

An aerial photograph of a multi-lane highway bridge spanning a valley. The bridge has several cars and a truck on it. Below the bridge, there is a dense forest with trees in autumn colors (yellow, orange, and red). The background shows a green landscape with some white lines, possibly a road or a field.

Production EBM and ERM 2020

Regine Elling, Krystallo Grammenou,
Alexander Reichelt and Jörgen Spradau, BKG

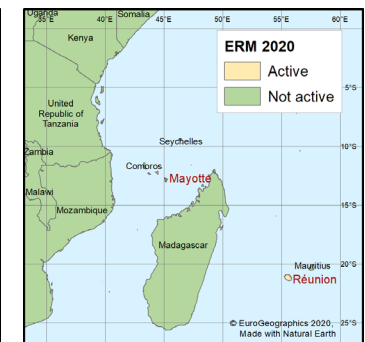
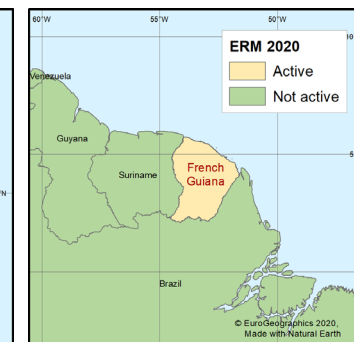
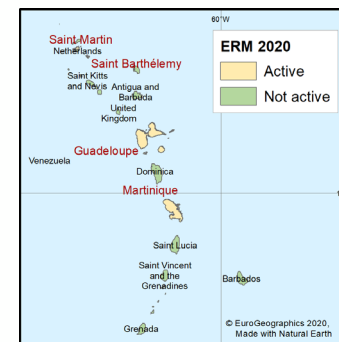
Webinar of the EG Data Producers to kick-off production

Agenda

Review production year 2019
Production year 2020
International Boundary
ERM Validator
Information and data management

Review production year 2019

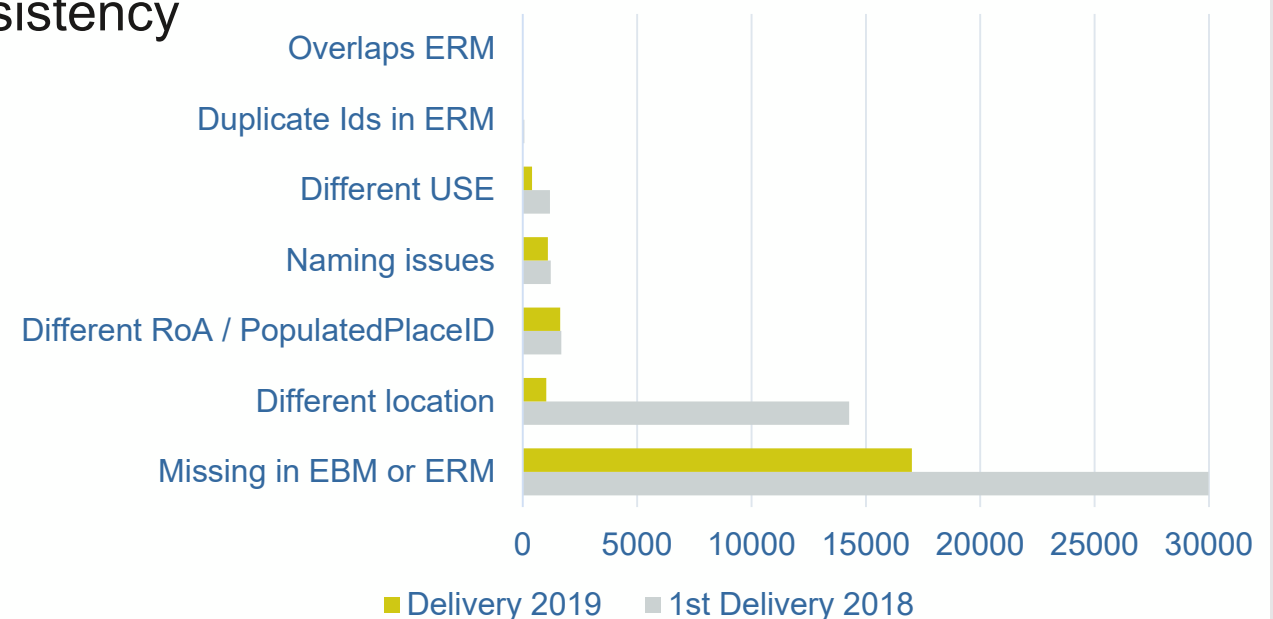
- Updated ERM themes: BND, HYDRO, POP
- No update of
 - Hungary
 - Croatia
 - Ukraine
 - Bulgaria
 - TEN-T by DG MOVE
- Calculated INSPIRE-ID for countries with no ID
- Harmonised watercourse features on border
- Delivery of EBM to Eurostat by 20th January 2020
- Remaining task:
Provide EBM 2020 and ERM 2020 to public



