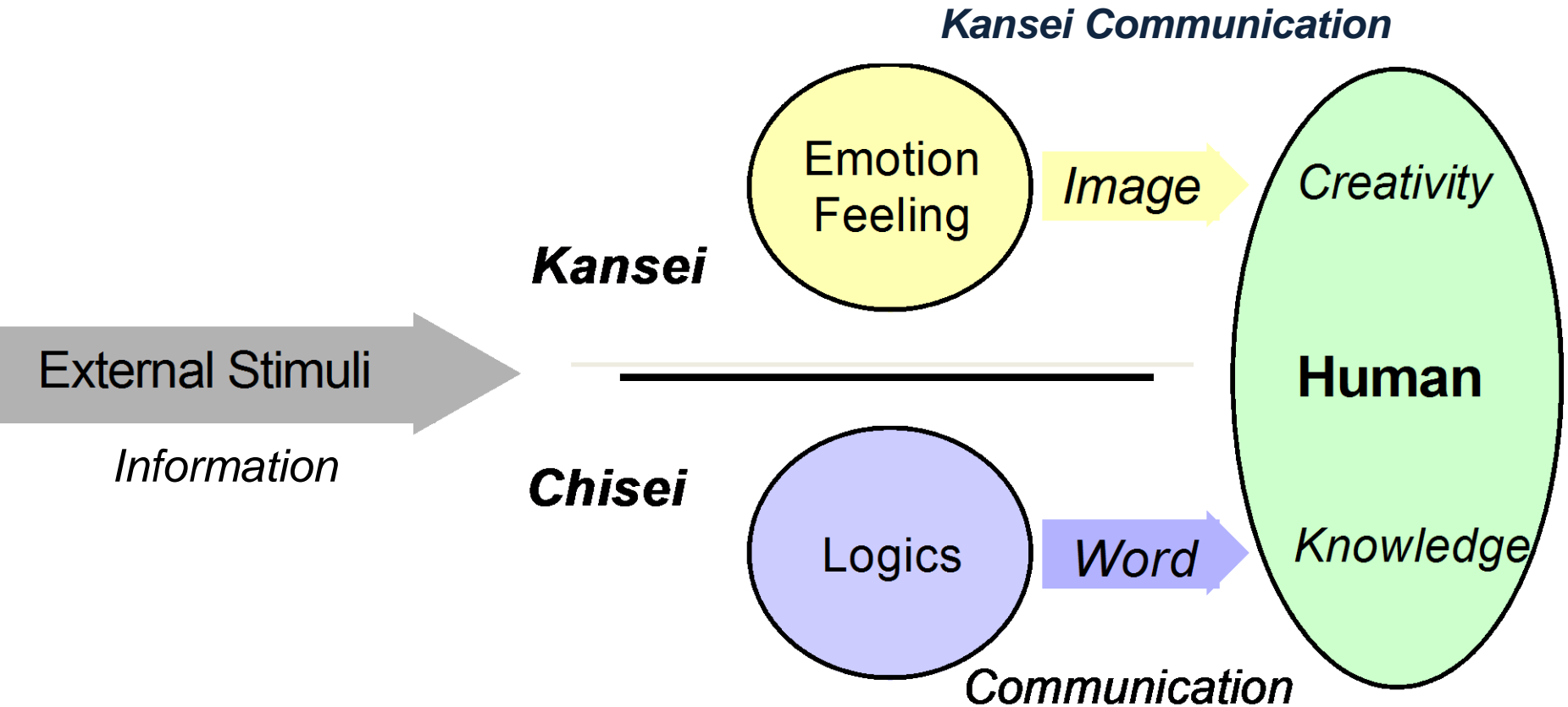
**SeungHee Lee** is Associate Professor and Group Leader of the **Kansei (Affective Engineering) Design and Interactive Laboratory** at the Graduate School of Comprehensive Human Sciences of the **University of Tsukuba**.

She has started to research on **Kansei Science** since 1996 and after her PhD in Tsukuba, she has experienced researching and publications on Kansei at **TU Delft** and **TU/e** in the Netherlands. “Pleasure with Products”, published in 2002 by Taylor & Francis was the first reviewed paper on Kansei in Europe.

