

Maps4Science looking for funding outside of the National roadmap

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Big need for Maps4Science

Unfortunately, on March 2nd, the M4S consortium received notice that it will not be included in the national roadmap for large-scale infrastructures, which means that it will not be funded by NWO either. The consortium will meet by the end of March to discuss the way forward. The current momentum is just too big to stop the effort! The demand for a proper geo-data (and services) research infrastructure is simply overwhelming. During the last six months, a strong consortium has been formed, and the ideas for this **scientific Geoweb** have become more and more tangible. We have reached that point by the magnificent support from the field, an impressive amount of national and international support letters, both from the data producers and from the Geo-ICT industry. During these last weeks, a number of new support letters have reached us, among others from Google, Deltares, NMDC and PDOK. In this newsflash, you will find a few illustrations of these.

Verdict of the NWO roadmap committee

Let us start with some positive quotes from the NWO committee verdict of March 2nd:

- "this facility is an interesting undertaking and (...) the Dutch scientists involved are well-known in the field."
- "the potential interest for the coupling of geospatial and social data is high."

And then a few arguments by NWO against M4S inclusion in the roadmap:

- "unrestricted linking and discovery of information vs. the privacy aspect."

- "support letters are from infrastructure specialists and not from the envisioned users' community."
- "high projected costs (...) considering that a significant part of the budget is intended for basic R&D."



The consortium will take this judgement into account in its evaluation and hopes to benefit from it for its future. The contribution that M4S can offer to science (both to the user side and to the side of geo-information research) remains high, and is even considered urgent for a broad group of users. Therefore, we are exploring alternative pathways, e.g. via a European proposal (see below) and/or by linking with the UKB (Universiteits- en Koninklijke Bibliotheken) taskforce on 'Kaarten&GIS'.

CIP call for European collaboration

The CIP call ('ICT Policy Support Programme' as part of the 'Competitiveness and Innovation framework Programme') addresses extensively the provision of spatial data for scientific applications, to stimulate scientific breakthroughs in various domains, and to organize communities around Open Data initiatives. European collaboration is a *sine qua non*. The call's intentions are close to the M4S objectives. The deadline is near – May 15th. More information can be gleaned at: (http://ec.europa.eu/information_society/activities/ict_psp/index_en.htm).

We will be happy to receive ideas and suggestions on international partners and collaboration. The M4S contact details can be found at the end of this Newsflash, and your suggestions will be taken into account on M4S's path forwards.

Google: Cloud geodata is the key to impact

Ed Parsons, Geospatial Technologist, Google, London searches for better understanding of geodata in the cloud: "We support the Maps4Science project which should develop a better understanding of cloud-delivered geospatial data for a broad spectrum of users based on an open interoperable platform."



The development of cloud-based geospatial platforms, we believe, is key to the continuing adoption of geospatial technology, removing many of the complexities present in past approaches, democratising GI science beyond traditional GIS users. We expect Maps4Science to have an impact far beyond the GI Science community."

Deltares: relevance for the Topsector Water

Prof. de Vriend, director of Science Deltares, in his M4S support letter, illustrates the importance of M4S to climate research, the Delta programme ('Deltaportaal') as well as the Digital Delta of the Topsector Water. He observes: "There is a pressing need for the large-scale infrastructure technology proposed by M4S for geospatial data to disseminate our model simulations, both historical and real-time. There is also an increasing demand for efficient sharing of model data and monitoring data amongst researchers in international projects. The technologies needed for this are exactly the ones mentioned in your Maps4Science proposal."

Open Data is a hot topic!

After the successful launches of BAG ('Basis Administratie Gebouwen') and TOP10NL (Kadaster's Digital Topography product), the National Satellite database will be launched on March 21st, as an Open Data product. This is substantial additional fuel for the M4S facility!

What are the experiences and expectations? We asked **dr.ir. Jasper van Loon**, Advisor Science and Applications of the Netherlands Space Office (NSO) about this.

