

Examples and experience from municipality services

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Research



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Full Flow



Full Flow of Health Data Between Patients and Health Care Systems

Description

Norwegian electronic health record (EHR) systems do not allow integration of patient-gathered data, and these systems are not compatible with each other. By suggesting research regarding how **decision support systems designed for health care personnel**, can be integrated with **self-managed systems based on real patients**, we expect to unveil a vast amount of new insight. The chosen approaches will place a large emphasis on **user-involved design**, development of archetypes as communication enablers and information retrieval to measure effects, agile development methods, and solid documentation of both medical and economical outcomes of the tested concepts. This approach will address issues regarding feasibility and interoperability, how they can be implemented, the economical and health outcomes, and how can these concepts be used internationally.

Project manager



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Project participants

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External project participant

- Ragnar M. Joakimsen, UNN

Principles

1. **CDSS** [1]: Provides assistance to physicians and other health professionals when making decisions
2. **Evidence-based** medicine [2]: conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients
3. **ICT-enabled self-care** [3, 4] with patient's values at the centre
4. **Person-centred care** [5]: putting patients at the heart of the system, encouraging them to be involved in managing their own healthcare needs - EU Health Strategy 2020 [6]

2 Examples of municipality services

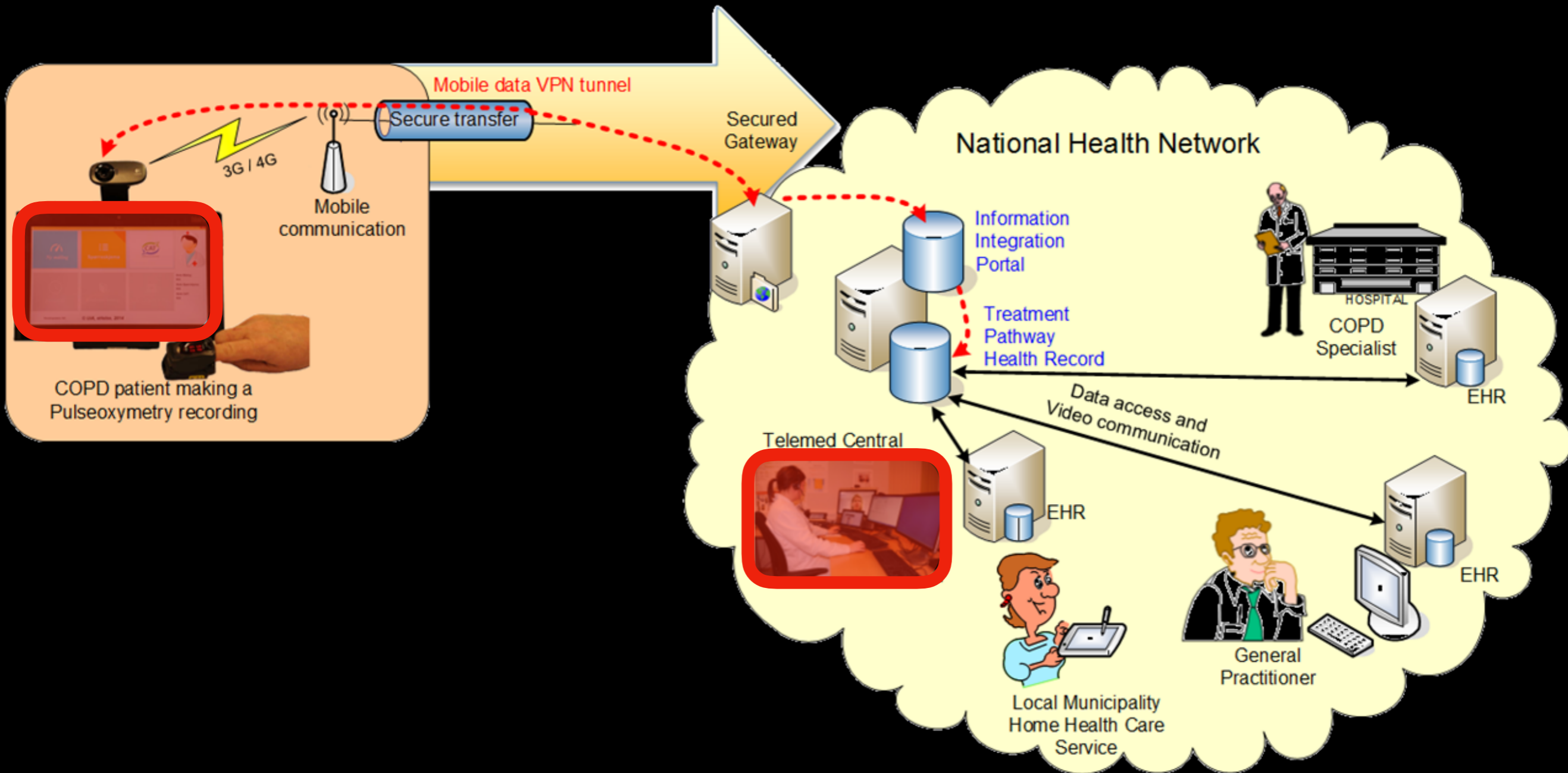
1. UiA EU FP7 R&I Project **United4Health** (U4H)
2. Grimstad Kommune Norwegian Health Directorate R&I Project **Agder Living Lab**