She integrate her research with Brain Sciences to find **“Creative Experiences in the Brain”** since 2004.



# What is *Kansei*?



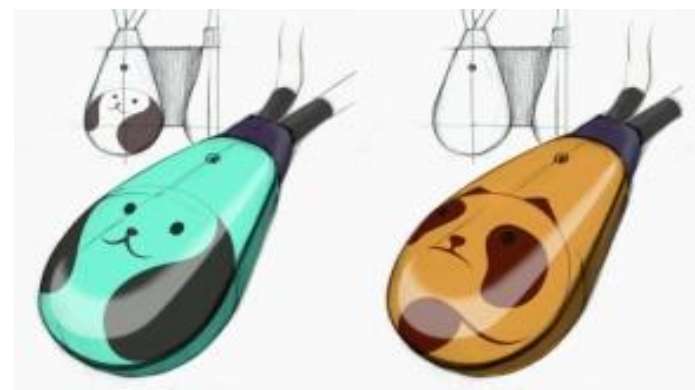
*S.H.Lee (1998 in Tsukuba)*



# KID'S FRIENDLY DESIGN



- Children would be **willing to wear** the device themselves
- The device should **not obstruct** children's **activities**
- The **lighter, the better**
- The **camera** on the device can take **accurate views** of what a child is seeing while events happened
- The device should be **fit closely** to the child's body to properly detect acceleration of the child's movement



Project of Strategic and Communication R&D Promotion Programme Ministry of Internal Affairs and Communications 2009-2010

