# Empowering Disabled users and carers through the Ethical development and Care provision of assistive Technology (EDECT)

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# Facts and figures for disability/ aging

- 1 billion around the world live with some form of disability
- 80 million in European union > 15% of population, significant increase in aging population
- International Monetary Fund 2006 projected increase in number of retires from 75 million to 133 million by 2050

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# Assistive Technology (AT)

How to empower less able individuals to a level

- which permits them to remain in their own homes, and work
- socialise and
- undertake their activities of daily living with reduced dependence on care assistance,

whilst simultaneously encompassing both the rights and importantly changing society's attitude?

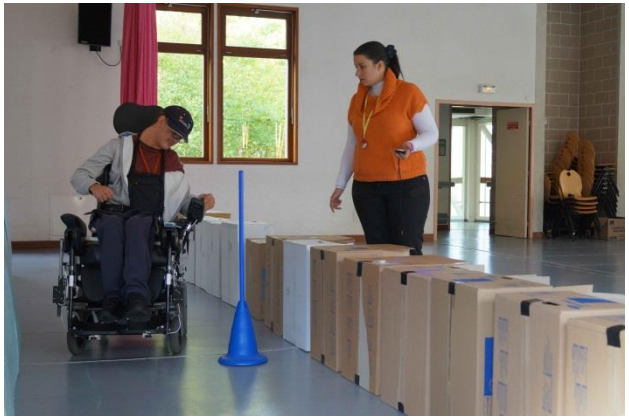
Assistive technology may help!

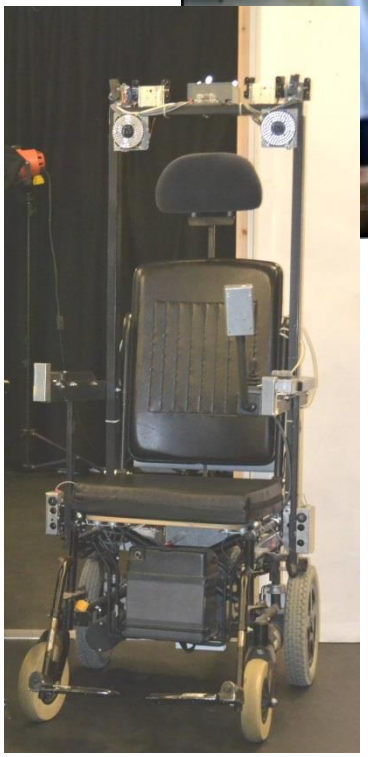
# Why EDECT?

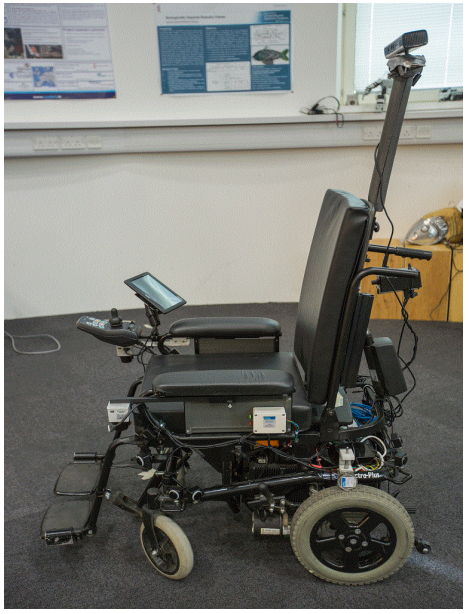
- EDECT brings together the two previous Interreg IVa 2Seas projects Autonomous and Intelligent Healthcare System (SYSIASS) and Dignity in Care (DIC)

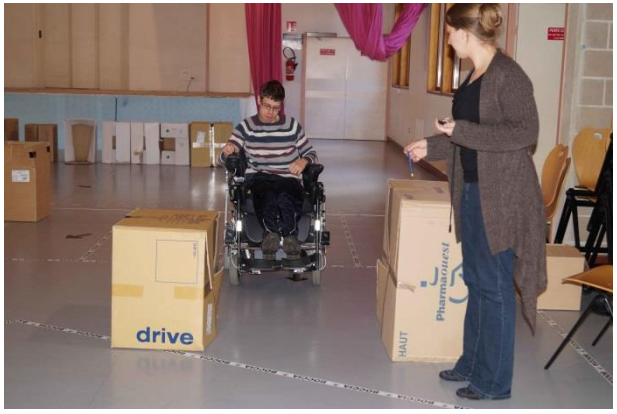
# SYSIASS


- The aim of the project was to design and implement a robotic powered wheelchair with assisted navigation
- Interface with commercial wheelchairs
- **The main focus:** developing a wheelchair that provided assistance to the user, helping them to avoid collisions whilst maintain control over the technology without taking over control







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# SYSIASS


Questionnaire

- How satisfied people were with their current powered wheelchair
- How interested they were in having an assisted navigation system help them avoid obstacles,
- And help them learn drive the wheelchair

# SYSIASS

- 251 responded
- Whilst nearly all were interested in principal of driving assistance or collision avoidance

Interest became more divided when taking away the control was suggested.