Review production year 2019

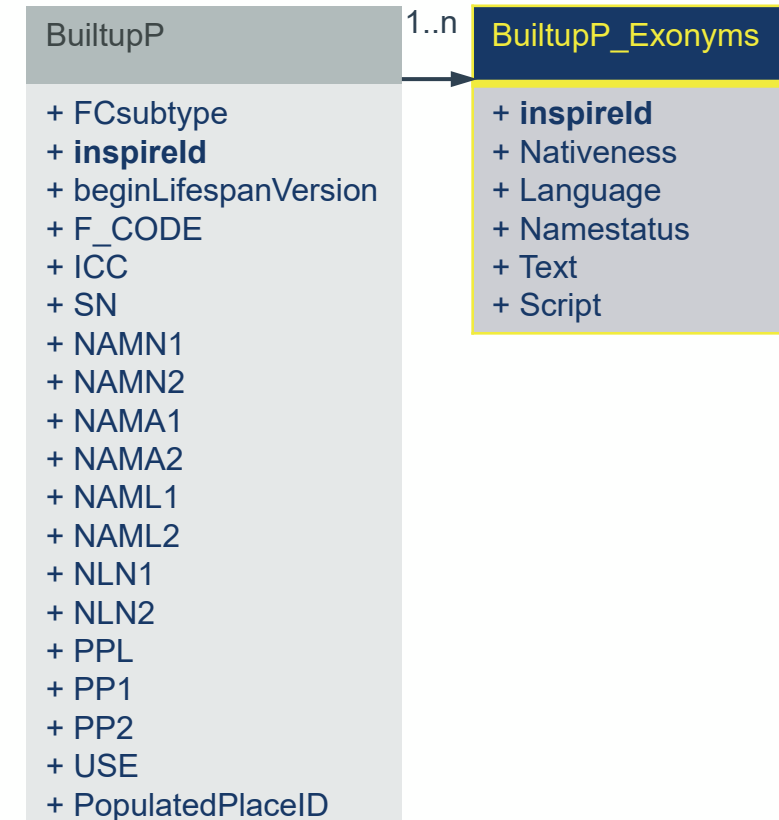
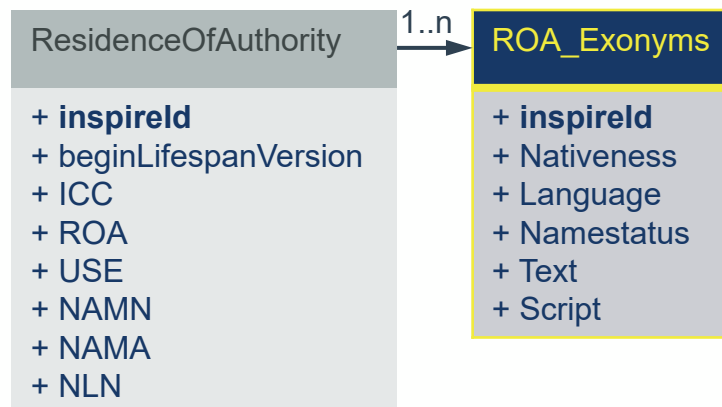
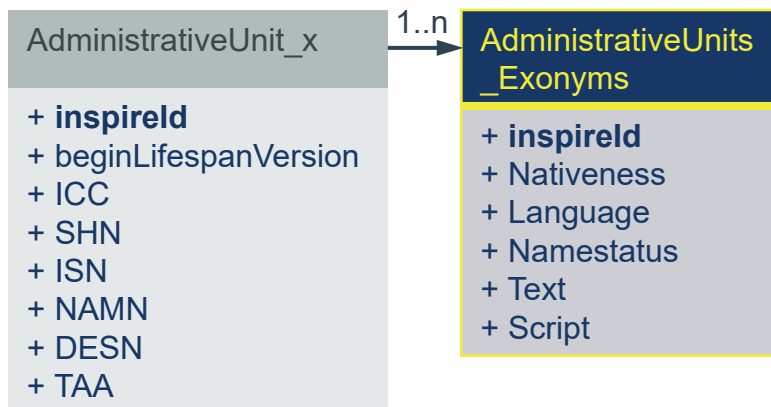
- Consistency assessment between EBM and ERM: BuiltupP ↔ Residence of Authority
 - In general much better consistency
 - Some countries used old USE-values (BKG corrected ES, PT, DK, LV, SE, RS, RO)
→ Please check Specification and Technical Guide
 - Please use ERM Validator to check consistency
 - BKG corrected USE-values for Croatia
(no data delivery 2019)

EBM: ResidenceOfAuthority	USE			ERM: BuiltupP (old)
1st order (country level)	1	=	1	1st order (country level) (23)
2nd order	2	=	2	2nd order (26)
3rd order	3	=	3	3rd order (30)
4th order	4	=	4	4th order (31)
5th order	5	=	5	5th order (111)
6th order	6	=	6	6th order (112)



Review production year 2019

- Integration of Exonyms in EBM and ERM (for EBM 2020 already done, ERM will follow)
- Purpose: Improvement of the EG Products with additional geographical names from EG Open Regional Gazetteer
- Linkage through inspireID with tables containing exonyms for AdministrativeUnits_x, ResidenceOfAuthority, BuiltupP



Production year 2020



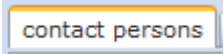
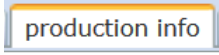
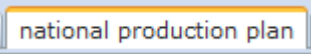
Production year Product	2019 EBM 2020 / ERM 2020	2020 EBM 2021 / ERM 2021	2021 EBM 2022 / ERM 2022	2022 EBM 2022 / ERM 2022
EBM	x	x	x	x
ERM – BND	x	x	x	x
ERM – HYDRO	x		x	
ERM – TRANS		x		x
ERM – POP	x	x	x	x
ERM – MISC			x	
ERM – NAME			x	
ERM – VEG				x

Production year 2020

- Production Management at BKG
 - EBM:
Krystallo Grammenou
 - ERM:
Alexander Reichelt



Production year 2020

- Production Plan for EBM 2021 and ERM 2021 will be sent to Data Producers
 - Combined work plan for EBM, ERM and EGM
 - Describes all deliverables for Data Producers
- Documents (Specification, Technical Guide, ...) will be available soon
- Production Management System
 - Update contacts 
 - Provide information of your production environment 
 - Fill in National Production Plan until 31st March 2020 
 - Metadata and lineage information until 30th September 2020
→ Please refer to technical webinar October 2018


EG Meetings. download presentations and documents of meetings

Please select a meeting:

• [EBM ERM Metadata and Linage](#)

Production year 2020

- Contact information in PMS
 - NMCA
 - Responsible persons

NMCA	Name english	EBM	ERM	EGM
 BKG	Federal Agency for Cartography and Geodesy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

NMCA

EBM - Release

ERM - Release

NMCA:

BKG

EBM: ☒

ERM: ☒

ERM Region:

Group A (The Netherlands (Ben))

Name original:

Bundesamt für Kartographie und Geodäsie

Name english:

Federal Agency for Cartography and Geodesy

Web:

www.bkg.bund.de

1 2

address 1:

Richard-Strauss-Allee 11

address 2:

address 3:

postalcode:

60598

city:

Frankfurt am Main

metadata address:

☒

metadata contact:

☐

Title:

Mr

Firstname:

Alexander

Lastname:

Reichelt

Department:

Referat GI3

Jobtitle:

calling code:

+49

location:

Frankfurt am Main, Richard-Strauss-Allee 11

phone:

69 6333 4028

mobile:

fax:

69 6333 441

mail_1:

alexander.reichelt@bkg.bund.de

mail_2:

EBM role:

ERM role:

National production coordinator (POC)

EGM role:

ERM Region Coordinator:

contact from:

2016

(YYYY)

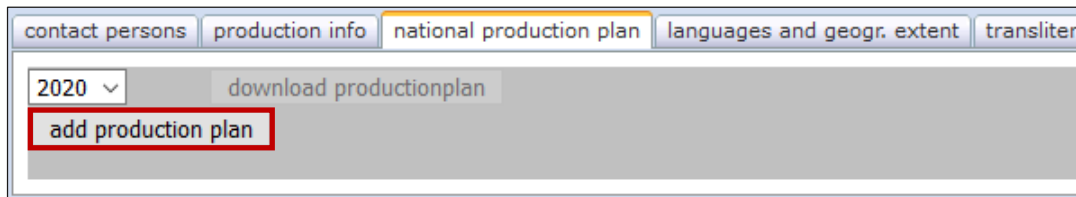
contact until:

(YYYY)

Not working for EG products any more?
Please set "contact until" year.