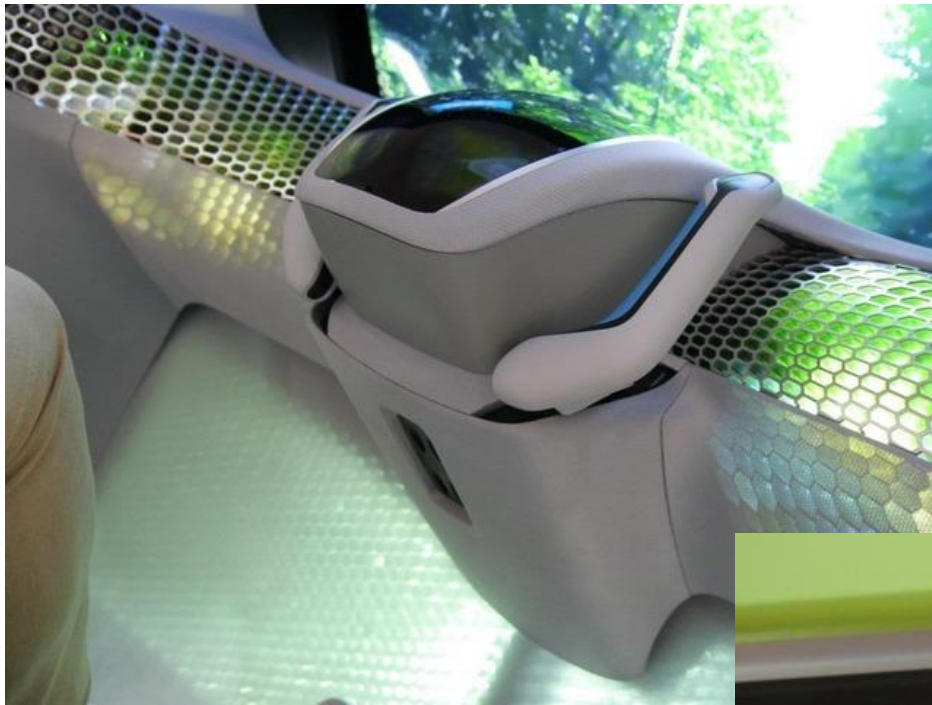
# Self Driving Car

**Relax mode**

**vs.**

**Alert mode**





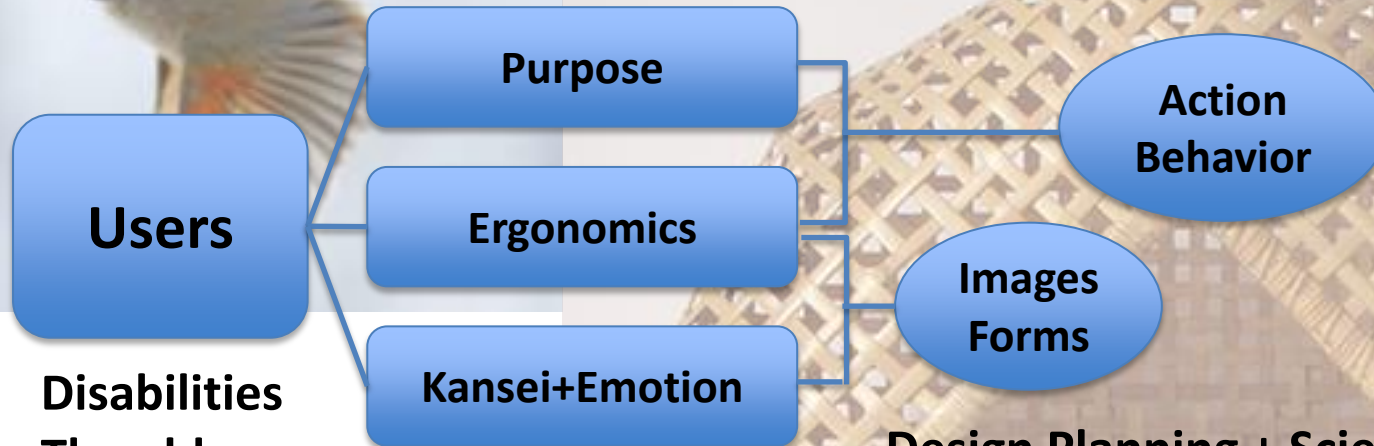
## Interior Installation to improve positive Emotion

Emotion detecting experiment using physical data such as sweat, heart rates, brain waves..

Excitement わくわく感  
Proper tension 程よい緊張感  
Comfortable 安心感  
Etc. など



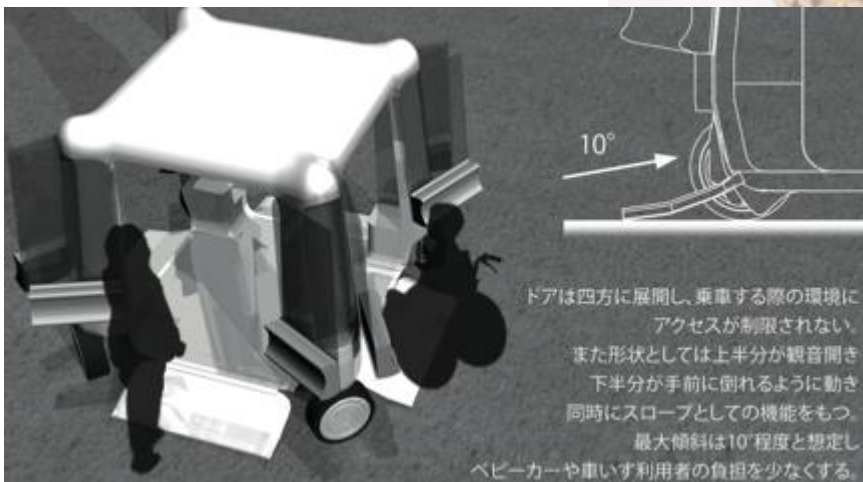
# Interactive Mobility for Accessibility



**Disabilities**  
**The old**  
**Pre Moms**  
**Buggies**

**Design Planning + Scientific Approach**  
**Ethnography**  
**Physiology**  
**Mechanical Engineering**

Beautiful Attitude, Easy Access, Comfortable Stay and Gentle Care for all



# Practical Design Development in Kansei

Her recent researches focus on the design development of industrial products and IT, ICT wearable devices for **Children's security** using Kansei approach concerning social relations.

She recently manages design development of **Auto Drive mobility** of barrier free in 2020 Tokyo Olympic games.







# **Citizen Centric Digital Services**

**Panel on eTelemed IARIA 2017**

**Britt Östlund**

**Royal Institute of Technology, KTH &  
Swedish Red Cross University College, SRCUC, Sweden**

Being CyBorgs from reparations with artificial technology, implantat, exoskeletons and monitoring with sensors and selfmanaging tools:

- How will this affect relations between patients and health care professionals?
- Will we communicate with patient data or with patients?
- Will patients invite us into their lives?
- What about the meaning of an extended life?