- Professionals and care givers had the opposite point of view to that of the users! e.g. tool for learning to drive

# Points from trial

- Users did not like the chair to take control from them. Preferred to retain control and accept the increased risk
- The alignment of the chair with doorway was critical if a collision was to be avoided
- A second system was developed to prevent collision yet allowing the user to feel they are in control

# What was learned?

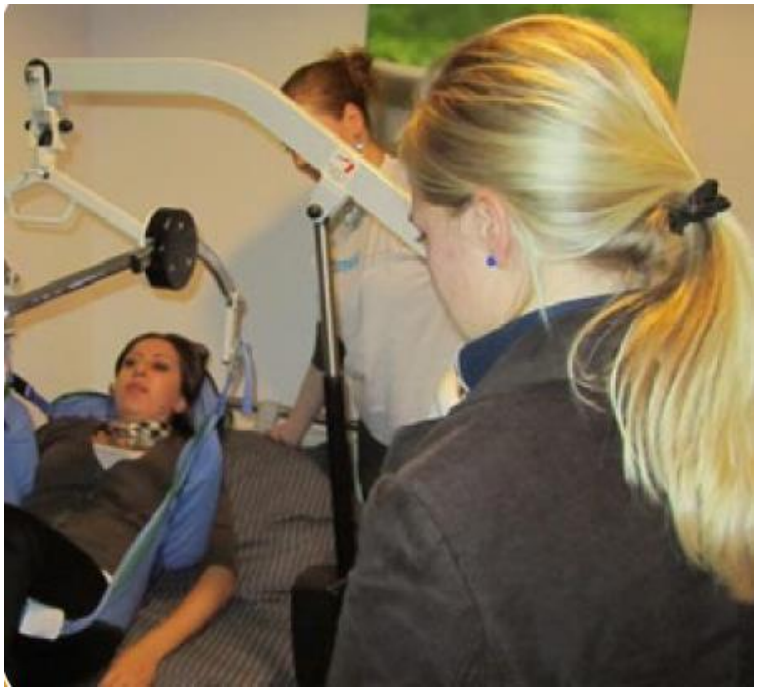
- The users must feel they are in control when corrective measures are required
- The need for training and support was highlighted
- For any design to be successful user's perspective must be taken into account

# Clinical trials

- After technical development and evaluation by able-bodied volunteers
- 32 disabled people tried the technology in clinical trials (France)
- Points from trial
- Users did not like the chair to take control from them

# Dignity in Care (DIC)

- Partners from Lille, Dorset, Zeeland and Flanders
- To improve the impact of ethical reflection and practice, by students and professionals using the sTimul experience in a Care Ethics lab



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# DIC

- 387 participants cross boarder partners (students and professionals in health & social care, management, trainers)
- Simulation in a fully equipped care environment (2 days and 1 night)
- Participants experienced vulnerability and the impact of care
- Focus was on attitude rather than core technical and clinical skills

# DIC

- After the simulation participants reflected upon their experience coached by an ethicist
- Next step: sharing experiences and exchanging good practice through regional networking events, cross boarder study visits and a virtual communication platform
- International Evaluation Expert Group (IEEG)

# Methods used

Several methods were used to collect data for evaluation purposes

- Questionnaires
- Interviews
- Group discussions
- Participants' reflection sheets
- Resonance group of care receivers in each region- 122 service users involved

# Key learning points- DIC

- Structured and comprehensive preparation of the sTimul experience is important
- Maintaining the participant's character role impacts the learning outcome
- Reflection throughout the experience
- Sharing experiences and exchanging good practice via cross boarder and regional networking deepens the learning process
- **Dignity is boundary-less and is about paying attention to the person and relationships**

# Lessons learned from both projects EDECT Capitalisation

- Good Care is not only about moral or ethical theories, but also about the empowerment of both care receivers and care givers
- It is vital to involve users in the design of technology not just to understand their perspectives but also the demands that introduction of technology will contain
- The role reversal experience methodology in DIC highlights that adopting AT in health can be fully understood when all relevant parties are involved
- Evaluation in both projects however using different tools

# Benefits of cross boarder collaboration

- A positive environment to learn from different cultural attitudes, which help understanding of how and why we operate the way we do as well as learning from similarities
- A way to develop strong working relationships and identify common areas of interest for future collaborative work
- A network to develop innovative projects with a multidisciplinary and multicultural team
- An opportunity to develop cross-disciplinary research projects needing different skills

# Holistic provision of AT
# EDECT's role

- The aim of developing and providing AT is to improve quality of life for users, their families and their carers
- EDECT has began to discuss what it means in practical terms to develop and/ or to provide technology in an ethical and empathic way
- Identifying and analysing factors that affect the design and provision of AT is what EDECT has begun to address

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