Production year 2020

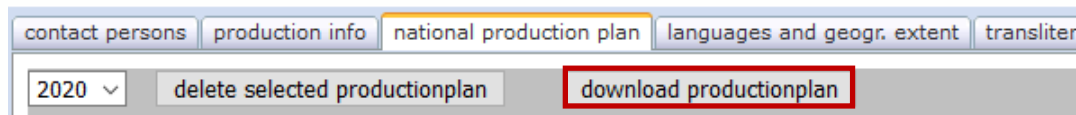
- National production plan in PMS



contact persons production info **national production plan** languages and geogr. extent transliter

2020 ▼ download productionplan

add production plan



contact persons production info **national production plan** languages and geogr. extent transliter

2020 ▼ delete selected productionplan **download productionplan**

EuroBoundaryMap

The reference date of EBM 2021 is 31.12.2019. Can you provide your update according to this reference date?

please select ▼

Update can be delivered to

Which type of EBM update will be provided?

please select

Additional comments:

The national update has to be provided by 30.6.2020. Can you meet this deadline?

please select ▼

EuroRegionalMap

ERM-BND will be derived automatically from EBM. Are there any national issues or constraints concerning this?

please select ▼

Data producers are asked for a real update of theme TRANS. Can you provide a full update?

please select ▼

The national update of theme TRANS has to be provided by 30.6.2020. Can you meet this deadline?

please select ▼

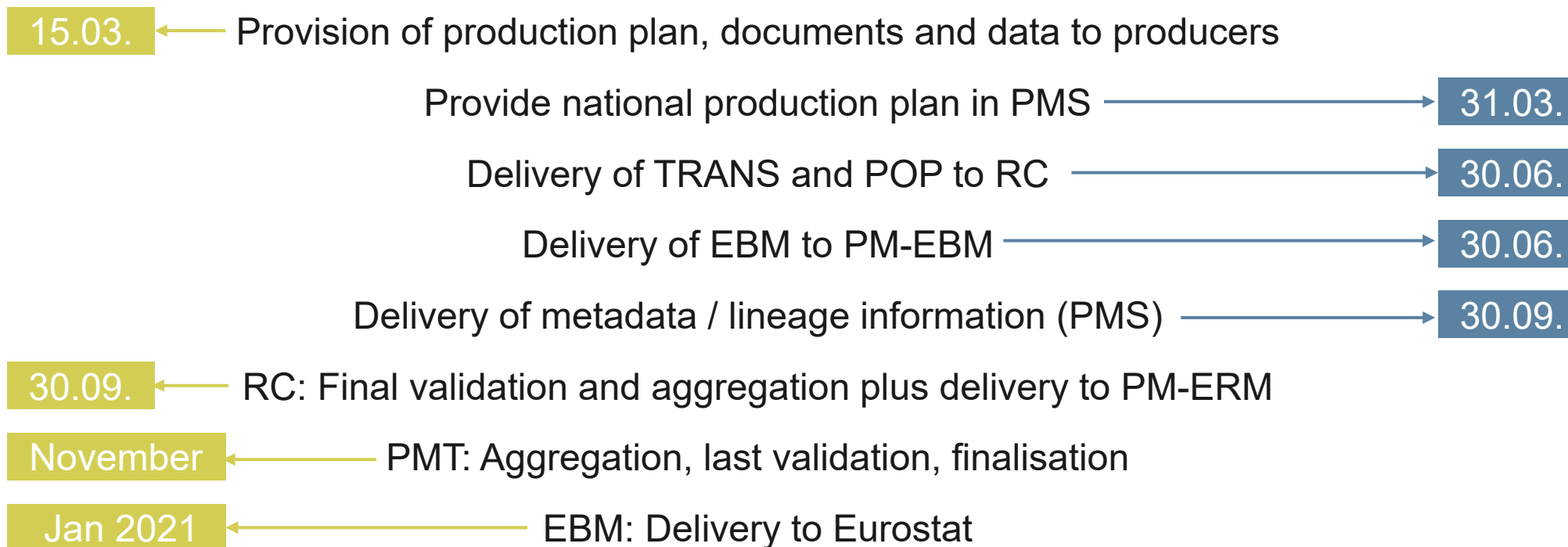
Data producers are asked for a real update of theme Settlement (POP). Can you provide a full update?

please select ▼

The national update of theme POP has to be provided by 30.6.2020. Can you meet this deadline?

please select ▼

Timetable for Production of EBM and ERM in 2020



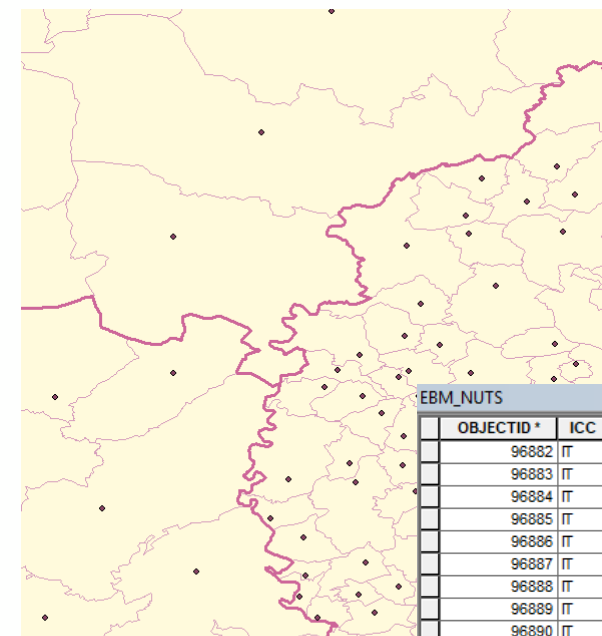
EBM Production in 2020

- Reference date: 31.12.2019
- Changes should be between 01.01.2019 and 31.12.2019
→ Effective Date
- EBM 2020 (NUTS 2016) is basis for upcoming provision
(see FTP server and/or [Eurostat](#))



EBM Production in 2020

- NMCAs have to update the following content of the EBM database:
 - Feature class EBM_A → basic EBM geometry
 - Table EBM_NAM → basic EBM attribution
 - Feature class ResidenceOfAuthority
 - Table EBM_NUTS
→ Keep aware of regulation NUTS2016
 - Table EBM_ISN
- NMCAs shall deliver only those feature classes or tables, where changes occur



