PROTOCOL
TO THE ARCTIC SDI BOARD MEETING NR 1

Point of time: 30 March, 2012, 9:00-16:30
Locality: Grand Hotel, Reykjavík, Sigtún 38, 105 Reykjavík, Iceland.
Meeting language: English
Main purpose of the meeting: Overviewing the present situation of the project, focus on the prototype of the Arctic SDI established by the Working Group (WG), manning – importance for the further progress of the project, MOU review and Possibility of its signing.

This document is distributed to the participants of the Board meeting and to the Steering Committee. Magnus Gudmundsson, the Chairman of the Board, stores the original (magnus@lmi.is). The original is also stored at the project web site (www.arctic-sdi.org).

Participants:

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ORGANISATION</th>
<th>NAME</th>
<th>POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Board members:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td>The Federal Service for State Registration, Cadastre and Mapping</td>
<td>Alexander Zaporozhchenko</td>
<td>Deputy head of Cartography and SDI Department Rosreestr</td>
</tr>
<tr>
<td>Russia</td>
<td></td>
<td>Sergey Sapelnikov</td>
<td>Deputy Head of Rosreestr</td>
</tr>
<tr>
<td>Canada</td>
<td>Geomatics Canada, Mapping Information Branch, Earth Sciences Sector, Natural Resources Canada</td>
<td>Prashant Shukle (Skype)</td>
<td>Director General</td>
</tr>
<tr>
<td>Canada</td>
<td>Geomatics Canada, Mapping Information Branch, Earth Sciences Sector, Natural Resources Canada</td>
<td>Douglas O’Brien (Skype)</td>
<td>Director for Centre for Topographic Information</td>
</tr>
<tr>
<td>USA</td>
<td>U.S.Geological Survey</td>
<td>Carl Markon</td>
<td>Deputy Regional Executive Alaska Area</td>
</tr>
<tr>
<td>Iceland on behalf of the Nordic Mapping Agencies</td>
<td>National Land Survey of Iceland</td>
<td>Magnús Guðmundsson</td>
<td>Director General and Chairman of the Arctic SDI Board</td>
</tr>
<tr>
<td><strong>Co-opted persons to the meeting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td>Norwegian Mapping Authority</td>
<td>Martin Skedsmo</td>
<td>Project Management Group: Senior Engineer</td>
</tr>
<tr>
<td>Iceland</td>
<td>National Land Survey of Iceland</td>
<td>Eydís Líndal Finnbogadóttir</td>
<td>Director of Service and SDI Division</td>
</tr>
<tr>
<td>Iceland</td>
<td>National Land Survey of Iceland</td>
<td>Saulius Przginas</td>
<td>Technician, interpreter</td>
</tr>
</tbody>
</table>
1. **Opening of the meeting**

Magnús Guðmundsson, Chairman of the Board, welcomed the meeting participants to Iceland and Reykjavik. He announced Skype-participation for Canadian representatives.

The Chairman expressed special welcomes to the Secretary General of the ministry for the environment in Iceland, Magnus Johannesson and the Icelandic Senior Arctic Official, Hjalmar W. Hanneson, who both attended the first hour of the Board meeting. They both wish everyone a fruitful as well as nice meeting. An introduction of each participant was made (tour de table).

2. **Report from the SAO meeting**

Mr Hjalmar W. Hanneson gave a report from the Senior Arctic Officials meeting in Stockholm this week, where the Arctic SDI project was presented by Swedish Director Generar of Lantmäteriet, Bengt Kjellson. At that meeting, the SAO’s “recognised the importance of the Arctic SDI and its contribution to improving data integration, sharing and analysys across the Arctic. They encouraged CAFF in cooperation with the Arctic SDI Steering Committee to consider how to formalise this cooperation through the Arctic Council. And to submit a proposal to the next SAO meeting on how to insure a sustainable framework for the development of the project”. The next SAO meeting will be held in Happaranda in November 2012. He also emphasised the importance of this project within the Arctic Council, and congratulates the project management with the work so far.

