eHealth for Regions

16th of July 2008

Luxembourg

Project Activities

Thorsten Beck

Executive Steering Committee
eHealth for Regions

Sweden

Finland

Denmark

Norway

Germany

Poland

Lithuania

„European Project in the Baltic Sea Region“
International Partners

- **Denmark**: Viborg County Council
- **Finland**: Regional Council of South Ostrobothnia, Seinäjoki Polytechnic, South Ostrobothnia Health Care District
- **Lithuania**: Kaunas Region, Kaunas University of Medicine Heart Center, Vilnius University Hospital Santariskiu Klinikos
- **Norway**: Vestfold Hospital Trust
- **Poland**: City Hospital Lebork, Lebork Town Municipality, Medical University of Gdansk
- **Sweden**: Region Skane, Economic Development/Innovation, Region Skane, Health and Medical Services
- **Schleswig-Holstein**: Ministry of Health, AOK Public Health Insurance, Region Segeberg, Hospital Diako Flensburg
“eHealth for Regions“?

- ... was a project, which is financed up to 50% by the European Union within the Baltic Sea Region project INTERREG IIIB

- 17 partner from 7 countries within the Baltic Sea region

- Term: until June 2007

- Financial volume: 3.27 million Euro
**Vision: Move the data not the patient!**

„Independence of location in emergency cases“

- **Sweden**
- **Finland**
- **Norway**
- **Poland**
- **Lithuania**
- **Denmark**
- **Germany**
- **Others**

**Electronic patient record**

- **Multilingual telematic platform**
- **Open access from every partner country**

**Patient Home Country**

**Health care provider**

- **View in the electronic patient record** (risk profile: drugs, allergy, predisases and treatments, pacemaker)
- **Travelling patients with medical history**
“eHealth for Regions“? What‘s that?

„All range of articles for technologies for information and communication through the whole range concerning the medical sector“

Why “eHealth for Regions“?

All european countries are facing the same problems

• growing demand in the health care system
• limited budget conditions
• unequal access to health care facilities in remote (rural) areas and cities
The project was split into four working groups (WP):

- struktures and processes (WP 1)
- network and business model (WP 2)
- technical aspects (WP 3)
- pilot-implementation (WP 4)
Activities
“eHealth for Regions“

1. Healthcare Structures
2. Telecardiology
3. Teleradiology
4. Patient Information Solutions
5. CTG Monitoring
6. Sustainable „Organization Structure“
7. Next steps / Projects
# 1.) Healthcare Structures
- Overview of milestones -

## Overview of Milestones in the work-packages

The milestones are taken from the plan in the application (Annexes III.1-4). Please see also the more detailed description in the application.

<table>
<thead>
<tr>
<th>Work Package</th>
<th>Structures and Processes (WP 1)</th>
<th>Network and Business Model (WP 2)</th>
</tr>
</thead>
</table>
| 1: Jun - Dec 04 | • Data collection: analysis of e-health activities in all partner countries  
                   • Co-operation concept: 3-5 co-operation fields, strategic goals | • Data collection: analysis of existing networks in the field of health and e-health in the partner regions                                                                                       |
| 2: Jan - Jun 05 | • Regional need analysis: questionnaire  
                   • Co-operation concept: matrix of strategic goals and strategy, quality performance measures | • Network building: Strategic board and peer groups for WP 1-4 set up                                                                                                                                 |
| 3: Jul - Dec 05 | • Regional need analysis: survey (e.g. 500 mails in at least 4 countries)  
                   • Strategy realisation: SWOT; guidelines for transfer, localisation, implementation of e-health structures and processes; financing options | • Strategic Network: monitoring and discussions; integration of triple helix actors started  
                                                                                                                                • Business model: development started                                                                                                                  |
Questionnaire survey for the awareness and acceptance of eHealth in 5 countries:

The aim of survey was to analyse the overall situation about eHealth acceptance and awareness in the Baltic Sea partner regions. 500 questionnaires sent to the identified target: doctors and nurses (200 persons), public and patients (250 persons), and the decision makers (50 persons).
Telemonitoring CHF

The Gateway transfer the datas automatically to the telemedicine center via Phone.
Watch for warning symptoms.
Example: Modell CG-7100

- Easy to handle
- ECG Transfer with each telephone
eHealth crossborder

Schleswig-Holstein

St. Petersburg
ECG Transfer
ECG via E-mail to the next heart Center
Decision from the national center
3.) Teleradiologie Flensburg

