

Challenges in digitisation of society

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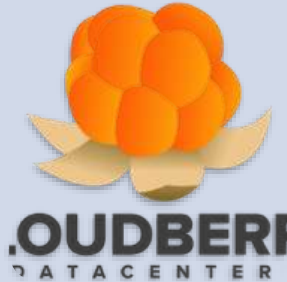


**From Knowledge based
innovation into sustainable
new business**

CDT

A joint IT Research centre at LTU

Project areas



IoT

- In smart cities
- In mining
- In energy systems
- IoT Lab

Data center

- Cloudberry
- FUI

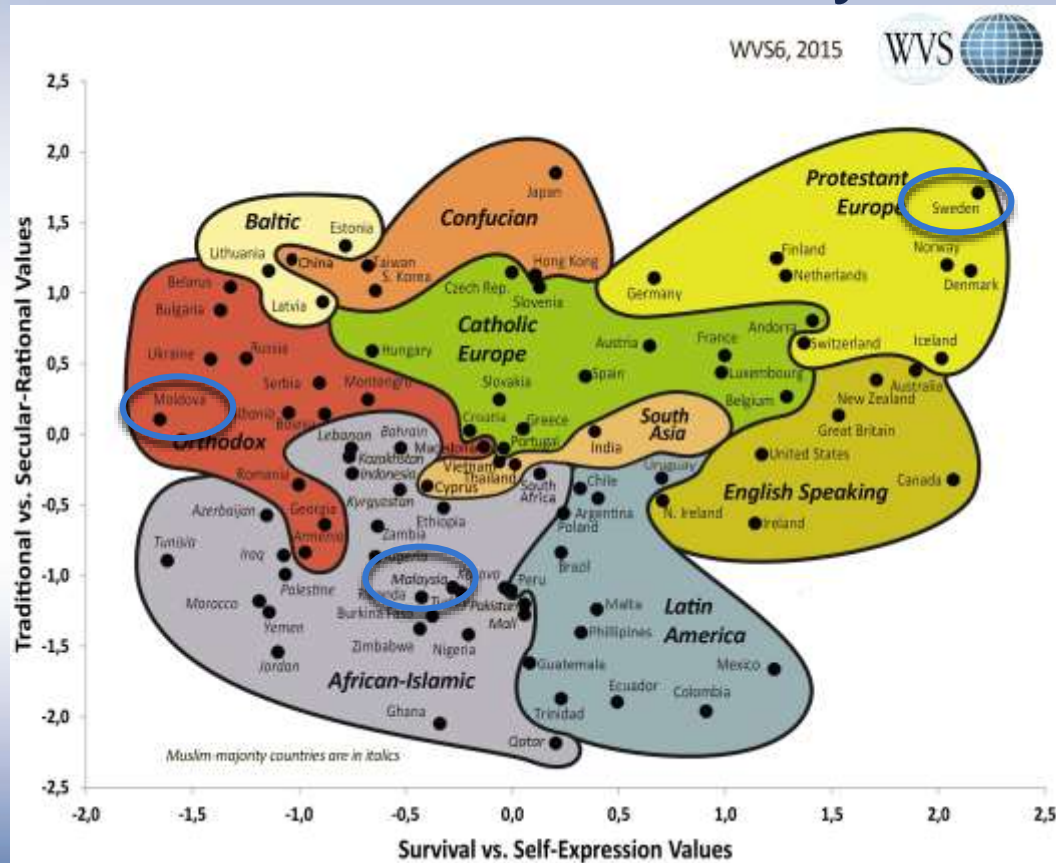
Living labs

- User empowerment
- Privacy

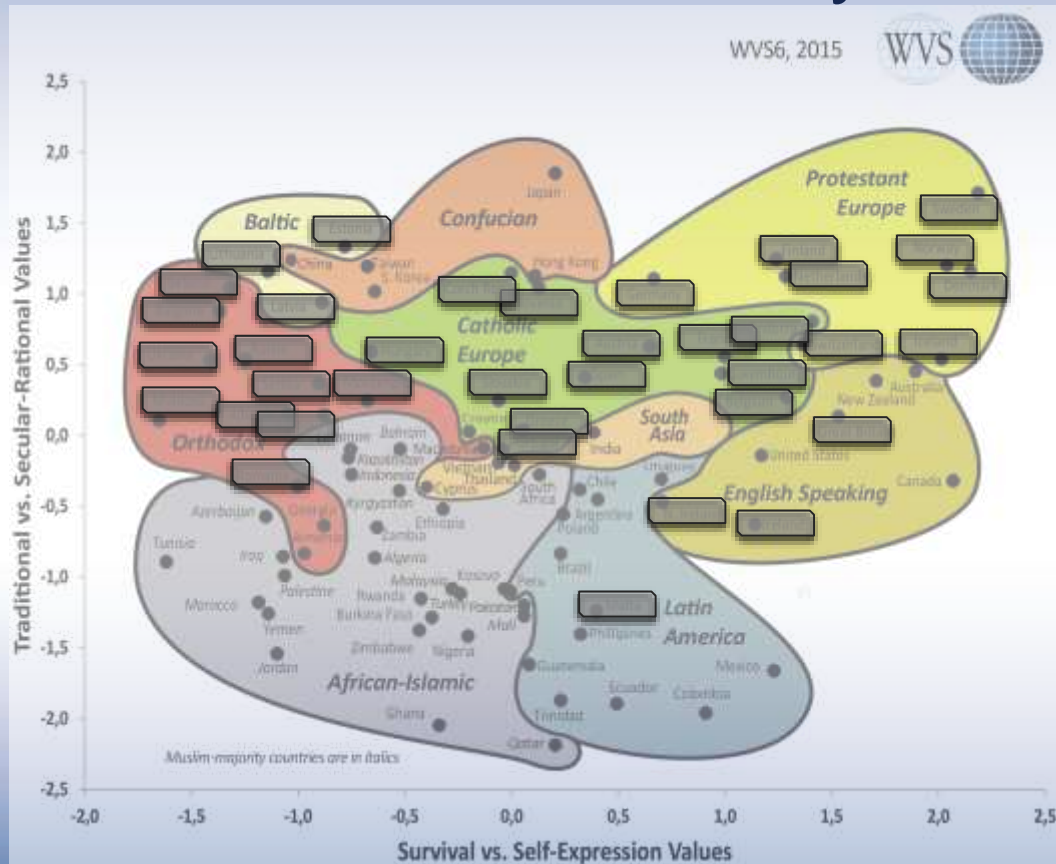
Gender

- Equality in the ICT sector

World Values Survey 2016



World Values Survey 2016





Digitalization

- Began in the 1970's
- Largest change of society since industrialization
- The way we develop
- The way we produce
- The way we market and sell
- The way we distribute



Effects of digitalization

- Hundreds of thousands of new jobs are created
- Great opportunities for companies to find new businesses
- Old companies disappear – new are formed
- We can do everything much cheaper
- ... and much more



Effects of digitalization

- "Programme on the Impacts of Future Technology", C B Frey and M Osborne, Oxford University
- Same study in Sweden, by Stefan Fölster, KTH (Royal Institute of Technology)



Effects of digitalization

1. What is the probability that a specific occupation will be replaced by computers within 20 years?
2. How many people are employed within each occupation?
3. Multiply the two

Most likely to be replaced

- | | |
|------------------------------------|--------|
| 1. Model | 98,0 % |
| 2. Accounting assistant | 97,0 % |
| 3. Machine operator, wood industry | 97,0 % |
| 4. Library assistant | 96,6 % |
| 108. Priest | 0,8 % |
| 109. Agricultural Technologist | 0,8 % |



L Number of jobs to be replaced

1. Sales clerk	196 753
2. Nursing and care personnel	173 019
3. Purchaser, sourcing, agents	132 572
4. Other office personnel	81 244
108. Agricultural Technologist	25
109. Managers in interest org.	14



In perspective

- In Sweden 4 700 000 employed
- 53 % of all jobs could be replaced, or 2 490 000
- New jobs are created, but they require other competences



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Swedish companies view of digitalisation

- Questionnaire study, done by Ingrid Nordmark, Swedish ICT
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Swedish companies view of digitalisation

- 70 % - Yes, we need to do something
- 17 % - Yes, we know what to do
- 5 % - Yes, we know how to finance it



My conclusions

- We need to focus on making innovations reach out to our existing companies and public sector
- We need to support forming of new companies
- We need to help people to renew and develop their competences