EBM_NUTS

OBJECTID *	ICC	SHN	LAU	NUTS3	NUTS2	NUTS1
96882	IT	IT101006	00604	ITC18	ITC1	ITC
96883	IT	IT101006	00604	ITC18	ITC1	ITC
96884	IT	IT101006	00604	ITC18	ITC1	ITC
96885	IT	IT101006	00604	ITC18	ITC1	ITC
96886	IT	IT101006	00605	ITC18	ITC1	ITC
96887	IT	IT101006	00605	ITC18	ITC1	ITC
96888	IT	IT101006	00605	ITC18	ITC1	ITC
96889	IT	IT101006	00605	ITC18	ITC1	ITC
96890	IT	IT101006	00605	ITC18	ITC1	ITC

EBM_NAM

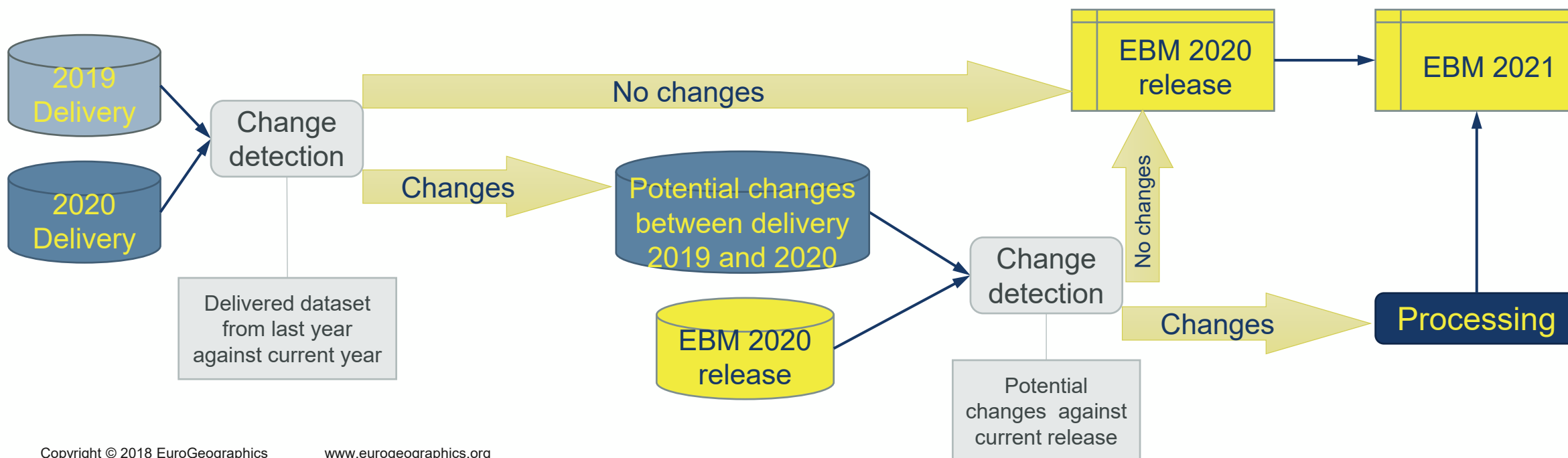
OBJECTID *	ICC	SHN *	USE	ISN	NAMN	NAMA	NLN	SHNupper	ROA	PPL	ARA	effectiveDate
241	AT	AT10903	4th order	4105	Deutsch Schützen-Eisenberg	Deutsch Schuetzen-Eisenberg	ger	AT10900	N.AT.BUILTUP.003039	1114	28,43	<Null>
242	AT	AT10904	4th order	4105	Grafenschachen	Grafenschachen	ger	AT10900	N.AT.BUILTUP.002128	1241	9,94	<Null>
243	AT	AT10905	4th order	4105	Großpetersdorf	Grosspetersdorf	ger	AT10900	N.AT.BUILTUP.001304	3538	31,36	02.03.2011
244	AT	AT10906	4th order	4105	Hannersdorf	Hannersdorf	ger	AT10900	N.AT.BUILTUP.003112	746	17,11	<Null>
245	AT	AT10907	4th order	4105	Kemeten	Kemeten	ger	AT10900	N.AT.BUILTUP.001675	1506	20,67	<Null>
246	AT	AT10908	4th order	4105	Kohfidisch	Kohfidisch	ger	AT10900	N.AT.BUILTUP.002188	1426	31,34	<Null>
247	AT	AT10909	4th order	4105	Litzelsdorf	Litzelsdorf	ger	AT10900	N.AT.BUILTUP.001902	1172	13,88	02.03.2010
248	AT	AT10910	4th order	4105	Loipersdorf-Kitzladen	Loipersdorf-Kitzladen	ger	AT10900	N.AT.BUILTUP.002094	1312	15,88	<Null>
249	AT	AT10911	4th order	4105	Mariasdorf	Mariasdorf	ger	AT10900	N.AT.BUILTUP.003005	1150	20,54	<Null>

EBM_ISN

OBJECTID *	ICC	ISN	USE	DESN	DESA	NLN	SHNdigit	DES_ENG	SU
37	CZ	4601	1st order	Stát	Stat	cze	2	Country	NUTS1
38	CZ	4603	2nd order	Kraj	Kraj	cze	5	Region	NUTS3
39	CZ	4604	3rd order	Okres	Okres	cze	6	District	Not applicable
40	CZ	4605	4th order	Obec	Obec	cze	12	Municipality	LAU
41	CZ	4606	2nd order	Kraj	Kraj	cze	5	Region	NUTS3
42	DE	1301	1st order	Bundesrepublik	Bundesrepublik	ger	2	Country	Not applicable
43	DE	1302	2nd order	Bundesland	Bundesland	ger	4	Federal state	NUTS1
44	DE	1308	3rd order	Regierungsbezirk	Regierungsbezirk	ger	5	Administrative district	Not applicable
45	DE	1310	4th order	Landkreis (Sondervverband)	Landkreis (Sondervverband)	ger	8	District	NUTS3

EBM Production in 2020

- New production workflow at BKG to validate Data Producers data / change detection
→ Support further processing



