Preparations for Sentinel 2 in Europe

Kartverket

EuroSDR

Norge digitalt

Norsk Romsenter
NORWEGIAN SPACE CENTRE

Norwegian Space Centre 25. and 26. November 2014
Jon Arne Trollvik, Norwegian Mapping Authority

"Norway digital" The NSDI organisation

- 620 partners
- national
  - ◆ all ministries
  - ◆ national agencies
- Regional offices
- municipalities
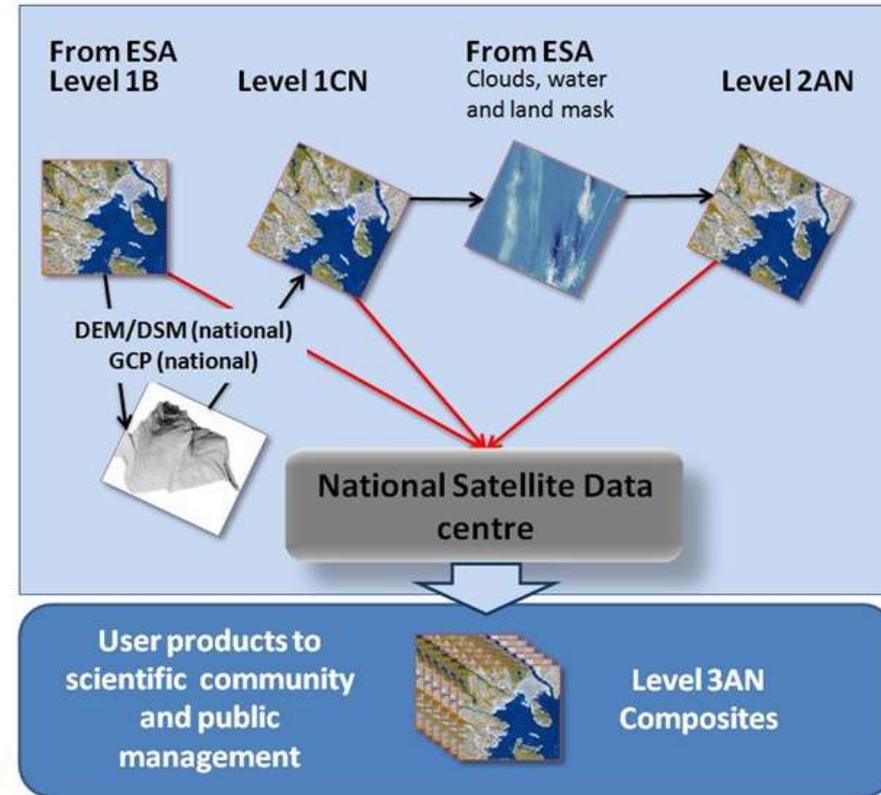- state owned energy companies

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Norway digital - Working group on satellite data

- Established in 2009
- 12 directorates / agenzies working with satellite data took part in this working group.
- The main purpose for this group is to:
  - Evaluate the need for satellite data onshore and in coastal areas
  - Evaluate the need for infrastructure within this field
  - Take initiative for increased use and benefit from satellite data
  - Evaluate and recommend criteria for national datasets – when it comes to geometric, radiometric, spectral resolution, time series etc

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Two reports

- Focused on preparations that needs to be done in order to take benefit from the huge volume of data coming from Sentinel 2 and Landsat 8

- It is recommended to establish a National Satellite Data Centre (NSDC) to take care of national processed data

- A pilot project has to be carried out to test and evaluate, technical solutions and to get a cost overview

