

# Internet of Things and Linked Data

**Workshop C+LR KEN of EuroGeographics in  
cooperation with Swiss Think Tank Dimension  
Cadastre – 19<sup>th</sup> March 2015**

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# **SWISS SURVEYING 2035**

# AGENDA

- Key elements
- Data management
  - building
  - street
  - plot of land
- The engineer lawyer
- A swiss surveying for the citizen
- Conclusion

# KEY ELEMENT

# #1

## CONTINUOUS MULTISENSORIEL DATA ACQUISITION

Data acquisition chip

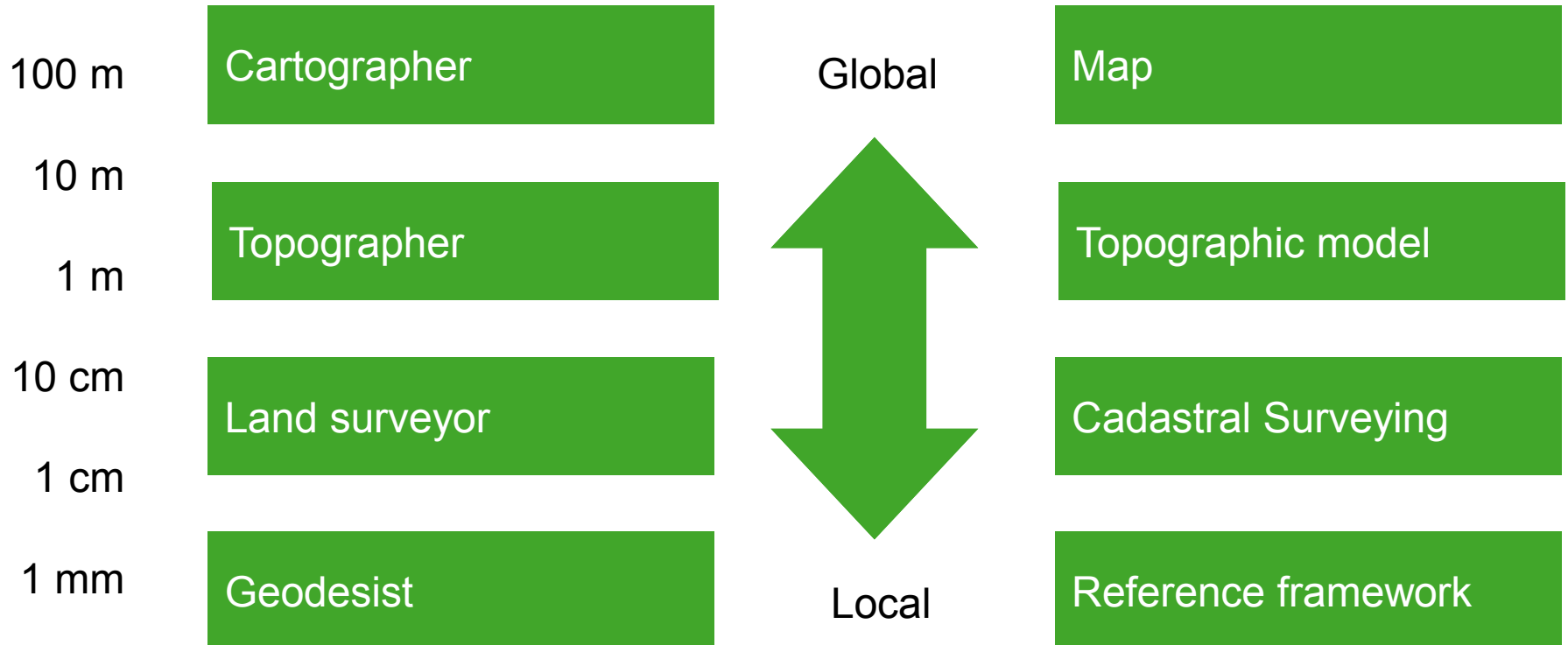
- Location
- Internet connexion 1 TB/s
- Camera 64'000x48'000 pixels
- Sound
- Temperature
- Solar radiation
- Humidity
- CO2
- Web server
- Storage capacity: 1 Exabyte
- WIFI
- IPv6



# KEY ELEMENT

## #2

FOR EVERY LEVEL OF DETAIL  
ONE SPECIALIST AND ONE PRODUCT



# KEY ELEMENT

## #3

## THE DATABASE IS THE TERRITORY



# KEY ELEMENT

## #4

### CONTINUOUS DATA UPDATE & OFFICIAL DATA UPDATE

#### CONTINUOUS DATA UPDATE

Automatic data update from a certified chip and automatic publication of the information.