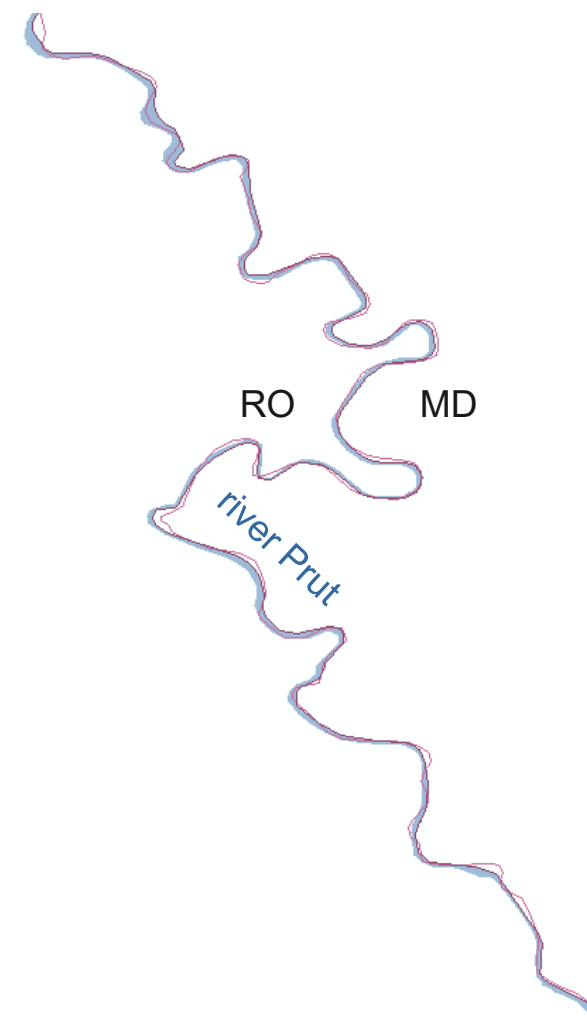
ERM Production in 2020

- Change of handling of missing attribute values
 - If information is missing for any reason then the value will be a default value
 - Easy to understand for Data Producers and Users
 - Simplification of validation

Attribute type	<ul style="list-style-type: none">- Information cannot be applied- Information is missing- Information exists but has not been collected- Information doesn't exist
Text	UNK
Integer	-32768

ERM Production in 2020

- ERM-BND:
 - Derived from EBM
 - Issues to be solved: Border between Romania and Moldova
- Update:
 - Theme Settlements
 - Consider consistency with EBM
 - Take care of USE value
 - Theme Transport
 - Keep TEN and TENTEC_ID (no update of DG MOVE planned)
 - LevelcC, IntercC → See revised Technical Guide
 - Modelling of ferries



ERM Production in 2020

- New modelling of ferries
 - Easy to understand for Data Producers and Users
 - BKG:
Provide ferries in new model
(based on updated ferries in 2018)
→ Data Producers should use this dataset to update their ferries!
 - Data Producers:
 - Consider CFPs for international ferry lines
 - Get in contact with colleagues in destination country to coordinate common attribution

FerryL

- + FCsubtype
- + inspireId
- + beginLifespanVersion
- + F_CODE
- + ICC
- + SN
- + **DEST1 (FStationID 1)**
- + **DEST2 (FStationID 2)**
- + RSU
- + TEN
- + USE
- + **FerryID**

FerryC

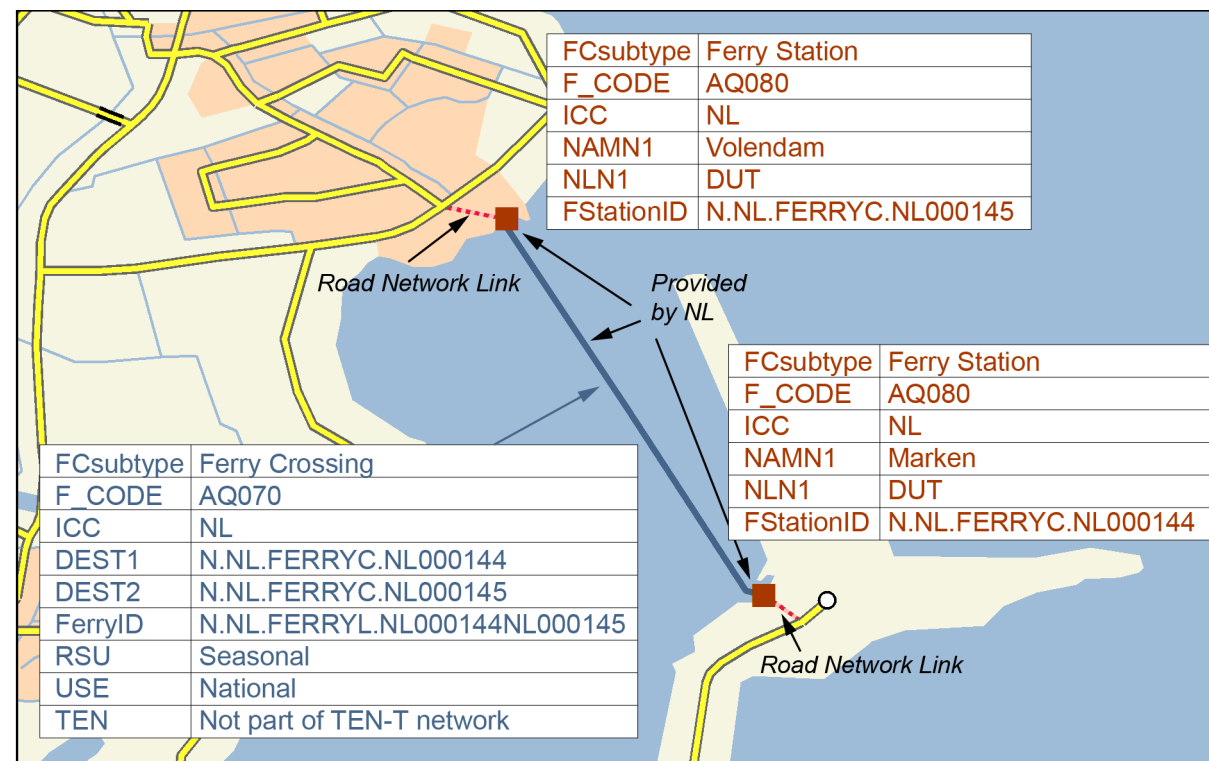
- + FCsubtype
- + inspireId
- + beginLifespanVersion
- + F_CODE
- + ICC
- + SN
- + NAMN1
- + NAMN2
- + NAMA1
- + NAMA2
- + NLN1
- + NLN2
- + **FStationID**