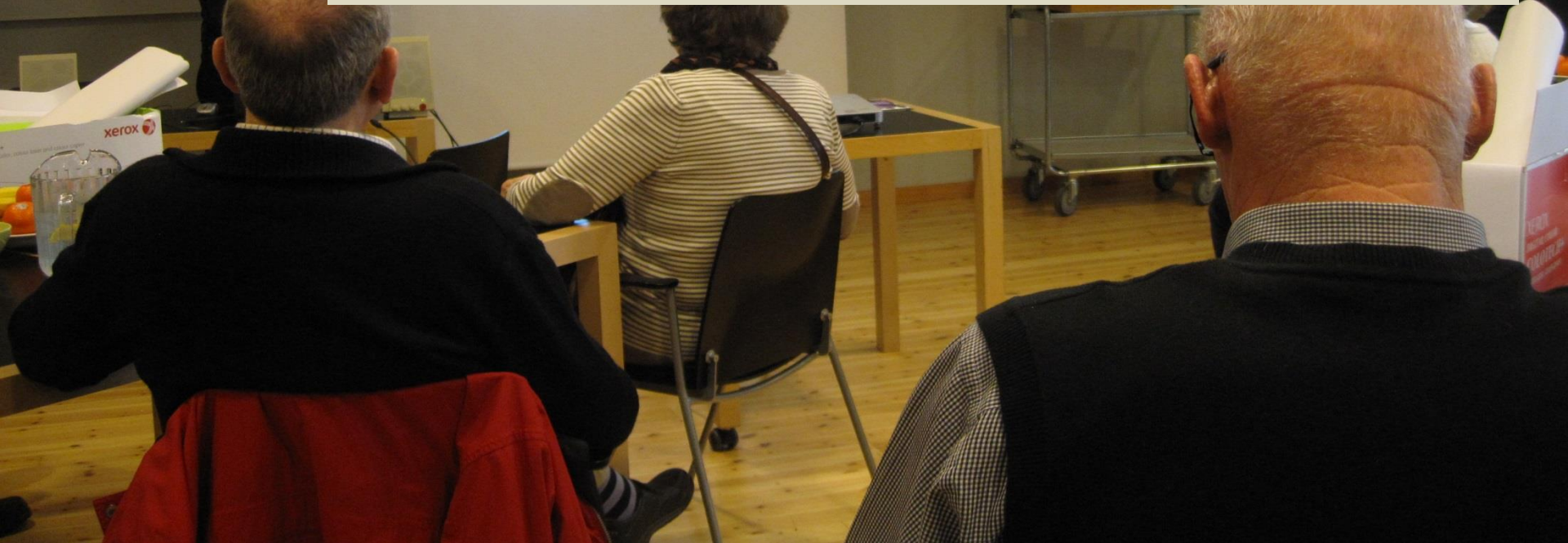


**1. Moving people from patients to partners in managing their health**

## From Innovation Reserach we learn that:

Requirements for succesful innovation processes correspond very well with the experiences of older populations!

- High demands and complex problems that offer resistance
- Critical attitudes combined with long experience
- Patience



**2. How can we apply consumer innovation in other industries to health care?**

Probably true, but how to evaluate efficiency in virtual care?

It requires, among other things, that we apply and further develop concepts and methods that help us understand technology and users in context, outside controlled environments, labs and hospitals.

**3. Bending the cost curve by shifting from acute to virtual care.**

A photograph of a classroom with several children. In the foreground, a young girl with a pink headband is looking towards the camera. Behind her, other children are engaged in activities like drawing. The image is overlaid with a semi-transparent blue filter.

# HSN

University College  
of Southeast Norway

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Panel (ICDS/eTELEMED 2017, Nice, France)  
**Citizen-Centric Digital Services**  
Lasse Berntzen

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# What is Citizen-Centric?

