

# **ITU Workshop on the “Internet of Things - Trend and Challenges in Standardization”**

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## **Open Source - The Business Model for the Internet of Things?**

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# Bosch: four business sectors

## 2012 key figures

<b>Bosch Group</b>	<ul style="list-style-type: none"><li>→ 52.5 billion euros in sales</li><li>→ 306,000 associates including 42,800 in research and development</li><li>→ 264 manufacturing sites</li></ul>		
<b>Automotive Technology</b>	<ul style="list-style-type: none"><li>→ World's largest supplier of cutting-edge automotive technology</li></ul>	} 59 % share of sales	
<b>Industrial Technology</b>	<ul style="list-style-type: none"><li>→ Leading in drive and control technology, packaging, and process technology</li></ul>		
<b>Energy and Building Technology</b>	<ul style="list-style-type: none"><li>→ Leading manufacturer of thermo- and building security technology</li><li>→ World's largest supplier of heat pumps</li></ul>	} 41 % share of sales	
<b>Consumer Goods</b>	<ul style="list-style-type: none"><li>→ World's largest power tool manufacturer</li><li>→ Leading the field in household appliances</li></ul>		

## Our Vision and Mission

### → Vision

**We enable business success in a Connected World**

for our customers globally, by providing outstanding software products and solutions in the Internet of Things and the Internet of Services.

### → Mission

We are passionate about delivering innovative model-driven software products, solutions and services across multiple industries and domains to achieve sustainable value and competitive advantages.

We reduce the time to market for our customers and develop new business ideas in the internet world.



# Open Source – The Business Model for the Internet of Things?

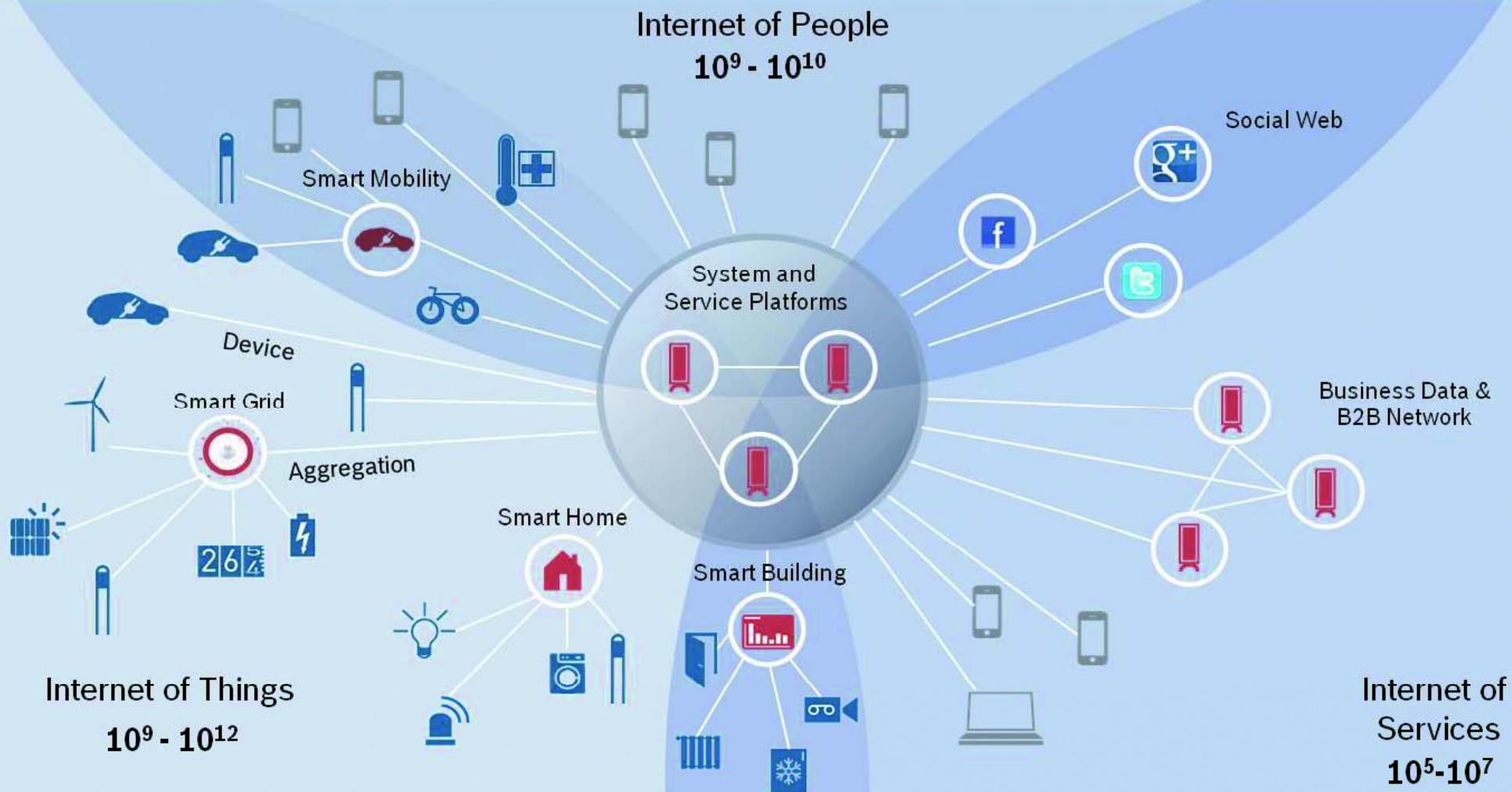
I don't know.

