

# Sensors Everywhere - the Internet of Things Revolution



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“the number of Internet-connected devices will reach between **50 and 60 billion** by 2020”

Source: Wall Street Journal

<http://online.wsj.com/article/SB10001424052702303544604576434013394780764.html>



# Cheaper, Better and Faster



Kinetis KL02 MCU

Dark Data





**Think about some Thing**

# Your Home

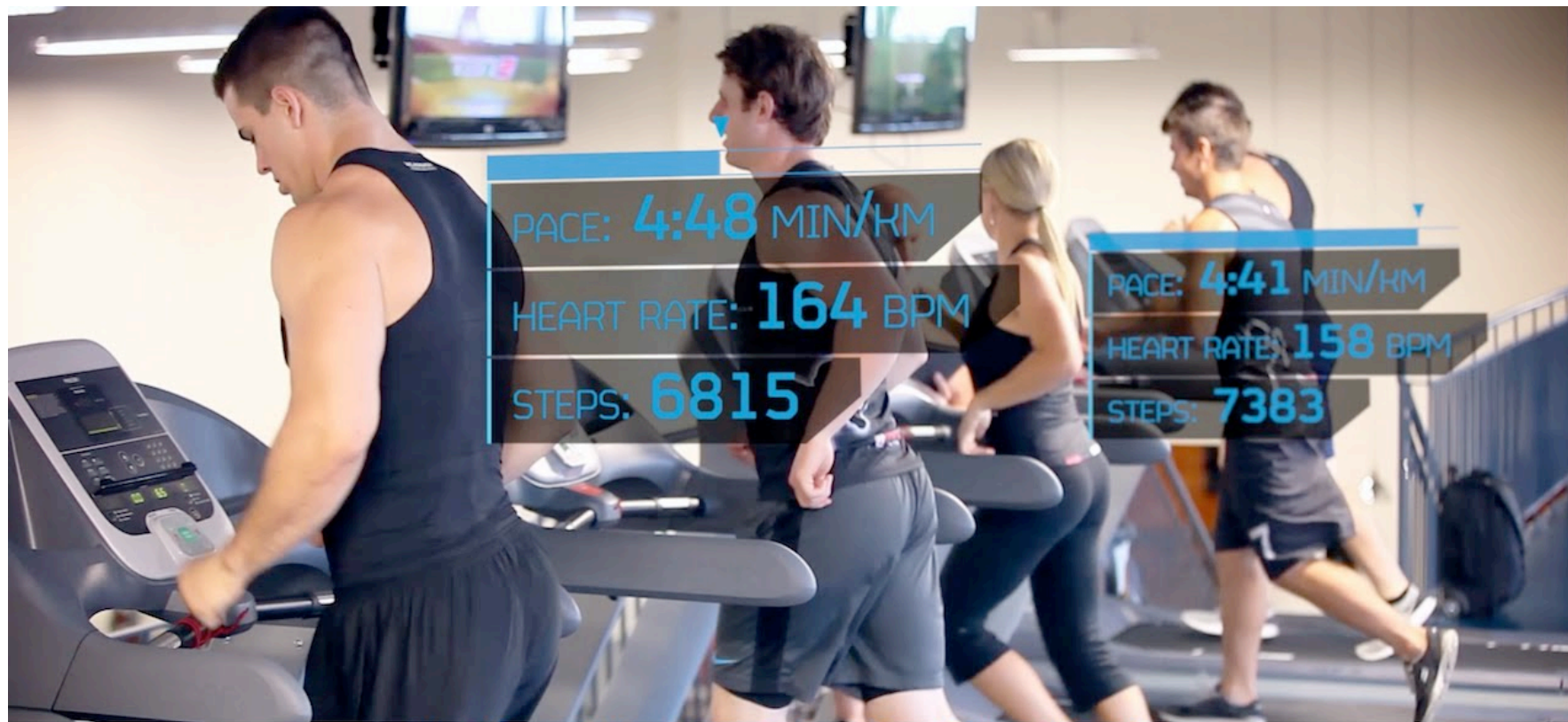




# Your Lock



# Your Shirt



**HEXOSKIN**  
WEARABLE BODY METRICS



# Your Drinks



# Your Lights



Enlighted and Phillips Hue

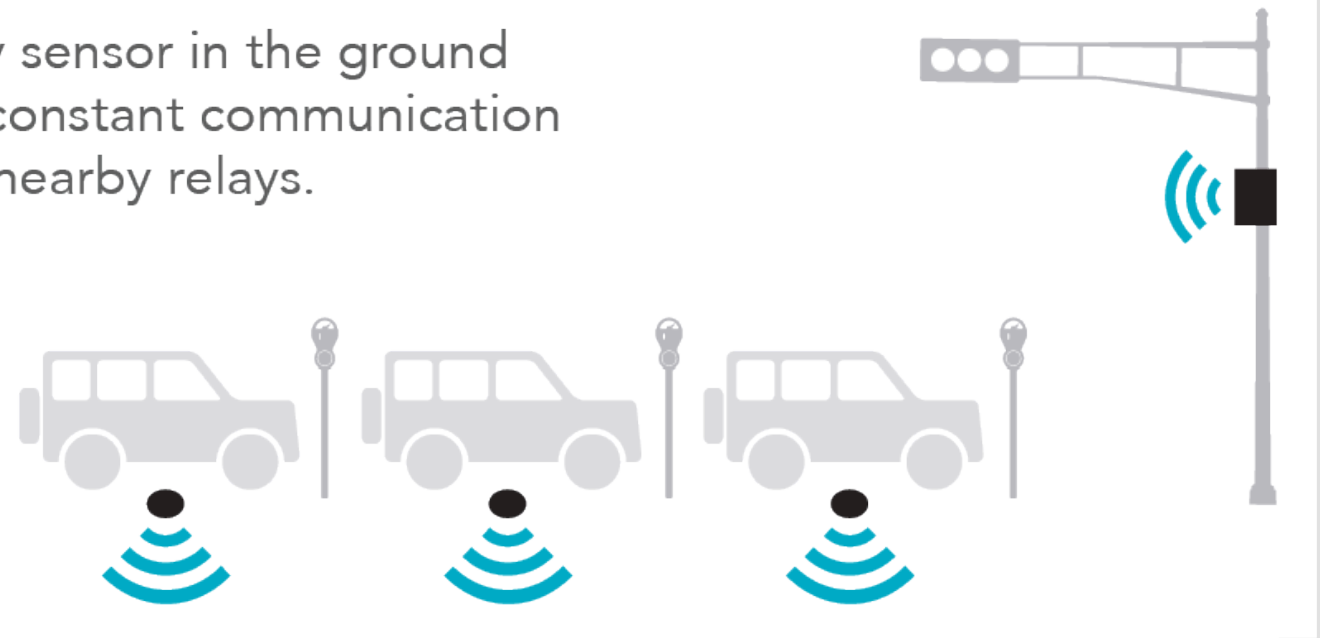


# Your Parking



~ 4 INCHES —

Every sensor in the ground is in constant communication with nearby relays.