Westerland
Asklepios Nordseeklinik

Niebüll
Kreis Krankenhaus

Husum

Aabenraa

Tønder

Sønderborg

Flensburg

Schleswig
Martin-Luther Krankenhaus
4.) Personal Medical Information Stick

- First step - USB Stick: patients with medical history laboratory model: 70 selective patients from 7 countries
**Recording date:**

**General Practitioner:**
- Country:
- Name:
- Address:
- Tel.:
- Fax:

**Administration information of patient:**
- Last name:
- First name:
- Date of birth:
- Sex:
- Nationality:
- Languages spoken:

**Person to be contacted in emergency:**
- Name / Relation:
- Telephone No.:
1. **Chronical Diagnosis:**

<table>
<thead>
<tr>
<th>Latin name or english</th>
<th>ICD-10 or ICPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
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<td>B.</td>
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<td>C.</td>
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<td>D.</td>
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<td>E.</td>
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<td>F.</td>
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</table>

**Anamnesis / Medical History, for example operations:**
2. **Implants (type)**

3. **Medication:**
   - Generic name (+ effective dose):
   - Trade name:
   - Application dosis (for example: 1 - 0 - 0 - 1)

4. **Allergies (for example: against medicine, food, animals)**

5. **Vaccination (if there is no certificate):**
   - Important: last vaccination date against Tetanus, Measles, Hepatitis A, Tick fever,

6. **Findings / actual results:**
   - HbA1c
   - potassium (units):
   - Creatinine (units):
   - Intraocular pressure:

**Others:**
<table>
<thead>
<tr>
<th><strong>Country:</strong></th>
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<tbody>
<tr>
<td><strong>Name:</strong></td>
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<tr>
<td><strong>Address:</strong></td>
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<tr>
<td><strong>Tel.:</strong></td>
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<tr>
<td><strong>E-Mail-Adresse:</strong></td>
</tr>
<tr>
<td><strong>Fax:</strong></td>
</tr>
<tr>
<td><strong>Languages:</strong></td>
</tr>
<tr>
<td><strong>Actual results and therapie:</strong></td>
</tr>
</tbody>
</table>
5.) CTG Monitoring
The pregnant women gets instructions from her obstetrician or a midwife.
Data Recording at Home

The CTG Monitoring Set includes all necessary devices and is operational within a few minutes.
6.) Sustainability eHealth for Regions – Organisation Structure

- Political Strategic Board
  - Executive Steering Committee
    - Project 1 partner xy
    - Project 2 partner xy
    - Project 3 partner xy
    - Project 4 partner xy
    - Project n partner xy
  - Management Secretariat

- Country 1 & partners
- Country 2 & partners
- Country 3 & partners
- Country 4 & partners
- Country n & partners
Demographic developments in Europe

„The biggest challenge for the European health service is the ageing of its population. Not only deseases like cancer but also illnesses like diabetes, osteoporosis, stroke and dementia will increase when people get older. By demographic change positive health trends are put into a different perspective because of the medical progress of the last years.“
Example Germany: Change of age structure

**2007**
- Insgesamt: 82.2 Mill.
  - Altersgruppen (Mill.)
    - 65+: 16.5 20%
    - 20-64: 49.8 61%
    - 0-19: 15.9 19%

**2010**
- Insgesamt: 81.9 Mill.
  - Altersgruppen (Mill.)
    - 65+: 16.8 21%
    - 20-64: 50.9 61%
    - 0-19: 15.0 18%

**2020**
- Insgesamt: 80.1 Mill.
  - Altersgruppen (Mill.)
    - 65+: 19.6 23%
    - 20-64: 48.0 60%
    - 0-19: 13.5 17%

**2030**
- Insgesamt: 77.2 Mill.
  - Altersgruppen (Mill.)
    - 65+: 22.1 29%
    - 20-64: 42.4 55%
    - 0-19: 12.7 16%

**2040**
- Insgesamt: 73.4 Mill.
  - Altersgruppen (Mill.)
    - 65+: 23.5 32%
    - 20-64: 38.4 52%
    - 0-19: 11.5 16%

