



# Internet of Things

**Business innovation in a new era**

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# Today



Imagination!



IoT business  
innovation process



IoT added value

<http://www.youtube.com/watch?v=0u0RQk2Z1-o>

**Do you have a mobile phone?**

# Today



Imagination!



IoT business  
innovation process

# Lessons learned

## The Internet of Things Innovation Circle

Develop new, smart and internet-connected  
business together with your own business cluster



INNOVATIE  
CENTRUM

**TNO** innovation  
for life

# IoT Innovation Circle

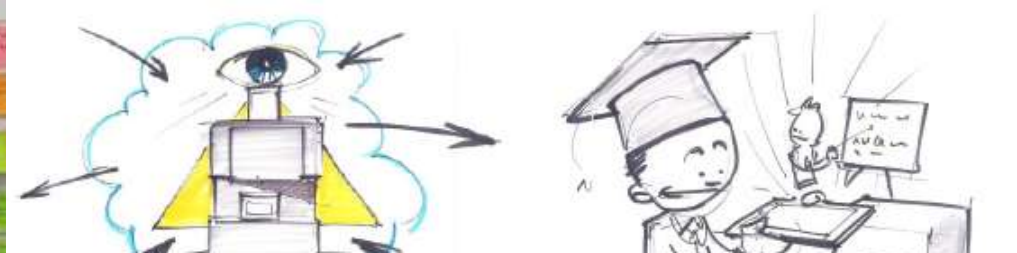


- Fuzzy front end innovation
- OEM and service companies, SME + corporates
- Co-creation, multidisciplinary
- 5 sessions in 3-4 months
- From idea to business & functional concept
- Business model, business case, proof of concept

# 12 cases



- Lighting
- Security
- E-Health
- Logistics 2x
- Retail
- Industry 2x
- AgroFood
- Construction
- Installation 2x



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# The Internet of Things Innovation Circle

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Develop new, smart and internet-connected  
business together with your own business cluster



kamer van koophandel



# Lessons learned – innovation process

1. A good start
2. Collaboration & co-creation
3. Design thinking
4. Integrated approach
5. Business & revenue models
6. Roadmap for implementation

# 1. A good start



- Clear innovation assignment
- Scope
- Clear stakes and expectations
- Don't start with technology



# 2. Collaboration & co-creation



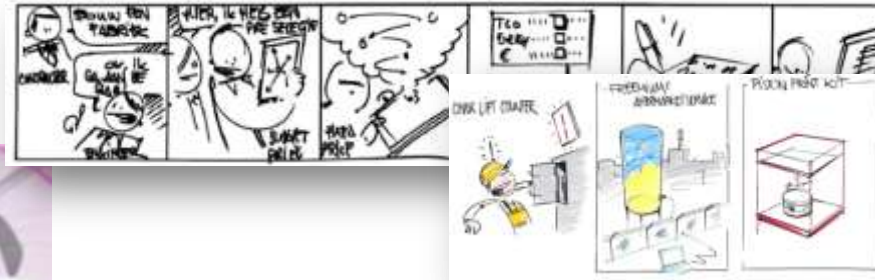
- Start with existing trusted partners
- Involve customers and other important stakeholder
- Multidisciplinary team
- Distribution channel conflicts
- Copycat risk



# 3. Design Thinking



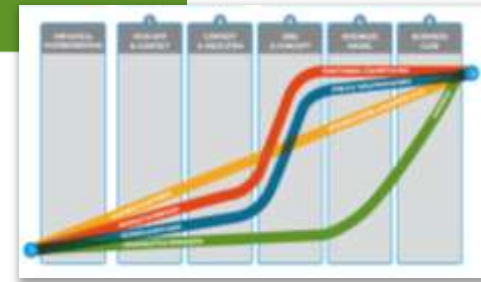
- Diverge - converge
- Visualizing
  - Concepts boards, user stories..
- Prototyping / PoC



