

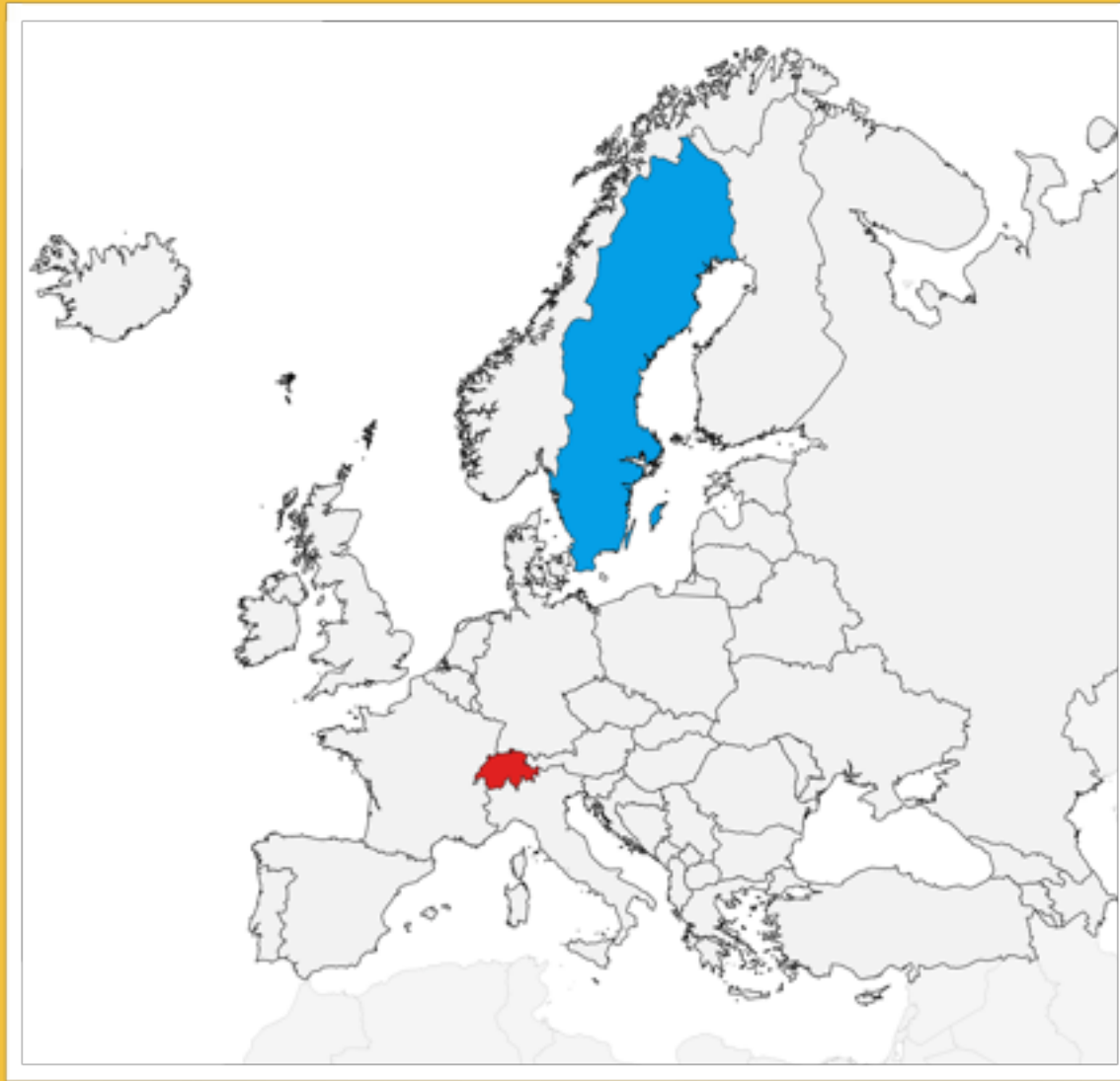
Health Care Innovation with Robot*i*cs

K.E.Y.
PLATFORM
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Conrad Seoul, Korea

