

HEALTHCARE GROUP

TELEMEDICINE / TELECare  
FROM PILOT  
PROJECTS TO LARGE  
SCALE DEPLOYMENT

ITAPA CONFERENCE  
25 OCTOBER 2012

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# Agenda

- The status of the initiatives in telemedicine
- How do we bring telemedicine the next step forward – dynamics, drivers, constraints
- The status on the solutions within the area
- How do we enhance the solutions to meet the future demands



# Long-Term Conditions

## The facts

- 1.3 million chronic patients in DK
  - 400.000 with more than one chronic condition
- 70-80% of resources in DK healthcare sector
  - i.e. 7.5% of GDP
- Some of the biggest groups
  - Diabetes 280.000
  - Cardio vascular 650.000
  - Chronic lung conditions (COPD) 280.000
  - Osteoporosis and rheumatoid arthritis 125.000
  - Psychological conditions 450.000

## The experiences so far ?

- Strong / limited focus on long-term conditions
- Many local pilot projects within specific areas – COPD as the main focus
- Proven business case and benefits at local level – no national or large scale validation
- Proven business case for hospitals
  - Saving bed days
- Proven benefits for the patients
  - Flexible
  - Cost saving (time, transport)
  - Better quality – lower mortality rate

# The Potential Business Values and Benefits

## Patients – Improved quality of life through empowerment

- Overview of personal treatment plan
- Self-service booking
- Virtual outpatient clinic – no transportation



## Healthcare Professionals – relevant use of resources

- Optimize and automate time-consuming procedures
- Free up time for weak patients in the hospital
- Data extraction for clinical studies and documentation
- Follow the patient closely with virtual ward rounds and virtual consultations



## Hospital – lower costs

- Efficient patient flow
- Reduced length of hospital stay
- Resourceful and demanding patients turned into empowered and self-managing patients
- Reduced costs of non-appearances and patient transport



## National economy – maintain welfare level

- Higher productivity in hospitals – more healthcare for the dollar
- Radically reduced loss of work-time to patient's transport and waiting



# The Challenges

## Patients

- Patient security
- IT literacy and usability of solutions



## Healthcare Professionals

- Incentives for users to adopt telemedicine
- Missing integration into Electronic Health Records
- New business processes



## Hospital

- Lacking evidence of the potential cost savings and benefits
- Challenges in organisational changes and new workflows