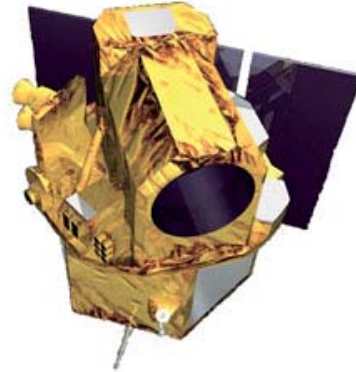


Photo of the FORMOSAT-2 satellite (source: NSO)

Why are you opening up the Dutch National Satellite data portal?

ESA, in context of the European GMES programme, and so instigated by the European Commission, will be launching a series of satellite missions under the name Sentinel, starting in 2013. These satellites will, on an operational and frequent basis, produce satellite data for various applications. Amongst others, these are precision agriculture, tectonics, algae monitoring, water and forest management. The data will be publicly available and free of cost, and is expected to cause substantial innovation in the fields of remote sensing, and more generally that of geo-information applications.

Together with the Dutch Ministry of Economic Affairs, Agriculture and Innovation ('EL&I'), the Netherlands Space Office (NSO) has taken the initiative to raise funding to provide similar data already now to the Dutch public and private sector, until Sentinel missions reach operational status. This allows research labs to develop applications, and end-users to get acquainted with these improved and cheap data sources now. Through a centralized data purchase, the Netherlands provides these players efficiently with sources (as a matter of policy), while also giving its private sector and research labs the competitive edge compared to players in these sectors abroad.

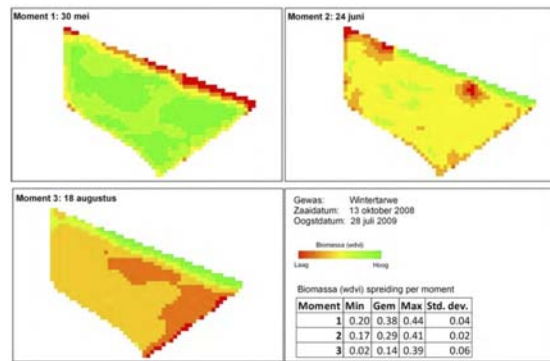
To what extent is satellite data currently already used in research?

It is in use already in a wide spectrum of applications. Satellite data is fundamental in research of system Earth and its (climatological) changes. Gravity and magnetism missions already provide data of our planet as well. Altimeters, radiometers, and hyperspectral cameras are probing for data on oceanic and atmospheric conditions. The spatial and temporal resolutions continue to improve, which is slowly leading to a situation in which these data can be operationalized also outside of the scientific realms. In precision agriculture, for instance, they are used to determine precise irrigation, fertilizer and pesticide application parameters. Radar is used to measure and map the sagging of residential areas or that of other constructions like dikes, at millimetre level. Illegal forest logging is being monitored through satellite data, leading to legal action on the ground against the perpetrators. All these applications have a strong scientific basis.

What role can Maps4Science play in these?

Information derived from satellite data is one of the many types of geoinformation. After initial data preparation it can be enriched, compared and recombined with other types of geoinformation. With the increasing quality and availability, satellite data is going to become more prominent in such games. This leads to new challenges as that in the production and management of large-scale data sets. This is exactly why NSO is such a wholehearted supporter of the M4S initiative.

The increased usage of satellite data in geo-applications provides a good fit with the national Topsector policy. Besides the already mentioned precision agriculture (Topsector for Agro-food), we should also mention tracking and tracing (Topsector of Logistics) and the Water and Climate Covenant within the Topsector Water.



Satellite images of a plot of winter wheat (source: Atlas Gewaspatronen; pplnl.nl)

About Maps4Science

At this moment, the M4S consortium has 10 partners: TU Delft (commissioner), UvA, WUR, UU, UT/ITC, VU/EduGIS, DANS, Alterra, NLR en Geonovum. (There are more parties interested to join.) The envisaged project duration is from 2012 until 2019 and the budget is 22,8 M Euro (of which at least 25% is partner contribution.)

The main goal is to up-scale the national geo information research infrastructure with European potential and to improve spatial breakthroughs in other sciences.

Support is being given by the *ICT Innovatieplatform Geo-informatie* (IIPGEO), AeroVision and *Jacqueline Meerkerk Management*.

The complete proposal and all support letters can be found at www.maps4science.nl

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