# 4. Integrated approach



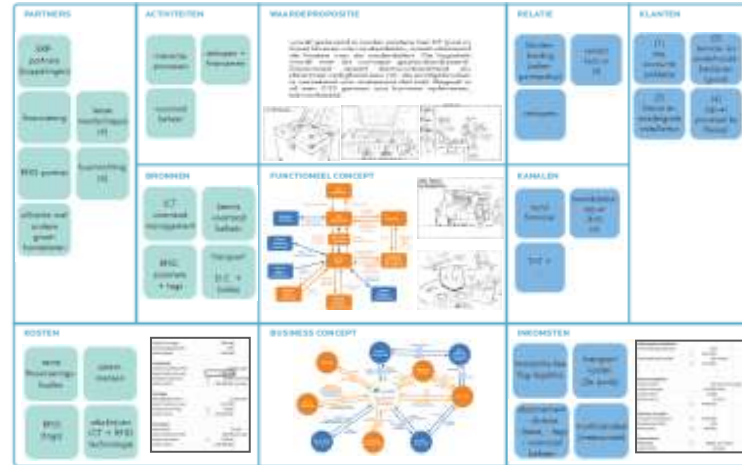
- Step by step
- Insights and validation first
- Functional design before technology
- Organization and processes



# 5. Business & revenue models



- Data ownership & privacy
- Open vs. closed models
- IoT Canvas



# 6. Roadmap for implementation



- Think big, start small
- Business models in time





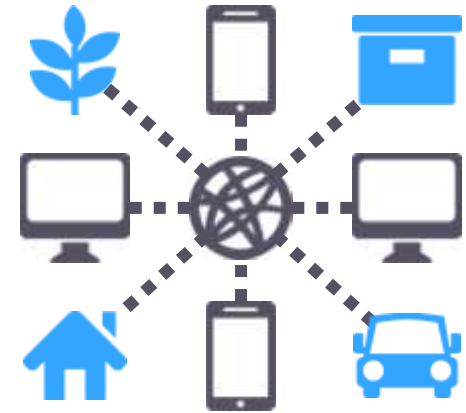
# Today



Imagination!



IoT business  
innovation process



IoT added value



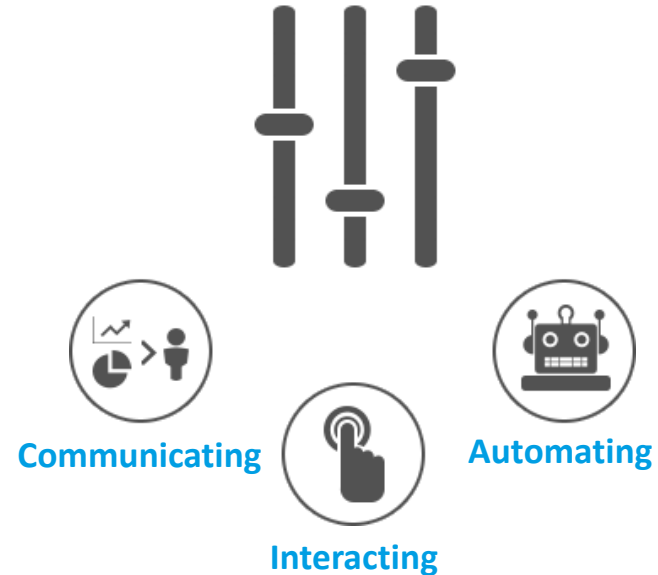
# Added value IoT



## Insight



## Influence



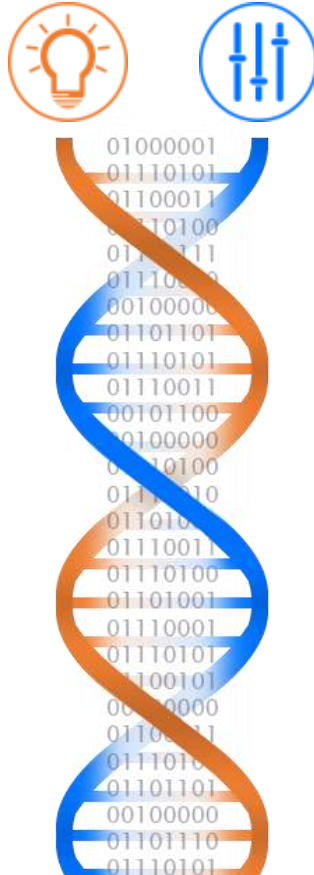


# IoT Business DNA

## Cost reduction Process optimization Quality improvement

- Business processes
- Remote service & maintenance
- Production processes
- Logistic processes
- Supply chain management
- Asset management
- Smart metering
- Legal proof

Insight Influence



## New revenue New business

- Strengthening customer relation
- Updates & customization
- Discovering customer & customer behaviour
- Upselling - lock-in
- Input for innovation
- New customer value & experience
- Data as a new revenue source