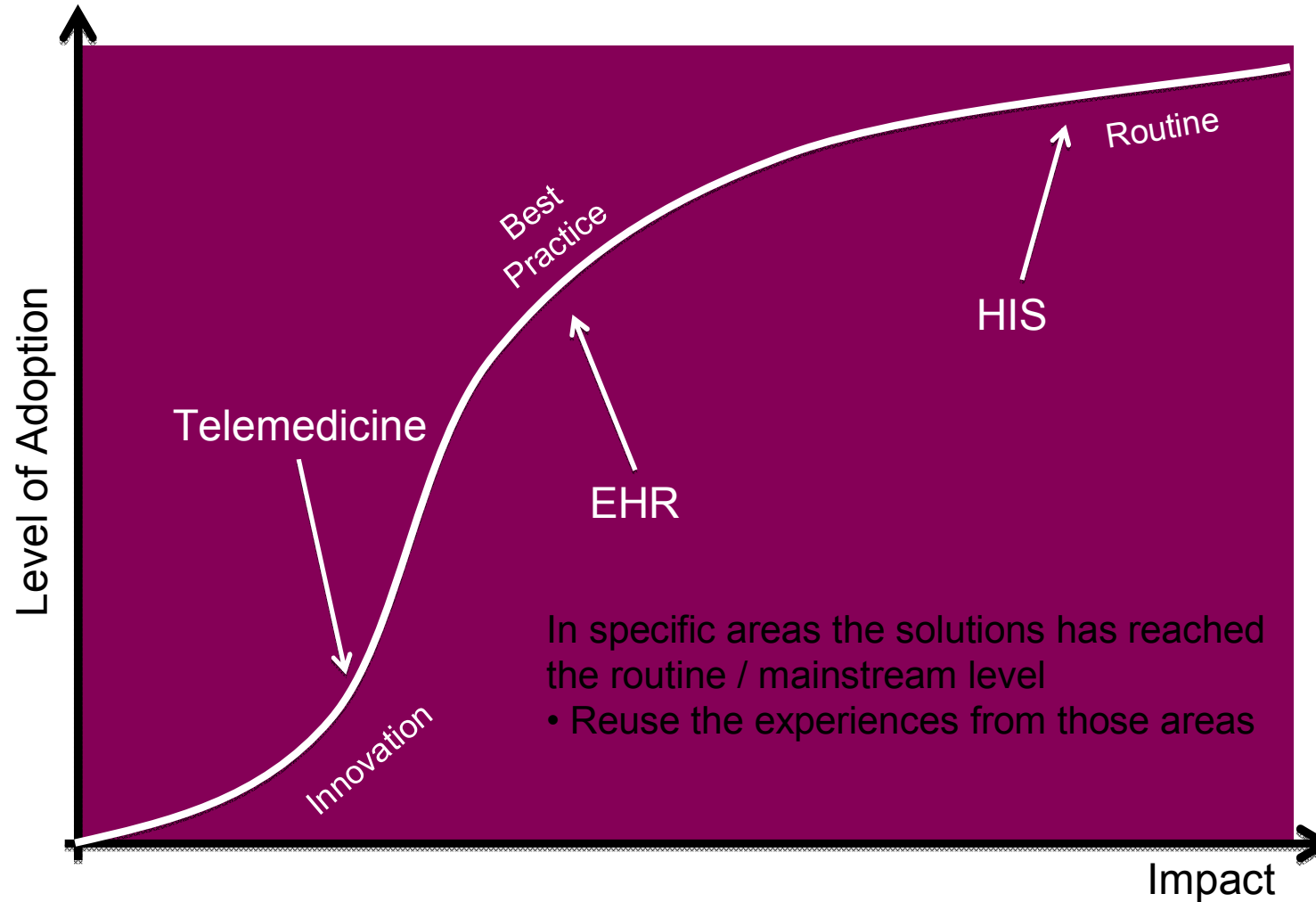
## National economy

- Missing model for reimbursement of telemedicine services
- Sufficient bandwidth for video conferencing
- Missing standards



# CSC Point of View

When, how and where can we expect “the great breakthrough”???



# The Danish National Strategy for Telemedicine

Highlights from the national strategy:

- Based on experiences from pilot projects
- Deployment of solutions for telemedicine for different diseases
- From local evaluations of savings and benefits to evaluations in larger, national scale -> setting the business case right
- Standards for infrastructure – Continua Health Alliance
- Five national initiatives:
  - COPD, Diabetes, Pregnancy, Teledermatology, Telepsychiatry
- From 2011 / 2012 to 2014 / 2015

*”The early indications show that if used correctly, telehealth can deliver a 15 percent reduction in accident and emergency visits, a 20 percent reduction in emergency admissions, a 14 percent reduction in bed days and an 8 percent reduction in tariff costs. More strikingly they also demonstrate a 45 percent reduction in mortality rates”.*



