

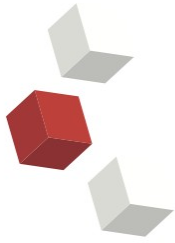
## Infrastructure Investigation:

- hardware and software
- current and future
- research and teaching

## How?

- Visit (nearly) all groups in our institutions that use significant data





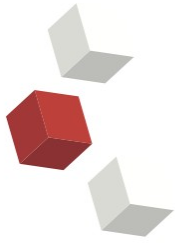
## Hardware (1)

### Ownership:

- outsourced
- in-house (management)

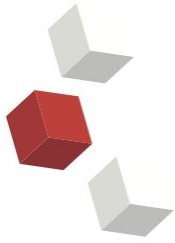
### Horse power:

- racks/servers
- GPUs
- IoT



## Hardware (2)

- largish clusters:
  - extern: Sara (Lisa, Carthesius, HPC Cloud), Amazon, ...
  - in-house: DAS5 (DAS4); CWI SciLense
- smallish clusters: 2 UvA groups, VU bio
- disk/web servers: most other groups
- IoT: cell phones etc, cluster as a back-end?  
(UvA Sander Klous, VU Bal)



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# Infrastructure Investigation

## Software

- software *is* the research
- software is the *research object*
- use open source modules: ImageNet, ML packages, etc etc



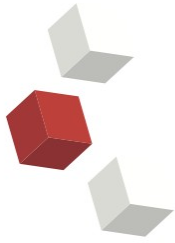
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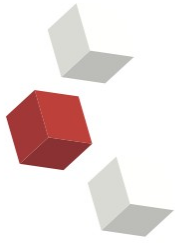
## Data sets

Where from:

- unique data: backup, (don't) publish
- public data sets

Results:

- keep/publish them for the integrity reqs?



## Conclusions

**Hardware:**

Zoo, seems to mostly work well

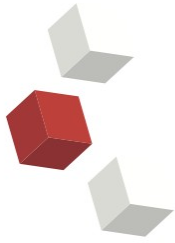
**Software:**

Either open-source or home-brew

**Teaching:**

In the stride

... only VU biologists face capacity problems ...



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# Infrastructure Investigation

## Did talk with:

### CWI:

- Databases (Peter Boncz; Niels Nes)
- Life Sciences (Sander Bohte; Alexander Schönhuth)

### HvA:

- Fac. DMCI (Wouter Meys)
- Fac. Urban Technology (Nanda Piersma)

### UvA:

- Isis (Dennis Koelma)
- AMLab (Max Welling)
- Big Data Infrastructures (Sander Klous)
- ILPS (Isaac Sijaranamual)
- Comp Sciences (Alfons Hoekstra)

### VU:

- HPC and Semantic Web (Hamid Bazoubandi)
- Semantic Web (Wouter Beek, Laurens Rietveld)
- HPC and Knowledge Extraction (Jacopo Urbani)
- Bio-informatics (Sanne Abeln; Anton Feenstra)
- Software and Services (Patrizia Lago, Giuseppe Procaccianti)
- Web and Media (Lora Aroyo's group)

## Still need to talk with:

### HvA:

- Ben Kröse ("Digital Life")
- Robert van den Hoed (Green Platform)
- Nanda Piersma again (Urban Technology)

### VU:

- IT Dept (Peter Stol)

### UvA:

- SNE (Cees de Laat)
- IT Dept (Boy Menist)?

**CWI**



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