- Involving citizens in all stages of product/service/process development

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# Citizen-Centric Innovation

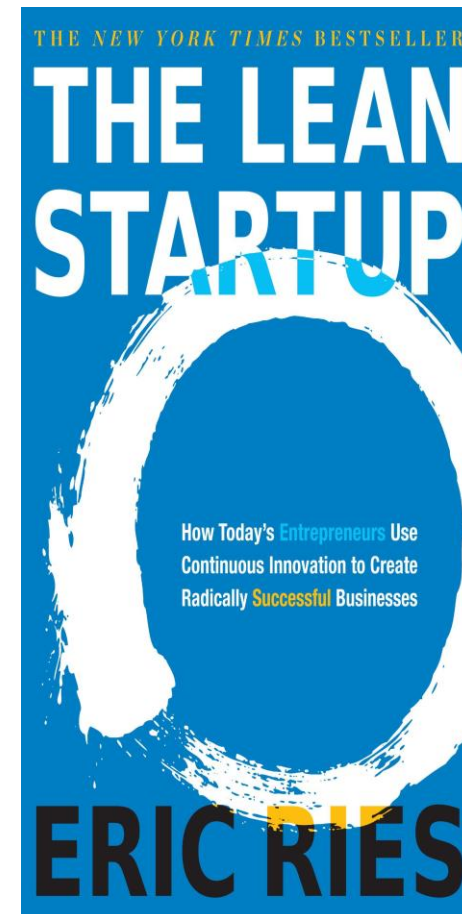
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- Systematic collection of user input
- Collaboration, participation
- Users may be co-creators of the service
- Adding their wishes and expectations
- But also their competence
- **Mindset**

# Lean Startup Methodology

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- Eric Ries
- Startups as a learning process
- Based on Lean methodology
- Experiment and validate





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# Lean Startup

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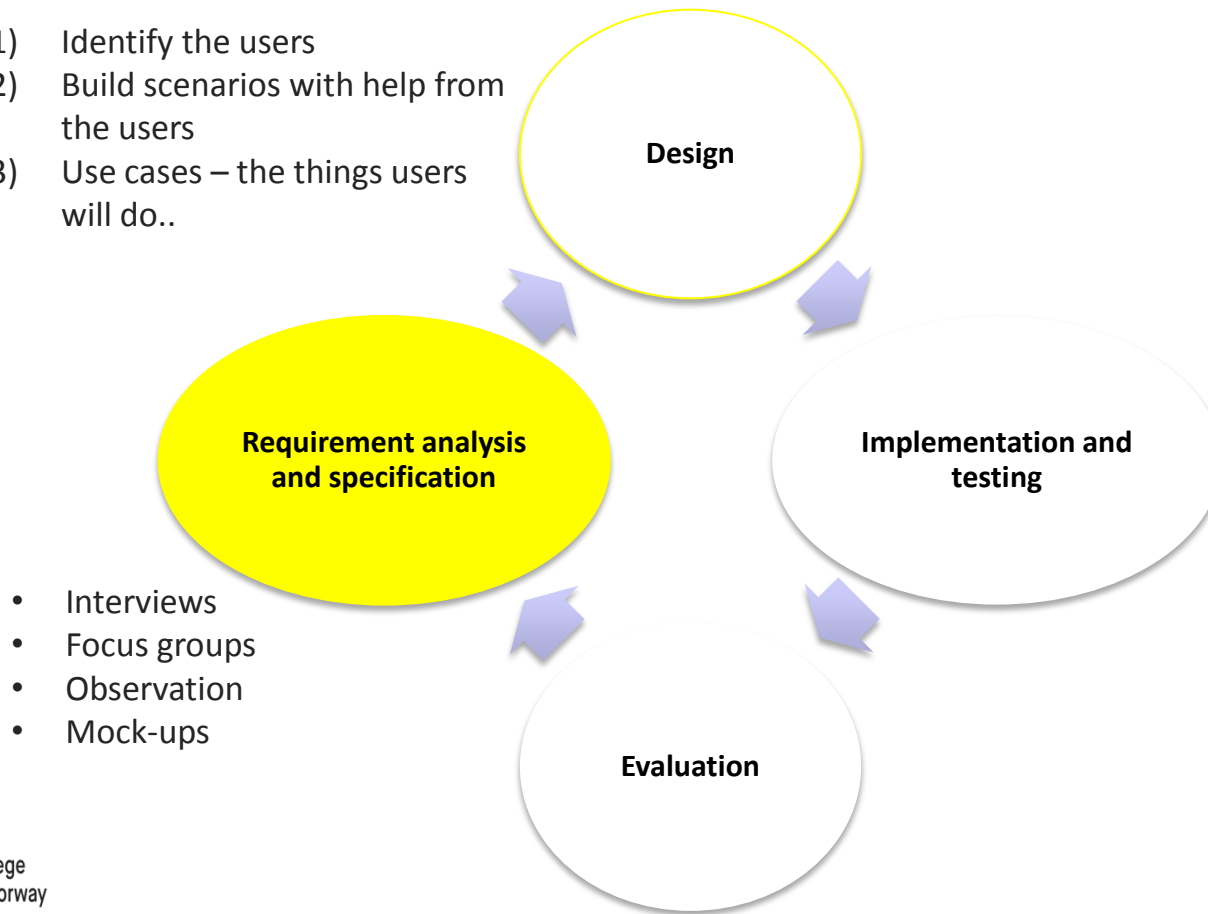
- Key point: Validated learning
- Startups exist to learn how to build a sustainable business
- Scientifically validated learning through frequent experiments where vision is tested
  - **Minimum viable product (MVP)**
- Build-Measure-Learn (feedback loop)