3. **Welcome by the Secretary General for the environment in Iceland**

Secretary General of the ministry for the environment in Iceland, Mr Magnus Johannesson, expressed the importance of the Arctic SDI as a project that will serve as a monitoring tool for ongoing projects and operations within the Arctic, especially withing SaR, and environmental issues. Mr Johannessen, also representing the PAME working group see the clear need of maps within the Arctic as fundamental to implement “ecosystem based management” (EbM). He would like to congratulate the project organisation with good efforts, and looks forward to see the next steps of the project.

4. **MoU Status**

Magnús Guðmundsson made a detailed review of the MoU (Memorandum of Understanding).

He seeks to gain approval from the Board on the following items:

- To fully support the Arctic SDI project as described in the project plan that was agreed on the meeting of Arctic SDI Steering Committee in Reykjavik in April 2011.
- To give access to reference datasets provided by the NMAs of selected, relevant national topographic and other types of data such as land cover, hydrology, and other data that may be available.
- To continue to establish a co-operative network amongst the national mapping agencies (NMAs) surrounding the Arctic in order to provide national geospatial map data as a baseline for analysing and monitoring.
To continue developing the structure of the Arctic SDI project f.x. terms of reference for the Board, Steering Committee and Working Groups.

Magnús would also like to make the attendees aware of the project being an innovative project. We are doing new work here. He also points out six important elements, being:

- Partnerships / People / Institutions/Governments/Commitments/network
- Know how / Information / documents
- Data themes / access to data / Information
- Technical Standards
- Metadata
- Arctic portal

He by then noted that the first draft of the MoU was distributed to the Steering Committee/participating Mapping Agencies on June 17, 2011 for comments and input. Viewpoints have then been compiled into the document, again distributed in an iterative process. The final version (ASDI-MoU_20120306-final v1.9.docx) was distributed in March 2012. This is an MoU that will take care of the establishing phase. The main idea with the MoU is to support the work within the Arctic SDI. He looked further into intellectual property rights and licensing. The project is to be funded within each participating NMA. Funding the project is as always a challenge, but after the good news from the SAO meeting, there is good possibilities of seeking further funding.

Magnús Guðmundsson then informs that the Nordic NMA Director Generals (DG) will meet on 18 of April in Iceland for the annual Nordic DG meeting, where the MoU will be signed.

He gives a brief introduction of the project organisation, with a wish to change the structure to have a stronger and dynamic SC, Board and TWG.

The Arctic SDI is as mentioned earlier a highly important project, providing the best possible maps within the Arctic.

Magnus seeks to gain approval for the project plan and the MoU from the Board, during this first official Board meeting.

Decision:
1. The participating Board Members gives their support to the discussed MoU.
2. The document will then be signed by the DG, and returned to Magnús Guðmundsson no later than June 1 2012.

5. Report from the SAO meeting
Tom Barry, Executive Secretary CAFF, gives a short report from the SAO meeting recently held in Stockholm. He emphasise the need of a sustainable framework, and that between now and the next SAO meeting, there is a need of a short concept
paper to be handed over to the SAO’s. This could evolve around the MoU, and at what level such a MoU should be signed. The question is whether the project would aim for such a solution, a concept and framework paper for the SAO’s. This would however have a timeframe, as follows; the SAO meeting itself is in mid November. In order to get to the agenda, it would have to get to the CAFF WG in early October, meaning the Arctic SDI would have until August/September to establish such a document. It is reported that the Steering committee will take responsibility for writing such a document, to be approved by the Board. The wording at the SAO meeting was meant to have a stronger meaning, but they would need a more detailed paper for decision making at the next SAO meeting. Such a paper would have recommendations for how to move further on within the SAO’s.