1. U4H

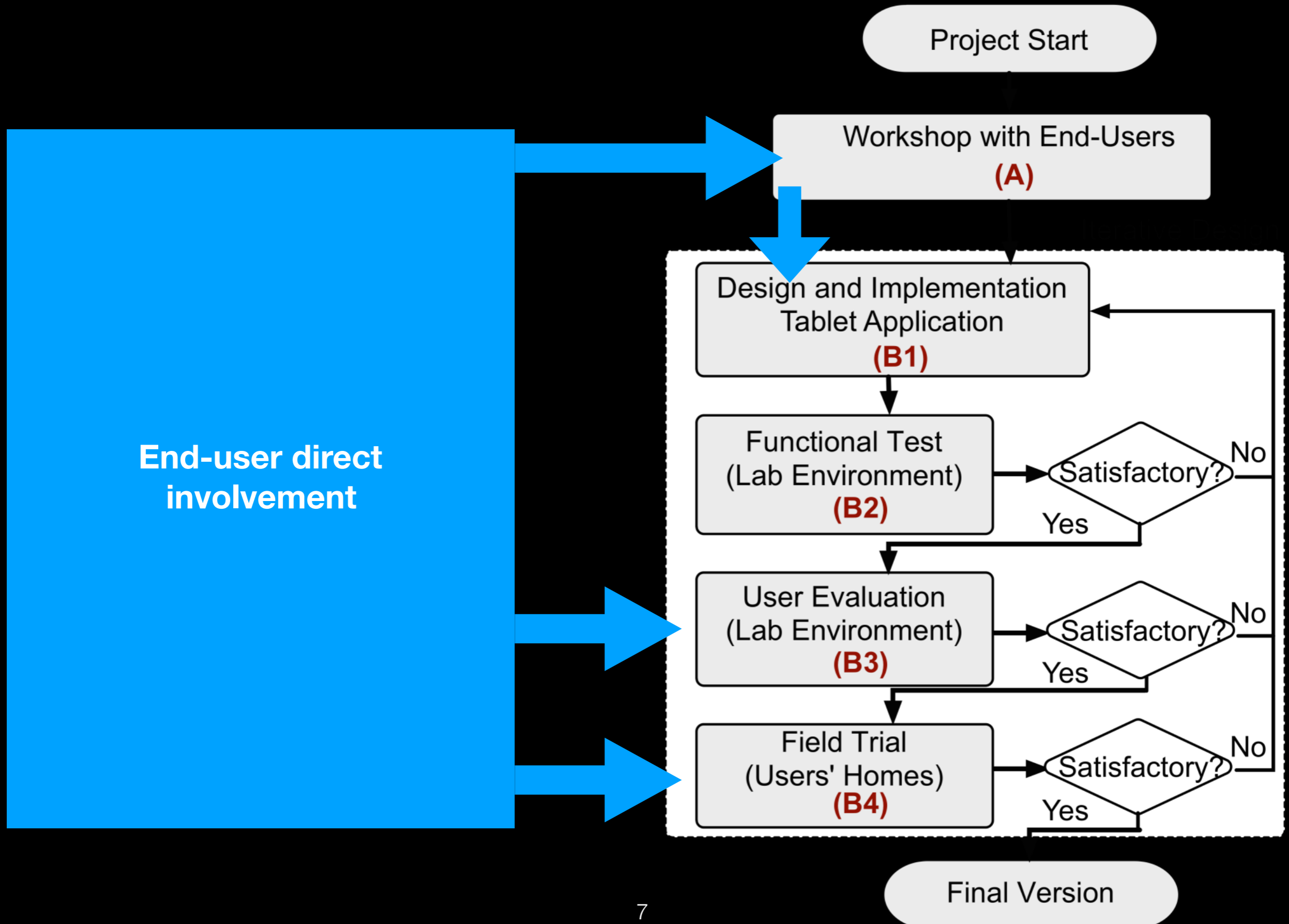


- 12 EU countries, 2012-2015, 10,1M€, **12K patients**
- **Aim:** develop tele-medical support for patients discharged from the hospital after an exacerbation of Chronic Obstructive Pulmonary Disease (COPD), implemented