

2nd IoT conference, March 2013, Fornebu

Internet of Things - a Scandinavian*¹ Perspective

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on behalf of the

Center for Wireless Innovation Norway

CWI Norway (<http://cwin.no>)

**¹ including Finland*



Høgskolen i Telemark



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HØGSKOLEN I BERGEN

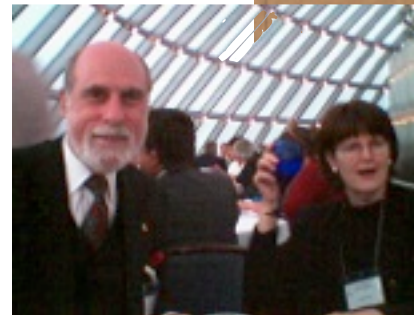
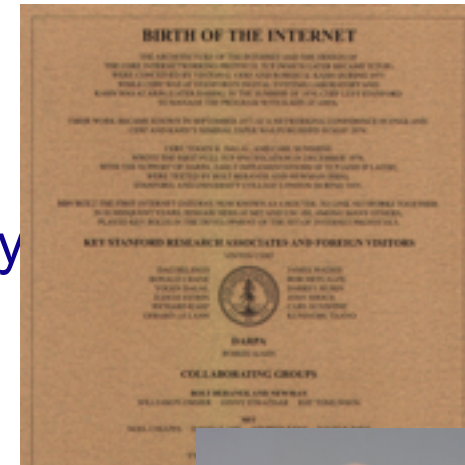


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i Stavanger

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The Internet and Scandinavia

- The first connection of Arpanet outside of the USA (and Hawaii) was to **Scandinavia** (Kjeller, June 1973)
- List_of_Internet_pioneers [Wikipedia]
 - Yngvar Lundh, Paal Spilling
- Application development
 - .php, OpenSource, Linux, Skype, Spotify
 - OperaSoftware, FAST Search
 - Nokia, Ericsson
 - Telenor, TeliaSonera
- Mobile Internet:
 - GSM
 - Service adaptation



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- "Things" become socially intelligent
 - yes, without doubts
 - requires new trust model
 - measurable security
- Growing IoT market - broad connectivity
 - essential openness of smart “*everything*”
 - security, privacy, dependability
- Trustworthy telecom
 - *email, SIM, leakage of customer data ...*



- Is Internet access and online freedom of expression a basic human right?
- **All people should be allowed to connect to and express themselves freely on the Internet.**



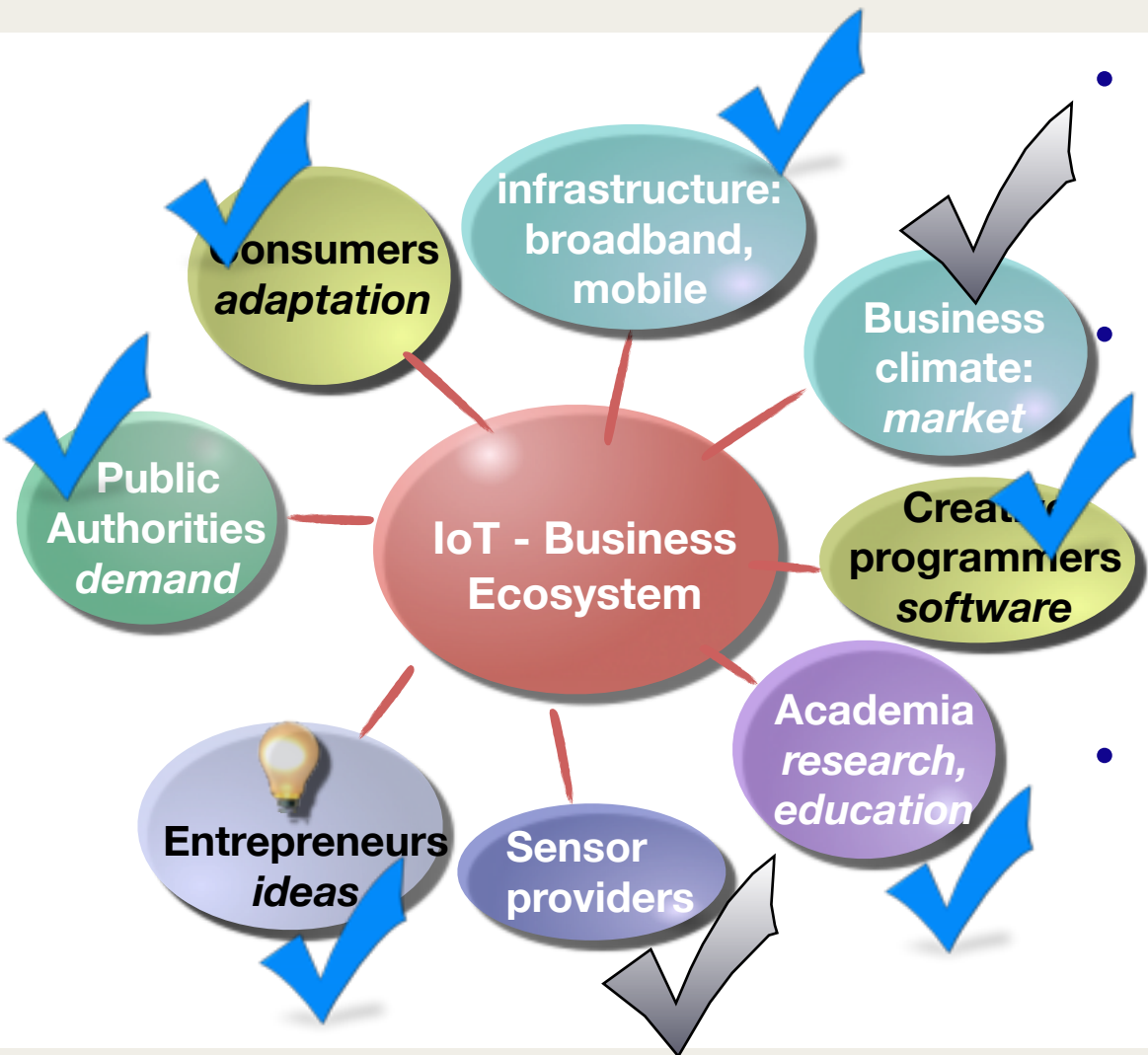
- The United Nations' Human Rights Council unanimously backed that notion in a resolution on 5 July 2012. All 47 members of the Human Rights Council including China and Cuba signed the resolution.



- “Driver License for Internet Access”
- Whatever network you are, you will have “slow” (10-20 kbit/s) access
- Costs to just cover administration of card (30 €/year)
- Access to everything (but slow) - always online
- “Autobahn” (Motorway) button for high bandwidth access.



IoT impact for Scandinavia



- Demand
 - mobile
 - distances
- Adaptation
 - infrastructure
 - business environment
 - Trust relation
- Challenges
 - sensor industry
 - distance to Brussels
 - economy of scale

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Conclusions

- Scandinavia is leading in applicability
 - Challenge of distance to Brussels :-)
- Internet everywhere will come
- Measurable Security is the key issue
 - transfer trust to electronic context
 - into virtual devices, networks, “people”
- get us the European driver license