# The Danish National Strategy for Telemedicine

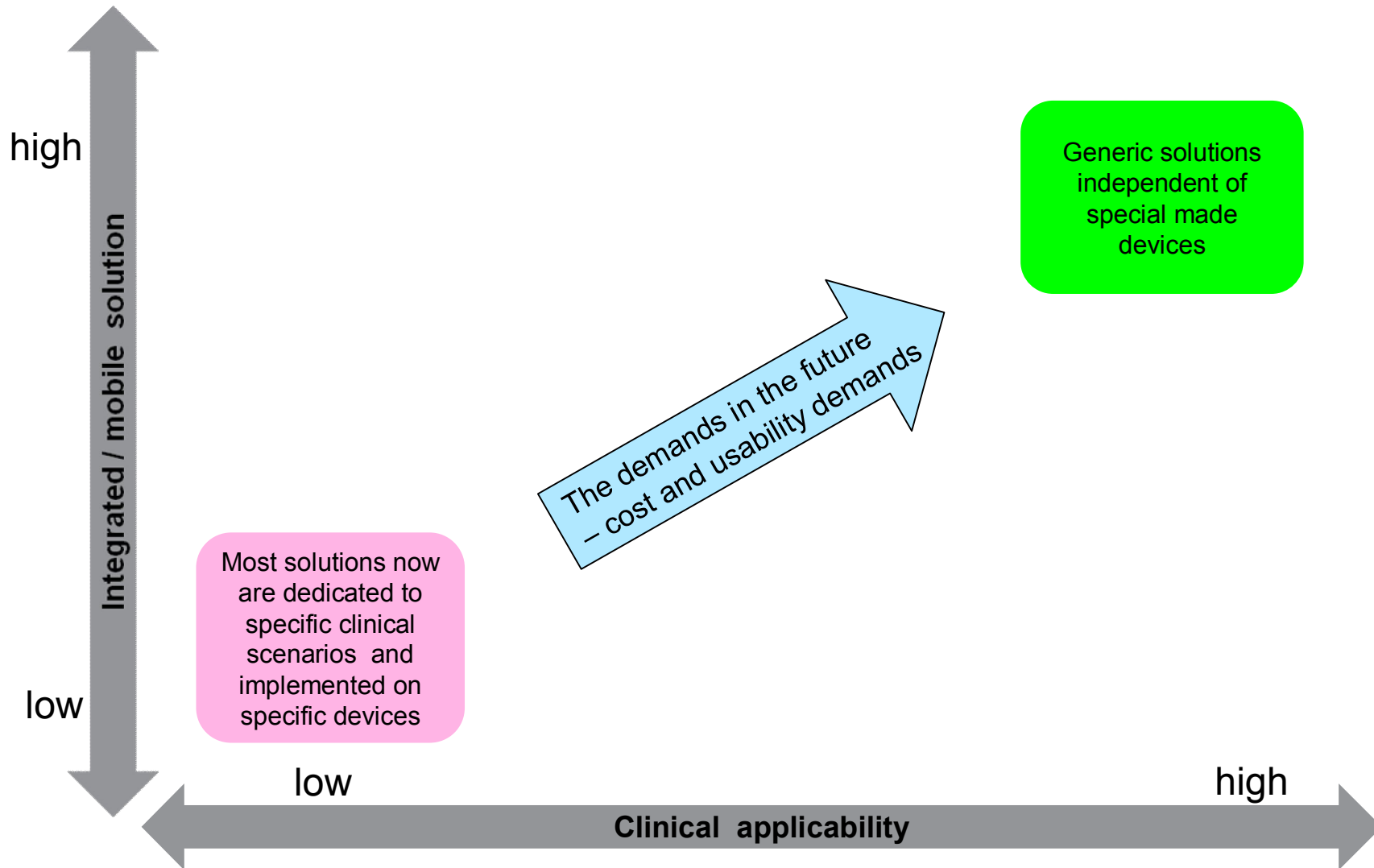
## Expected Cost Savings

<b>Potential cost savings – regional and national</b>			
<b>Initiative</b>	<b>Project owner</b>	<b>Yearly regional potential</b>	<b>Yearly national potential</b>
#1: Clinically integrated home monitoring	Two regions (HS + Midt)	38 FTE	1600 FTE
#2: Home monitoring – COPD	Region North	72 FTE	700 FTE
#3: National deployment of teledermatology	Medcom		330 mio DKK (€44 million)
#4: Demonstration and deployment of telepsychiatry	Medcom	0,5 mio DKK	Not estimated
#5: Demonstration of internet psychiatry	Region South	4 FTE	Not estimated

