



Societal Challenge nr.7: Security

Big Data Focus area: Image data analysis

BDE2020 domain partners:



Selected Key Data assets: Earth Observation data (e.g. Very High Resolution Satellite Imagery acquired from commercial providers and governmental systems) and collateral data for supporting CFSP/CSDP missions and operations

Pilot 7:

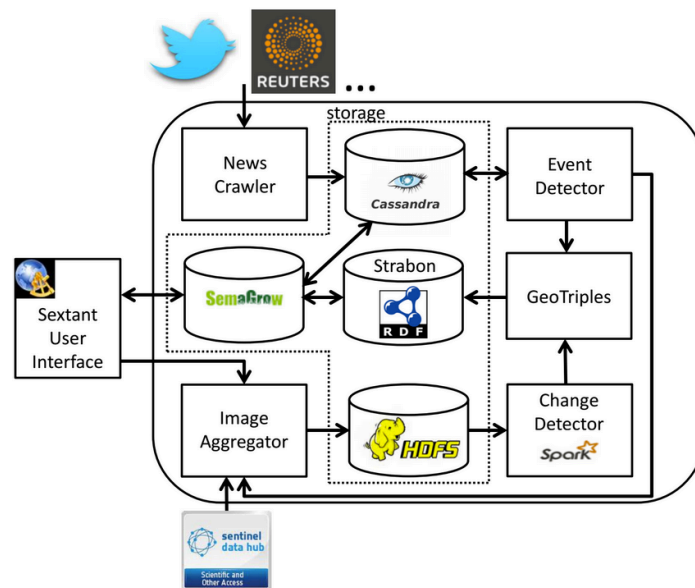
Ingestion of remote sensing images and social sensing data to detect and verify man-made changes on the Earth surface for security applications

Reasons:

- ⊙ Evacuation route planning
- ⊙ Monitoring of critical infrastructures
- ⊙ Border security
- ⊙ Satellite image data is HUGE and computational intensive to compare
- ⊙ Smart 'focus' algorithms are needed to prioritize the analysis jobs

Data:

- All data products are distributed in the SENTINEL Standard Archive Format for Europe ([SAFE](#)) format
- The SENTINEL-SAFE format wraps a folder containing image data in a binary data format and product metadata in XML
- Social Media, which are demonstrated via consuming Twitter streams
- News agencies, which are demonstrated via consuming Reuters RSS feeds



Evaluation of the pilots and the generic infrastructure

The pilot deployment and evaluations will be done in three cycles, this is to have the possibility to improve, adjust and extend each pilot by the evaluation results of each previous cycle. Given the ambitious goal of the BDE project to provide an infrastructure that facilitates the pilots for each of the seven Societal Challenges, the evaluation methodology for this first round of pilots is best served by a descriptive “lessons learned” approach which will form the prescriptive “must-haves” for the second round of pilots, starting August 2016.