within the secured Norwegian Health network
- **Norwegian healthcare model:** Tele-medical support of COPD in the homes is part of the Norwegian healthcare collaboration model

U4H

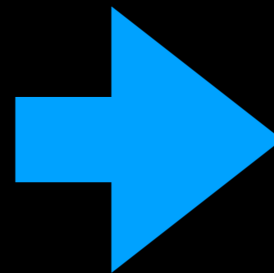
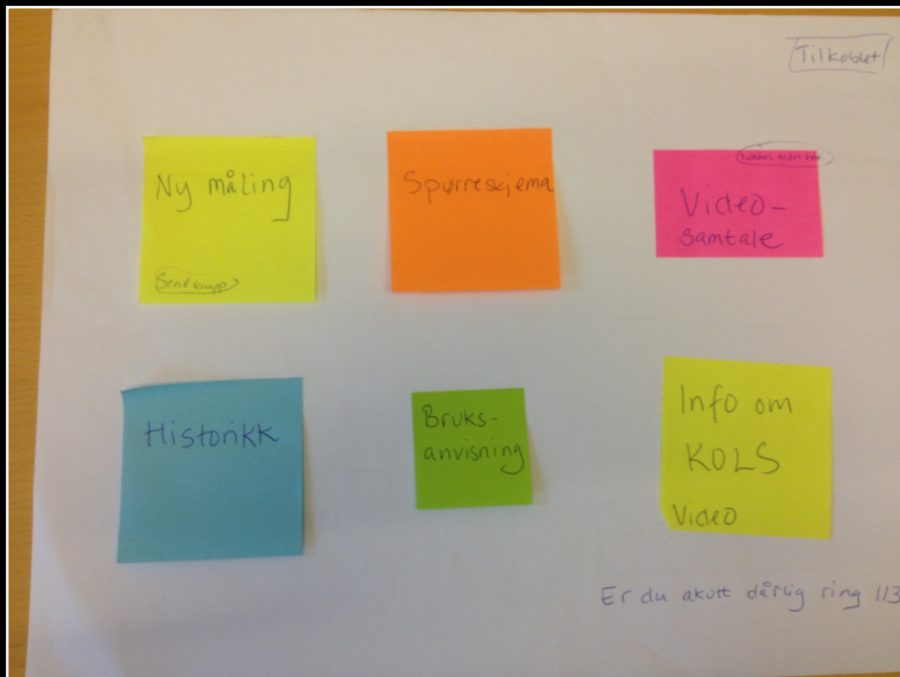