ERM Production in 2020

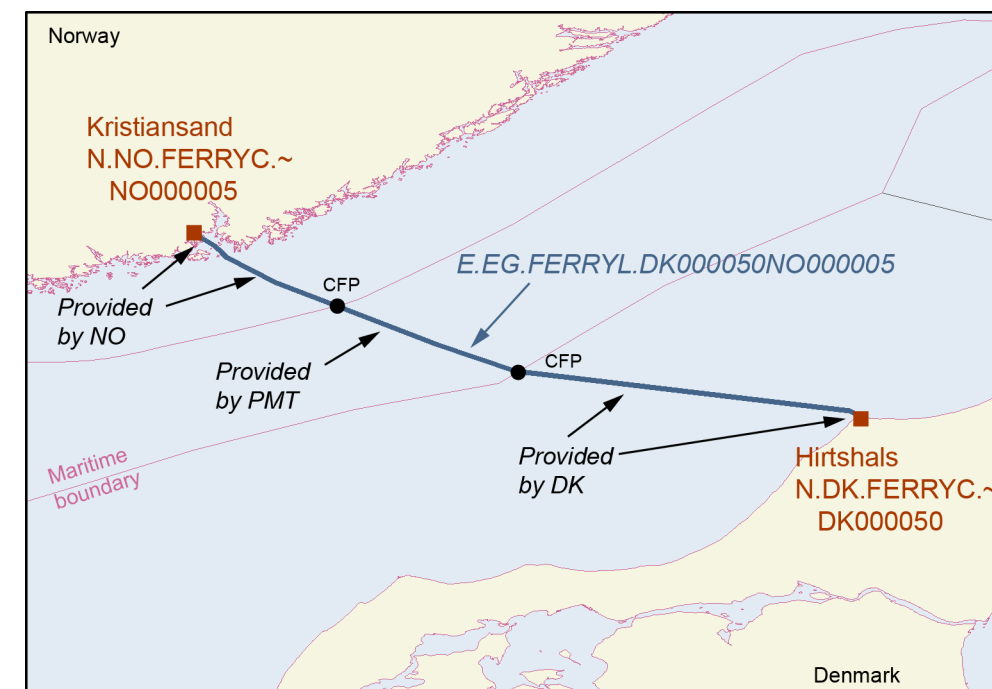
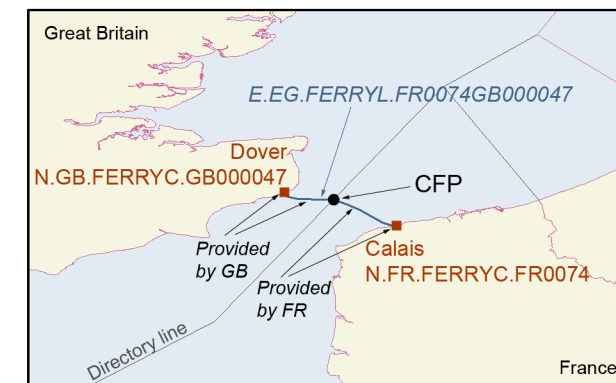
■ New modelling of ferries: Example for national ferry line

- FerryC: Attributes kept stable
- FerryL:
 - DEST1 and DEST2: Hold the Ferry Station Identifiers (FStationID) of the start and the end of the ferry line
- No related tables any more



ERM Production in 2020

- New modelling of ferries: Example for international ferry line
 - Attributes between Data Producers have to be agreed (ICC, DEST1, DEST2, RSU, TEN, USE, FerryID)
 - Data Producer provide data until agreed CFP
 - If necessary BKG will provide “middle part” of ferry line
 - Changes have to be announced to
 - Data Producer in destination country and
 - Production Management Team
 - Provide only real changes to avoid work
→ Don't deliver ferry line if there are no changes

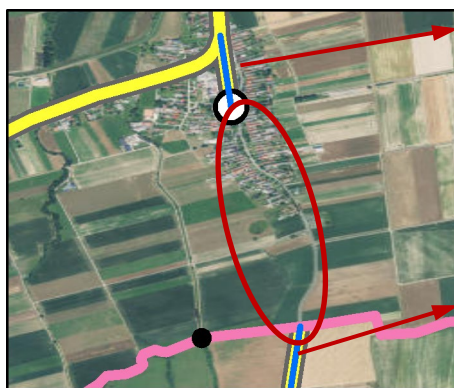


International Boundaries

- NMCA's are not allowed to make any changes on these boundaries on their own
- In case of issues → contact ebm@bkg.bund.de
- IB_Regional_2021.gdb (on FTP server):
 - InternationalBoundary: Has to be used for EBM/ERM
 - InternationalBoundary_ERM: Border between Romania and Moldova
 - MaritimeBoundary: 'territorial sea' or 'exclusive economic zone' (used for ERM SeaA)
 - ConnectingFeaturePoint:
 - Store points on the international boundaries, where the edge matching of topographic data has been already agreed for ERM
 - Match your ERM updates to these points (or use them to discuss edge matching with neighbouring countries)
 - FeaturesOnBorder:
 - Point and line features located on the international boundary
 - If there are no changes Data Producers shall not deliver those features again! If changes occur please perform edge matching.

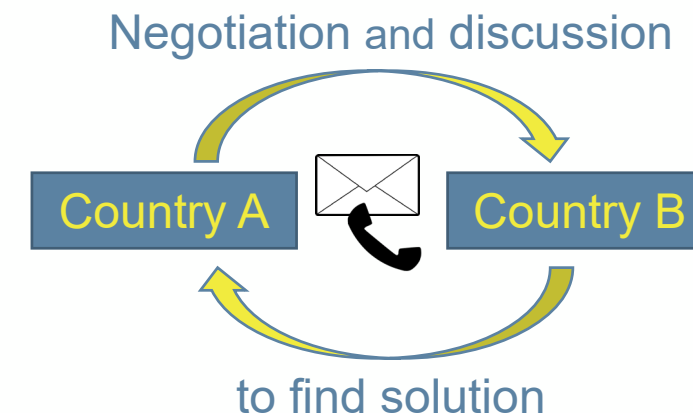
International Boundaries

- Edge matching
 - Please consider presentation from last year
→ Kick-Off Webinar Mar. 2019:
Edge matching (2019-03-20_Edge_matching.pdf)
 - Hints for data producers will be sent:



Field 'comment':
Countries: AT, HU,
Edgematching:
revise, connect line to
border, prove CFP

Field 'comment':
Countries: HU, AT,
Edgematching: AT line
discontinues, CFP
missing



EG Meetings. download presentations and documents of meetings

Please select a meeting:

- [Agenda](#)
- [Production 2019 EBM and ERM](#)
- [Production 2019 EGM](#)
- [ERM Validator](#)
- [Edge matching](#)
- [Update from EuroGeographics Head Office](#)
- [What's new in PMS: Import of ERM validation log-file](#)

International Boundaries

- Edge matching
 - Procedure for Connecting Features in the edge matching process

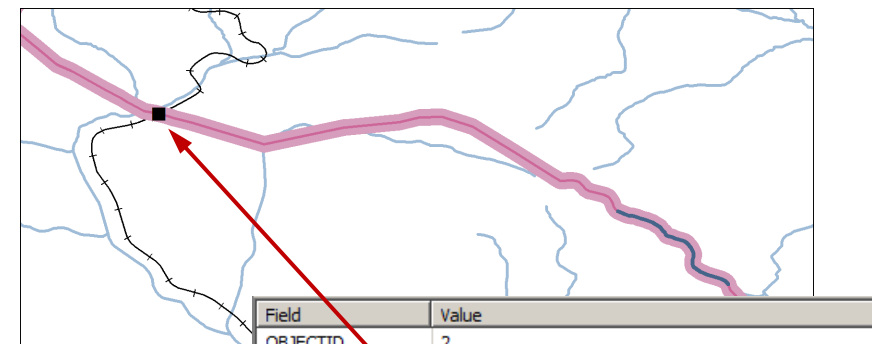
CFP has to be moved or created or CFP can be deleted



