

The background of the slide is white with a pattern of overlapping orange house silhouettes of various sizes and orientations, scattered across the page.

patient@home

'Google Glass'

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High performance. Delivered.

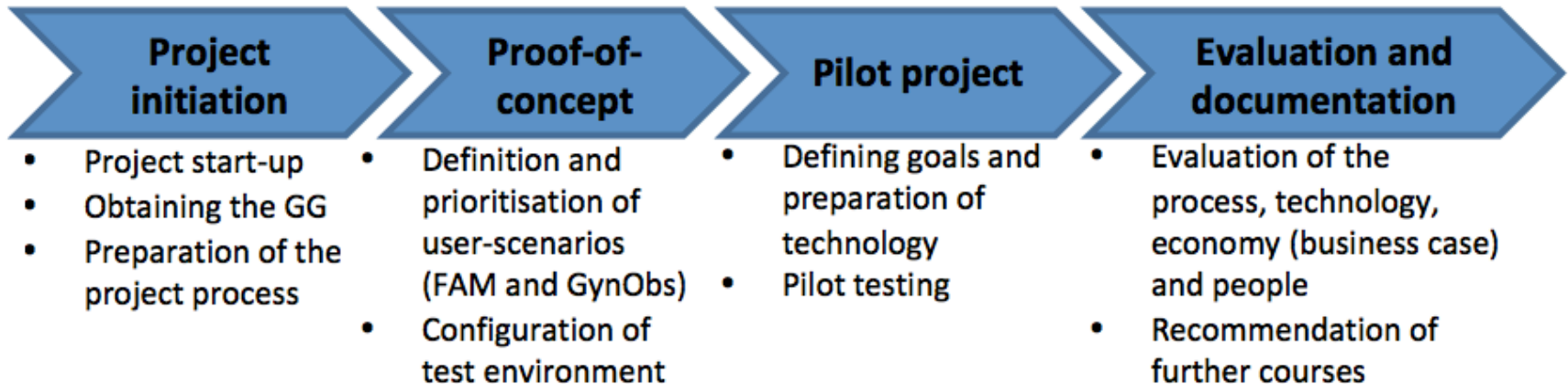
 **accenture**

Strategy | Digital | Technology | Operations



The purpose of the Google Glass project is to identify and test possible scenarios in the clinical work procedure

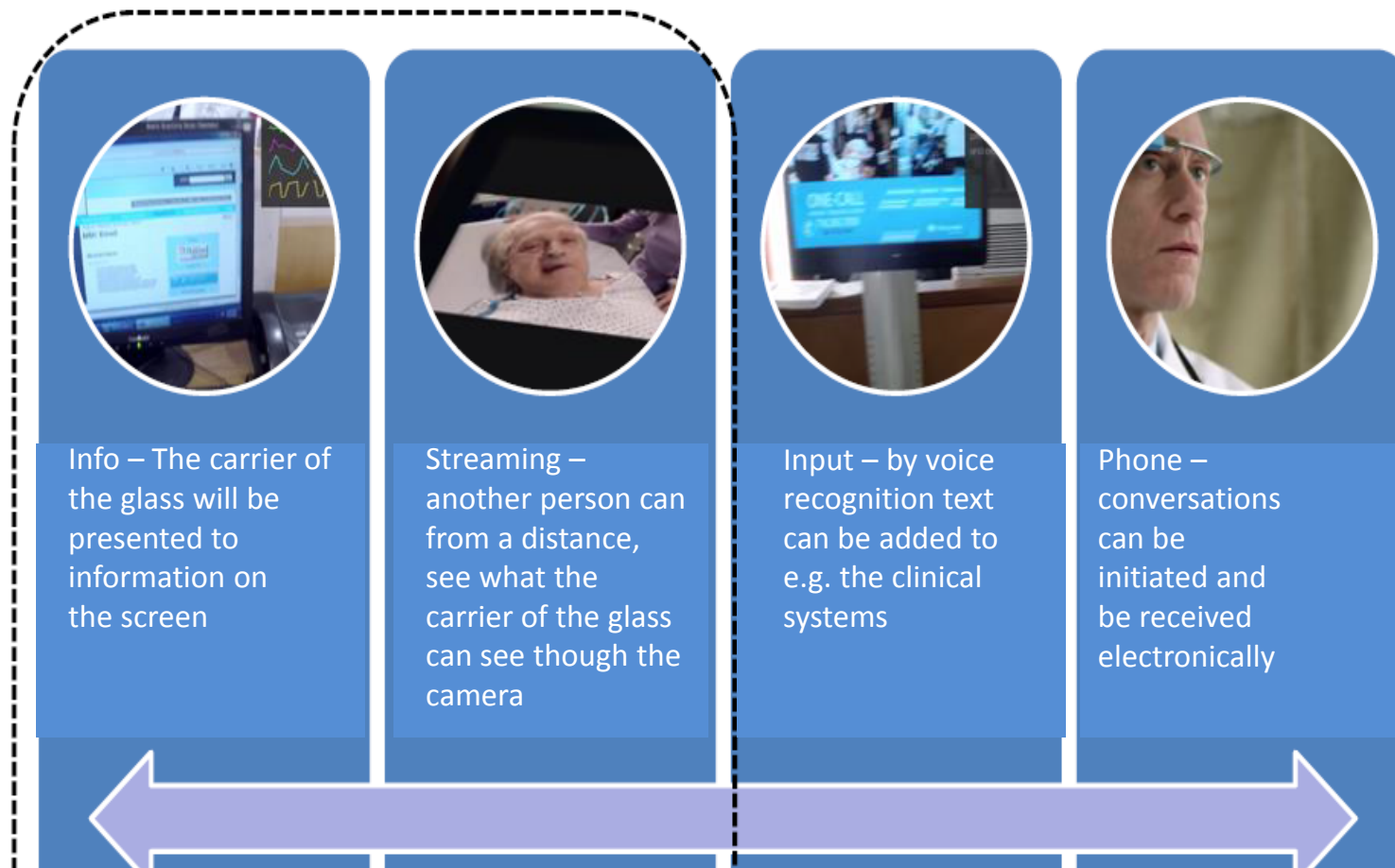
The Project has been completed throughout four phases over a period from April 2014 – November 2014



