

Plenary Meeting 2017

State Boundaries of Europe Knowledge Exchange Network (SBE KEN)

Dates: 23 – 24. November 2017

Venue: Italian Geographics Military Institute (IGM), S. Marco” Headquarters, “Schmiedt” Room
Address: Via Cesare Battisti n.10/12, Florence, Italy

Participants:

Saulius Urbanas (EuroGeographics), Sarma Antonova (Latvia), Pierre Vergez (France), Andreas Schramm, Gert Steinkellner, (Austria), Marcus Brühl (Germany), Federica Cauli, Simone Bartolini, Maria Vittoria De Vita, Barbara Degl’Innocenti (Italy), Nestoras Papadopoulos (Greece), Jan Řezníček (Czech R.), Alain Wicht (Switzerland), Jurij Rezek, Marjana Duhovnik (Slovenia).

Agenda:

Day ONE

Time	Topic	Location	Notes
13:00 - 13:30	Arrival of participants + Light Lunch	“S. Marco” Headquarters (Ingresso Officine)	
13:30	Visit to the IGM Library	IGMI museum and library	All
14:00	Commander Welcome	“Schmiedt” Room	Commander IGMI
13.45	SBE KEN progress since the 2016 meeting	“Schmiedt” Room	Gert Steinkellner (Chair)
14.00	Maintenance of SBE (Treaty level) and International Boundaries datasets	“Schmiedt” Room	Alain Wicht and Marcus Brühl
15.30	Coffee-Break	Entrance hall of “Schmiedt” Room	
16.30	National presentations (share knowledge, boundary related project and activities)	“Schmiedt” Room	All
18.00	End of the Day One		
20.00	Dinner	“Skipper” Restaurant, Via Alfani 78/red	All

Day TWO

Time	Activities	Location	Notes
8.30 - 9.00	Arrival of participants	“S. Marco” Headquarters (Ingresso Officine)	
9.00	Update on ELS (Open ELS) activities. Guidance on implementation of cross-border harmonisation	“Schmiedt” Room	Saulius Urbanas
10.30	Coffee-Break	Entrance hall of “Schmiedt” Room	
10.45	Discussion on SBE KEN contribution to the EuroGeographics Operational Plan	“Schmiedt” Room	All
12:00	SBE KEN workplan		Gert Steinkellner (Chair)
12.30	End of the meeting		

Minutes:

SBE KEN progress since the 2016 meeting:

Gert Steinkellner (Chair):

- Coordinating Committee (CC)
 - All members of the CC were confirmed by their national authorities. They had a webinar focused on the three relevant tasks of Open ELS on 13. 07.2017 and a constituent personal meeting 28./29.09.2017 in Vienna.
- Members
 - We got positive reactions to participate from Portugal and Norway and a change of member from England. We would like to thank Michaela Gordon for her contributions.
- SBE Data Model
 - In spring 2017 Austria and Switzerland started the discussion about guidelines for a “light version”. During the webinar Marcus Brühl offered to compare SBE data with other EuroGeographics data – therefore the EG Head Office sent an official letter to swisstopo. After discussions about INSPIRE-compliance at the CC-meeting Marcus Brühl posted a draft version of the new guidelines.
- Open ELS Involvement
 - later on the agenda*
- Other Information
 - Extraordinary GA (May 2017) – Report/Presentation
 - Bodenseekonferenz (Austria, Germany, Switzerland) – presentation “Harmonisation” (in German language) and a resolution, that the implementation of a solution with harmonised vector data is a major goal!

Maintenance of SBE (Treaty level) and International Boundaries datasets:

Alain Wicht: presents the new version of the Data Model (v. 5). The main difference from the previous version consists in the deletion of the class boundary segment, in order to simplify the structure. The compulsory classes will be: Geometry, Point and Country. Alain will prepare a script that each country will use to update the already delivered databases.

Marcus Brühl: The present guidelines do already date from 2014, so an update is necessary. The structure of the new guidelines should follow the ISO 19131 - Data product specifications. He suggests to follow the INSPIRE data specification on administrative boundaries, changing the names of the fields in order to have them Inspire compliant. In his opinion some fields could be deleted, e.g. "Country_left" and "Country_right", that could be replaced by the only field "Country". Saulius agrees to move towards an Inspire compliant structure and suggests making a draft of the new data model, with a correspondence table between v. 4_13 and v.5, asking for a validation by the SBE members.

Marcus states that he should be able to prepare the new version of the DB by the end of November, and all the SBE members will be asked to give their feedback not later than 20th December 2017.

National presentations:

Austria (Andreas Schramm): The boundaries with all neighbour countries (Slovakia, Hungary, Slovenia, Italy, Switzerland, Principality of Liechtenstein, Germany and Czech Republic) are technically and politically agreed, but the coordinate systems are national or local. The switch to the coordinate system ETRS89 is in progress. Between Austria and Slovakia there exists already a draft bilateral state treaty with agreed ETRS89 coordinates.

Austria is in contact with Hungary, Slovenia and Germany and GNSS measurements are carried out during the revision. Between Czech Republic and Austria there exists an agreed technical line in ETRS89 and with the other neighbours there exist draft ETRS89 coordinates.

France (Pierre Vergez): Pierre shares his experience about the edge matching process of the data delivered to the ELF project along the borders with Belgium and Spain. The themes concerned are UA, TN, HY, BU and the connecting features are both points and lines.

The accuracy of the DBs on which the edge matching is performed is about 1-10 m.

The French borders with Spain, Italy and Switzerland have already a juridical validation, while the process has just started with Germany.