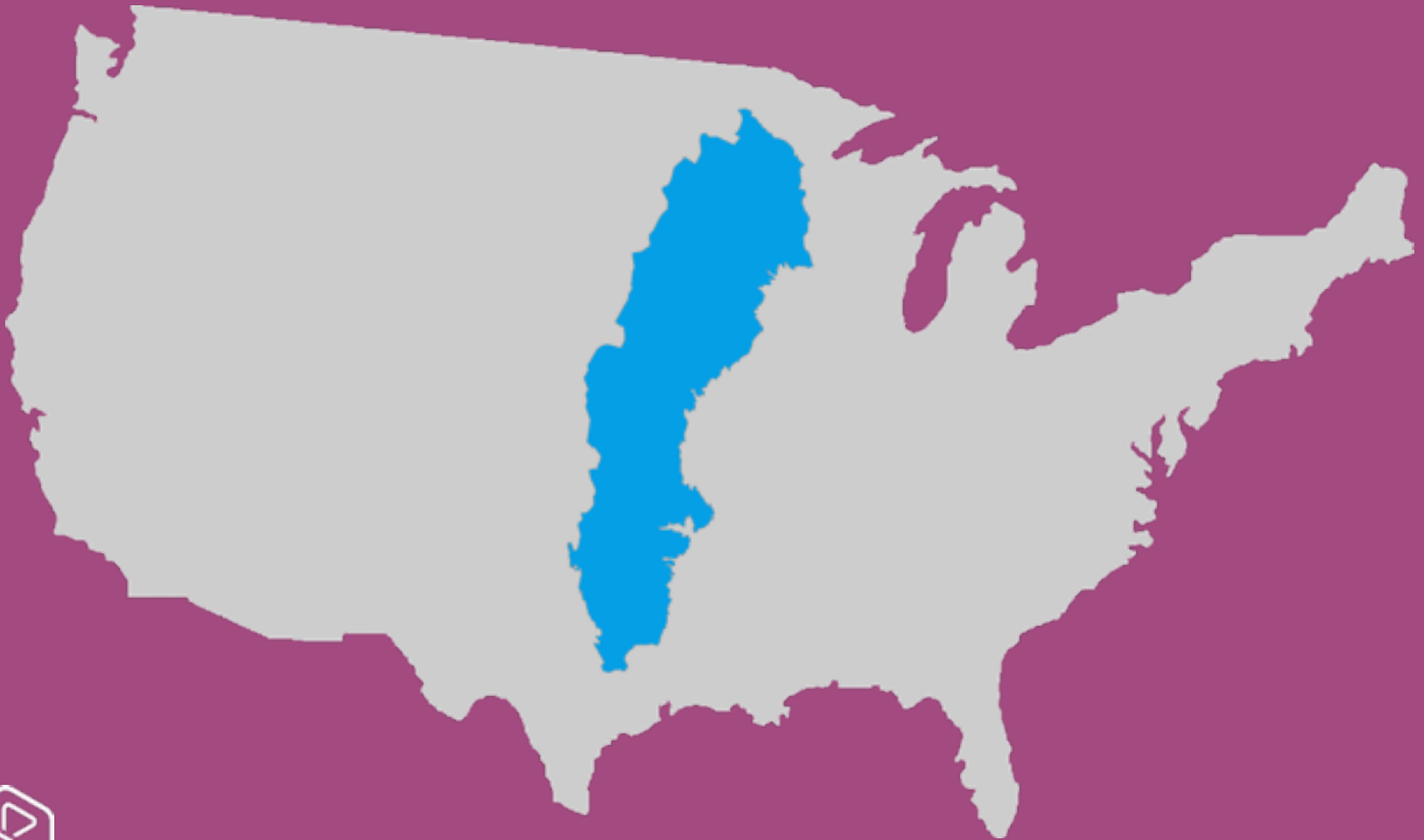
Adam Hagman
Manager Health Robotics,
Robotdalen, Sweden



Sweden i Europe



Sweden compared to the USA



Swedish innovations you might recognise



Sweden facts

- Top 3 of worlds most innovative countries
- Nr 1 in broadband performance index & 93% internet coverage
- 99% recycling
- 97% uninhabited
- Nr 1 best country to get old in (Global AgeWatch index 2013)
- Nr 2 most aged population



Robotdalen is since 2003...

