

# CLINES

## Cluster-based Innovation through Embodied Systems technology

Project status  
Innovation Workshop  
Brussels, June 13 2014

# CLINES in a nutshell

- Project type: European FP7 project, “Regions of Knowledge” (RoK)
- RoK goal: strengthen R&D potential of regions by supporting their clusters
- Partners: Aalborg University DK, BrainsBusiness DK, BICCnet DE, DSP Valley BE, IWT BE, GAIA ES, Tecnalia ES
- R&D domain: Embedded Technologies for Smart Cities
- Time frame: 2013-2016 (3 years)
- Total EU contribution: 2.080.892€
- Total effort: 207 person-months  
(about 6 VTE for the whole duration of the project)

# CLINES goal

stimulate international innovation and cooperation  
between actors in the field of  
“embedded technologies for smart cities”

- business partnerships
- R&D projects
- funding arrangements (private, public)
- intercluster collaboration

# CLINES three main actions

1. analyze the **state of play:**  
**trends analysis & map of the regional ecosystems**  
of the cluster partners
2. organize **international innovation workshops**  
for information sharing and matchmaking
3. develop a **Joint Action Plan** for future intercluster economic  
development in embedded systems for smart cities  
(*details on next slide*)

# CLINES Joint Action Plan (JAP)

- A strategic agenda of *research challenges* and business application areas focusing on embedded systems technologies for Smart Cities
- A strategy for both *public and private funding* which includes *pre-competitive innovation*
- A strategy for innovation activities involving relevant partners and based on a *smart specialization strategy*
- A strategy for *internationalization*
- A strategy for dissemination based on selected *showroom demonstrators* to attract more companies and investors