- The results of the test are based on the practical use of Google Glass
- The pilot test is done from user-scenarios and is completed in two areas:
 - The Acute Cohort (FAM) – 4 nurses and 8 doctors
 - GynObs – 2 obstetrixes, 2 obstetricians and 2 surgical nurses
- Cost of the pilot project 500.000 dkk.



Applications for Google Glass can be categorised into four generically functions – the project has tested two functions



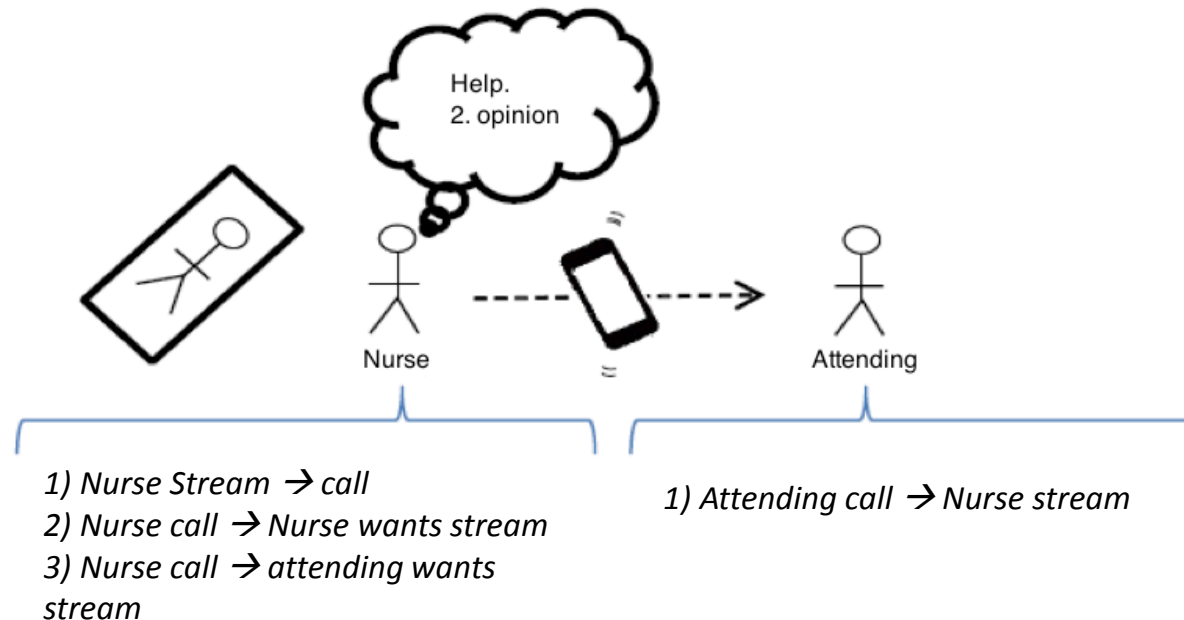
The biggest challenge in the project has been the possibility to share data with the clinical systems

Current situation	Google Glass
PC-based systems	GG condition
<ul style="list-style-type: none">• The major part of EPJ are by access from a PC• Missing portability• Limited suited for collaborative tasks between clinicians	<ul style="list-style-type: none">• Access to data demands bigger requirements to existing PC-based systems• Encourage portability• Suited for some collaborative tasks between clinicians



Scenario from The Acute Cohort (FAM) – The nurse wants an attending’s advice on a patient’s condition