**2050**
- Insgesamt: 68.7 Mill.
  - Altersgruppen (Mill.)
    - 65+: 22.6 33%
    - 20-64: 35.5 52%
    - 0-19: 10.4 15%
<table>
<thead>
<tr>
<th><strong>Project title:</strong></th>
<th><em>ICT for health in regions with ageing population and for chronically sick people</em></th>
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<tbody>
<tr>
<td><strong>Lead Partner:</strong></td>
<td><em>University of Applied Sciences Flensburg</em></td>
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<tr>
<td><strong>Start – End:</strong></td>
<td><em>Autumn 2008 – Autumn 2011</em></td>
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<tr>
<td><strong>EU-programme:</strong></td>
<td><em>Interreg IVb</em></td>
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<tr>
<td><strong>Budget:</strong></td>
<td><em>4,5 Mio. Euro</em></td>
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<tr>
<td><strong>Delivery of application:</strong></td>
<td><em>May 31st. 2008</em></td>
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<tr>
<td><strong>Decision of allocation:</strong></td>
<td><em>October 2008</em></td>
</tr>
<tr>
<td><strong>Start of the project:</strong></td>
<td><em>November 2008</em></td>
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Overview WP's

Work-package 1
Project management and administration
Lead: Flensburg

Work-package 2
Communication and Information
Lead: Finland

Work-package 3
ICT for health - strategies for counteracting the demographic change in Baltic Sea regions

Work-package 4
Empowerment of citizens with chronic diseases for prevention and self-monitoring

Work-package 5
Education on eHealth for health care professionals and citizens with chronic diseases

Work-package 6
Personal health portal for travelling citizens with chronic diseases
## ICT for health in Regions with ageing population and for chronically sick people (WP 3)

| **Objektives of WP** | • Learning from each other.  
|                       | • Exchange of knowledge  
|                       | • Exchange Models of handling of challenges in the Health Care for elderly and chronically ill persons  
|                       | • Models of business building  
|                       | • Best-practice-models  
|                       | • Transfer possibilities to be highlighted  |

| **Planned Activities** | • Health-demographic structures and forecasts  
|                       | • Table-works  
|                       | • Description of service structures and the role of ICT  
|                       | • Give the necessary basic information to the other work-packages  
|                       | • Active use of internet and homepage  
|                       | • Sub-contractors and sub-pilot projects  
|                       | • Sub-contractors and sub-pilot projects  |

| **Planned Results** | • Best-practise-exchange possibilities  
|                     | • Greater consciousness to facilitate better service  |
WP 3
ICT for health – strategies for counteracting the demographic change in Baltic Sea regions

Partners:
- Pavlov State Medical University
  St. Petersburg (WP Leader)
- Institut for Cancer Epidemiology,
  Lübeck University
- Fachhochschule Flensburg
- Diakonissenanstalt Flensburg
- Region Denmark North
- University of Aalborg
- Kreis Segeberg
- Kreis Pinneberg
- Overview of milestones -

<table>
<thead>
<tr>
<th>Empowerment for citizens with chronic diseases (WP 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objektives of WP</strong></td>
</tr>
<tr>
<td>• to put more responsibility about treatment to the patient (empowerment)</td>
</tr>
<tr>
<td>• to increase the quality of life</td>
</tr>
<tr>
<td>• to reduce the cost of health care in this field</td>
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<tr>
<td>• to keep the chronic patient at a stable stage</td>
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<tr>
<td>• to improve patient self management</td>
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<tr>
<td>• to increase the synergy of the national programs to one European program</td>
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<table>
<thead>
<tr>
<th>Planned Activities</th>
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<tbody>
<tr>
<td>• search for existing materials and solutions</td>
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<tr>
<td>• compile existing national activities and solutions</td>
</tr>
<tr>
<td>• set up a work force for future development of the educational frame work</td>
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<tr>
<td>• define the testing phase for the pilots</td>
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<tr>
<td>• implement the multilingual CHF pilot parallel in all partner countries</td>
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<tr>
<td>• recruit 600 citizens into the program</td>
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</table>

<table>
<thead>
<tr>
<th>Planned Results</th>
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<tbody>
<tr>
<td>• a web-based education frame work for chronic diseases</td>
</tr>
<tr>
<td>• a web-based monitoring platform and feed back system</td>
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<tr>
<td>• a transnational pilot program for citizens with chronic heart failure</td>
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<tr>
<td>• a transnational performance measure for quality of life (EQ 5 standard)</td>
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<tr>
<td>• a transnational quality performance measurement about training effectiveness</td>
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<tr>
<td>• meta analysis of chronic treatment practice</td>
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<tr>
<td>• open access for sustainable usage</td>
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</tbody>
</table>
WP 4
Empowerment of citizens with chronic diseases
for prevention and self-monitoring