# General revenue models



Product



Software/Application



Service



Data/Information

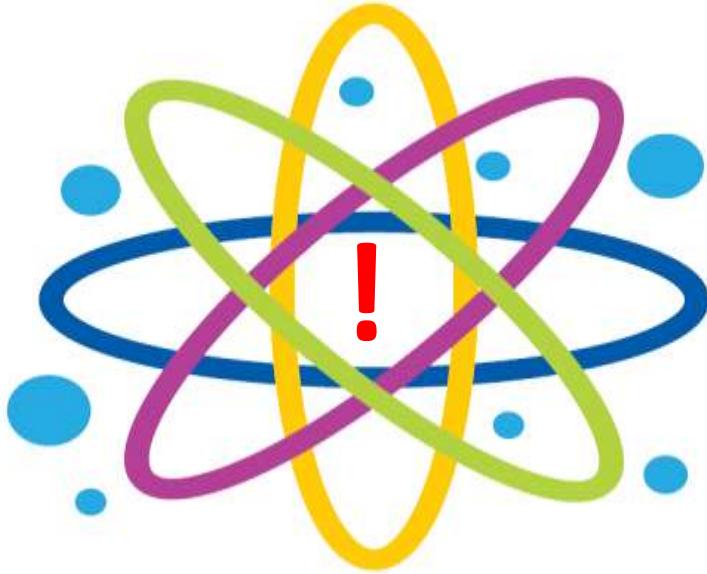


Content



Platform/Indirectly

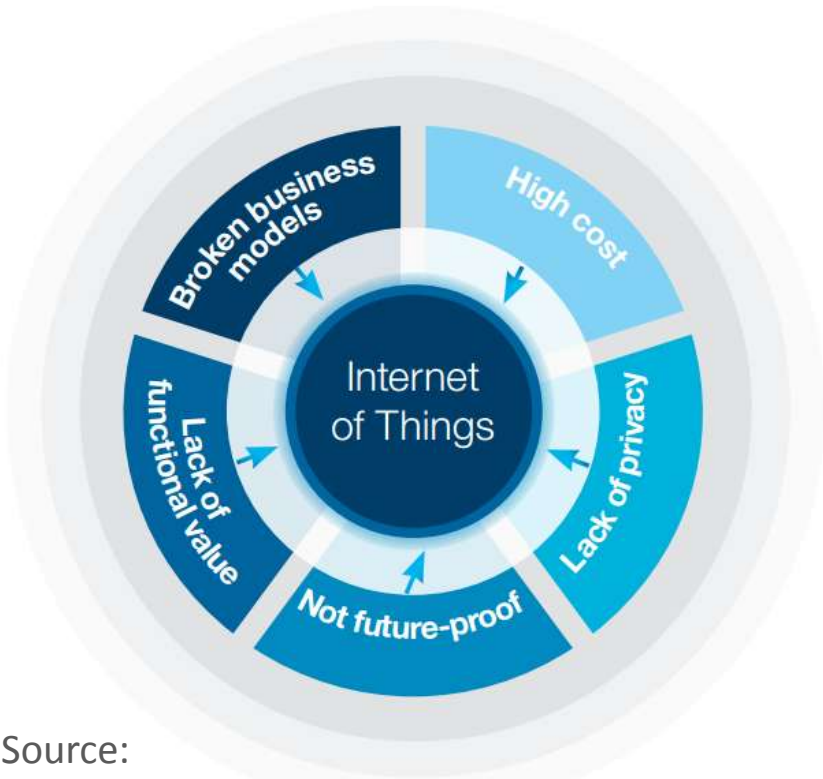
# Business ecosystem



- Only a **product** is not sufficient
- Only an **application** is not sufficient
- Only a **service** is not sufficient
- Only **information** is not sufficient

To grow in the current (globale) economy a **combination of all these four – in collaboration with partners** – is required

# Challenges for IoT



- Lack of functional value
- Wrong business models
- Not future-proof
- High cost
- Lack of privacy

Source:  
IBM, Device democracy Saving the future  
of the Internet of Things, July 2015



Castermans Connected **accelerates** the development of your **successful next generation business.**



IoT  
Workshop



IoT  
Assessment



IoT  
Accelerator



IoT  
Interim



# Stay Connected



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