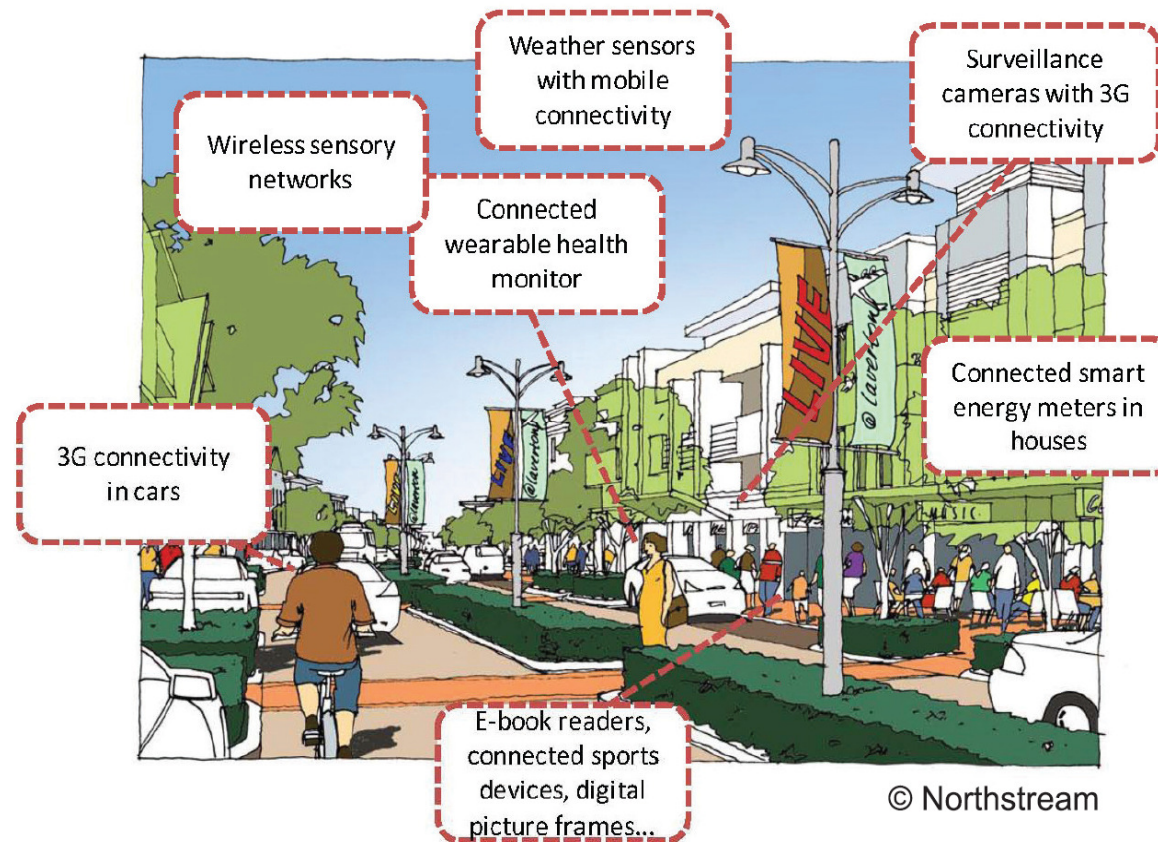
# CLINES Partners



# CLINES key competences

- Ultra-low power design of mixed-signal microelectronics
- Interoperability of heterogeneous devices
- Quantitative analysis of models for embedded software systems
- Safety and security of embedded systems
- Mobile communication

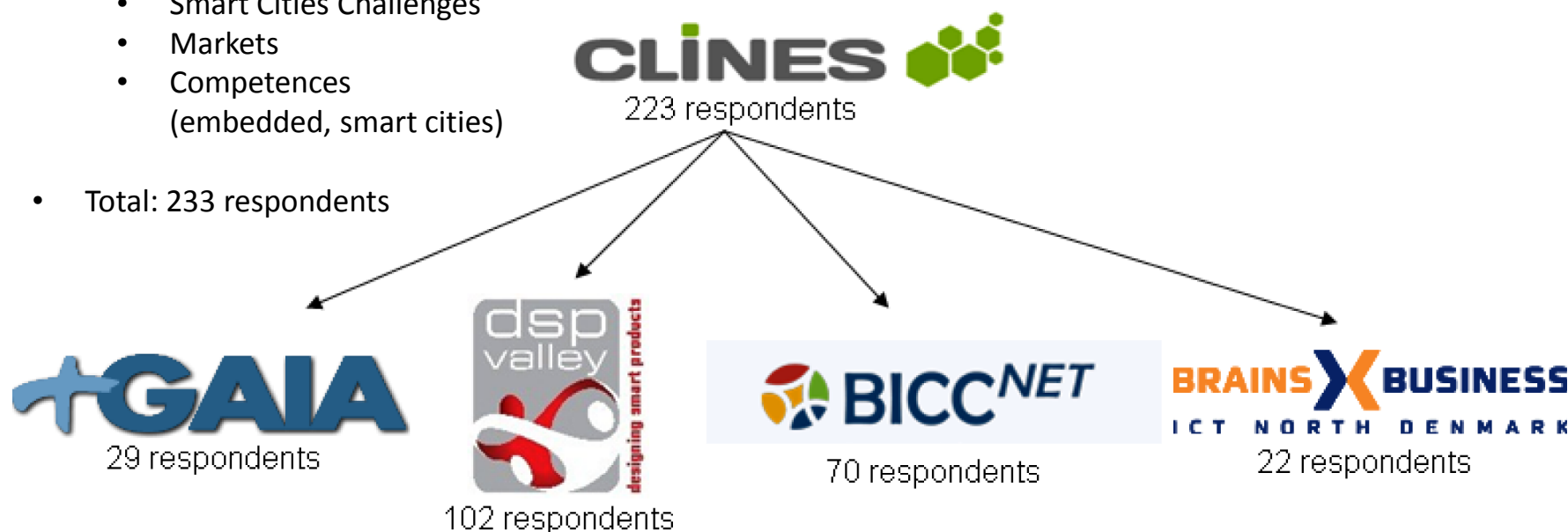
# Smart Cities.....