1. Contact appropriate neighbor and discuss issue
2. Find a common solution for all involved countries → Update data
3. Send email to Production Management Team at BKG (ebm@bkg.bund.de) and in copy the responsible Regional Coordinator
 - Email trail confirming the solution
 - FileGeodatabase with moved CFP / new CFP / deleted CFP
4. Change of CFPs will be checked and incorporated in IB Regional by BKG
5. BKG will inform Data Producers and Regional Coordinator about change

International Boundaries

- Features located on the International Boundary
 - Stable International Boundary
 - Stable features with correct and complete attribution (e.g. ICC-Codes separated by “#”)
 - IB_Regional_2021.gdb → ERM_FeaturesOnBorder
 - Provided by Production Management Team at each kick-off for production
 - Affected feature classes: DamC, DamL, RailrdC, RapidsC, RoadL, WatcrsL
 - If no real changes occur
 - **Data Producer have to exclude features located on the International Boundary from their delivery**



Field	Value
OBJECTID	2
Shape	Point
FCsubtype	RailwayStation
inspireId	_EG.ERM:CUZK.F6159EC3C9794772BA11A56F718E801D
beginLifespanVersion	01.01.2007 00:00:01
F_CODE	AQ125
ICC	CZ#DE
SN	3310
TFC	Joint Railway Station
NAMN1	Železná Ruda-Alžbětín
NAMN2	Bayerisch Eisenstein
NAMA1	Železná Ruda-Alžbetin
NAMA2	Bayerisch Eisenstein
NLN1	CZE
NLN2	GER
TUC	General
RStationID	E.EG.RAILRDC.400001

International Boundaries

- Features located on the International Boundary
 - Procedure if real changes occur

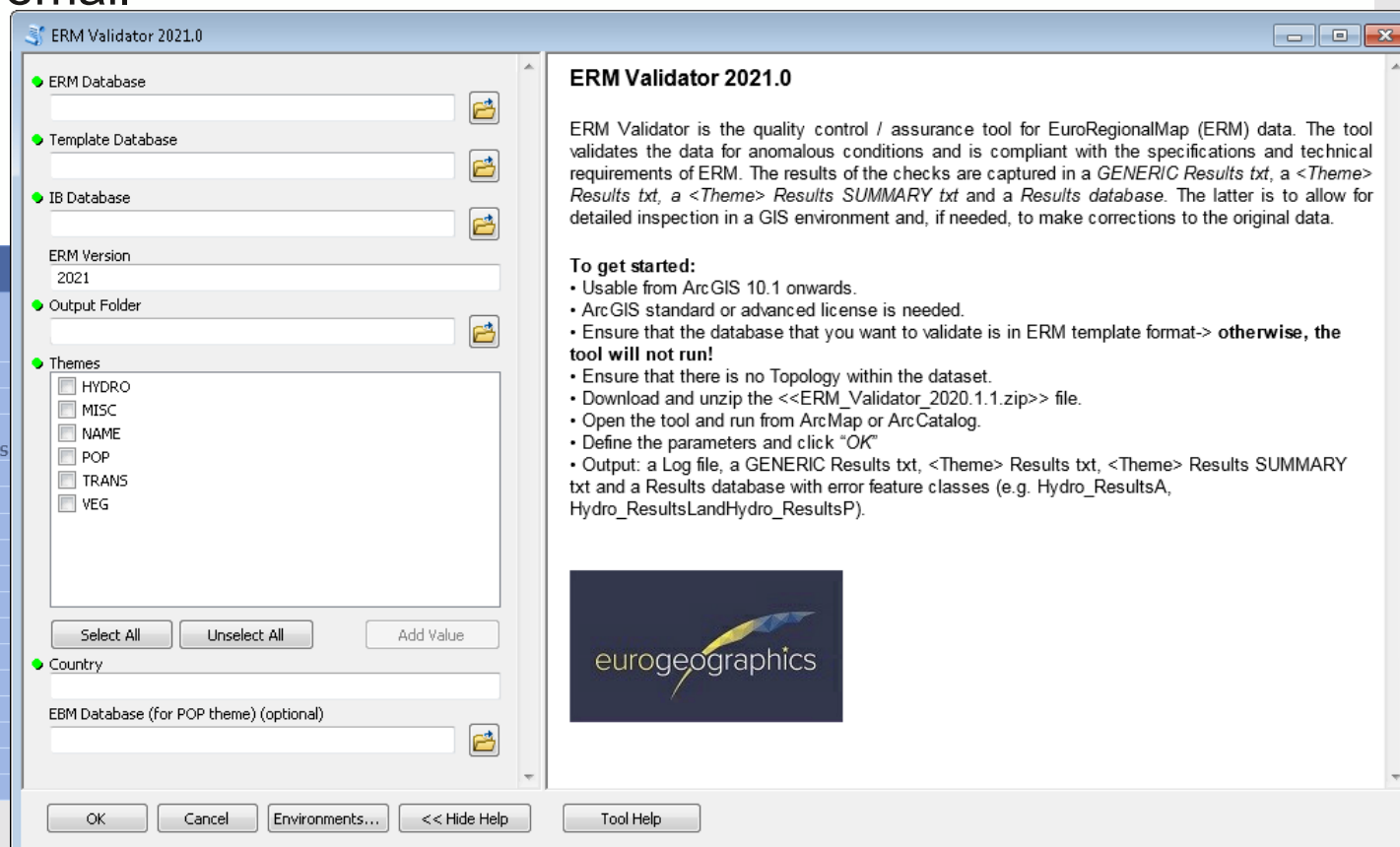


Real change of features on IB

1. NMCAs have to apply edge matching process
2. NMCAs have to inform Regional Coordinator about the agreed new solution and send new features within an extra database
3. Validation of changed features by Regional Coordinator
4. Regional Coordinator send validated features to ERM Production Management Team within an extra database
5. Production management updates the IB Regional ERM_FeaturesOnBorder dataset

ERM Validator

- Publication of ERM Validator 2021 by end of March on BKG-FTP: \ERM_Validator
→ Data Producers will be informed via email
- Checks for themes Settlements and Transport are updated according to changes in specification



