



## Objective

Understand the impact Internet of Things has on Business Models

# Innovation is Everywhere









**Husqvarna Viking Designer Epic** 







Husqvarna

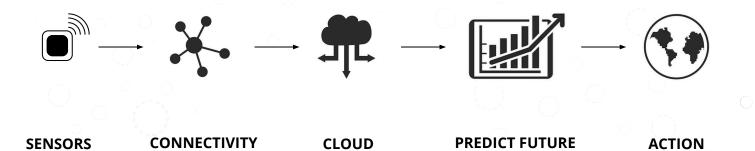








#### Generic Flow



### Sensors



**SENSORS** 

CONNECTIVITY

CLOUD

PREDICT FUTUR

# Connectivity



**SENSORS** 

CONNECTIVITY

CLOUD

PREDICT FUTUR

## Cloud



**SENSORS** 

CONNECTIVITY

CLOUD

PREDICT FUTUR

## Predict Future



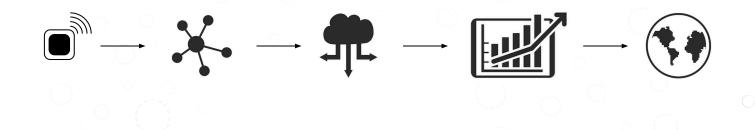
**SENSORS** 

CONNECTIVITY

CLOUD

PREDICT FUTURE

#### **Actions**



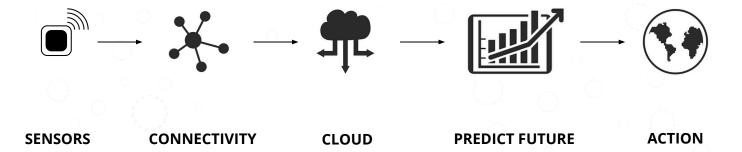
**CLOUD** 

**SENSORS** 

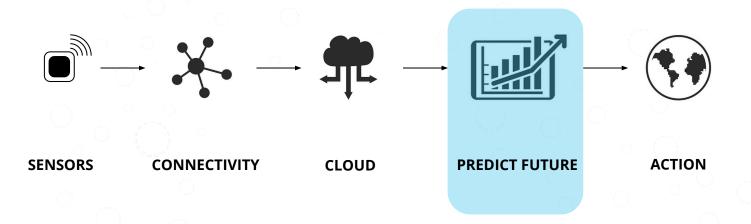
CONNECTIVITY

PREDICT FUTURE

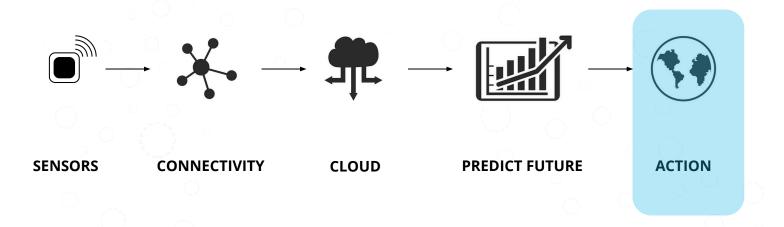
#### Where's the Gain?



#### Value Creation



# Value Capture



# Focus on Value Creation and Value Capture

# **Business Model Patterns**

#### **Business Model Patterns**

- 1. Digital Freemium
- 2. Hardware Analytics
- 3. Predictive Maintenance
- 4. Subscription model
- 5. Sell Data

# **Business Model Comparison**

## Classic Business Model

Features	Price
<ul> <li>Advanced</li> <li>Count</li> <li>IP</li> <li>Customer Service</li> <li>User Experience</li> </ul>	<ul><li>Price vs price</li><li>Discounts</li><li>Competitions</li></ul>

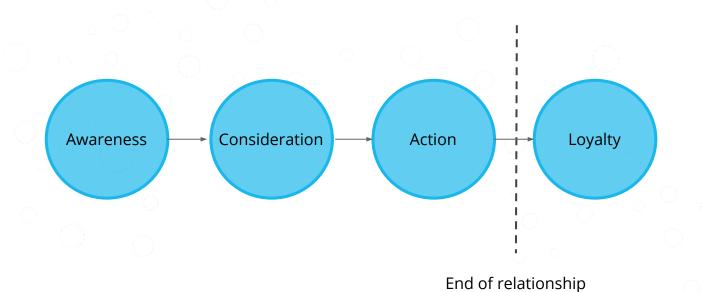
## IoT Business Model

Features	Price	
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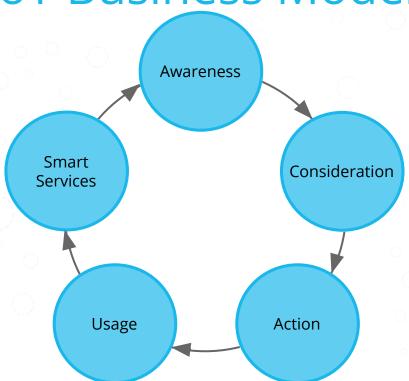
### IoT Business Model

Features	Price	Smart Services
<ul> <li>Advanced</li> <li>Count</li> <li>IP</li> <li>Customer Service</li> <li>User Experience</li> </ul>	<ul><li>Price vs price</li><li>Discounts</li><li>Competitions</li></ul>	<ul> <li>Upgrades</li> <li>Predictive</li></ul>