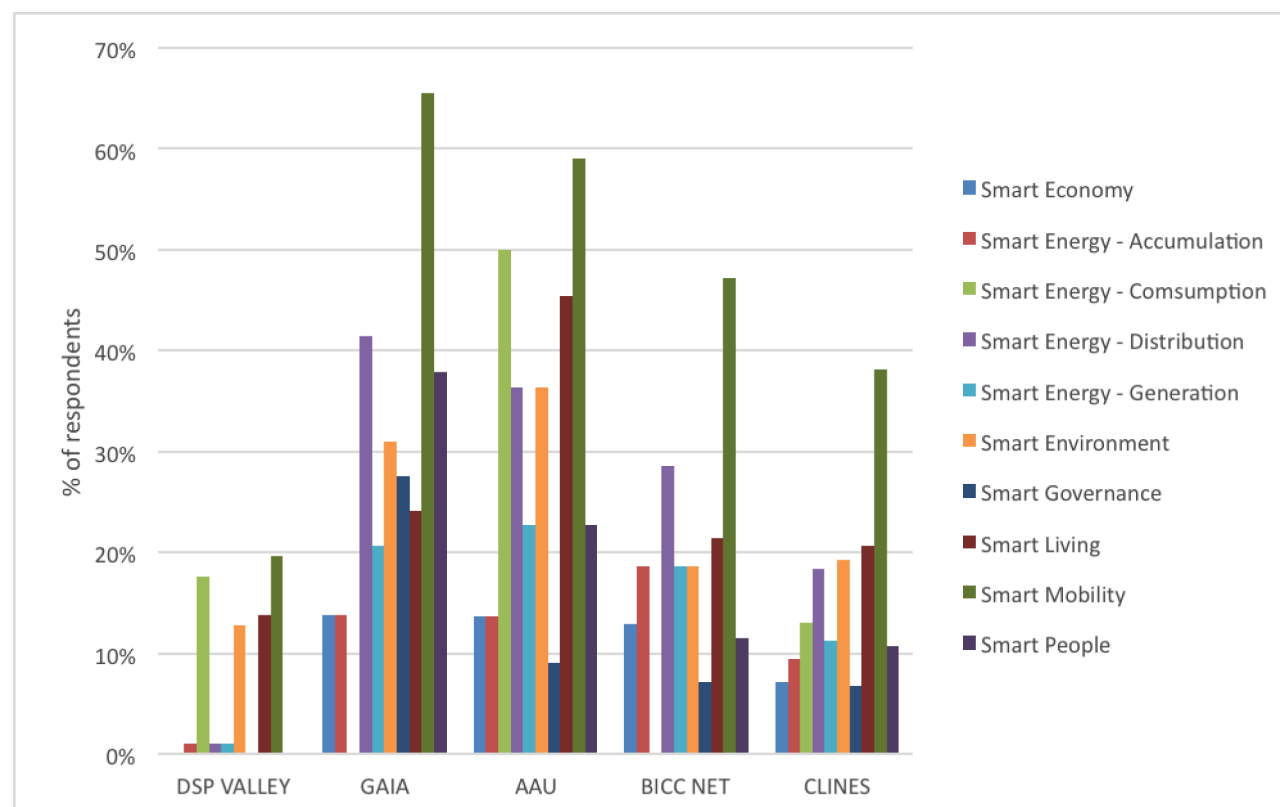
# CLINES Cluster Ecosystems Map

- Extensive questionnaire held among (industrial) cluster members
- Questions related to
  - Smart Cities Challenges
  - Markets
  - Competences (embedded, smart cities)
- Total: 233 respondents



# CLINES Smart City challenges

Smart Mobility, Smart Living and Smart Environment are the top 3 challenges (out of the general 6 defined) for the respondents in order to make money within the next 3 years

