Celtic-Plus Proposers Day
28 October 2015, Alcatel-Lucent, Antwerp

Pitch of the Project Proposal
Big Data for Earth Observation

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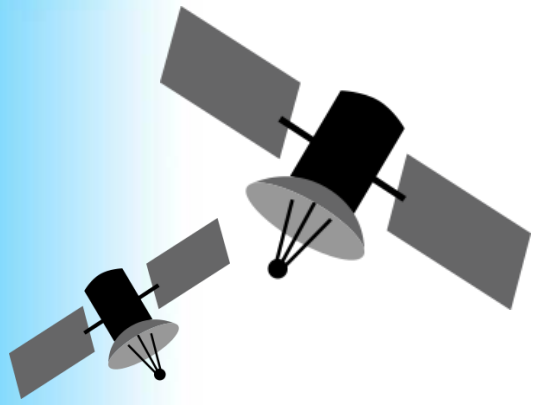
Teaser



EU Copernicus
- 30 satellites

Sentinel satellites
- 10 TB / day
- 20 PB in 2020

EO data = 1 ZB

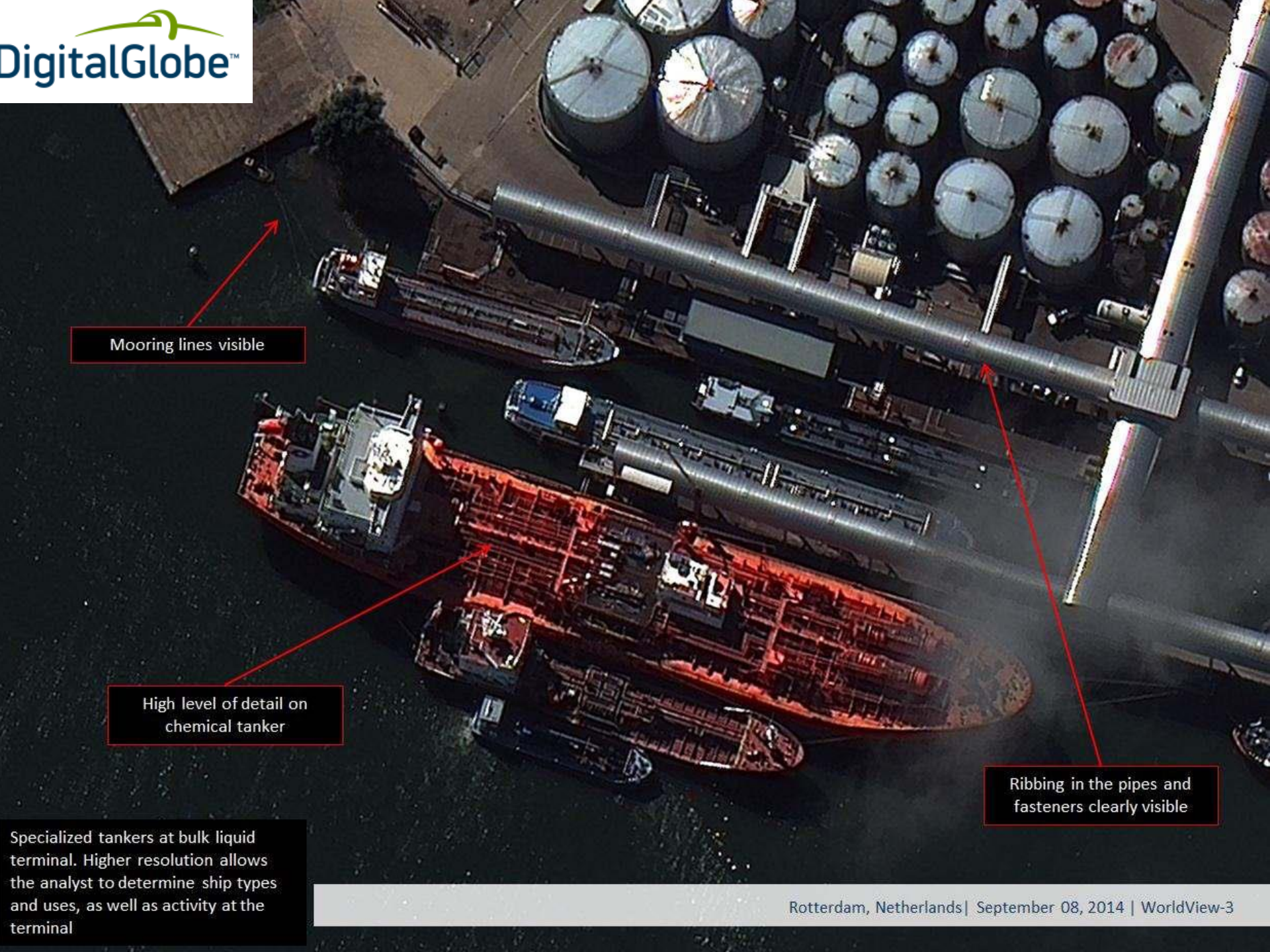
DigitalGlobe TERRA server AIRBUS DEFENCE & SPACE