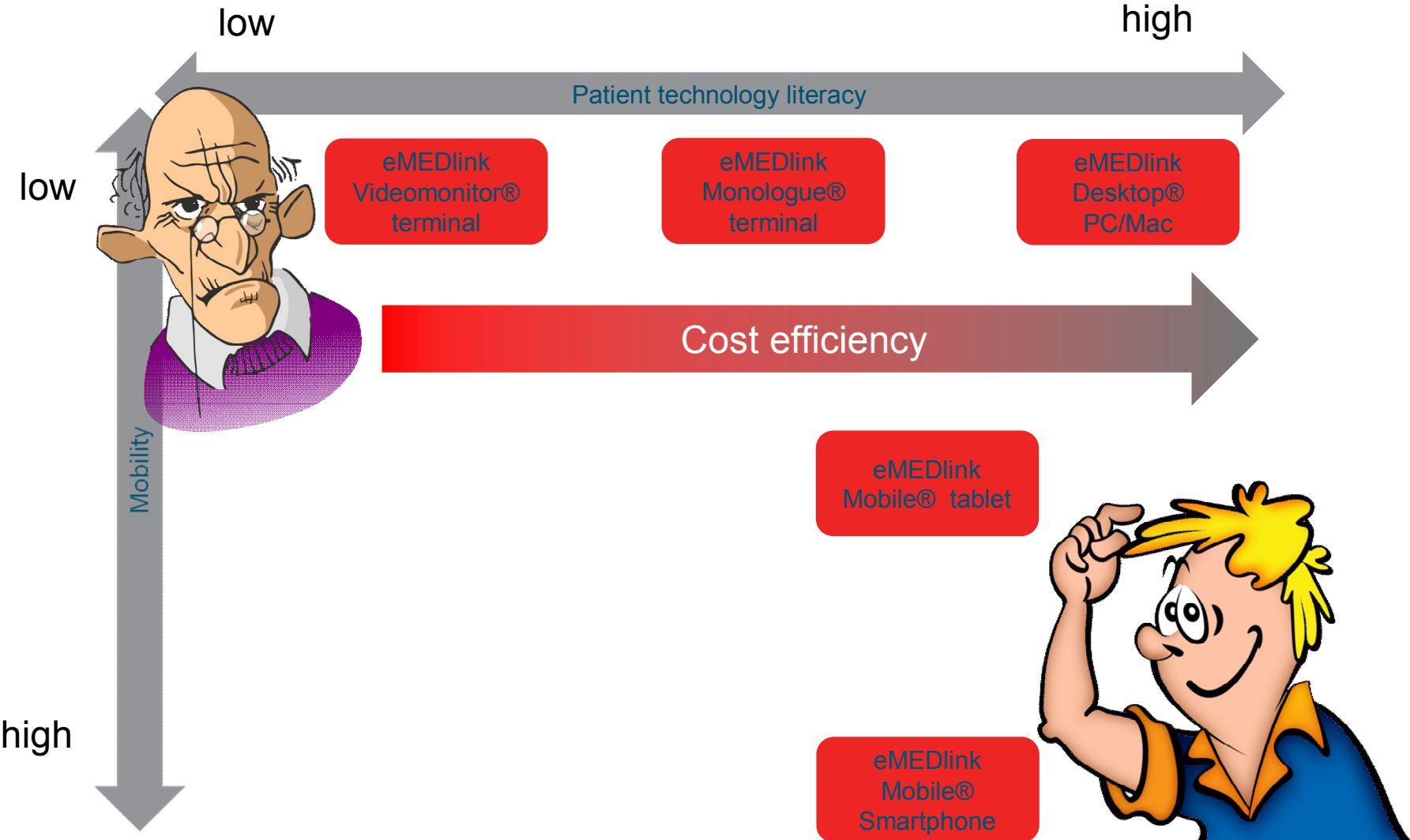
# The solutions in the area ?



# The solutions in the area ?



# CSC's strategy: Bring Your Own Device Strategy



# Telemedicine / Telecare in a Broader Perspective

The demands in the future

- Patient empowerment
- Flexibility in when, where and how
- Self monitoring
  - Independent from healthcare professionals
- Generic mobile solutions configured to the specific user scenario
- Usability concerns – defined by the specific user scenario and the specific user group
- Long-term conditions and ad-hoc use
- Cross sector solution
  - Hospitals, municipalities, GP's, specialists, care providers in general
- Full delivery chain – internet connections, equipment, deployment, implementation, support

# eMEDlink – The CSC Solution

## Overview – characteristics

eMEDlink provide video consultations and measurement of vital data at patients home.