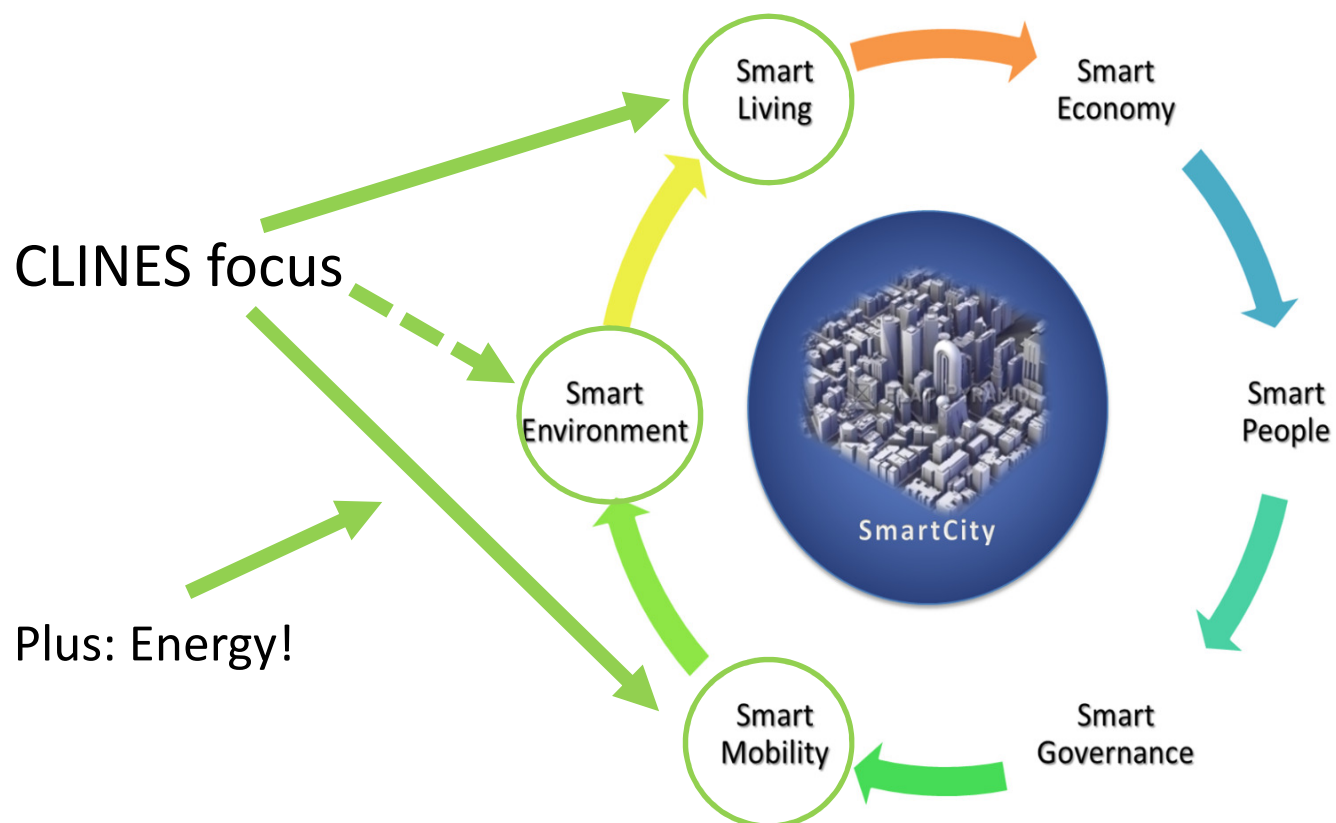


# CLINES Regional Comparison

- Although there are differences, the regional clusters converge on their priorities
- Smart Mobility remains the top priority for each region
- The overall top-3 is Smart Mobility, Smart Energy, Smart Living

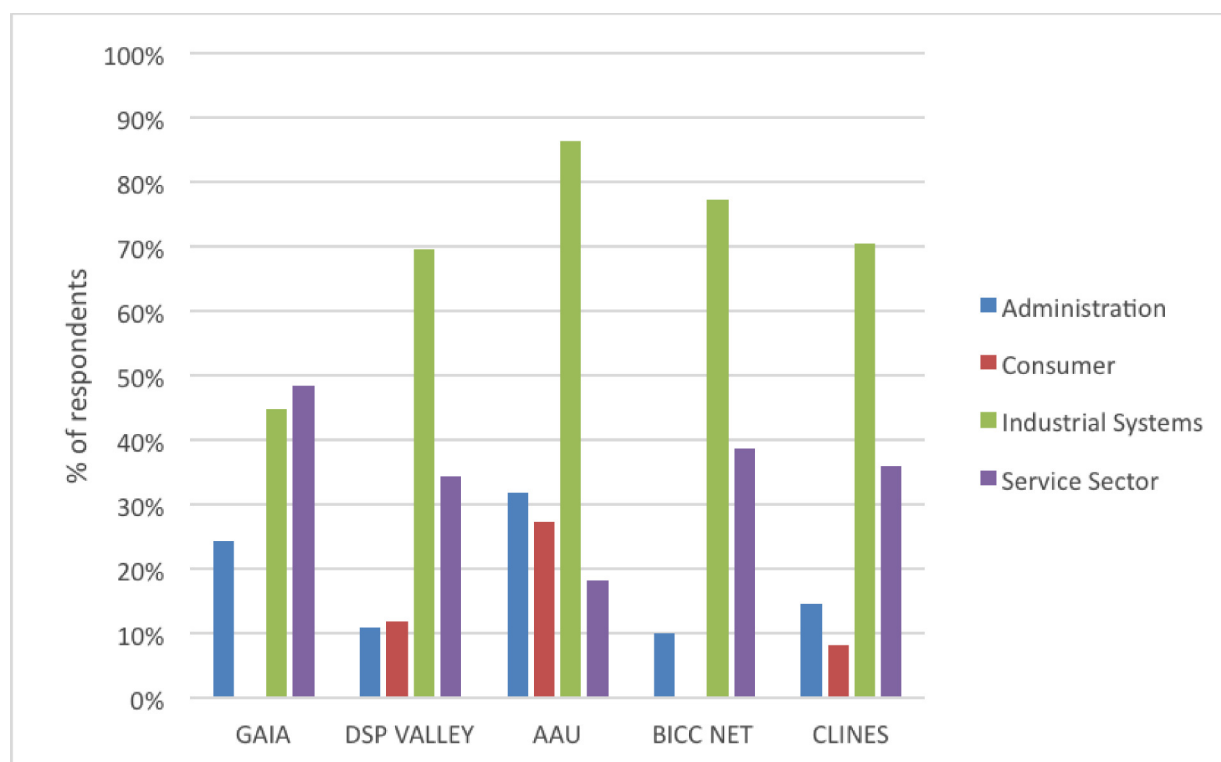
<b>DSP Valley - BE</b>	<b>GAIA – ES</b>	<b>AAU - DK</b>	<b>BICC - DE</b>
Smart Mobility	Smart Mobility	Smart Mobility	Smart Mobility
Smart Energy Consumption	Smart Energy Distribution	Smart Energy Consumption	Smart Energy Distribution
Smart Living	Smart People	Smart Living	Smart Living