# Your Air and Noise



# Your Health

Medical & Wellness Devices are  
**better** with  **Bluetooth®**



better with  Bluetooth®



# Even Your Jewelry



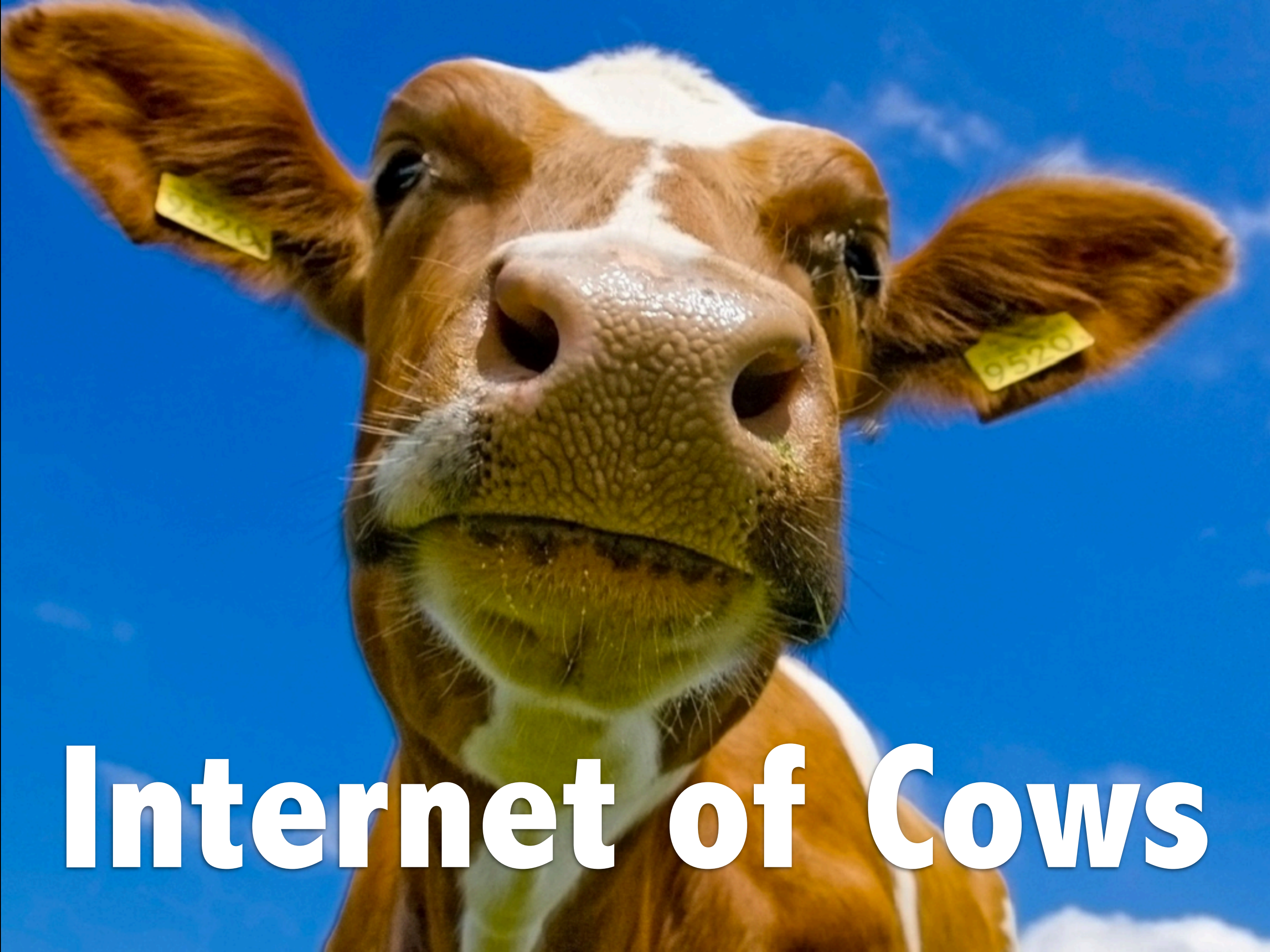
# Your Ambient Gamma Radiation











# Internet of Cows



# Why do we need to care?