Active non-profit organisation between, Academia, Society and Industry funded by
Swedish Government, local Governments
and European Union



\approx 300 companies
Regional Governments
7 Universities

It all started 1974

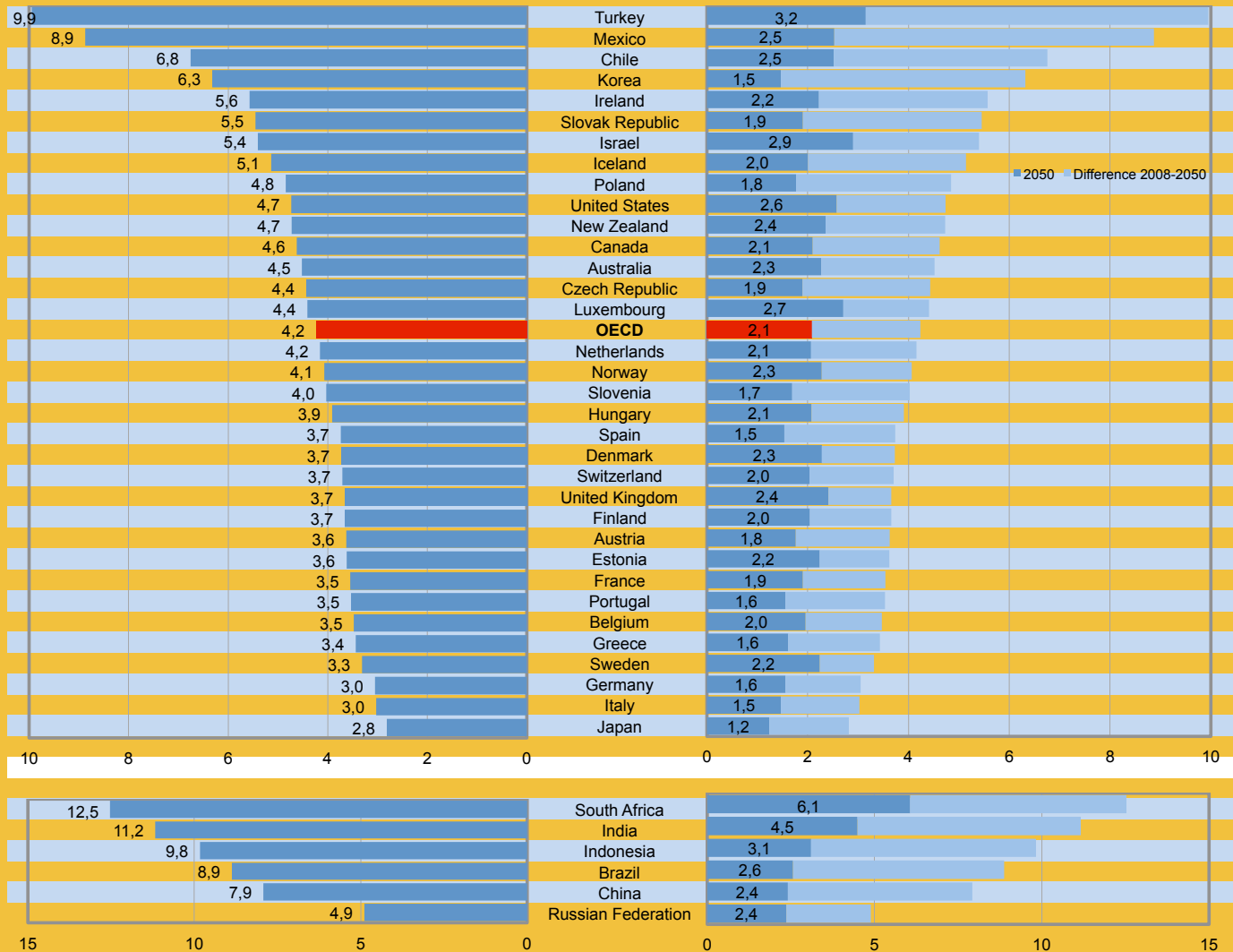


Robotdalen's span of expertise

- Industrial robotics
- Field robotics
- Health robotics/Technologies for Independent Life