#### Classic Business Model



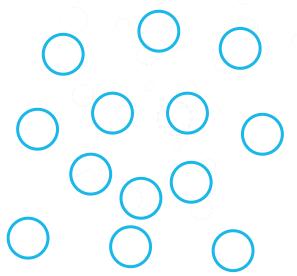
## **IoT Business Model**



# Ecosystem

# Ecosystem

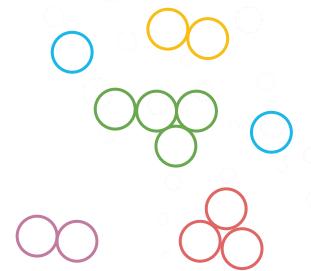
Companies before IoT



# Ecosystem

Companies before IoT

**IoT Companies** 



# IoT Maturity Model

#### **IoT Maturity Model**

Connected	Service	Analyze	Integrate	Innovate
- Sends information	<ul><li>Remote access</li><li>Software updates</li><li>Proactive monitoring</li></ul>	- Predictive maintenance - Identify process issues - Real-time reporting of status and usage	- Product lifecycle management  - Configuration and warranty management	- Complimentary web and mobile apps - Pay per use - Track and locate/inventory management - New revenue generating capabilities

# How do you start?

- 1. **Workshop** to identify added value
- 2. **Proof of Concept** validate your idea
- 3. Minimum Viable Product to customers and internal stakeholders

# Questions

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## What we can do for You?

## 1 Day Workshop

on Internet of Things /
Machine Learning
(IKEA, Sony)

## **Evaluation**

1 - 3 weeks of implementation

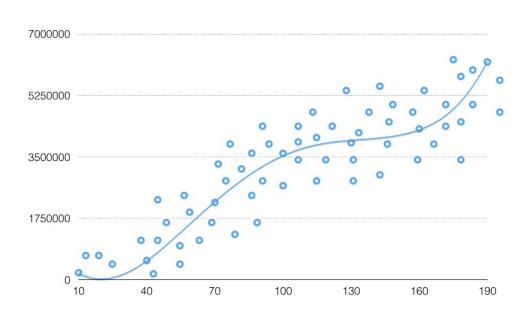
### **Trend-programme**

In case IoT is not for you (Eon, Jabra, IKEA)

## Machine Learning Problems

- 1. Predict prices
- 2. Classify into two groups
- 3. Find anomalies
- 4. Translate handwritten text
- 5. Image recognition

# Machine Learning Predict prices



## Roadblocks

## Roadblocks

- Perceived high cost of IoT
- 2. Hard to identify value capture
- 3. Class between IoT and traditional company
- 4. Companies are required to undergo significant changes
- 5. Knowledge gap
- 1. Diversity of objects
- 2. Immaturity of innovation
- 3. Unstructured ecosystems

## **Technical Roadblocks**

- 1. Existing machine parks needs to be updated
- 2. The assembly line needs to add sensors when building
- 3. Customers must agree on passing on data
- 4. Connectivity
- 5.

## How to get started

## How to get started

- 1. Appoint an IoT leader
- 2. Identify Value Gain
- 3. Create an adoption plan
- 4. Look for partnership



## Conference Abstract

**Title**: Internet of Things and Business Models

**Abstract**: How can you use Internet of Things to reinvent your business model? To answer the question you need to know about and understand the active components of IoT. Consumer products, like wearables, is one part of the equation and perhaps one of the most discussed subjects of IoT but connectivity, cloud and machine learning is equally important.

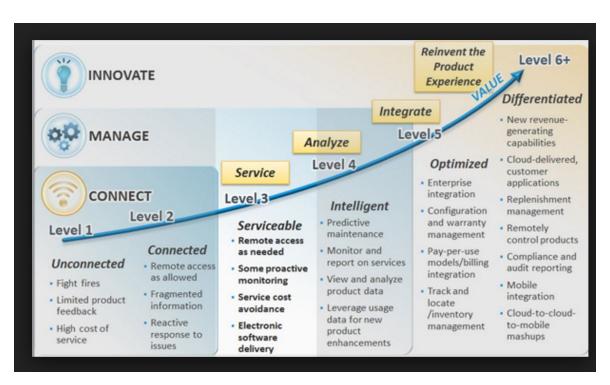
In this session we will present a template for a complete IoT business model and show a couple of existing business models

#### This session will:

- Set a baseline for IoT
- Go through the IoT work flow
- Look at each IoT component in depth
- Go through several successful IoT business models
- Map the aforementioned models to a maturity model
- Give some advice as to how to get started with a new IoT business model

# SPECIFIC PRODUCT/VENDOR/ALLIANCE

## **Maturity Model**











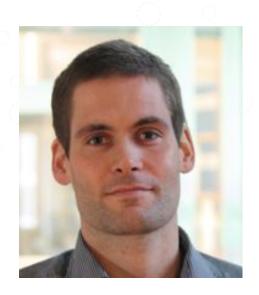


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## Quotes

"As the Internet of Things (IoT) spreads, the implications for business model innovation are huge. Filling out well-known frameworks and streamlining established business models won't be enough. To take advantage of new, cloud-based opportunities, today's companies will need to fundamentally rethink their orthodoxies about value creation and value capture."

## Lookup

Spark

## Where is it?

#### **Smart Cities**

- Smart Parking
- Traffic Congestion
- Waste Management

#### **Smart Environment**

- Forest Fire Detection
- Air Pollution
- Earthquake Detection

#### **Smart Metering**

- Smart Grid
- Water Flow
- Tank Level

#### Retail

- Supply Chain Control
- Intelligent Shopping
- Smart Product Management

## Where is it?

#### Logistics

- Item Location
- Fleet Tracking
- Quality of Shipment Control

#### **Industrial Control**

- Indoor Air Quality
- Temperature Monitoring
- Indoor Location

#### **Smart Agriculture**

- Meteorological Station
- Green Houses
- Farming

#### eHealth

- Fall Detection
- Patients Surveillance
- Medical Fridges