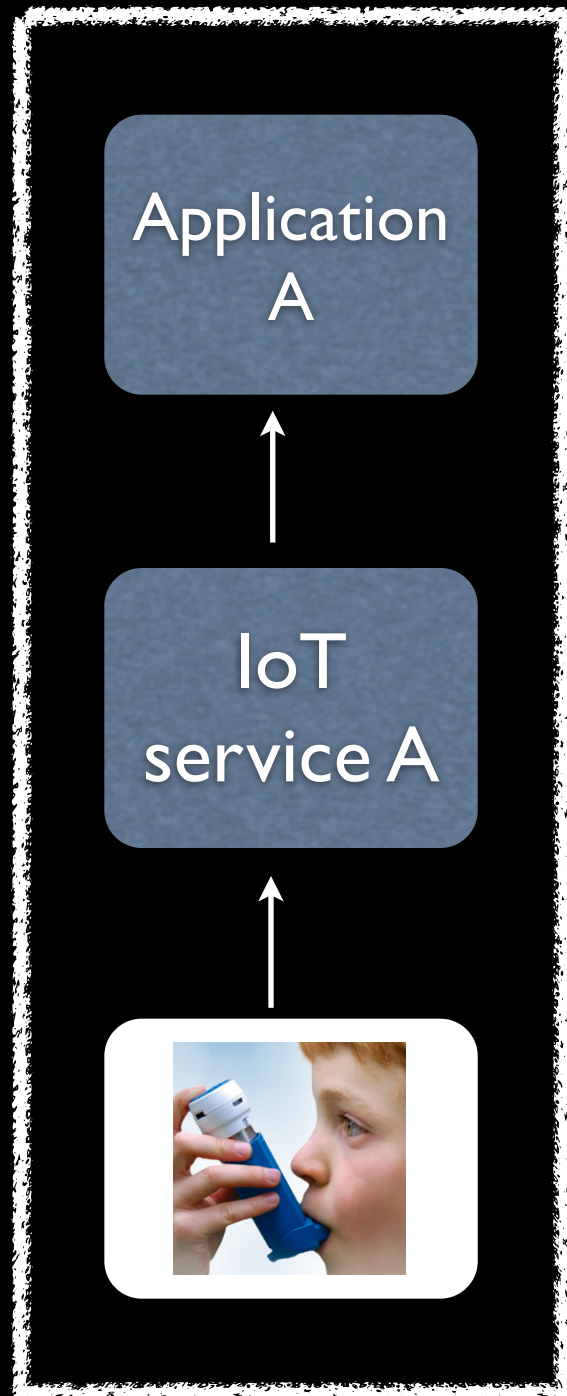
# Everything has a location



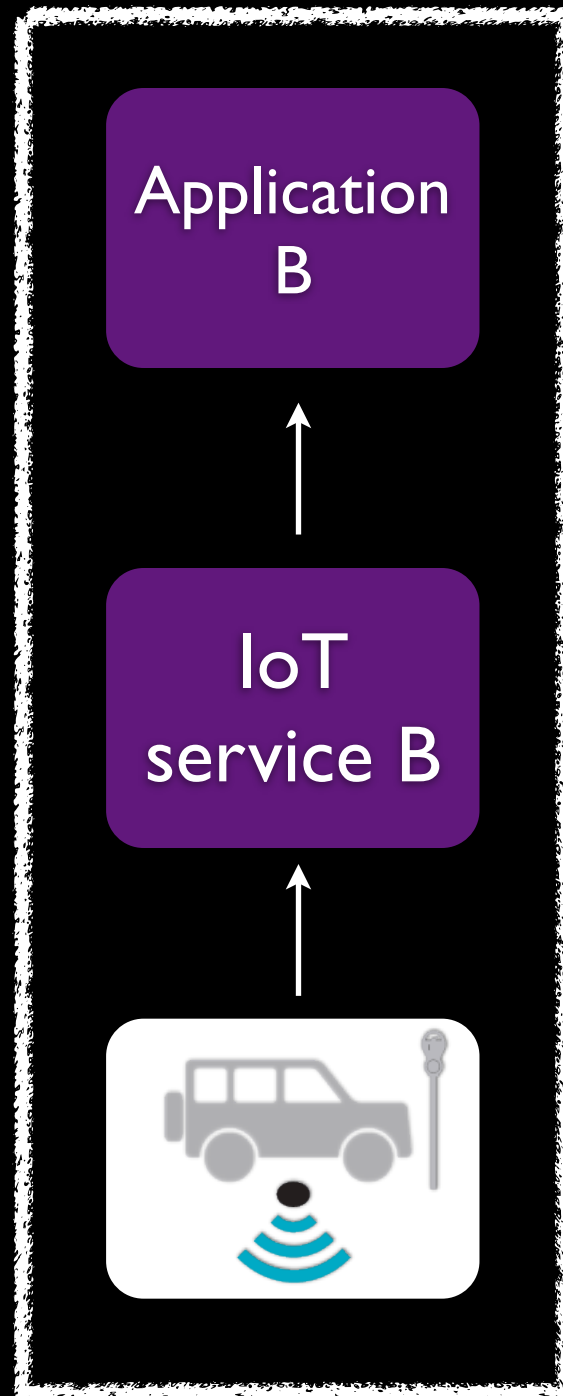
- **Location information needs to be carefully described.**
- **e.g., outdoor, indoor, geometry, topology, semantics, etc.**