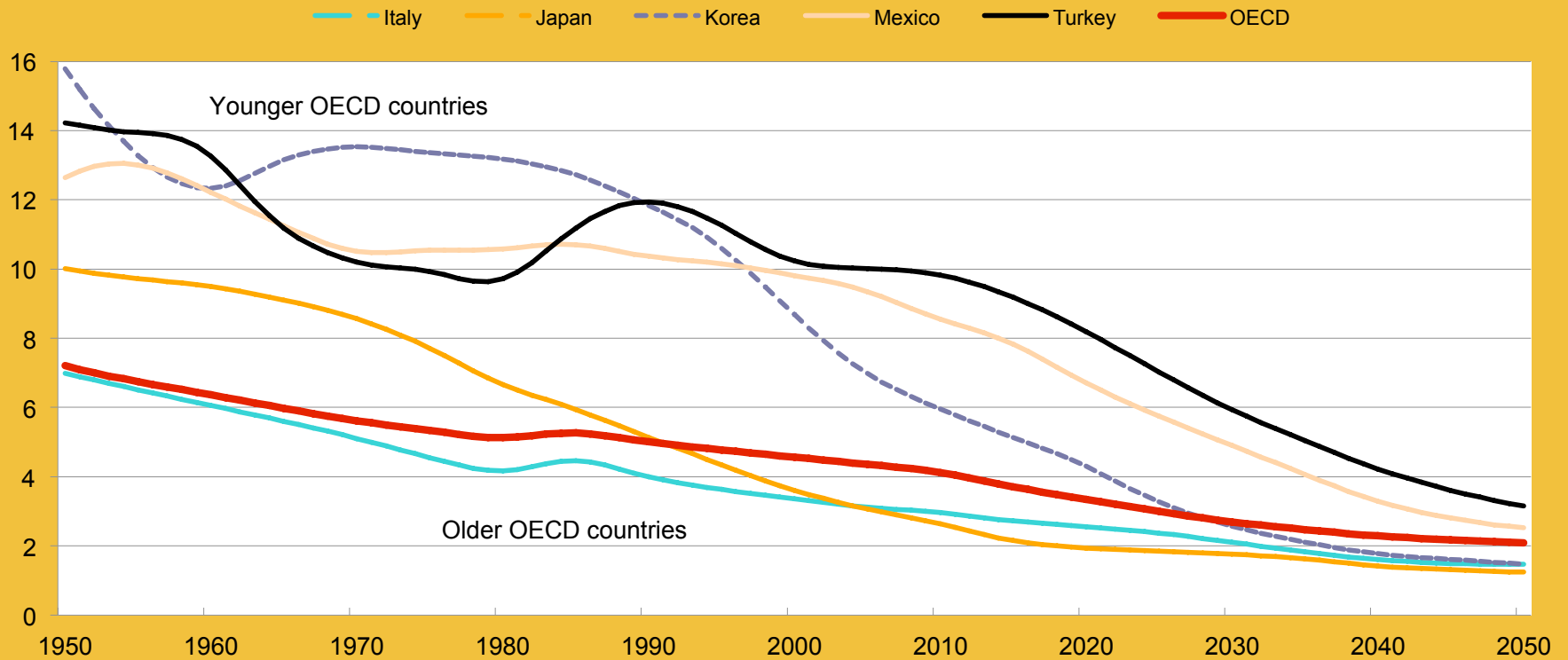
OECD old-age support ratio



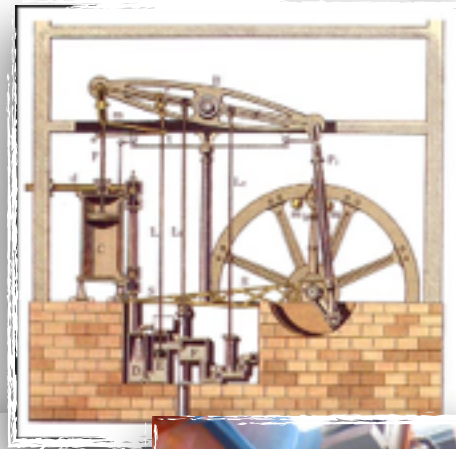
Number of people of working age (20-64) per person of pension age (65+)