- NSDC will, if realised, automate preprocessing and storage, and make optical satellite data easily availabe for the users
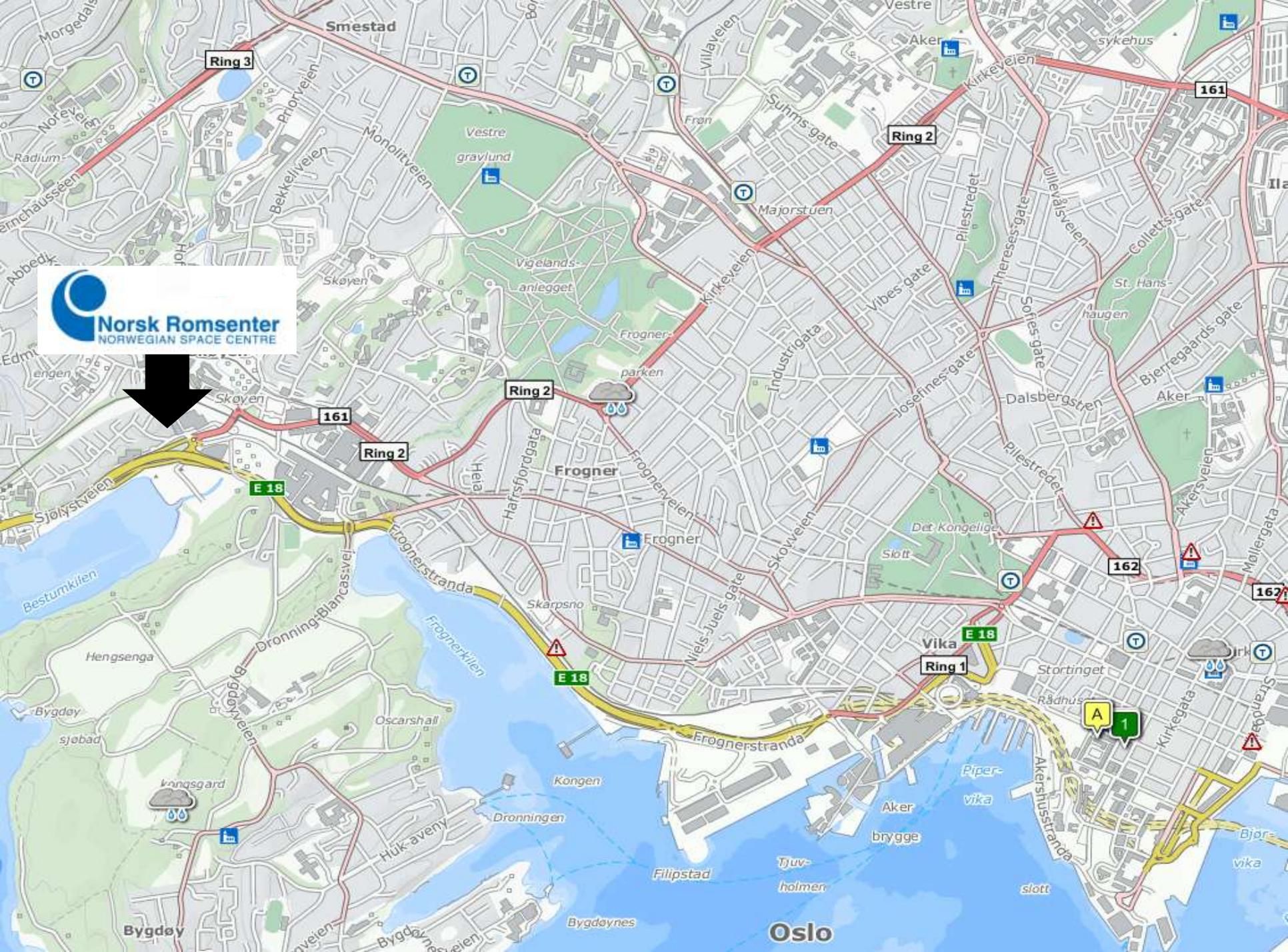

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Workshop goals

- Share experience
- Build network with other professionals
- Identify areas for future collaboration

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Agenda – day 1

11:30 – 12:30	Registration and lunch
12:30 – 12:45	Welcome address by programme committee.
12:45 – 13:15	Invited speaker 1 (*Bianca Hoersch, ESA*): ESA's current plans for the Sentinel-2 mission: products, global DEM, collaborative ground segments, toolbox development, cooperation with USGS, inter-calibration of Sentinel-2 MSI and Landsat 8 OLI sensors, etc.
13:15 –13:35	Invited speaker 2 (*Tobias Storch, EOC, DLR*): An example of an operational national satellite centre in Germany. What is critical for a successful service?
13:35 – 13:50	Coffee break
13:50 – 14:10	Invited speaker 3 (*Marc Leroy, CNES*): An example of an operational national satellite centre in France (THEIA). What is critical for a successful service?
14:10 – 14:30	Invited speaker 4 (*Norbert Pfeifer, TU Vienna*): Earth Observation Data Centre (EODC), a solution for collaborative exploitation of Sentinel data. What is needed to provide flexibility of services to the users?