# Citizen involvement

## Requirement analysis and specification

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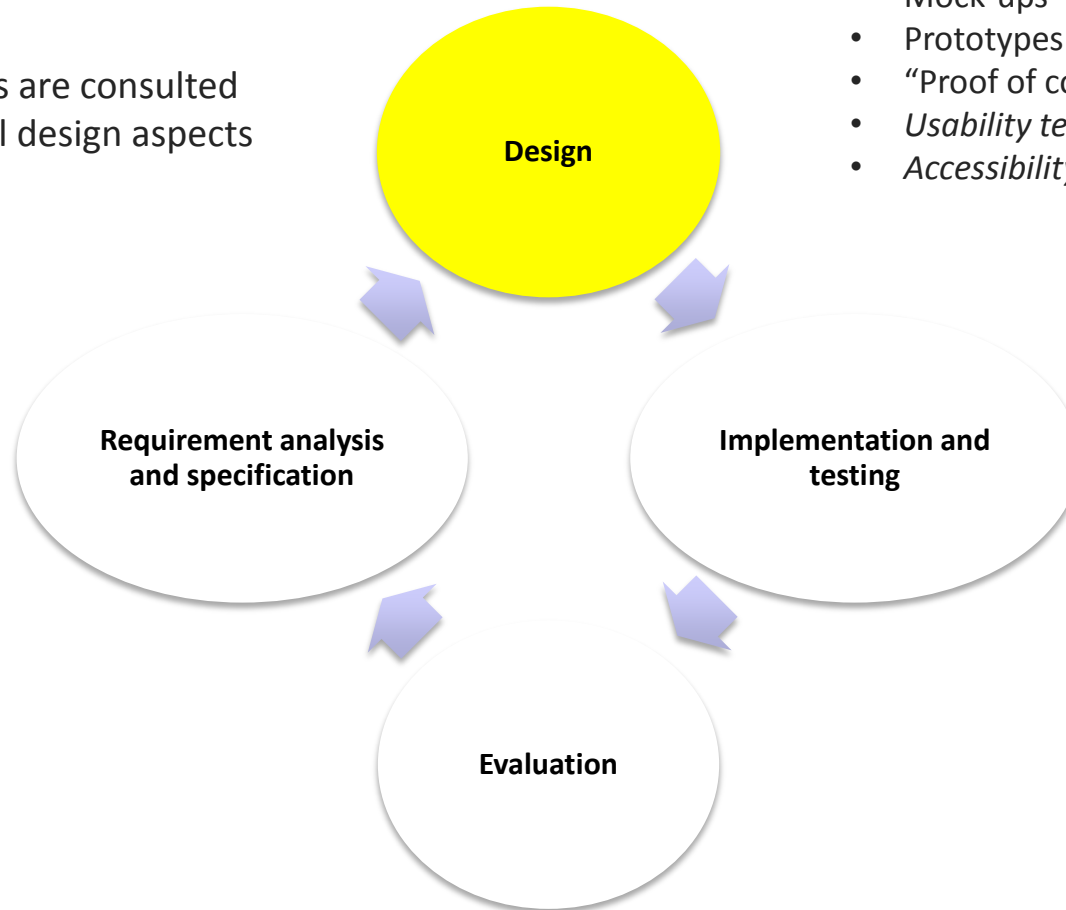
- 1) Identify the users
- 2) Build scenarios with help from the users
- 3) Use cases – the things users will do..



