

Tromsø Telemedicine Laboratory (TTL)

Telemedicine and eHealth systems for
chronic, age- and
lifestyle-related diseases

TTL-partners

- The University Hospital of North Norway/The Norwegian Centre for Telemedicine (Host)
- The University of Tromsø
- Telenor R&I
- IBM Norway AS
- DIPS ASA
- Well Diagnostics AS
- Northern Research Institute (Norut Tromsø)
- The Norwegian Health Net AS
- Northern Norway Regional Health Authority

TTL's Vision

To become a world-leading centre for research and innovation in advanced telemedicine and eHealth systems for chronic, age- and lifestyle-related diseases

TTL's Goal

To supply the healthcare industry with viable and sustainable technologies, to promote global health, wellness, and disease management through technological advances in the collection, processing, and sharing of medical information

Research Groups

- **Sensor-based systems**

Sensor systems, human-computer interaction, personal area networks, wearable and ubiquitous computing

- **Extended decision support**

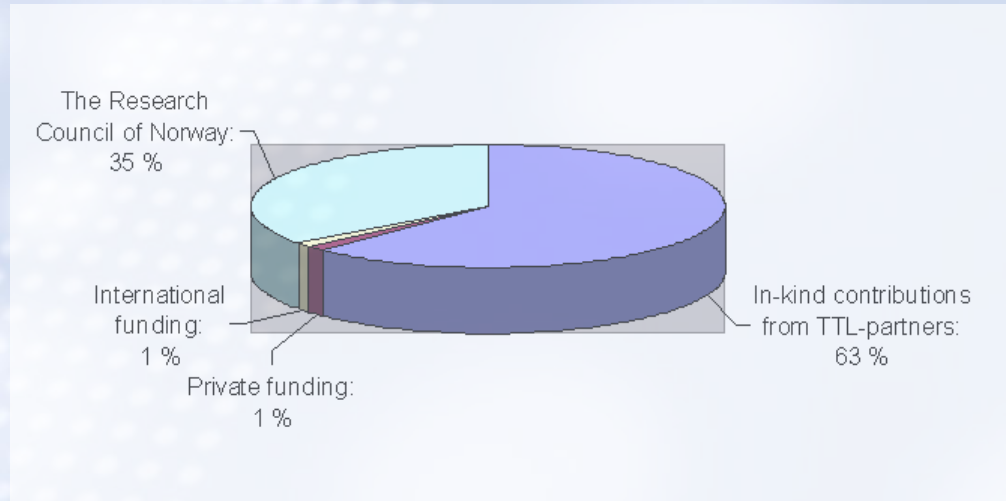
Applied mathematics, statistics, image & signal processing

- **Computer-supported cooperative work**

Mediated collaboration, work-flow, participatory design, information systems, sociotechnical design, CSCW

Economy

Total funding 2007:
26 million NOK



Funding (NOK)		2007
In-kind contributions	62%	16 316 846
Other public funding	0%	0
Private funding	1%	310 165
International funding	1%	291 900
Research council of Norway funding	36%	9 276 540
Total	100%	26 195 451

Expected Contribution

- To Healthcare

- Improvements to the “continuity of care” processes
- Help users build and maintain healthy habits
- Early warning of infections
- Reduce need for consultations
- Support self-help
- Enable care at lower level of the healthcare service
- Reduced load on future health services

- To Industry

- Competitive edge from knowledge and understanding of complex systems and services
- Tested and proven systems architectures and platforms for sensors and integrated systems for personal health
- New and/or improved products, tailored for the users
- Products enabling home use or at lower level of the care system

2008 Project Portfolio (1/2)

- Monitoring of extramural post-surgery cardiac patients
 - UiT
- Telemedicine in private homes
 - UiT
- The ICT Lifestyle and Health Motivation Project
 - NST, Telenor R&D, UiT
- MyHealthService – Personal healthcare technology and services for elderly chronically ill
 - Norut Tromsø, NST, UNN, The Norwegian Health Net
- Health terminals for personalized health care
 - NST, UiT
- Automatic detection of infectious diseases
 - UiT, NST
- Using Display Walls in health care services
 - UiT, NST
- Symptom-Based Surveillance
 - NST, UiT, The Norwegian Health Net

2008 Project Portfolio (2/2)

- Detection and prediction of spreads of disease outbreak based on syndromic data
 - UiT, NST
- Correlation between pathologic conditions and biometric data
 - UiT, NST
- Detection of malignant melanoma based on lesion images
 - UiT, NST
- Context-sensitive systems for mobile communication in hospitals
 - NST, UiT, Telenor R&I
- Net-based medication record
 - NST, UiT
- Design of DIPS nursing plans
 - DIPS, UiT
- Workflow systems across health organisation borders
 - Well Diagnostics, UiT
- E-health system for oral anticoagulation therapy (TeleWarf)
 - NST, UNN, UiT

International Collaboration

- Oregon Research Institute USA
- Boston College USA
- EU project (eTen): Better Breathing
- University of Oulo, Finland
- Weierstrass Institut für Angewandte Mathematik und Statistik, Berlin, Germany
- Indian Statistical Institute, Calcutta, India
- University of North Carolina, Chapel Hill, USA
- Copenhagen Business School, Denmark
- Technical University of Denmark
- Erasmus University Rotterdam, Netherlands
- School of informatics, Edinburgh, UK
- Roskilde University, Denmark
- Umeå School of Business, Sweden
- Simon Fraser University, Canada
- Vienna University of Technology, Austria