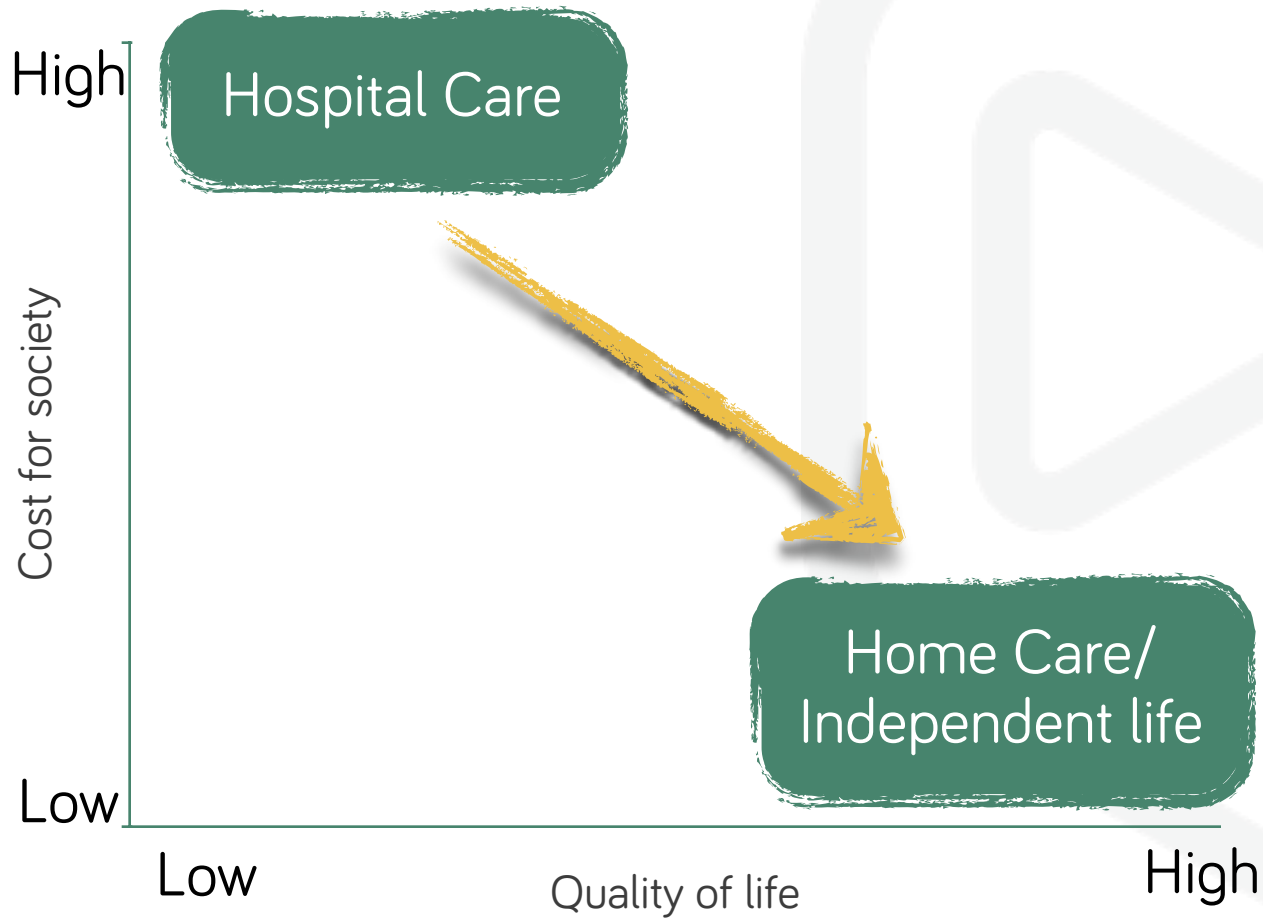
OECD old-age support ratio



Innovation has helped us before...



Government strategy



Attitude towards robotics in Europe

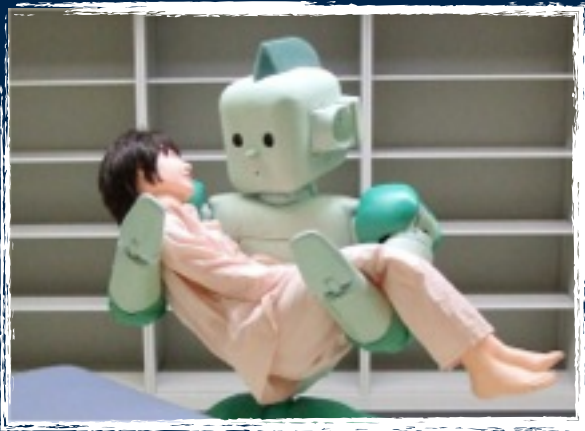
- Do you think robotics should be used in elderly care?

4% Yes

- Do you think robots should be banned from being used in elderly care?

60% Yes

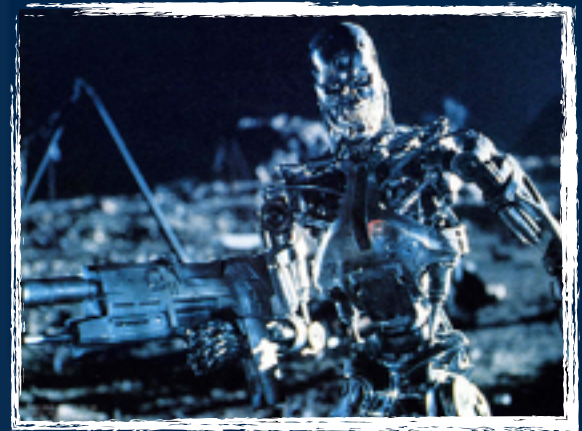
Different views on robotic technology



What the researchers see



What Japanese see



What nurses see



Is this the future of elderly care?