But I'd like to share two arguments why I think Open Source is important.

# 1. Argument

## Standards Perspective

# Trillions of connected devices



Source: Bosch Software Innovations 2012

- Cisco: 50 billion connected things by 2020 <http://share.cisco.com/internet-of-things.html>
- International Data Corporation (IDC), 2013: 212 billion by 2020

# Standards are a good Idea for the IoT

- Standards – Open Standards – are a good Idea for the Internet of Things, for two Reasons

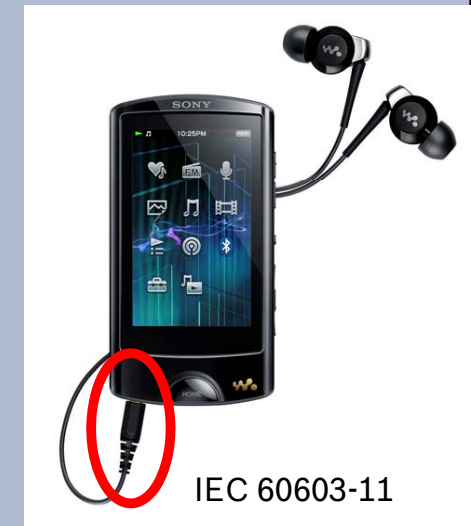
## Interoperability

Connected devices should exchange data in a common language



## Reuse

Reusing standard components saves development resources



# Car-2-Car Communication

- It would not make that much sense if only vehicles of a single OEM were able to talk to each other.





→ What is Open Source? - *Wikipedia*

*In production and development, **open source** as a development model promotes*

*a) universal access via free license to a product's design or blueprint, and*

*b) universal redistribution of that design or blueprint, including subsequent improvements to it by anyone.*