# CLINES Smart Cities focus



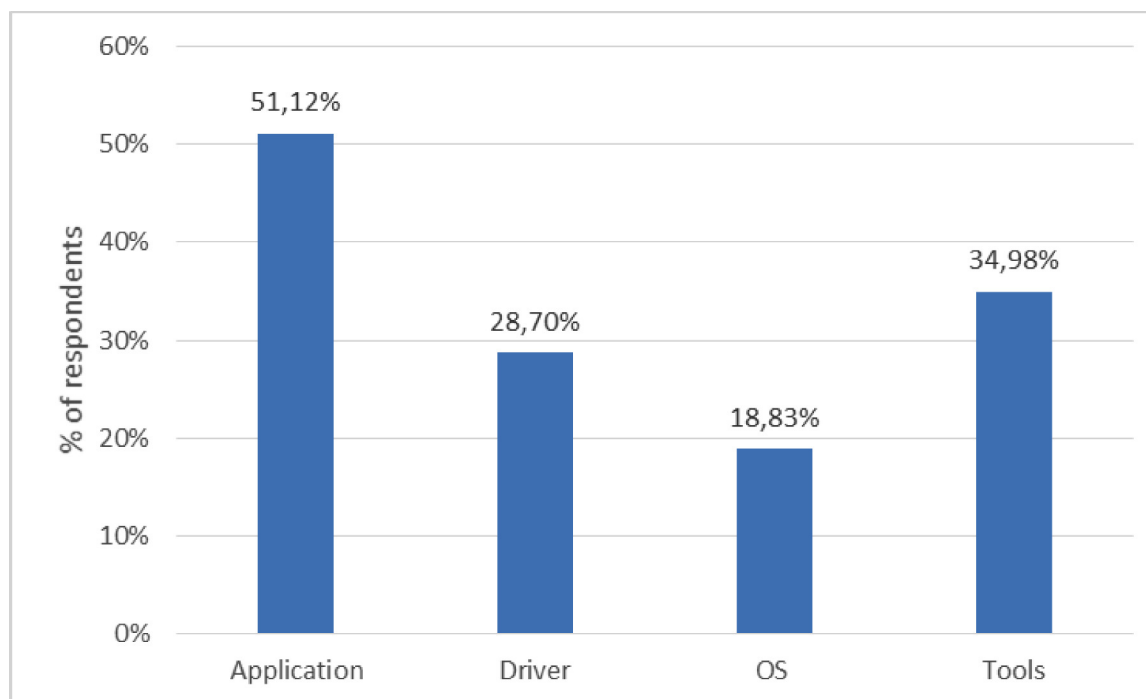
# CLINES Markets

- Geographic focus: international and national markets
- Customer focus: industrial market (“B2B”)
- Domain focus: automotive, medical and energy