Technology and market acceptance

- Technology developed for Industry
 - ✓ engineers develop for engineers
- Technology developed for Elderly Care
 - ✓ Engineers develop for nurses



Care givers agree on one thing

Technology should never take care of people

It should make us independent
and help us to take care of each other...



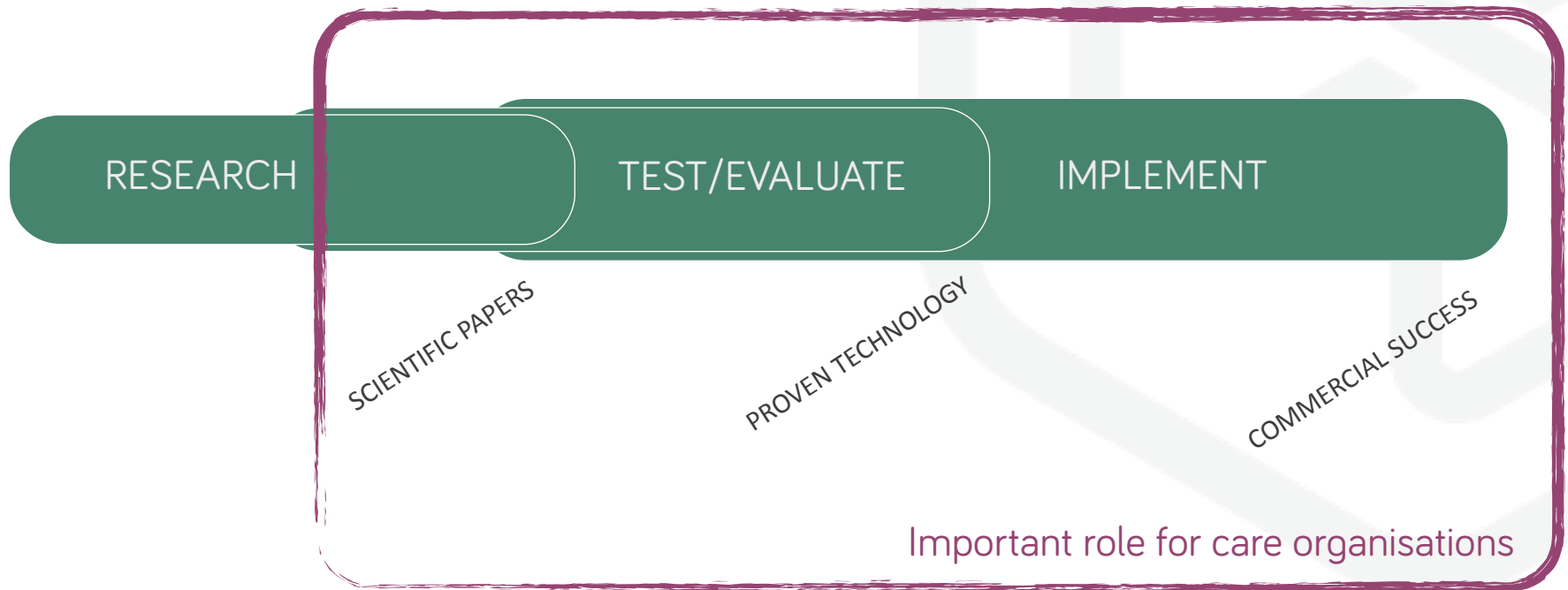
We are implementing technologies that...

- ... make our citizens independent
- ...help our elderly and disabled to be a active members of the society
- ...provide care more efficiently
- ...generate growth
- ...attract young people to the care sector



What have we learned so far...

