#### SONY

### Sensorer idag och framöver

Peter Karlsson, Research and Standardisation

Smarta lösningar med ny sensorteknik och bildanalys – seminarium med fokus på växtskydd, 2017-05-18

Research and Incubation

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## **RESEARCH & INCUBATION**

Started 1st of June 2015 with ~100 dedicated individuals

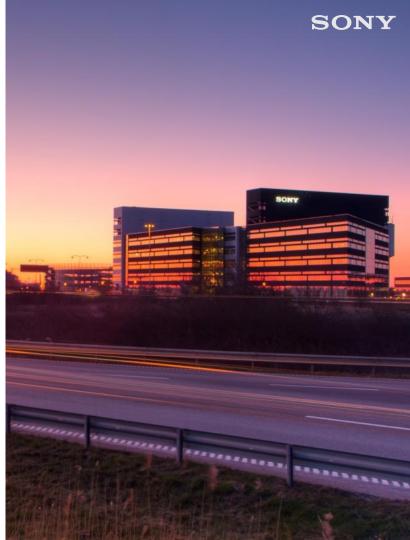
Mission: Establish a foundation for Sony's business beyond smartphones and wearables

- Leading Network and IoT research and driving contributions towards standardization
- Create and Incubate new technologies and businesses resulting in new products and services focusing on B2B and B2B2C.



#### Full backup from CEO level:

"Sony intends to accelerate efforts to leverage its strengths in new business..."



#### FY17 - Research Focus Areas - High Level



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5G	loT architectures & security	Positioning & Sensing technologies	Data analytics & machine intelligence

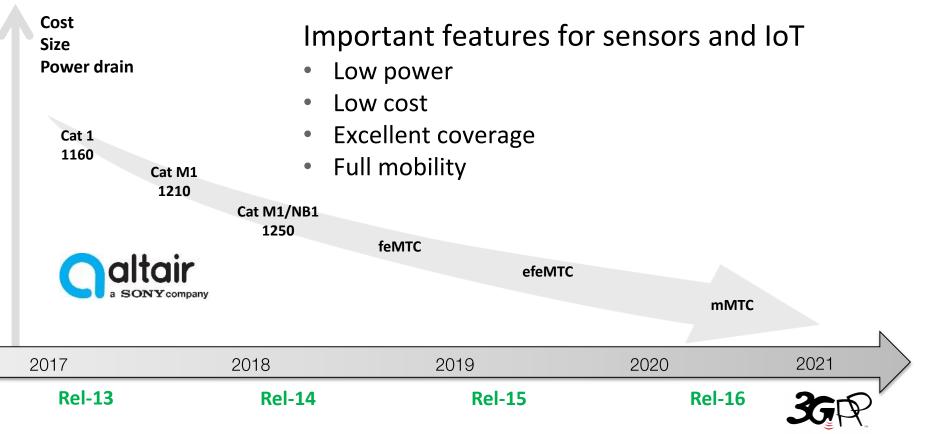
Standardization, Academia and Industry Collaboration

### Potential SLU Alnarp and Sony collaboration

Håkan Schroeder, Dean, Faculty of Landscape Planning, Horticulture and Crop Production Science Peter Karlsson, Sony Mobile, Need of weed reduction

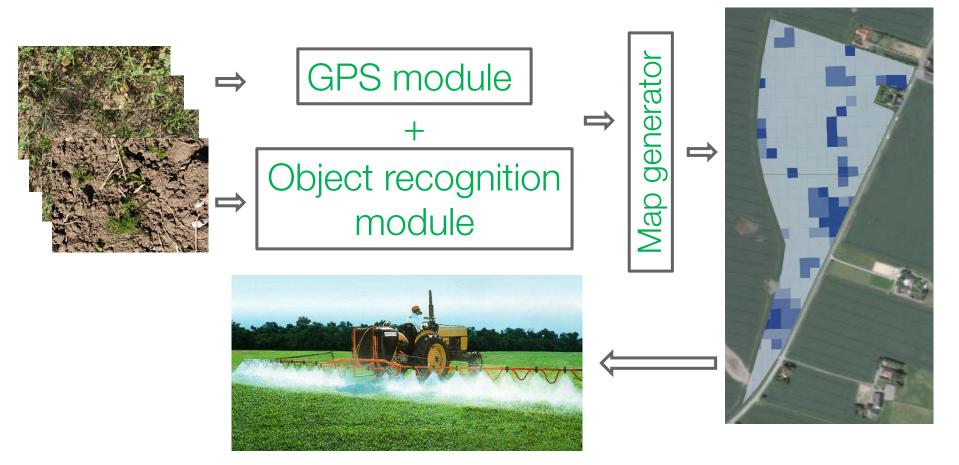


### IoT connectivity evolution towards 5G

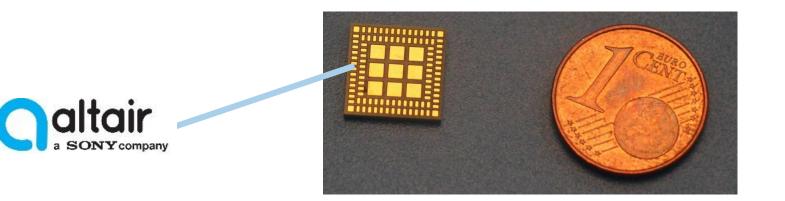


A GLOBAL INITIATIVE

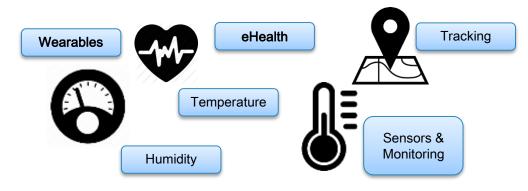
### Example 1:optimised weed reduction



#### Example 2: sensors connected to mobile network







## Example 3: analysis of data from connected pigs



Ear tag with sensors and Bluetooth local connectivity



#### **Connected "smart" pigs**

SONY

Gr2

Sm Om

Gr64

Gr3

A 8321-5 Check for lameness

S B

 $\bigcirc$ 

07:32 - Ongoing

A 8389-2 Low activity last 24 hours

North Beach Barn

Gr4

 $\bigtriangledown$ 

\* C 4G 79 % 09:41

Gr64

Q

**Cloud service** Analyses individual and group data, identifies anomalies and fertility cycle indicators **Observer** Collects data from Ear tags П PIG+ Sunny Hill Farm • Gr4 Gr5 Gr4 Gr5 S

Ear tag **Reports activity &** temperature

#### Monitor individuals & herds in multiple farm locations

Mobile and desktop app with farm overview, alerts and predictions help farmer monitor animal wellbeing, take correct decisions and plan production.

#### SONY

### **Research Collaboration**

Driving local, regional and global research & innovation



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