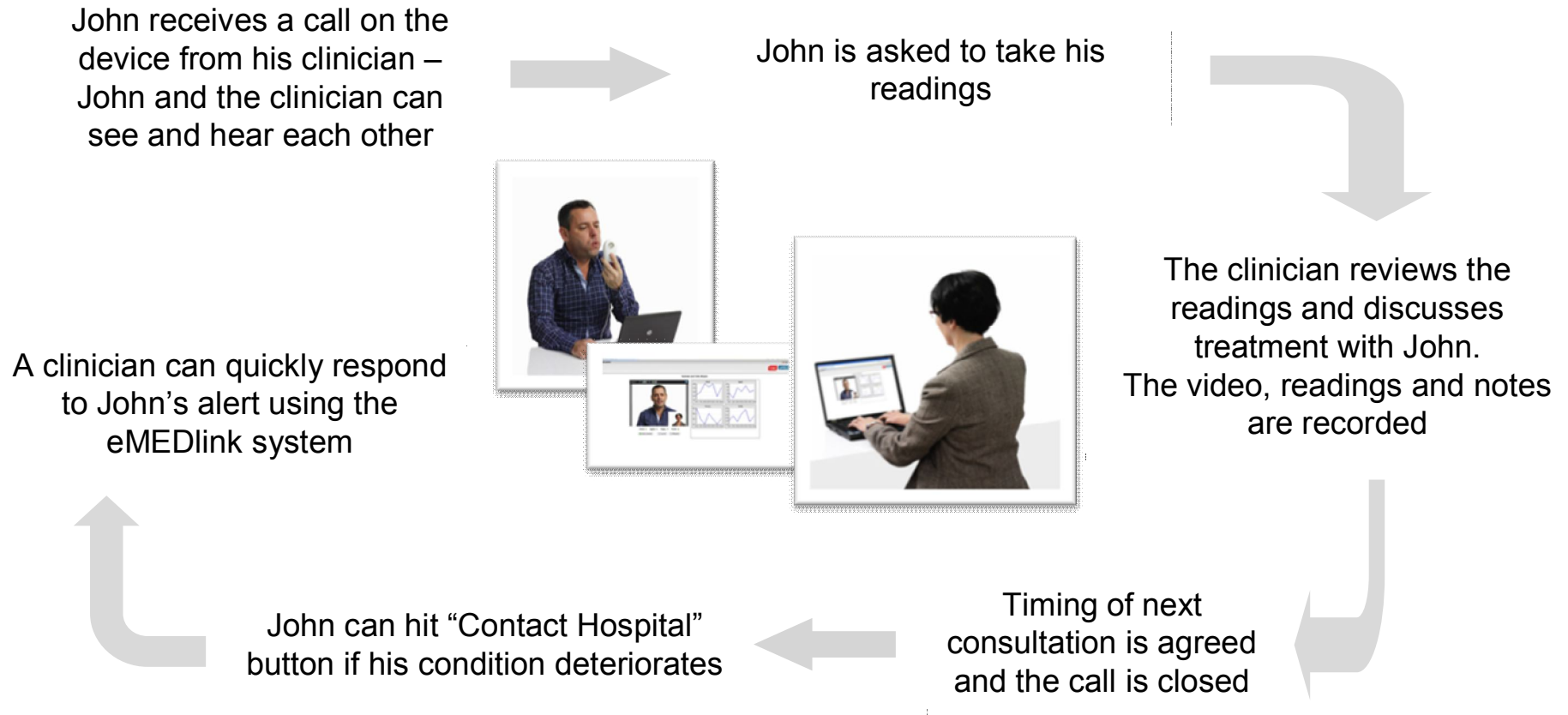
### Characteristics:

- Generic telemedicine platform for multiple user scenarios
- Simplicity in user interface
- Support for mobile devices
- High security level in video consultation and transfer of patient data
- Recording, archiving and replaying of video consultations
- Integration with patient record at hospital, home care and GP's EMR
- Based on international standards – Continue Health Alliance, IHE etc.
- Flexible pricing models adapted to user scenarios and business case