#### OFFICIAL DATA UPDATE

Delayed data update validated by a public officer. Publication after official validation.

# KEY ELEMENT

# #5

## COMPLETION



100% coverage  
of the territory for  
each geodataset

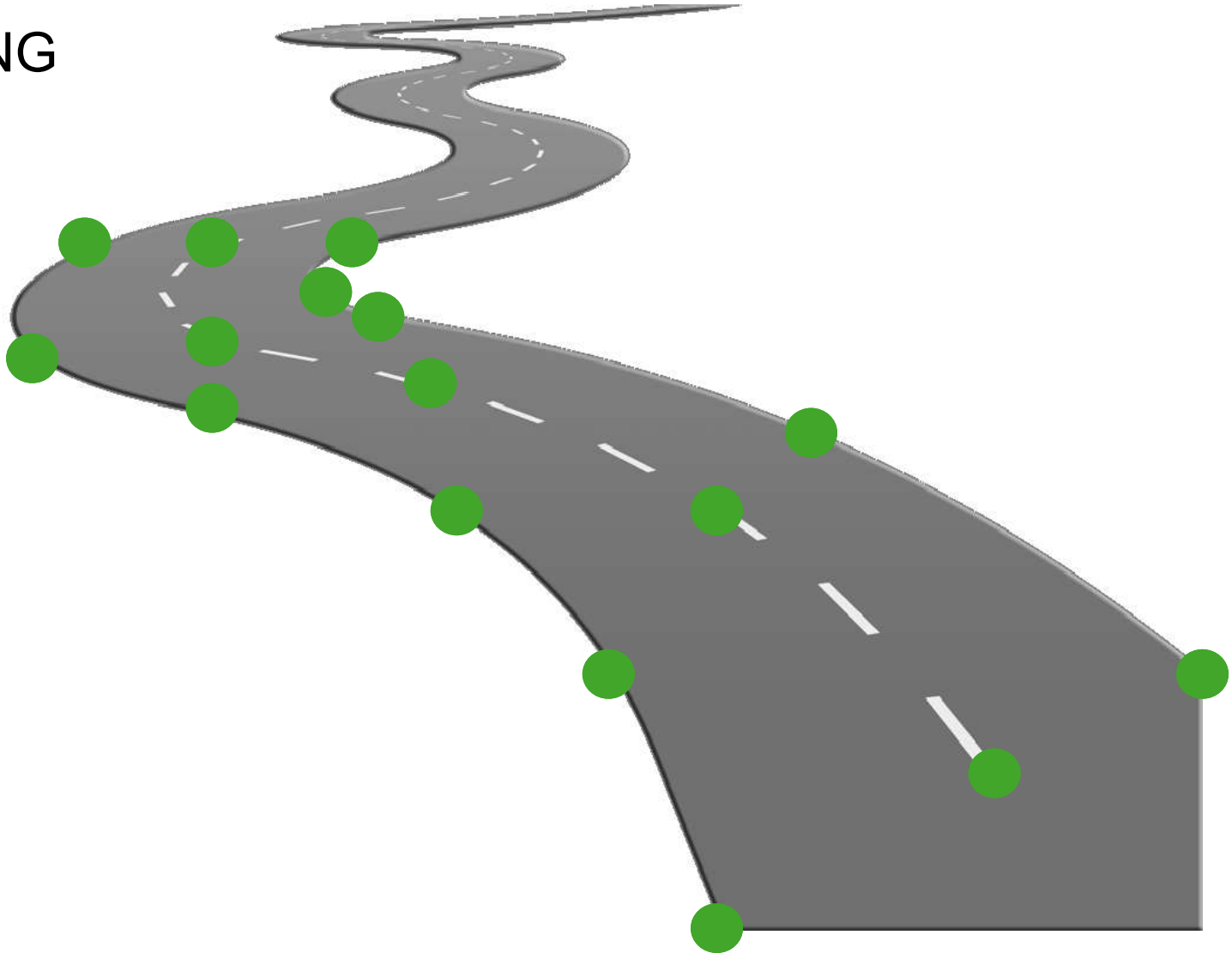
# BUILDING MANAGEMENT SURVEYOR TASKS

CHIP'ING



# STREET MANAGEMENT SURVEYOR TASKS

CHIP'ING



# PLOT OF LAND MANAGEMENT SURVEYOR TASKS

CHIP'ING

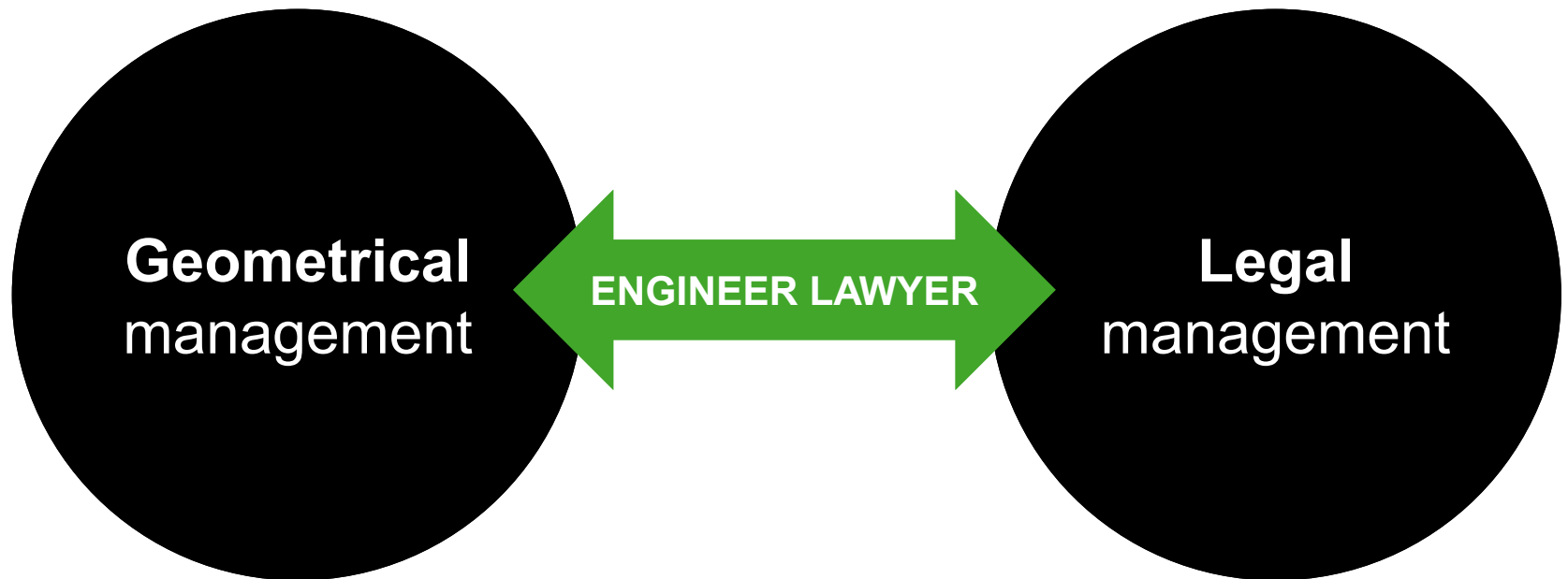


**IN ANY CASE, THE  
CONTRIBUTIONS FROM  
SURVEYORS AS WE HAVE  
KNOWN IT TO DATE WILL  
DECREASE. THIS WILL  
MEAN THE END OF THE  
PROFESSION OF  
SURVEYOR AS WE KNOW  
IT TODAY.**

*DIMENSION CADASTRE (2014)*

# ENGINEER LAWYER

(PREVIOUSLY LAND SURVEYOR)



# A SWISS SURVEYING FOR THE CITIZEN



Security systems based on facial recognition operated by the chips



Alerting systems based on continuous monitoring of temperature, noise, CO2, ozone



Decentralized social network: the citizen has the control of the information delivered by the chips.



Traffic optimization

100% safe driving



Drones delivery

Etc, etc....

# CONCLUSION

- The whole territory is **continuously** measured
- The **territory** is the **database**
- The role of the territory managers are clearly defined and **collaborative processes** are operated
- **No redundancy** in the data acquisition and update, which are partially **decentralized**
- The surveyor is dead, live the **engineer lawyer !**

