

# Maps4Science: catalyst for scientific breakthrough!

News flash nr 3 - January 2012



## Interview: an interesting dialogue!

On January 10<sup>th</sup>, 2012, the Maps4Science team was interviewed on behalf of NWO by a review committee of eleven professors. The committee showed to be well-prepared on the subject; they asked the M4S delegation quite a few focussed questions. We hope the positive energy that we experienced during this interview will reflect positively on the decision as well! Having heard the advice of the review committee, by the end of January, the NWO board will decide and offer their decision to the Minister of Education, Culture and Sciences (OCW). We expect to hear of this outcome by the second half of spring 2012.



At the interview, M4S was represented by prof Peter van Oosterom (TUD), prof Arnold Bregt (WUR), prof Tom van Engers (UvA) and dr Peter Doorn (DANS), with support of Tamme van der Wal and Jacqueline Meerkerk.

In the lead up to the presentation before the interview, a short video was shown in which four professors point out the importance of the M4S initiative from a user perspective.

In this newsletter, we provide an impression.

In the meantime, letters of support continue to arrive at our desks, among others from CBS and Esri Inc.

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## Prof Nick van de Giesen: “Maps4Science: to combine models and data”



Prof dr ir Nick van de Giesen (TUD, Water Resources Management; member *Topsteam Topsector Water*):

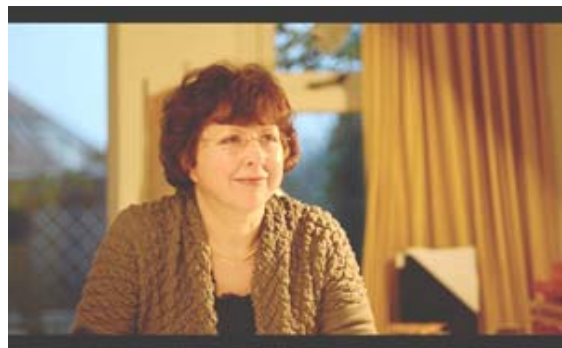
### Of what importance is *location* for your research?

“For water management, geodata are very important for calculations and simulations of floodings, especially essential are detailed data on heights.”

### What does Maps4Science mean to you?

“Maps4Science is an important step forward for the Dutch research community, because it gives us the opportunity to combine spatial models and data in an optimal way.”

## Prof. Marianne Junger: “Paradigm shift for crime research”



Prof dr Marianne Junger (UT, Social Safety Studies; Board Member *Bureau HALT NL*):

**Of what importance is *location* for your research?**

“American research teaches us that for crime, location is a six times more important explanatory factor than the culprit’s identity. However, crime research is still culprit-oriented.”

**What does Maps4Science mean to you?**

“Maps4Science is a unique step forward, it is a catalyst for the paradigm shift from culprit to location. Of great importance are the availability and accessibility of geodata, and of course crime data. At this moment, data for research are only obtained – with a lot of effort – from big cities; data from the countryside is missing. In crime, there is a relation between costs and benefits of crime. One of the benefits is, for example, the value of the property (indicates what is to get there.) A new research question that we can address with the M4S facility, is use the real estate value as a proxy for crime benefits. Furthermore, M4S enables the study of micro-areas (with more detail, direct neighbourhoods are not sufficient.) An example is the effect of policy of police patrolling in a micro-area.”

**Prof. Peter Sloot:**  
**“Location is key in complex health networks”**



Prof dr Peter Sloot (UvA, Computational Science, St. Petersburg Stat University Advanced Computing):

**Of what importance is *location* for your research?**

“For a deeper understanding of the dynamic development of epidemics, it’s all about combining information out of social networks, GPs and medical centres. Location is indeed the key to integration of all these data.”

**What does Maps4Science mean to you?**

“M4S is a unique laboratory to model and understand these complex processes in detail, and therefore a source for scientific breakthroughs. The unique combination of spatio-temporal information is essential to discover causal relations. New research questions on which we can focus with the M4S facility are: 1) Is

there a relation between the composition of a family and the moment of influenza infection? 2) Is traveling behaviour an indication for susceptibility and to what degree does it determine the spreading? and 3) Is there a causal relation between living area and incidence of infection diseases?”

**Prof. Henk Scholten:**  
**“Maps4Science is needed for archaeological research”**



Prof dr Henk Scholten (VU Spatial Informatics, Co-Founder & CEO Geodan):

**Of what importance is *location* for your research?**

“Archaeologists are researchers who really use enormous amounts of data. Especially the combination of data at field research sites gives a great added value.”

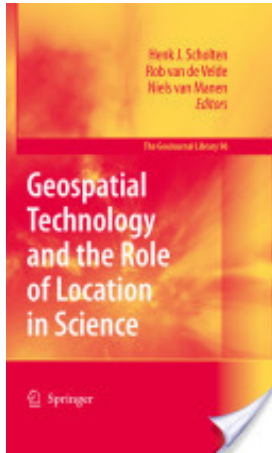
**What does Maps4Science mean to you?**

“For the archaeological research and to prevent damage to our cultural heritage, M4S is absolutely needed.”

**Source of inspiration for Maps4Science: a book!**

The book “Geospatial Technology and the role of Location in Science” (Springer 2009, Henk Scholten, Rob van de Velde en Niels van Manen, <http://www.springerlink.com/content/t20714/#section=106608&page=1>)

was an important source of inspiration for the initiation of M4S. This book was the result of the RGI project 402 “GI in Science”; it compares the role of geo-information with the role of the microscope, which also caused many scientific breakthroughs.



Application areas are almost infinitely many, and it would have a very important role for society, as Jack Dangermond indicates in his prologue. The book contains articles about the role of geo-information in other sciences, as spatial economics, transport, epidemiology, crisis management, history and archaeology. Conclusion of the book is that collective leadership, and a proper research infrastructure is needed. M4S is an excellent answer to this!

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## Future registered in Lol

To ensure the future of Maps4Science, on 4 January 2012, a Letter of Intent (Lol) has been laid out by the partners. They agree to look further into the legal form of the consortium, to ensure that afterwards, the administration of the facility would be guaranteed by DANS and the 3TU.Datacentrum / TUDelft Library and that business models will be examined for future financing of the facility. The signed Lol can to be downloaded from the website.

## Website renewed

The Maps4Science website has been recently refurbished. Have a look and watch the video with the interviews of the professors named in this newsletter (four of the six use case presenters of M4S.)

The website also shows the latest update of matters concerning the support letters. So be sure that you don't miss anything!

### 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](http://www.maps4science.nl)

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