U4H User Involvement

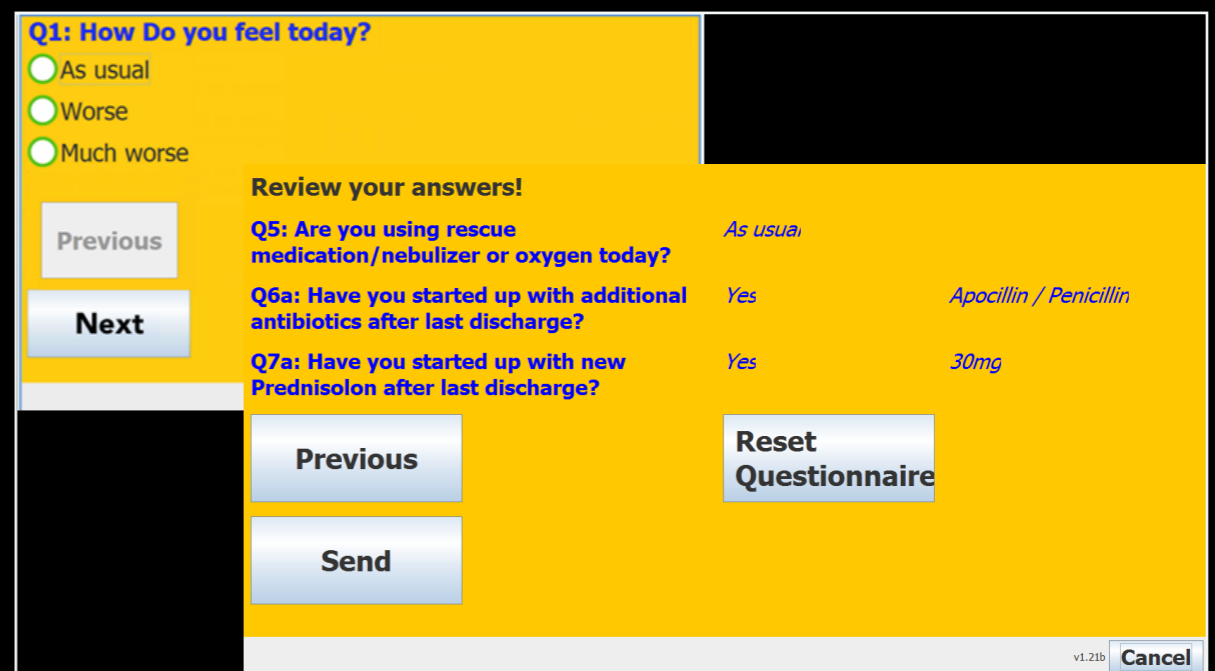
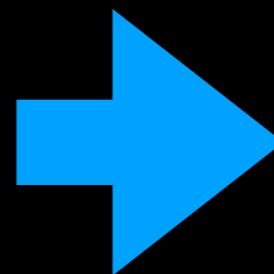