# eMEDlink

## Solution for Telehealth and Telecare



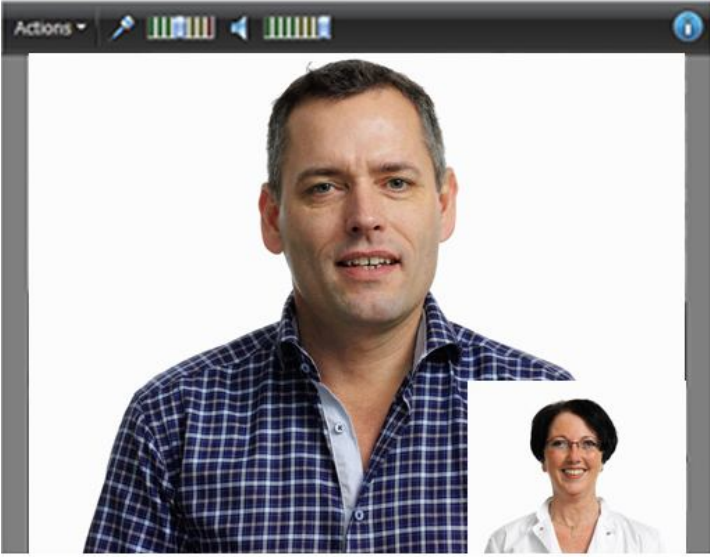
# eMEDlink

## Solution for Telehealth and Telecare

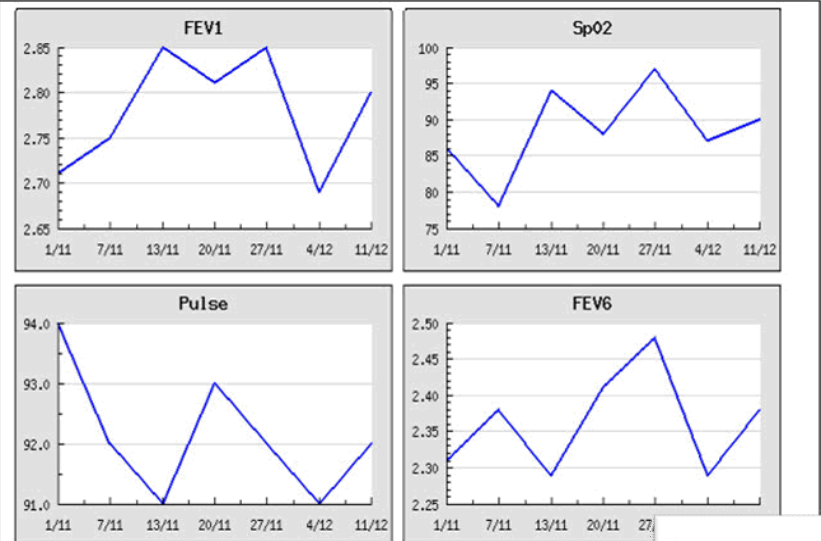
Call with patient Morten Sigaard

**CSC eMEDlink**

**Conference with John Miller**



FEV1 2.65
SpO2 92
Puls 92
FEV6 2.41



Date	Value
1/11	2.70
7/11	2.75
13/11	2.85
20/11	2.80
27/11	2.85
4/12	2.70
11/12	2.80

Date	Value
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13/11	95
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27/11	98
4/12	88
11/12	90

Date	Value
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13/11	2.30
20/11	2.40
27/11	2.48
4/12	2.30
11/12	2.38





## eMEDlink experiences so far

- Various pilot projects in Denmark
  - Hospitals and municipalities
  - Various clinical specialities and user scenarios
- Pilot projects in UK
  - Sherwood Forest Hospital
- Pilot project in Germany
  - Deutsche Stiftung für Chronisch Kranke, Charité Hospital Berlin, Asklepios Klinik in Gauting
- Moving forward
  - Deploying the solution in large scale in one of five regions in Denmark
  - Deploying the solution in large scale in municipalities

# Summary

- The business case has been validated
- The benefits for clinicians and patients have been proven
- The technology is ready
- Need initiatives on national level – reimbursement structure, infrastructure
- The way ahead is straightforward: Use experiences from the various pilot project to deploy the technology in large scale

Questions ?



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