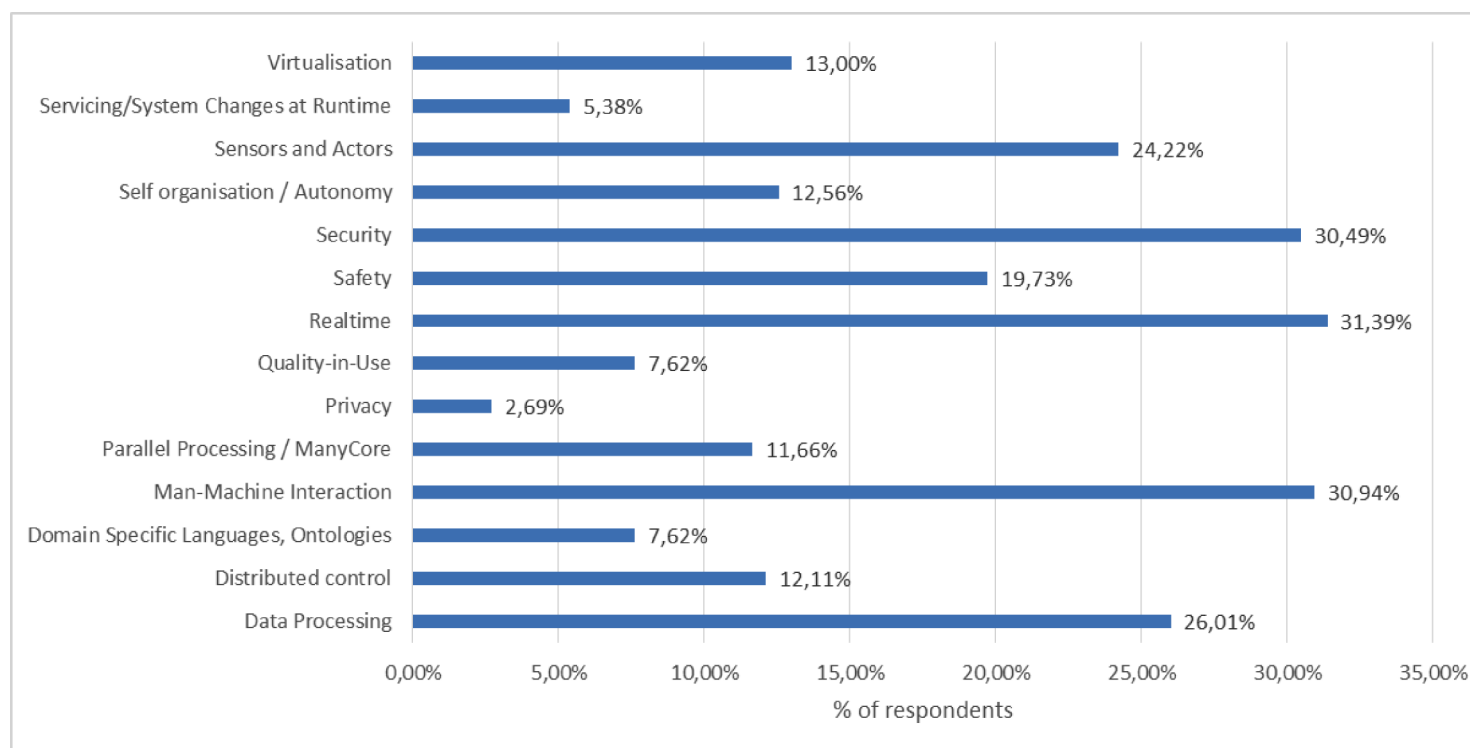


# CLINES Expertise & Capabilities

- For the entire CLINES ecosystem, respondents report both hardware (mainly sensors/actuators) and software (applications) development capabilities
- A good share of the respondents are also involved in integration activities
- Specialized Smart Cities capabilities and expertise are widely available amongst cluster members



# CLINES Specialized Expertise



Specialized Smart Cities capabilities and expertise by subtopic

## CLINES: what's next?

- Continue activity on mapping the cluster ecosystems
- Start working on the Joint Action Plan
  - integrate findings of the mapping exercise
  - elaborate an internationalization activity  
(including an “Advisory Board” from Europe and US)
- Plan the next innovation workshop(s)
- Disseminate project activity in upcoming events