bing maps Google maps mapquest OpenStreetMap The Free Wiki World Map

Big Data Technologies

EO Market in Europe (2013)
- 300 companies
- 5000 jobs
- 800 M€
- 10% annual growth

Copernicus Downstream services *(commercial apps. based on EO data)*
- 1 – 2.6 Bn € in 2030


DigitalGlobe™
Mooring lines visible
High level of detail on chemical tanker
Ribbing in the pipes and fasteners clearly visible
Specialized tankers at bulk liquid terminal. Higher resolution allows the analyst to determine ship types and uses, as well as activity at the terminal
Rotterdam, Netherlands| September 08, 2014 | WorldView-3

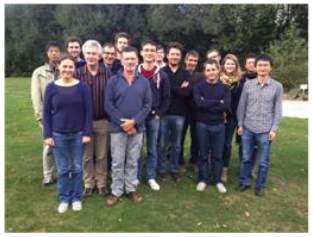
Organisation Profile

Recent small-size university in Brittany (Vannes & Lorient)
9000 students, 250 research professors, 210 PhD students
Top-ranked for success rate and employment

Among the largest IT research institutes in France (750+ members)
Joint support from 2 universities, 4 high schools, and 2 research organizations (CNRS, INRIA)
Strongly involved in innovation clusters (Image & Networks, CominLabs, KIC EIT ICT Labs)
Annual contractual activitiy: 13 M€

Environment Observation through Complex Imagery

15-20 members (8 permanent staff)
- Image Analysis & Processing
- Data Mining and Machine Learning
- Modeling and simulation, coupling data/models
- Visual analytics, business intelligence
- Remote Sensing of the Environment



Proposal Introduction

Vision
EO is today in the Big Data era

Motivation
Big Data from Space becomes real but technological challenges remain

Content (possible WPs)
- efficient access to EO data
- data preprocessing
- data mining
- visual analytics
- evaluation methodology
- validation (use cases)
- towards exploitation (sustainable architecture and services)