# Citizen involvement Design

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Users are consulted  
on all design aspects

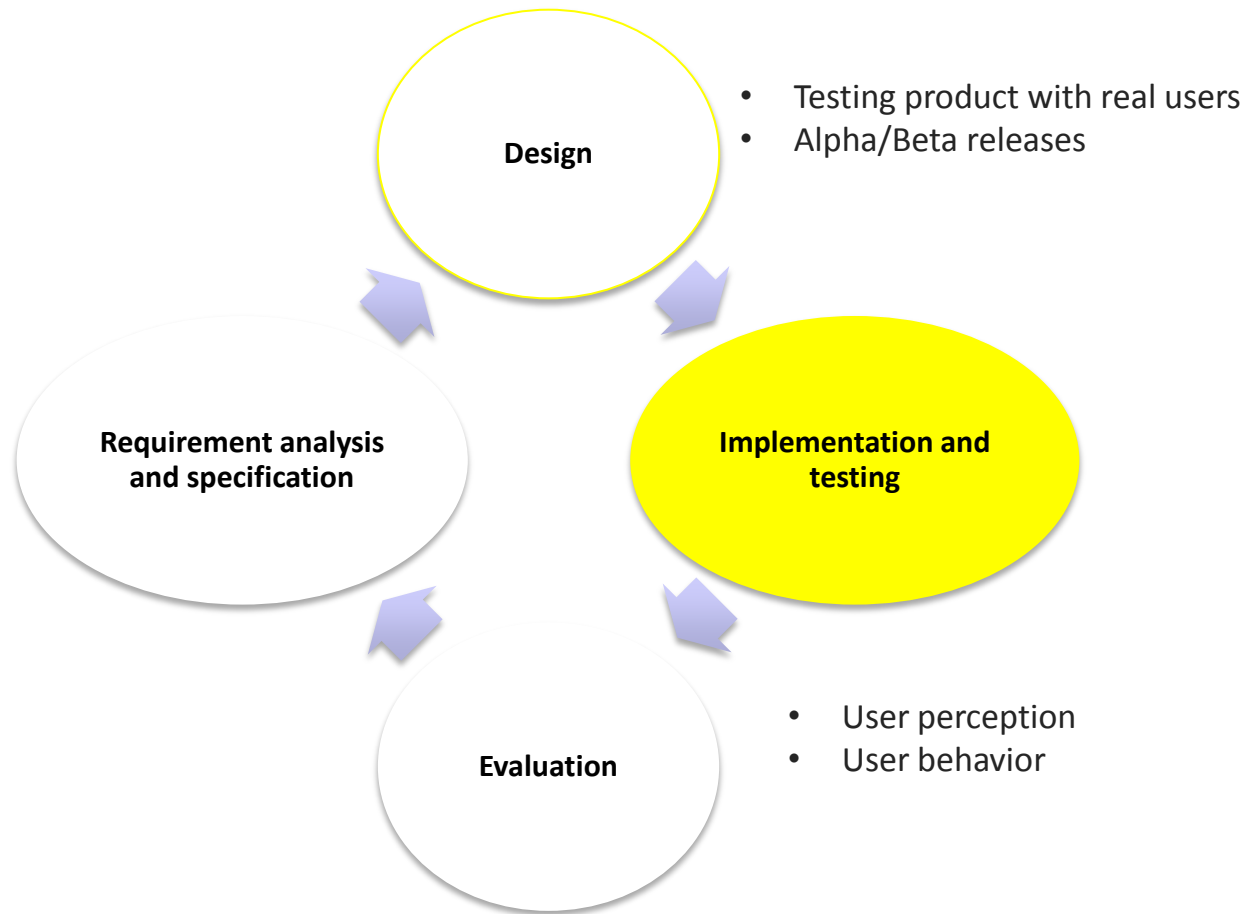


- Mock-ups
- Prototypes
- “Proof of concept”
- *Usability testing*
- *Accessibility testing*