# Today's IoT ecosystem

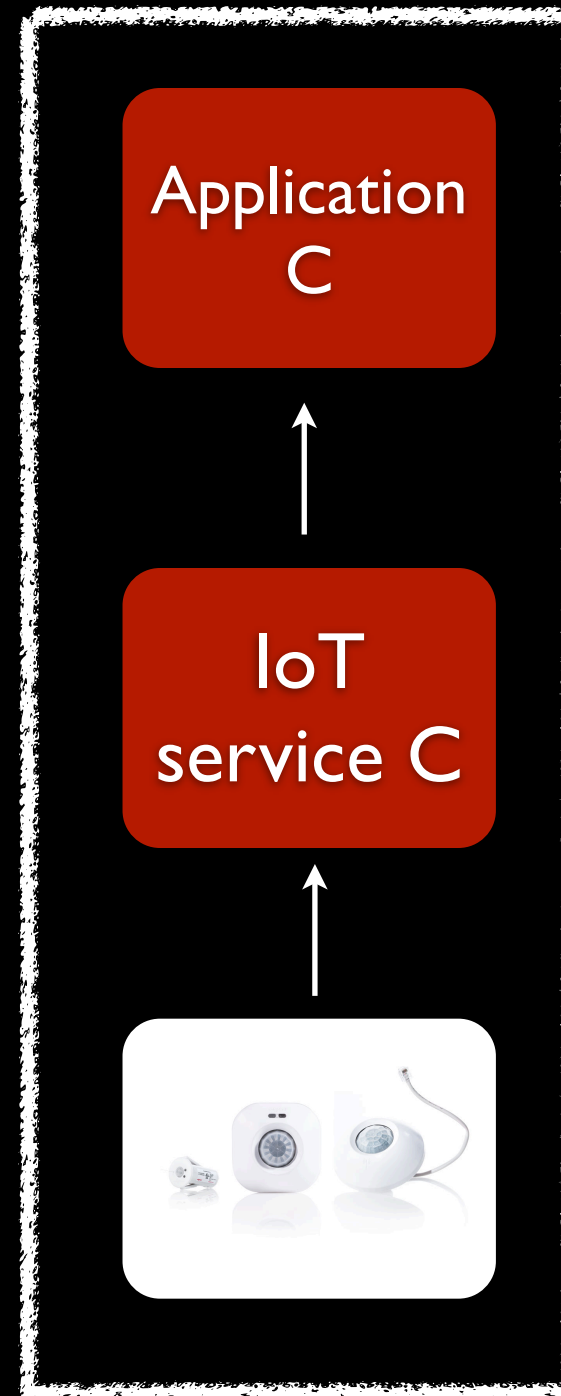
**Silo A**



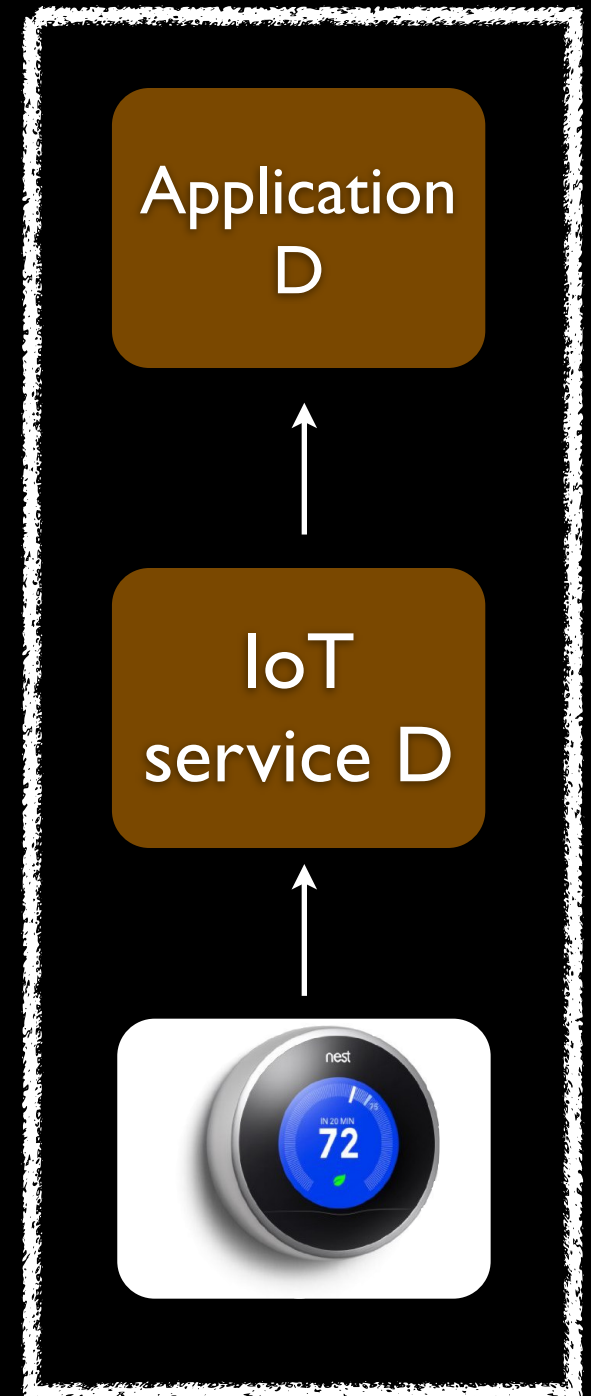
**Silo B**



**Silo C**



**Silo D**





OGC SensorThings API

ogc-iot.github.io/ogc-iot-api/

OGC SensorThings API

Home

FAQ

Quickstart

Data Model

API Reference

Ecosystem

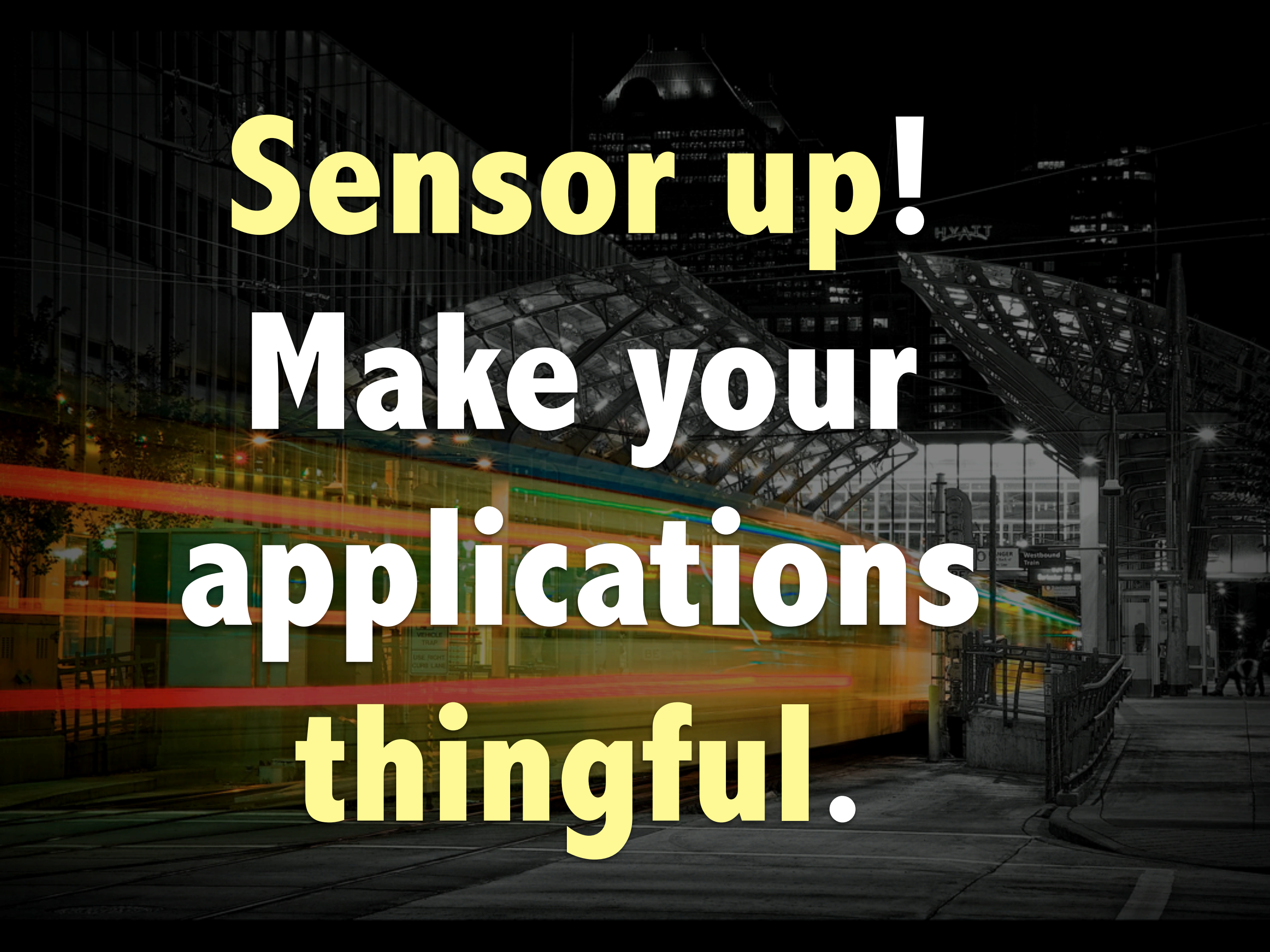
Community

# OGC SensorThings API

The OGC SensorThings API is an OGC candidate standard for providing an open and unified way to interconnect IoT devices, data, and applications over the Web. The SensorThings API is an open standard, builds on Web protocols and the **OGC Sensor Web Enablement standards**, and applies an easy-to-use REST-like style. The result is to provide a uniform way to expose the full potential of the Internet of Things.

Learn More





**Sensor up!**  
**Make your**  
**applications**  
**thingful.**