Outcome
Technological advances in IT that will support EO data/market growth

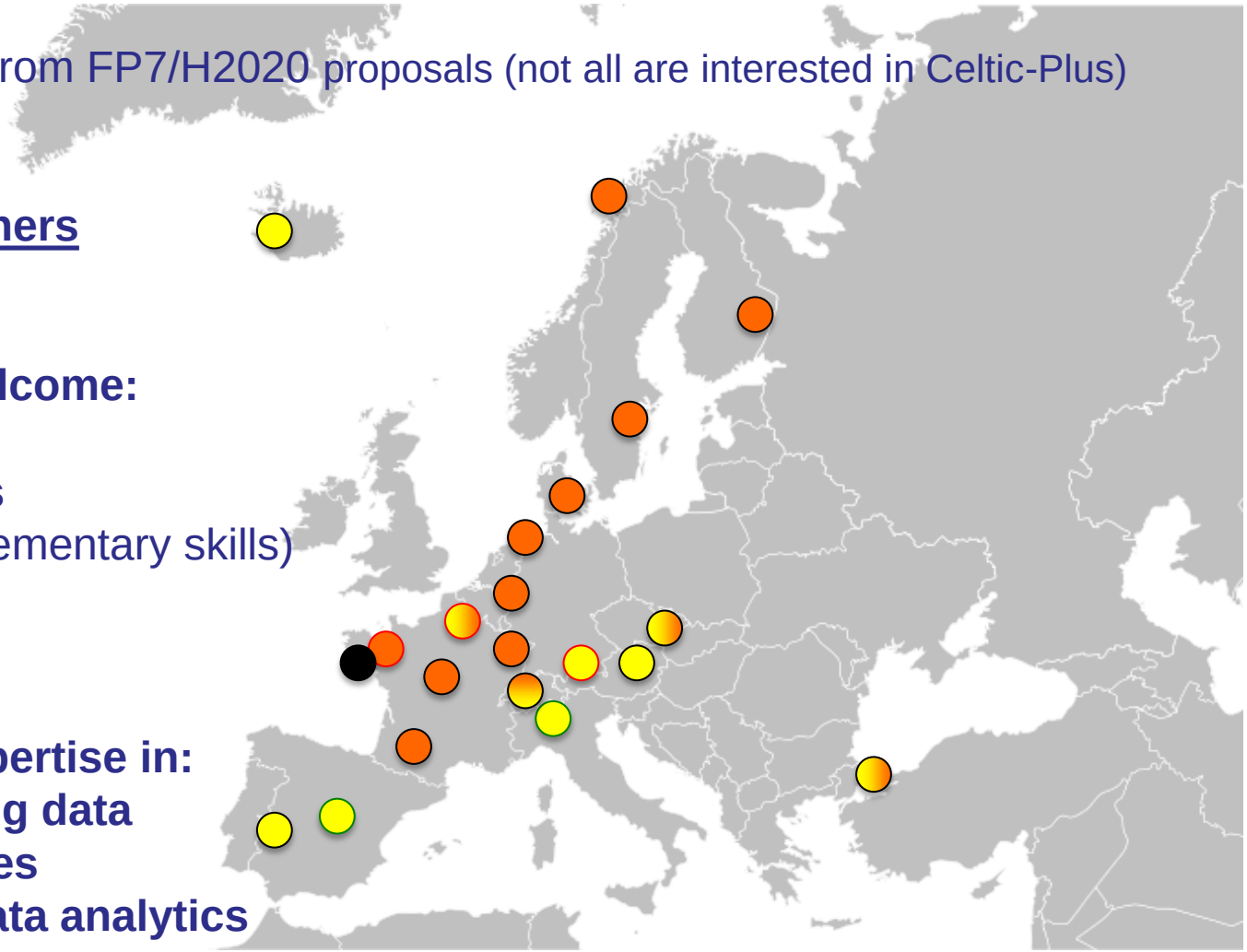
Impact
- new technologies
- new services

for a fast growing market

Schedule
- Oct 2015: Antwerp meeting
- Dec 2015: Consortium defined
- Jan/Feb 2016: Draft proposal
- Mar 2016: Proposal submission
- Fall 2016: project start
- Fall 2019 or 2020: project end & final delivery of technologies/services

Partners

- OBELIX network
- Previous consortium from FP7/H2020 proposals (not all are interested in Celtic-Plus)



Mostly academic partners

Industrial partners welcome:

- **SMEs**
- **Major IT companies**
- Academics (if complementary skills)

We are looking for expertise in:

- **Infrastructure for big data**
- **EO-related use cases**
- **Technologies for data analytics**

(other relevant skills are welcome)

Contact Info

For more information and for interest to participate please contact:

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