6. **Arctic SDI - status.**

Martin Skedsmo, on behalf of the Project Management Group, made a review of the Project progress and received results so far. He by then noted:

- The official project start was on April 6, 2011 in a constituting meeting involving:
  - Constitution of the Project Organisation
  - Approval of the Project Plan (V 1.0) as a dynamic document
  - Outlining the MoU work

- Since the project start, two SC (Steering Committee) – meetings and three TWG (Technical Working Group) – meetings have been carried out.

- According the organisation schema, the PMG is not part of the Decision making bodies. Does this make sense?

He finally asks for viewpoints and decisions from the Board:

Input from the Board is that the proposed organisational structure is supported. There is no need of having the PMG outside the SC. There are discussions concerning the Advisory Group, and the need of having this attached directly to the Board.

**Decision:**

1. It is decided that the PMG will be part of the SC.
2. Terms of Reference for the both the SC and the Board is to be established
3. It is decided that the Advisory Group is not to interact with the Board, or to be part of the decision making bodies. The Advisory Group is to support the project when needed.

7. **Discussions and decisions about:**

   a. Funding of the project
   b. Manning of the project
   c. Cooperation with others

**Decisions:**
1. It is decided that during the Establishing Phase, that each participating NMAs will organize their own financing.

2. It is decided that each participating member, is to point out a technical POC to be a member of the the TWG.

3. It is decided that the TWG and Chairman of the SC is to seek a broader cooperation with the user community.

8. **Status reports from Board Members**:

   - **Status report from Russia**
     Mr Sapelnikov reports of spatial data in Russia. They have opened a portal for all SDI in Russia. The portal is just opened, late March. Looking to INSPIRE, best practice principles. The main purpose of the NSDI RF development is to provide the wide access to spatial data. He then shows the structure of the portal services is built, also to be seen in the presentation made. The address for the service is geoportal.rosreestr.ru

     He then looked further into the upcoming Arctic SDI events, referring to the MoU for signing by the DG, the coordination of different bodies within Russia concerning the MoU, and governmental act about Rosreestr Arctic SDI coordination activity in august.

     He also would like to invite both Board and SC meetings when needed to be held in Moscow

     The portal was in the end demonstrated, using international standards, also based upon INSPIRE directives. The portal has been up and running since last Friday.

   - **Status report Canada**
     Mr. O’Brien reports that the national base mapping is at the scale of 1:50 000. The program to map Canada was started 60 years ago, and was actually completed today, March 30th.

     Canada has the GeoConnection program, which hosts several national secretariats, and leads national spatial data partnerships, policies and standards. There is a new committee related to geomatics and Earth observation, consisting of 21 different federal departments.

     A study has been launched of what is needed within Canada for the Arctic SDI, such as emergency and response, and will discuss with stakeholders to learn about existing data, requirements and gaps. For example, Canada has a Multi Agency Situational Awareness System (MASAS) for emergency response based on an underlying open standards based spatial data infrastructure. It provides functionality comparable to the US ERMA system. This could be a demonstrator application for the Arctic SDI.

     On the technical side, NRCan is currently updating its map services and finds itself in a good position to contribute to the Arctic SDI.
• **Status Report from USA**

Mr Markon reports that Doug Nebert, who sits in the SC and the TWG has set a server based upon VMAP data to check the possibility of this. USA are also looking at the USGS National Map Data. This would enable visualization of some of the limited higher resolution data in Alaska, hopefully to be ready in April. Landsat data are also considered. There are some data her covering the Arctic. In 2007 it was proposed to establish landsat over the Arctic, but this proved out to be to expensive. Another project is Modis Image Mosaic, base map CBMF (CAFF). Other items of interest is the NOAA Arctic ERMA data, which is Environmental response management data.

The data er 1:1 000 000. The area of the US Arctic region is Alaska.