- Huge investments i research in EU
 - ✓ not many reach people that need it

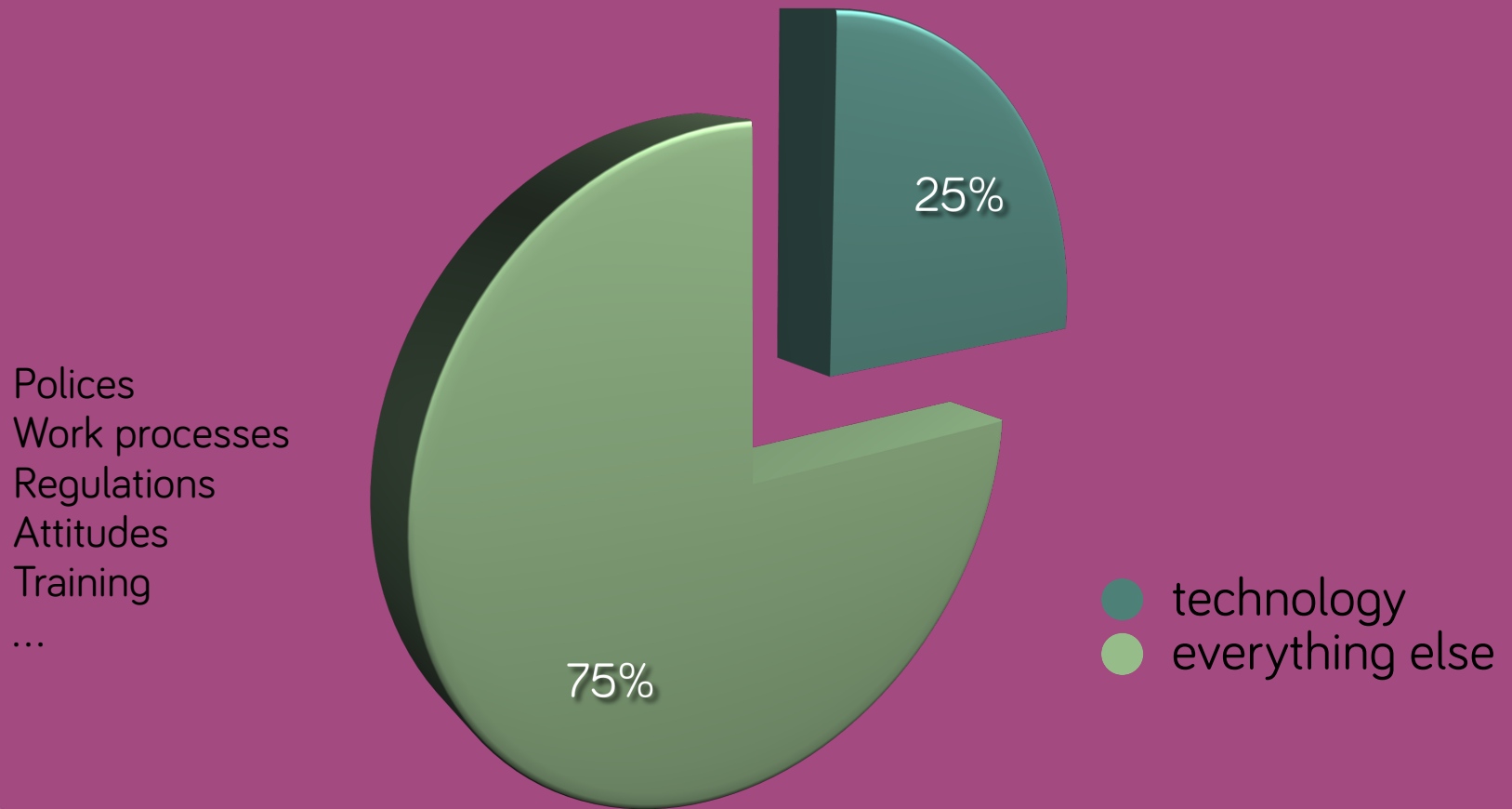


The success factors for Robotdalen

- real life implementation, not a demo environment
- real care organisations both public and private
- real users and user groups
- real-time feed back to developers



Technology is the small part



Some examples of technology
developed together with Robotdalen



Bestic-assistive eating device

- Feed yourself while with families or friends
- Can be controlled by almost any control device; joystick, foot pads, eyes
- Is AC and battery driven, silent and ultra-portable



Robin, 10-years old



RobCab - Autonomous logistics robot for hospitals

- In a typical 500 bed Swedish Hospital, frees up an average of 25 nursing personnel from fetching functions