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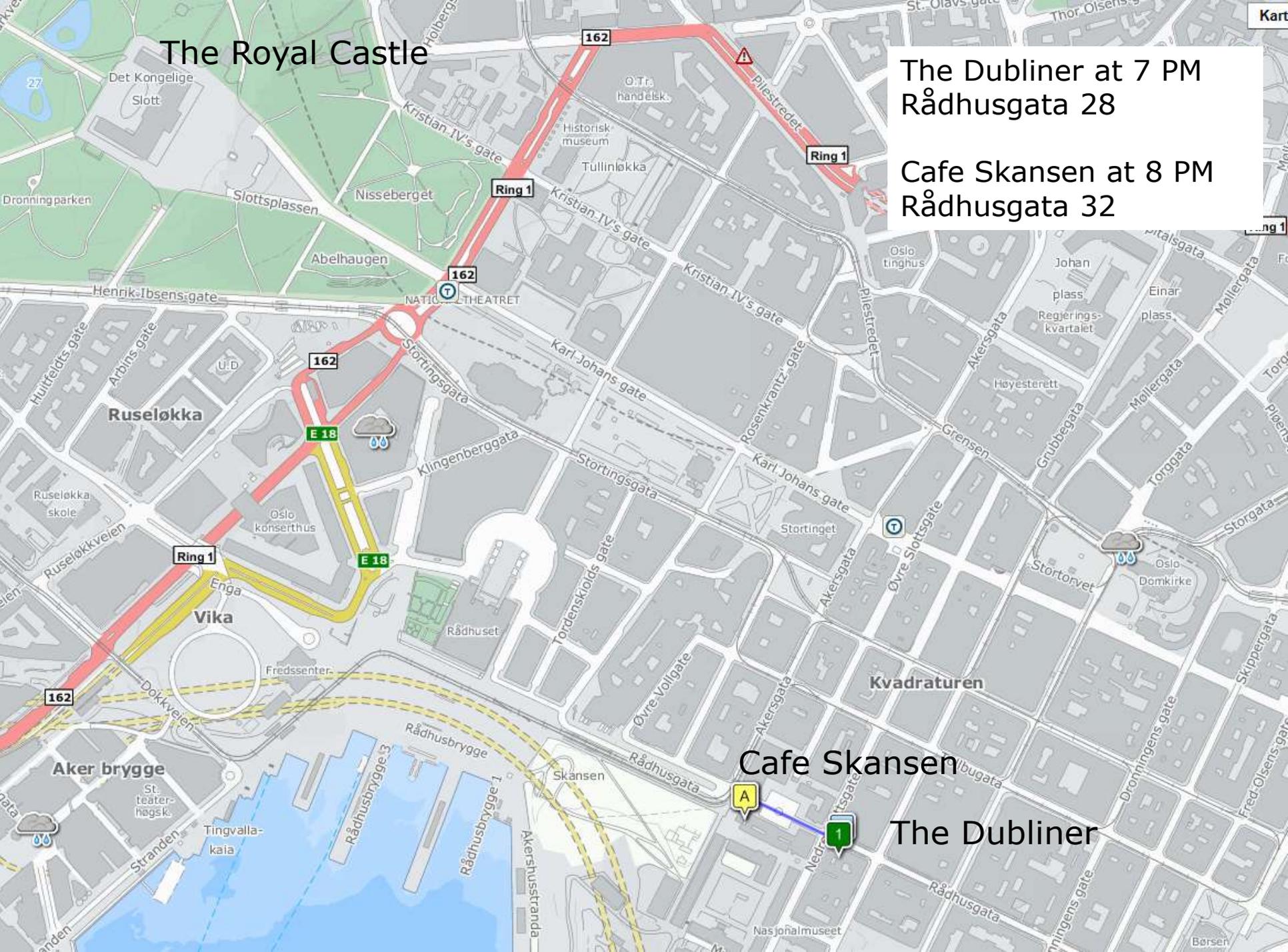|	
14:30 – 14:45	Presenting headlines to be discussed by the participants during the break-out session. Participants are split into working groups. Facilitator and referent for each group are selected by the groups. 1. How are the preparations for Sentinel-2 organized in the different countries and what is the current status? How is the production flow designed, from data input to user products? Cooperation among countries to put up services? 2. Requirements on functionality of the system and services provided to the users (temporal composites (every 4 weeks, 2 weeks, etc.), spatial mosaics, support for time series and change detection, cloud/shadow detection, support for user defined/developed processing algorithms, subscription of export jobs, etc.), how fast should products be ready?, interoperability with Landsat 8 and other optical sensors?; 3. Requirements on a data archive. What data should be archived in addition to ESAs archive? All acquisitions, all with cloud cover < X%, the whole year or a limited season, all levels produced or only level 1B, metadata; country by country archive?
14:30 – 16:30	Break-out session 1. All headlines 1 to 3 are discussed in each group. The groups minute the discussions on posters to be presented by one member during the following wrap-up session. The content of the posters are included in the minutes of the workshop. Keynotes move between groups to aid in the discussions.
16:30 – 17:30	Wrap-up session 1 where the posters are presented. Followed by round-the-table discussion.
20:00	Get-together dinner (no host). Address: Café Skansen, Rådhusgata 32, 0151 Oslo (http://www.cafeskansen.no/)