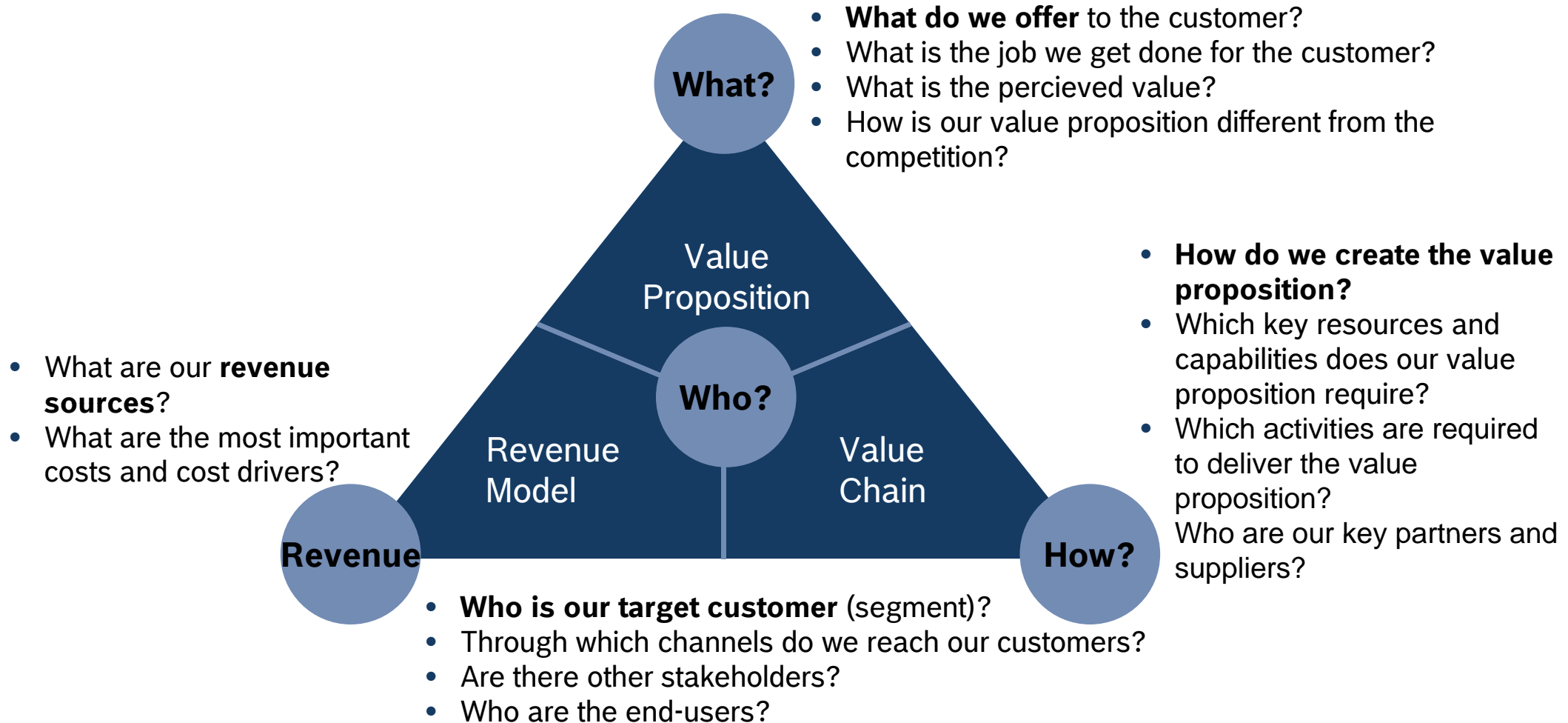
→ My belief:

***“Open Source is at least one good development model for Open Standards.”***

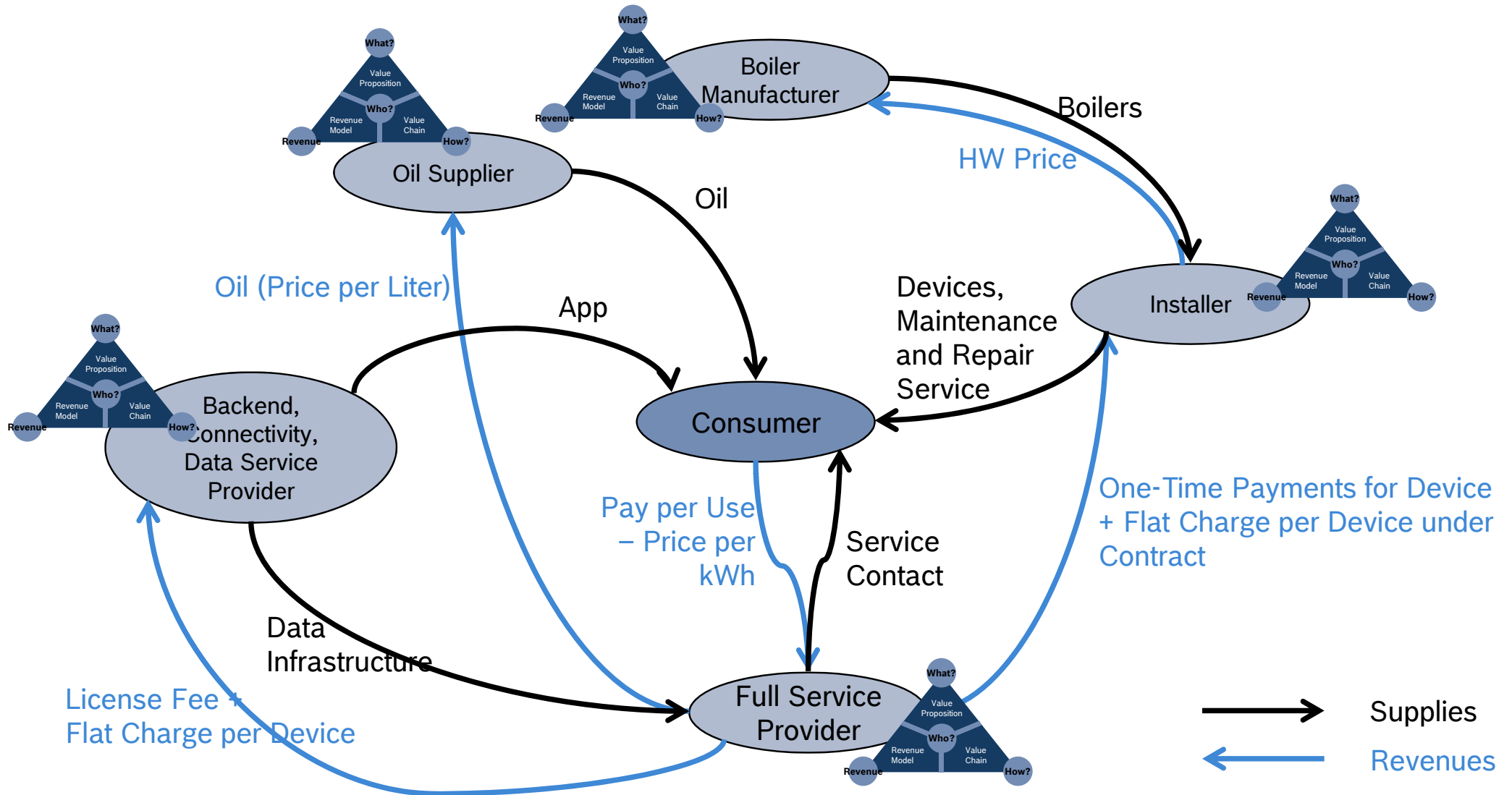
## 2. Argument

# Business Model Perspective

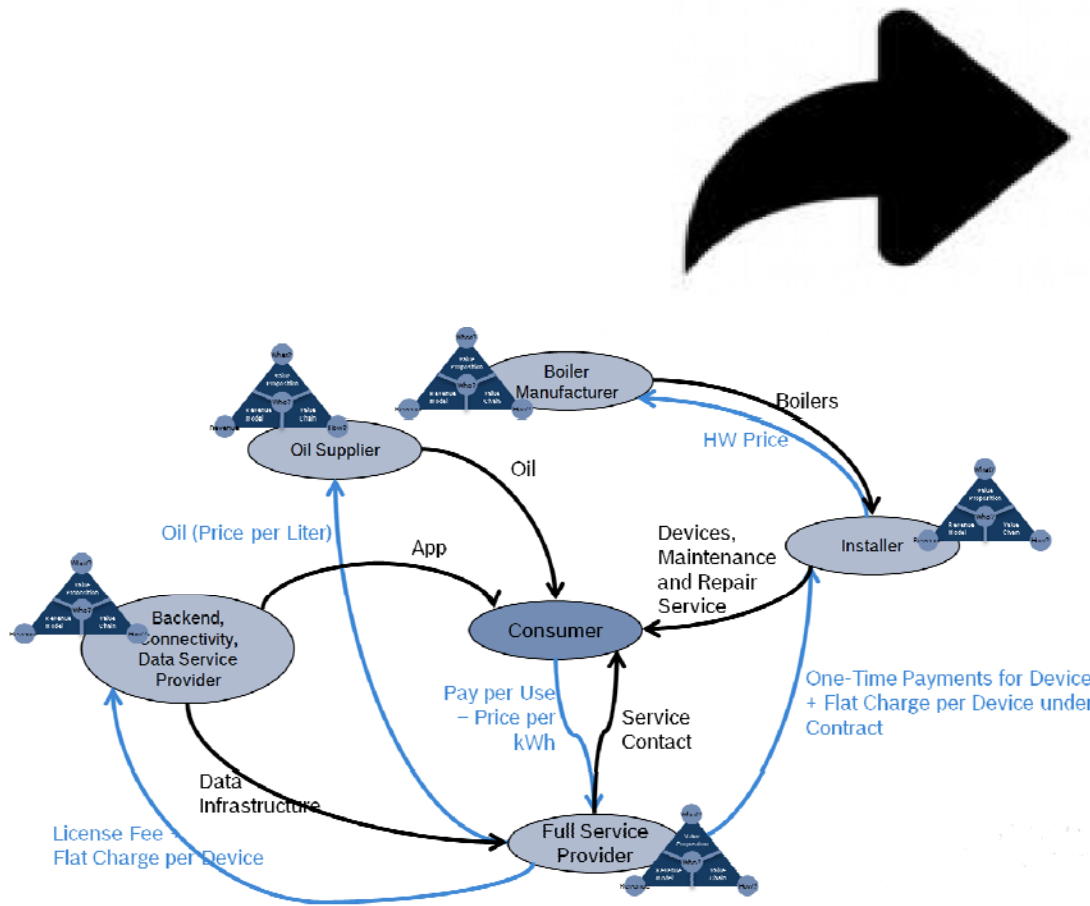
# What is a Business Model?



# What do Business Models in the IoT look like?



# Some Characteristics of these Multi-Site Business Models

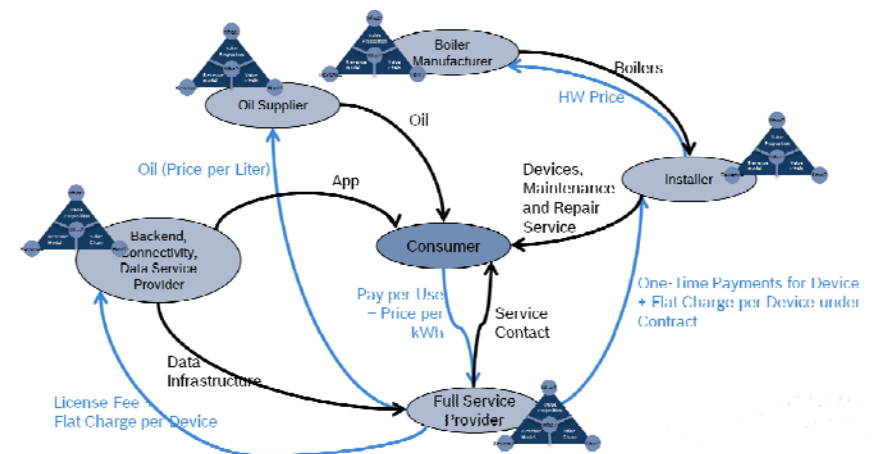


- They are like **Ecosystems**
  - Highly connected
  - Dynamic
  - All participants need to **contribute**
  - All participants need to **benefit**
- My claim:  
Open Source positively affects
  - **Trust**
  - **Motivation**
  - **Involvement**within a Business Ecosystem

# Two Claims for Open Source

→ Open Source is at least one **good development model for Open Standards**

→ Open Source positively affects **Trust, Motivation, Involvement** within a **Business Ecosystem**



Thank You for Your Attention!

## Your Questions



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Blogging **Internet of Things**

*Technology inspiring a connected life*

- Business Model Innovation Lab – [www.bmi-lab.ch](http://www.bmi-lab.ch)