



MODPROD

Center for Model-Based Cyber-Physical Product Development

IoT - Visions and challenges



Anders Englund

- CEO Attentec
- One of four owners of Attentec
- Member of the board - Swedish IT and Telecom Industries
- IDG Expert Network - IoT
- MSc Computer Science and Engineering - LiTH + Case Western Reserve University, Cleveland Ohio

We are a team of dedicated developers and experts in internet of things and streaming media who are passionate about innovative technology.

Quick facts:

Established 2005

60+ developers

Stockholm, Linköping and Oslo



Who we are



Agenda

- A Vision for IoT
- Where are we now?
- Challenges to overcome and how we handle them
- Summary



IoT Vision - Everything connected

- > Sustainable
- > Safe
- > Servitization

Internet of Things - Business opportunities



Improved efficiency



Reduced risk



Increased turnover



Improved efficiency

- Condition based maintenance
- Optimized use of resources
- Promote best practices





Reduced risk

- Dangerous environments
- Theft
- Monitor legal requirements and rules



INTERSPIRO



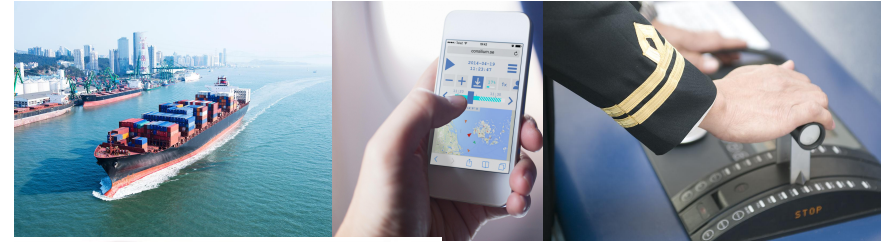
Haldex





Increased turnover

- Sell data (knowledge) to your customers
- Improve customer communication
- New business models - PaaS



PFAFF
Perfection starts here.™



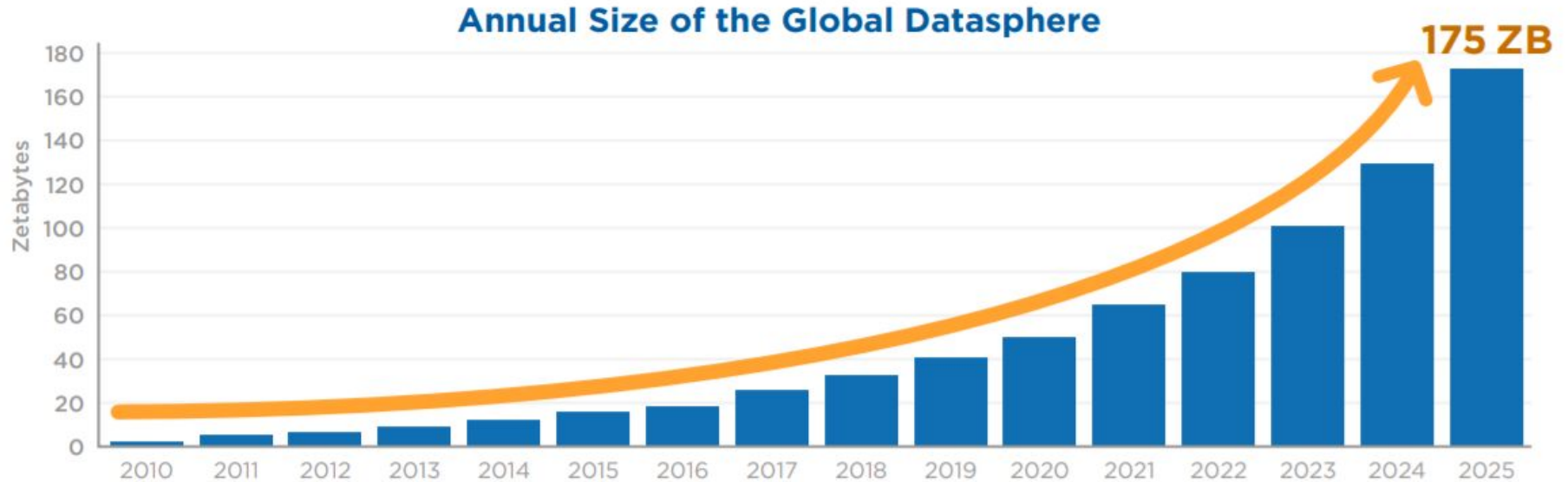
Challenges

- Connectivity
- Miniaturization
- Power

- *Data Growth*
- *Standardization*
- *Trust*

- People and organizations ability to utilize the benefits of IoT

Challenge - Data Growth



Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, Nov 2018

- Big Data Analytics
- Artificial intelligence

Challenge - Standardization



- How many SIM-cards do you have on a truck today?
 - Integrate or separate?
- IoT standardization slow
 - ISO/IEC 30141 - IoT Reference architecture (augusti 2018)
 - Proprietary solutions
- IT level standards - good



Challenge - Trust



- Security
- Integrity

A vision for IoT

Summary

- ★ A sustainable, safe and servitized world
- ★ Plenty of technical challenges
- ★ Do not forget people and organizations



Thanks for listening!

Questions?