# Citizen involvement

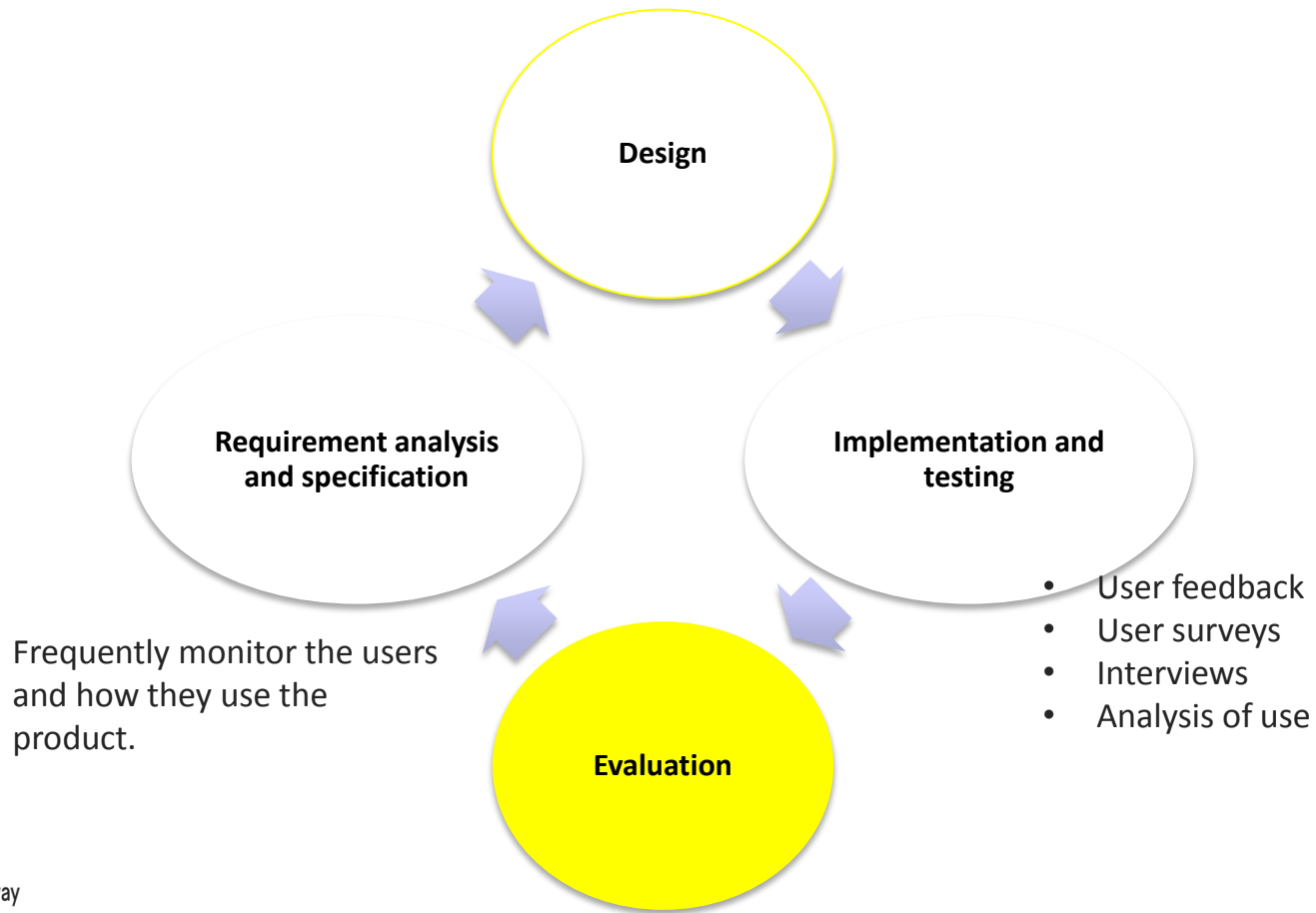
## Implementation and testing

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# Citizen involvement Evaluation

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# Questions

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- What I showed you is a process
- But what else is needed?