• **Status report, the Nordic Mapping Agencies**

Mr Gudmundsson, on behalf of the Nordic NMAs, reports that the Nordic DG have their own agreement, and is a base for the work being done within the Nordic country. This agreement allows for dynamic cooperation between the Nordic Mapping Agencies. This includes many different working groups. He also informs about the DG Nordic meeting, divided into two meetings each year, the meeting with just the DG’s, and the larger meeting with more invited senior level attendees from the Mapping Agencies. These meetings takes care of international contributions as well, where Magnus for example is being responsible for the Arctic SDI initiative.

Magnus does also mention the Eurogeographics cooperation, and how work are being laid down amongst the National Mapping Agencies, such as INSPIRE/ESDIN, Euroregional Map, Euroboundary Map etc.

9. **Prototype of Arctic Portal (Demo)**

Eydís Líndal Finnbogadóttir demonstrated the Arctic SDI Prototype. She by the notes that at the first iteration the following has been agreed upon:

- Scale: 1: 200 000 - 1:1 000 000. Larger scales are also preferable.
- Area: The Arctic according to definitions by CAFF and AMAP (the largest common denominator)
- Projection: North Pole Azimuthal Lambert equal area EPSG 3571-3576
- Cartography: According to The Barents Interactive Map
- Legend: The WMS service must have a legend according to the decided cartography
- GeoNetwork is used.
- Agreed international standards are used.

**Decision:**

It is decided that the TWG is to continue the work with the prototype as planned – refer to the updated Project Plan (V 2.0). This is supported.

10. **Next steps for Arctic SDI project and time frame**

Martin Skedsmo presents the Arctic SDI workflow document. This document describes the further steps to be taken according to the Vision, strategies and
workpackages, to be found in chapter 6 in the updated Project Plan, time schedule included. There is a need for ToR for the Board and the Steering Committee. ToR for the TWG are already in progress.

Decision
1. It is decided that the Arctic SDI workflow will stand as a guidance document for the further progress of the project.
2. It is decided that the Chairman of the Board with assistance from Martin Skedsmo will come up with a draft for ToR for the Board and the SC no later than May 1.

11. Decisions on the first Arctic SDI Board meeting on 30th March 2012

- To fully support the Arctic SDI project as described in the project plan that was agreed on the meeting of Arctic SDI Steering Committee in Reykjavik in April 2011.
- To give access to reference datasets provided by the NMAs of selected, relevant national topographic and other types of data such as land cover, hydrology, and other data that may be available.
- To continue to establish a co-operative network amongst the national mapping agencies (NMAs) surrounding the Arctic in order to provide national geospatial map data as a baseline for analysing and monitoring.
- To continue developing the structure of the Arctic SDI project f.x. terms of reference for the Board, Steering Committee and Working Groups.
- To make a paper to be ready by Arctic SDI Steering Committee in 15. June 2012 for the SAO meeting in November 2012 to prepare meeting of the foreign ministers in Kiruna in 2013.
- New organisation structure for the project is agreed upon as Martin Skedsmo proposed during his status report. Draft for terms of reference will be made by steering committee and send to the Board within one month from this meeting.
- MoU to be signed before 1. June 2012
- User groups to be better defined, or user cases made. Focus on emergency and education for user cases.
- Meetings of the Board twice a year and more if needed via teleconference
- Next meeting í September, to be held in Moscow.
- The participating Board Members gives their support to the discussed MoU.
- The document will then be signed by the DG, and returned to Magnús Guðmundsson no later than June 1 2012.
12. **Time and place for the next Board meeting**
   It is decided to arrange the next Board meeting in Moscow during week two of September 2012. Magnus Guðmundsson and the Chairman of the SC will initiate the meeting.

13. **Any Other Business**
   No other business is announced.

14. **Closing the meeting**
   Magnus Guðmundsson expresses gratitude for having the possibility to host the first official Board meeting and for an engaged participation with good and fruitful discussions. The meeting is then closed.

Martin Skedsmo

*Secretary of the meeting*