The epochs

- Stone Age
- Iron Age
- Middle Ages
- Imperial Age
- Industrial Age → Coal & Steel
- Modern Age → Gold & Oil
- Digital Age → It & Data
Revolutions

• 1ˢᵗ : Mechanization of production
• 2ⁿᵈ : Mass production
• 3ʳᵈ : Digital revolution
• 4ᵗʰ : Smart world
Threats

- Stagecoach → Robbery
- Steam engines → Fire
- Electricity → Blank wires
- It → Hackers
- IoT → ???
IoT

- Small messages
- New networks
- Data revolution
Requirements

• New & intelligent laws
• Innovative companies
• An adaptive society
The best way to predict the future is to invent it.

(Alan Kay 1971)
RMS.lu

• Network operator Sigfox Luxembourg
• Innovative
• Edge of technology
Our view

• Data is the Gold & Oil of the 21st century
• Get involved to be up to date
• If it doesn’t exit → invent it
Our prediction

- Data will become the most important resource
- More IoT related projects
- Normalization of keywords
  - Smart Cities
  - Smart Buildings
  - Smart Building Sites
  - ...

sigfox
network operator

rms.lu
Where are we heading to?

- Virtual Reality
- Augmented Reality
- Robots
What do we do?

• Nationwide coverage of Sigfox
• Prototyping & pilot projects
• Development of new products
• IoT platforms as a service
Sigfox

- Ultra-narrow band (UNB)
- 868 MHz (Europe)
- 12 bytes per message
- 140 messages per device per day
- 1000 x more energy efficient than cellular
Coverage today

• 95% of Luxembourg
• 92% of France
• 94% of Spain
• Similar coverage for the Netherlands
• And many more …
**SNO’s**

- 1 SNO / country
- Independent
- Roaming capable
Europe today
Security

- Encrypted data
- Redundant transmissions
- High reliability
Sectors

- Agriculture
- Construction
- Consumer electronics
- Emergency services
- Healthcare
- Intelligent buildings
- ...

sigfox
network operator

rms.lu
Use cases
1. Water metering

- Disruptive technology
- Live consumption
- Leakage detection
- Additional services
  - Identify permanent consumptions
  - Monitoring
  - Prediction
2. Smoke detector

- Classic function
  - Noise
- Additional information
  - Remote notification
  - Detector attached
  - Signal strength
  - Battery status
3. Parking sensor

- Monitoring occupation
- Parking guidance systems
- Detect misdemeanors
Future projects

• Smart construction sites
• Smart waste bins
• Measuring river water
• Leakage control
• …
The end

Please ask if you have any questions!