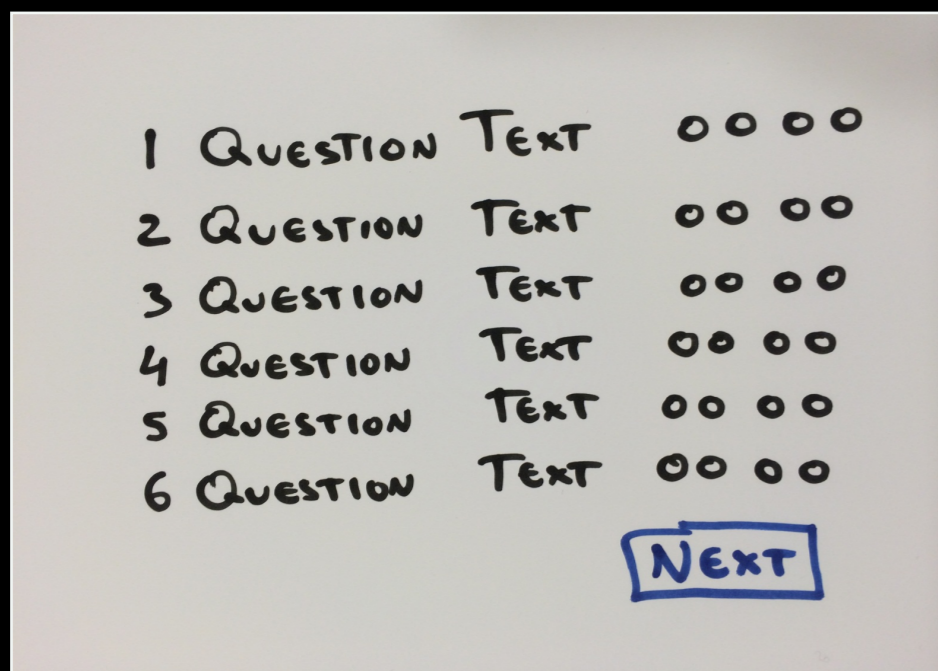
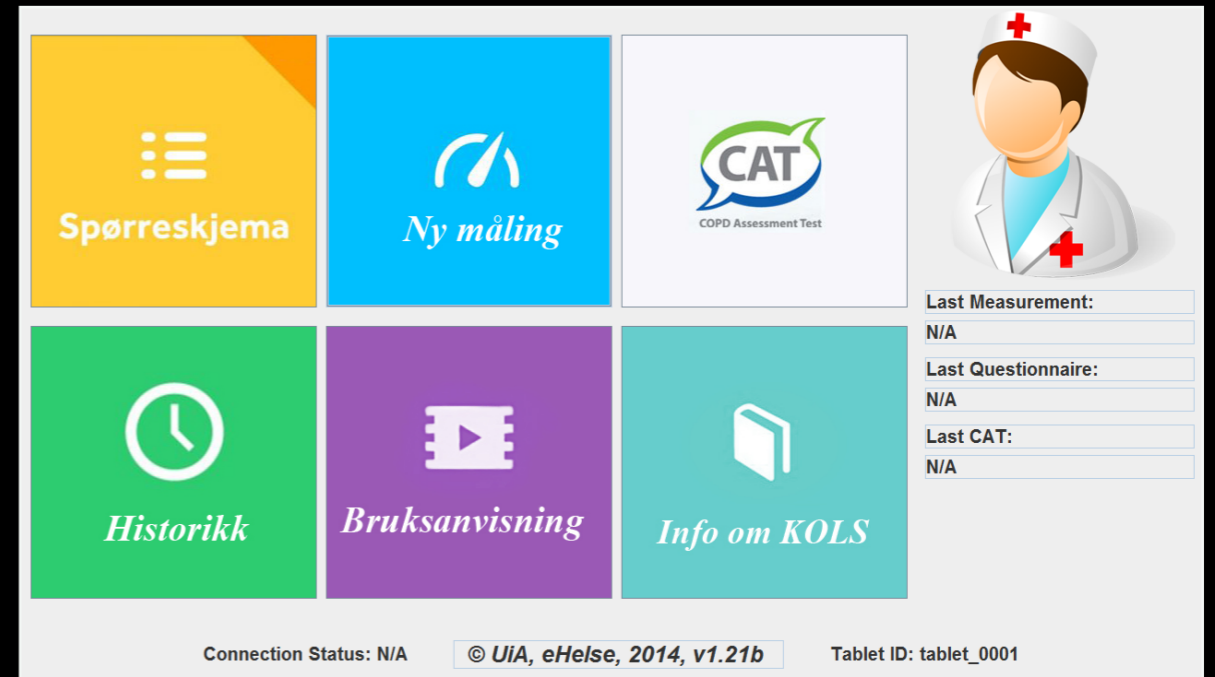