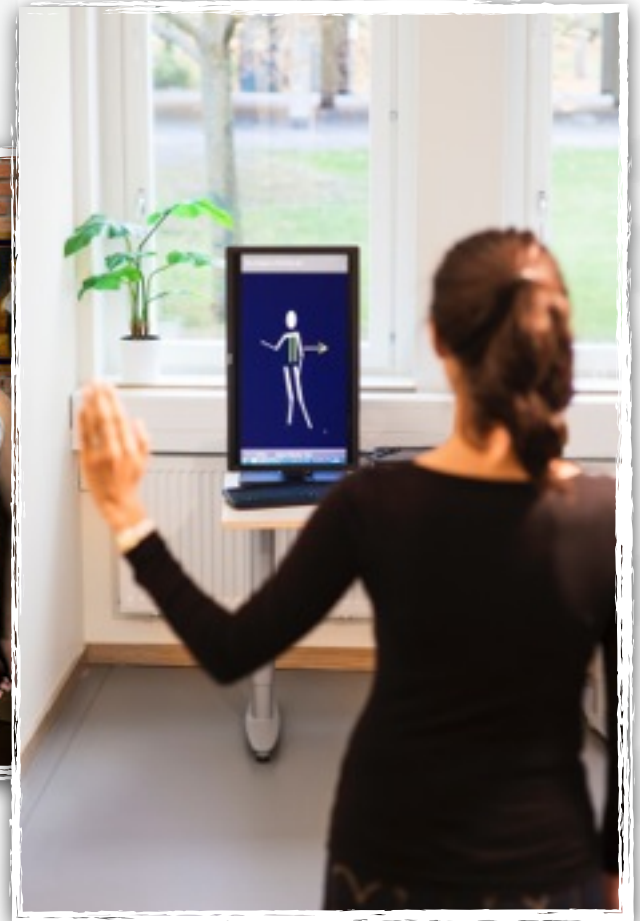
ZoomCamp - a free mind in motion

- Electric 4-wheel drive that takes you anywhere



Remote Stroke Rehabilitation

- Post-acute stage of rehabilitation



SEM™Glove (Soft Extra Muscle Glove)

- Extra grip strength



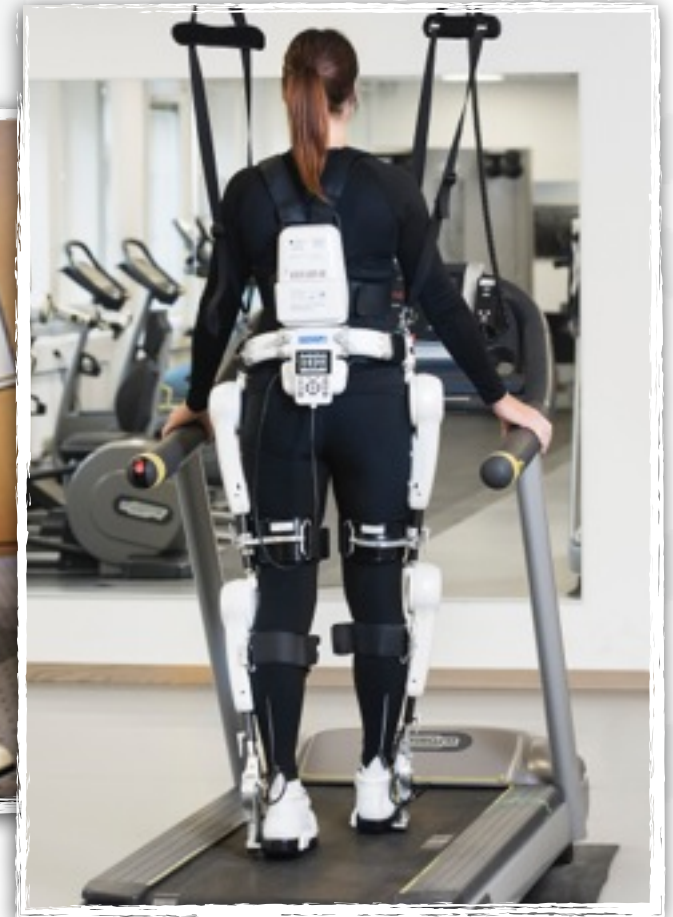
Mollii - 58 electrodes for a life in motion

- Mollii is used by people with cerebral palsy, stroke, MS, Parkinson's Disease, spinal cord injury and acquired brain damage as well as other diagnoses that lead to motor disabilities



Robot Suit HAL

- Exoskeleton for neuro rehabilitation



Giraff - brings people together in the care of those living at home.



Summary

- Technology can help us with the challenge of Ageing Population
- But care organisations must embrace innovation and be an active part of the innovation process
- Technology will not be scary, but fun and helpful
- Ageing Population is a opportunity for great life, innovation and growth
- Don't kill innovation



Thank you for listening!
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