Germany (Marcus Brühl): The "Länder" are technically responsible for the maintenance of the borders, so the BKG is only an observer in border commissions. An explicit database of boundary points and lines of all the German boundaries doesn't exist at the moment. The agencies of the "Länder" are very restrictive about their data, so BKG is not able to provide the SBE data of all the borders (just a few parts), even if it can participate in discussions about data modelling and strategic issues.

Greece (Nestoras Papadopoulos): The situation of the Greek borders is quite heterogeneous. The border with Albania is neither defined by a treaty nor a bilateral agreement and there has never been held a survey in cooperation between the two countries. The border marks are maintained but the data have a poor accuracy. The border with Bulgaria is defined by a treaty and common works are performed along the borderline and on the border marks. The border with FYROM is defined by

an “update” of the treaty with the Former Yugoslavia, common surveys were performed in late 70s; the data are still in the local datum. The border with Turkey is defined by a treaty but not by any bilateral agreement; common surveys have been performed in some parts of the border in order to have the data in modern datum, anyway the accuracy along most of the borderline is not very high.

Latvia (Sarma Antonova): The demarcation of the Latvian – Russian border took 8 years; the demarcation commission has finished its work in October 2017 and the documents will be submitted to governments for approval. About the border with Belarus, Latvia and Belarus had a single geodetic network as they were both part of the Soviet Union. In the next future the geodetic support network will be restored, because nowadays measurements differ by more than 10 meters. Both parties will work in UTM 35 and all data will be recalculated and a single digital border line will be created.

Slovenia (Marjana Duhovnik): The Surveying and Mapping Authority perform maintenance works along the borders with Austria, Italy and Hungary, by means of periodic controls of boundary signs, GNSS measurements, and meetings of border commissions. The border with Croatia has been temporary defined by the Arbitration Court. The data of the borders with Austria, Italy and Hungary are freely available from internet.

Italy (Federica Cauli): The borders with Austria, Slovenia and France are both technically and politically agreed (apart from the dispute with France in the Monte Bianco area), while the border with Switzerland will be agreed after the end of field measurements in progress at the moment. All the data have already been delivered to SBE; updates could be delivered in 2018 for the borders with France and Slovenia.

Czech Republic (Jan Řezníček): The main goals for the near future are to complete the new measurements along the borders and to determine all the boundaries in ETRS89. The borders with Slovakia and Germany are already determined in ETRS89 and the common coordinates were delivered to SBE. GNSS measurements are performed along the borders with Austria and Poland in order to determine the precise transformation to ETRS89; the borders with Austria were already delivered to SBE from a national point of view, but in 2017 common data were prepared for the delivery.

Switzerland (Alain Wicht): all the borders with neighbouring countries are technically agreed and politically (at least partially) agreed. The border with Germany is maintained with the “Länder”, not with Germany. They are trying to establish a new “central” border commission. The borders are changing both for anthropic and natural causes (e.g. renaturalization of rivers at the border with France; retreat of glacier on the border with Italy).

Update on ELS (Open ELS) activities / Discussion on SBE KEN contribution:

Saulius Urbanas: presents the activities related to SBE, which are:

- 1.2: Cross-border representation
- 2.5: On-the-fly edge-matching service
- 3.2: Cross-border edge-matching.

Starting with the task 3.2, the main goal is to implement guidance for data providers for the harmonization of geospatial data features across international borders. The data for the edge-matching processes are taken from the International Boundaries DB, and automatic methods are

not taken into consideration: the most successful way consists of a manual displacement of the connecting features after the two bordering countries have discussed and found an agreement. Saulius asks for opinions about the 13 actions sketched in the draft guidelines.

Action n. 8: tolerance: discussion about the way to define the tolerance: should be defined one tolerance for all Europe? Or should be defined by each pair of bordering countries? Pierre shares his experience with Belgium; the choice of the tolerance was the first step of the process. Saulius thinks that the tolerance should vary according to the morphology (mountains, plains...).

Pierre doesn't like the term "scale", he would prefer "accuracy". Marcus suggests using "level of detail" as in ELF.

Saulius remarks the importance to perform the edge matching process because it is a priority concern for users. He thinks that it is not possible at the moment to use the SBE data for edge matching, because for the definitive SBE lines it is necessary to wait for political decisions from Boundary commissions, Parliaments and so on, while we need a line to work with in the short period.

The following time-table is defined:

Within 1 week from SBE annual meeting: members of SBE KEN will be asked for comments on the 13 recommended actions of the document "Guidance on implementation of cross-border harmonisation".

Within 2 weeks: Saulius will update the document and send it back to members.

Until the end of February: Saulius will wait for comments / feedbacks on the updated document.

At the end of March: Saulius will present the new full version of the document.

At the end of April: the document will be validated by SBE KEN members.

In May: the document will be presented to the General Assembly.

In the meanwhile, webinars could be organized in order to illustrate best practice case descriptions.

SBE KEN Workplan:

Gert Steinkellner: highlights the following points:

- it is not necessary to stop working on SBE data waiting for the new data model; it is recommended to go on working, as some scripts will be provided to update the DB to the new structure;
- annual meetings are very important, because the "physical" participations and discussions can't be totally replaced by webinars ore-mail contacts;
- in the future it would be better to hold the CC meetings before the General Assembly, and the annual meetings at the end of October, as November is a very busy month for almost all the SBE KEN members;
- possible actions to perform in order to involve other countries in SBE KEN:
 - talk with colleagues from neighbouring countries;
 - talk with colleagues during other EuroGeographics meetings, above all the General Assembly;
 - being an active KEN, e.g. performing activities and publishing documents of general interest;
- even if the priority of SBE is the collection of agreed data along the boundary, also the data from national points of view are welcome (the not-participating bordering countries could be motivated to get involved);
- a questionnaire could be useful to explore the opinions of the participating and the problems of the not-participating countries.