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The Royal Castle

The Dubliner at 7 PM
Rådhusgata 28

Cafe Skansen at 8 PM
Rådhusgata 32

Cafe Skansen

The Dubliner

08:30 – 08:45	Coffee
08:45 – 08:50	Welcome address for the second day
08:50 – 09:35	Invited speaker 5 (*Ferran Gascon, ESA*): Methods and tools for automatic ortho-rectification and automatic atmospheric correction at ESA's processing centre. What is available for the users and how will ESA process from level 1B to 1C?
09:35 – 10:20	Invited speaker 6 (*Marc Leroy, CNES*): Methods and tools for automatic ortho-rectification and automatic atmospheric correction (MACCS) at THEIA processing centre. What is available for the users and collaborative ground segments (CGSs)? How will THEIA process from level 1B to 1C?
10:20 – 10:50	Invited speaker 7 (*TBD*): (*Kai Sørensen, NIVA and Carsten Brockmann, Brockmann Consults*): Pre-processing requirements for coastal and water applications.
10:50 – 11:05	Coffee
11:05 – 11:20	Presenting headlines to be discussed by the participants during the break-out session. Participants are split into working groups. Facilitator and referent for each group are selected by the groups. 4. Requirements on a data management system (data store and management, data organization, tiling of images according to a national grid, e.g. 100 x 100 km tiles, etc.); 5. Requirements on ortho-rectification. How can an automated ortho-rectification using a national DEM best be performed? Is the global DEM ESA will use of sufficient quality or do we need to use a national DEM?; and

	6. Requirements on atmospheric correction. How can an automated atmospheric correction of Sentinel-2 and Landsat 8 datasets best be performed? How to address possible needs for cross calibration of sensors?
11:20 – 12:15	Break-out session 2. All headlines 4 to 6 are discussed in each group. The groups minute the discussions on posters to be presented by one member during the following wrap-up session. The content of the posters are included in the minutes of the workshop. Keynotes move between groups to aid in the discussions.
12:15 – 13:00	Lunch in the canteen
13:15 – 13:45	Break-out session 2 continues
13:45 – 14:45	Wrap-up session 2 where the posters are presented. Followed by round-the-table discussion.
14:45 – 15:00	Closing session with summary of all the sessions of the workshop and finally recommendations of the workshop. Future collaboration between participating countries? Do we need follow-up workshops?