Partners:
• European Institut for Telemedicine
  Bad Segeberg (WP Leader)
• Seinäjoki University of Applied
  Sciences
• Kaunas University
• Vilnius University
• Medical University Gdansk
• AOK E-learning Centre
• City Hospital Lebork
• Hässleholm Hospital
• Town Hall Sopot
• East Tallin Central Hospital
### Education on eHealth including health care professionals, patients and family (WP 5)

#### Objektives of WP
- To increase awareness about the caring process and model the management of the process – to generate the understanding
- To offer IT-methods to be used during the caring process – common IT for all of the parties involved
- To support professionals and patient / family members to work together during the caring process to empower the patient and to achieve high quality care
- To describe the competencies and learning outcomes of eHealth

#### Planned Activities
- Defining the caring process for aging people
- Developing educational modules for the public
- Producing virtual modules of eHealth for students and professionals
- Developing joint multidimensional programmes for the professionals
- Pilot testing in different regions (diabetic patients?)
- Research: effectiveness, outcomes
  - Health shows on TV

#### Planned Results
- Standards for using eHealth transnationally (common and specific) – in management, education, caring
- Variables of eHealth strategy in different countries
- A joint European Master programme in eHealth
- Use of ICT in nursing / health care
- Awareness of the aging people / family members will increase
- eHealth education catalogue
- Transnational virtual eHealth library (including virtual modules etc.)
- Meeting point of eHealth education (for professionals and citizens)
WP 5
Education on eHealth for health care professionals and citizens with chronic diseases

Partners:
- Seinäjoki University of Applied Sciences (WP Leader)
- Kaunas University of Medicine
- Kaunas University of Technology
- University of Applied Sciences Flensburg
- Schleswig-Holsteinische Krebsgesellschaft
- Gdansk University
- Municipality of Sopot
- Ålborg University
- Pavlov State Medical University St. Petersburg
- Lund University
## Overview of milestones

<table>
<thead>
<tr>
<th>Objektives of WP</th>
<th>Supporting travelling elderly people considering potentials for tourisms (WP 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• to use existing available important medical datas</td>
<td></td>
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<tr>
<td>• to make sure that important information can edited</td>
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<tr>
<td>• to make existing solutions interoperable with medical patient datas</td>
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<tr>
<td>• to find out how to make medical patient information internationally understandable</td>
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<tr>
<td>• to ensure cost effective data assembling and transfer process: less than 20 minutes</td>
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<tr>
<td>• to ensure that the medical information is reliable</td>
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<td>• to monitor cost effects = evaluation</td>
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</table>

| Planned Activities | 300 web based records each partner country |

<table>
<thead>
<tr>
<th>Planned Results</th>
<th>web based medical summary</th>
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<tbody>
<tr>
<td></td>
<td>build service structures</td>
</tr>
</tbody>
</table>
WP 6

Personal health portal for travelling citizens with chronic diseases

Partners:

• University of Applied Sciences Flensburg (WP Leader)
• Region Skane
• Vilnius University
• Seinäjoki University of Applied Sciences
eHealth applications

- Pharmacy
- Laboratories, Radiology
- Home Care
- Unions
- Supplier, Partner, Policy, Organisations
- Citizen, Self-Help Groups
- Pharmaceutical Industry
- Electronic Health Record
- Electronic Libraries
- Expert Systems
- Computer-assisted Learning
- Telemicine + Video Conferences
- Internet Services
- Directory Services
- Public Websites
- Knowledge Management

eHealth
The **personal** health record (EGA)
building up a competence team
(the EGA as a communication platform)
Denmark / Germany

Activities in the field of “breast health” in Schleswig-Holstein
Breast cancer

Improvement of health care for the population in “breast health” in the south of Denmark and in the north of Schleswig - Holstein

Exchange of experience and concepts in the field of breast cancer health care between the Danish and German partner regions

Creation of a cross – border accession to resources and medical expertise for a second opinion in the context of “mamma – screening” and “quality proof mamma – diagnostics”
Contact person

Thorsten.Beck@sh.aok.de

www.eHealthforRegions.net