- Pilot test scenario



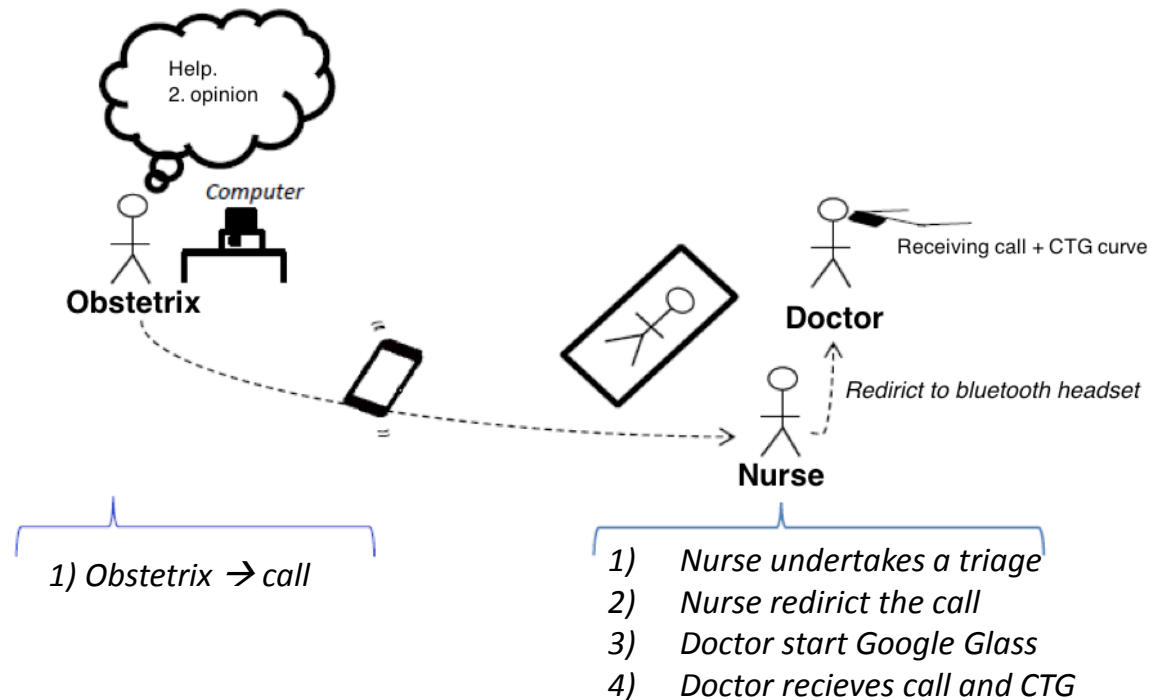
Detailed exposition of the scenario

Using the Google Glass (GG) the younger nurse can look 30 degrees up to activation of GG. After that a call to an attending can be done by voice recognition. This action can happen without any of the manual tasks are disrupted. If it is necessary to show the attending a wound for instance it is possible to stream a video-feed from the Google Glass, which will be available for the attending. This information can together with data from monitoring essential parameters as heart rate and oxygen saturation is available for the attending.



Scenario from GynObs – the obstetrix needs a 2. opinion on a CTG-curve

- Pilot test on GynObs



Detailed exposition of the scenario

An obstetrix needs a second opinion on a CTG-curve. She uses a computer and undertakes a call to the nurse on the ground level. The nurse undertakes a triage and through evaluation of an immediate emergency, she is redirected to a doctor's Bluetooth headset. By using Google Glass (GG) the doctor can activate the glasses by looking upwards in a 30-degree angle. By doing so a CTG-curve is shown via voice control. The entire process can be handled without any manual assignments being obstructed. The call can be accomplished and concluded by the judgement of the obstetrician's description and the doctor's own evaluation of the CTG-curve. Be advised: The doctor and the obstetrician perform an identification of the patient, before the evaluation of the CTG-curve can be accomplished.



Results

- GG has been used 23 times in the pilot project – 12 of the times have been without the involvement of patients and 11 of the times have been in involvement with patients.
- Pilot projects have found positive indication when using GG in a clinical context – observations, user evaluation and verbal feedback from users and participants in the project.
- GG is considered to raise quality and save time.
In the department of GynObs the participating clinicians have agreed that the CTG curve shown on GG was useful and of great value to support the verbal description and resulted in a better basis for decisions. Furthermore does the immediate-decisions from operating doctor reduce the need to follow up on postponed requests after a finished operation.
- The “See-what-I-see” function has from the clinicians’ perspective in the Acute Cohort been useful and adds a clinical value. With the GG it is possible to make judgements even though the consultant is not physically placed in The Acute Cohort (FAM). It saves time for the clinicians because they don’t need to wait for presence of the person.



Challenges

- Battery life
- Own glasses
- Integration
- Presentation of data
- “Prototype”



Perspectives

- Visualisation of information in clinical situations have a great potential – and technology will improve fast
- Technology over promised and under delivered
- Need for a closer link between clinical needs and technical development
- Fast prototyping and testing is need to create the right solutions