U4H User Interface

End-user involvement



Deployed system



U4H Experience [7,8]

1. **Involvement** of ALL stakeholders at ALL times
2. **3 Perspectives:** clinical, patient, ...
3. **Intervention/Hawthorne effect/Baseline representativeness**
4. **Adoption**

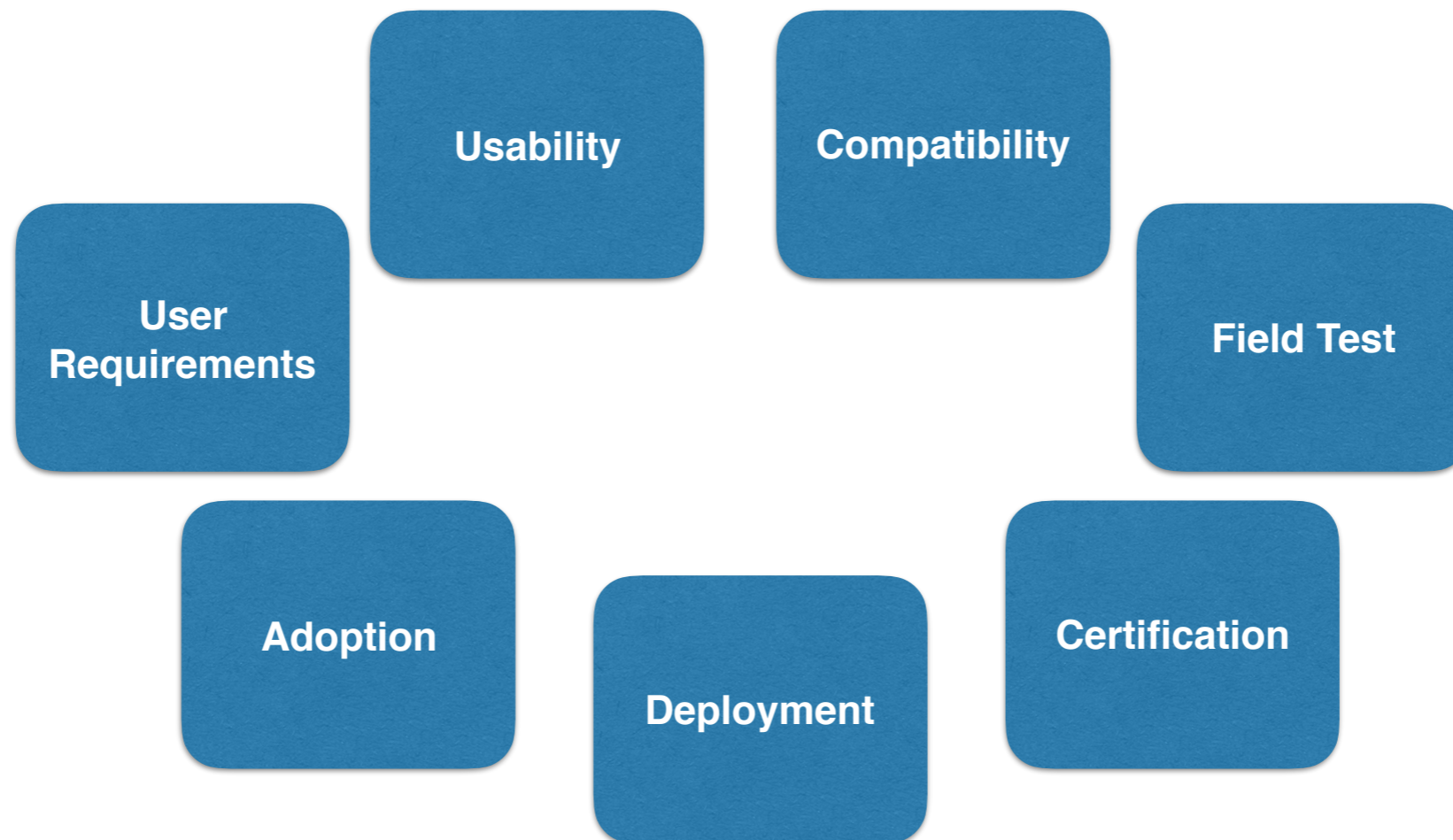
ALL Project



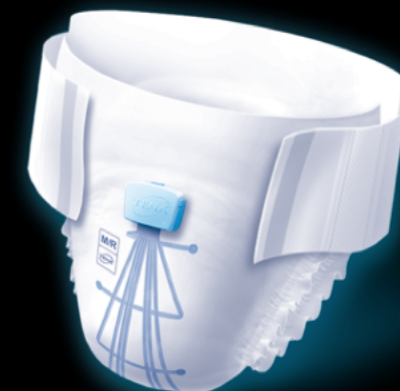
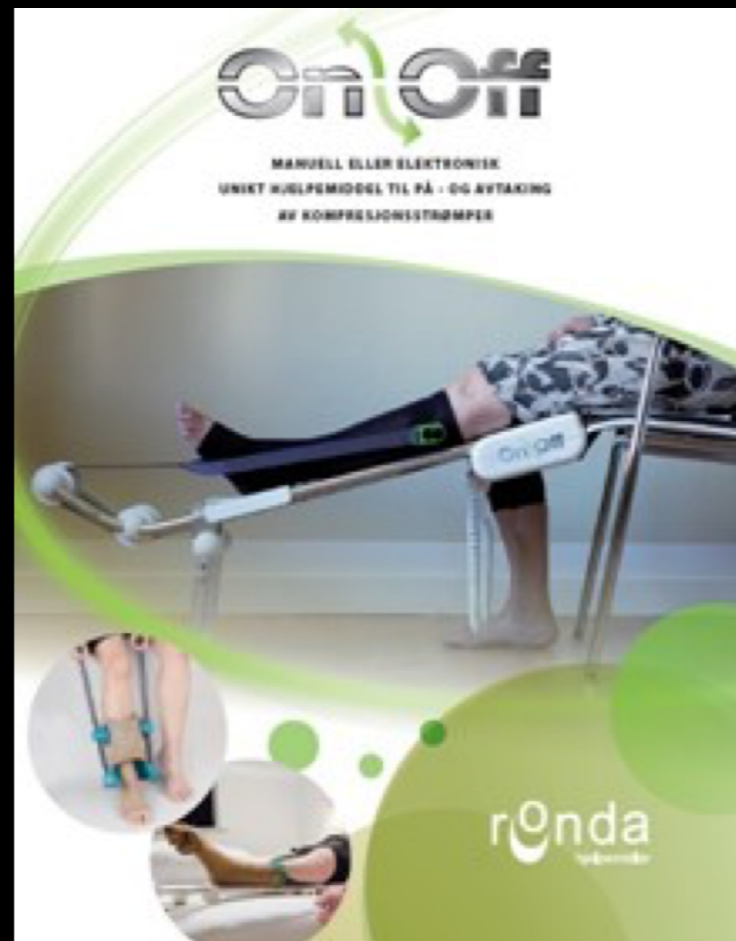
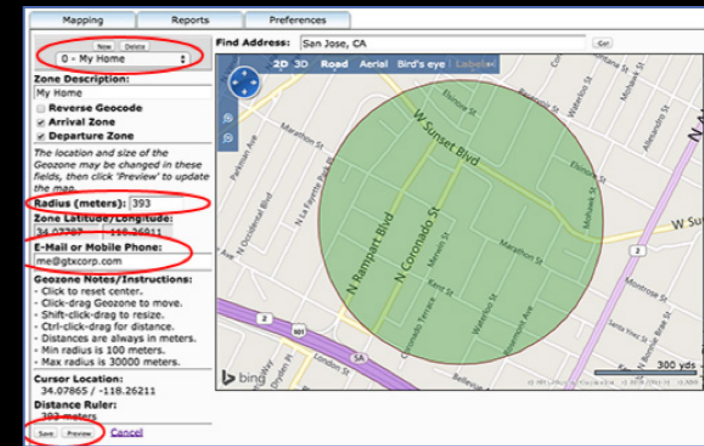
- East Agder Development Centre for Nursing Home and Home Services, University of Agder, 2015-present, 4 MNOK, Helse Directorate, Fylkesmanen
- **Aim:** systematic evaluation and selection of welfare and health technology solutions for the municipal home services, including users/family members, public employees and private companies
- **Norwegian national welfare technology program (2016)**

ALL Capabilities

Capabilities



ALL



ALL Experience [9,10]

- 1. User pool**
- 2. Interaction with providers**
- 3. Expertise**
- 4. Technology-enabled healthcare at scale**

Reflections

- Prof. Årsand:
 - Consumer products vs clinically validated device (health device regulation)
 - “users [...] can’t wait for the industry”
 - “[...] could not have been developed without the support of diabetes community”
 - “[most difficult] make clinicians share their valuable time”
- PAI:
 - Find your size in the trousers label -> read inches -> calculate cm

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Thank you
Tusen takk

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