	Validation code	Check
General Data Delivery	T001	feature classes AIRFLDA, AIRFLDC, AIRFLDP, EXITC, FERRYC, FERRYL, HARBORA, HARBORC, HARBORL, HARBORP, HELIP, INTERCC, LEVELCC, MISAEROP, RAILRDC, RAILRDL, RESTC, ROADL, RUNWAYL
	T003	coordinate system (GEOGRAPHIC, decimal degrees)
	T004	map extent ($-25^{\circ} < \text{Lambda} < 40^{\circ}$ and $30^{\circ} < \text{Phi} < 80^{\circ}$)
	T005	AIRFLDA, AIRFLDC, AIRFLDP, FERRYC, FERRYL, HARBORA, HARBORC, HARBORP, INTERCC, LEVELCC, RAILRDC, RAILRDL, RESTC, ROADL, RUNWAYL must have features
	T006	Valid Geometry
Geometric resolution (Tested in projection ETRS89 LAEA)	T007	minimum allowed area size: 60 000m ²
	T008	minimum allowed distance between vertices of line and area features: 5m
	T009	minimum allowed length of a line segment: 50m
	T010	statistics of average distance between vertices
	T011	The number of HARBORA areas less than 400 000m ²
Geometric resolution (Tested in projection ETRS89 LAEA)	T012	The number of AIRFLDA areas less than 400 000m ²
	T013	The number of RAILRDL features less than 1600m
	T014	The number of FERRYL features less than 125m
	T015	geometrical definitions (polygon, polyline, point)
Data Model and attributes structure	T016	attributes: complete list, ordering, definition
	T017	attributes: have valid values (FCSubtype, F_CODE)
	T080	attributes: no NULL values

Information and data management

- Information exchange: Production Management System → <https://ebrm.bkg.bund.de/pms>

- Access information for you did not change
- Contacts
- Technical documents, PPT from meetings
- Metadata and lineage information

EBM, ERM and EGM Production Management System

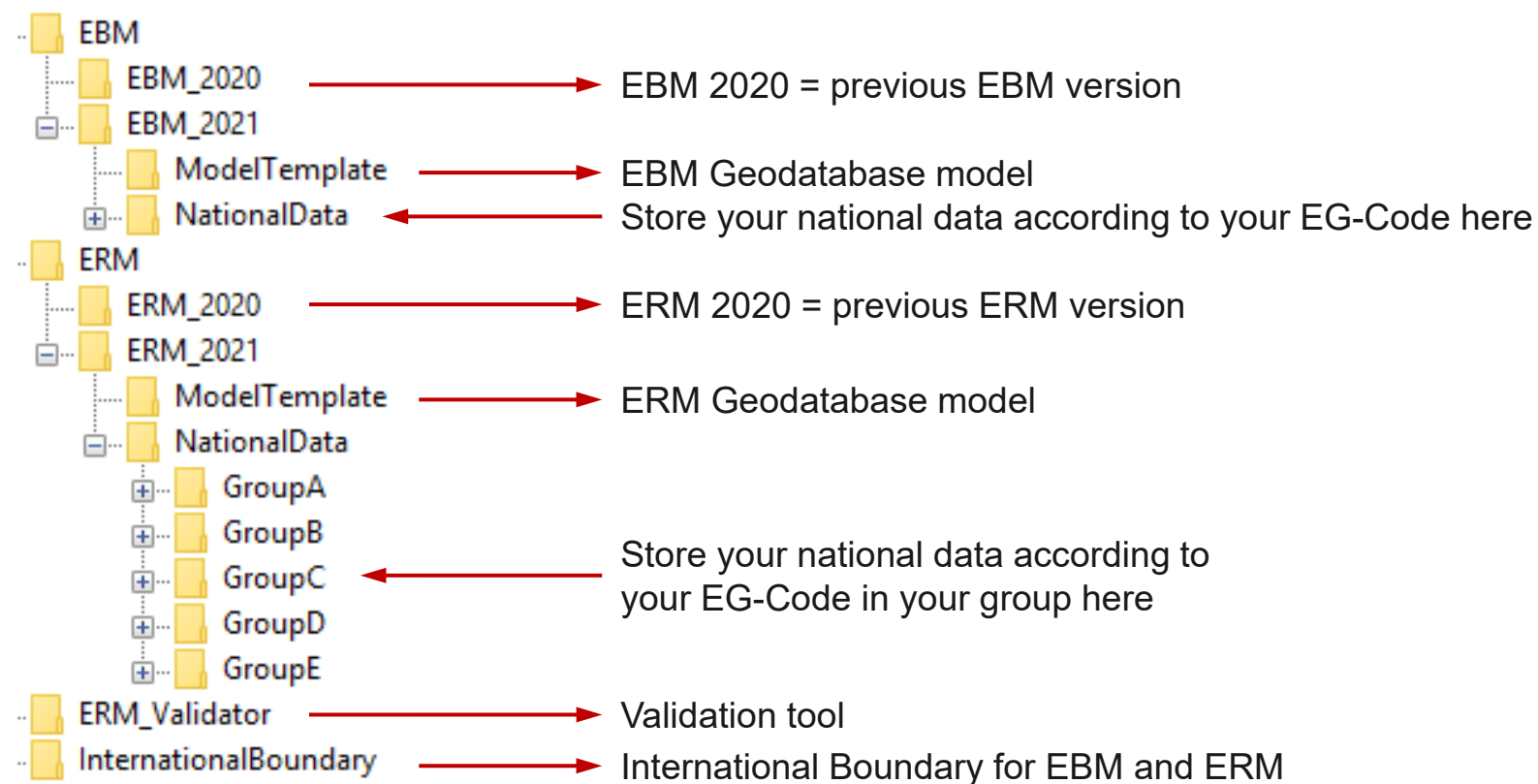
EG Contact/Product Database. organize the contacts and products

- Data exchange: BKG-FTP → <ftp://ftp.bkg.bund.de>

- Please use FTP program
- Access information: Username did not change, new password: **EG_ka#2020**
- Take care of naming conventions:
 - From Data Producers (NMCAs) to Regional Coordinator:
→ ERM_2021_ICC_THEME-THEME_YYYYMMDD.ZIP
 - From Regional Coordinator to Data Producers (NMCAs):
→ ERM_2021_ICC_THEME-THEME_YYYYMMDD_QANumber.ZIP
 - From Regional Coordinator to Production Management Team:
→ ERM_2021_GroupX_THEME-THEME_YYYYMMDD.ZIP

Information and data management

■ Structure of BKG-FTP:



Contact

- If you have any questions concerning the production or you have understanding issues please contact your Regional Coordinator or the Production Management Team at BKG

BKG	Krystallo Grammenou, Alexander Reichelt	ebm@bkg.bund.de
Group A	Tony Baving	tony.baving@kadaster.nl
Group B	Vincent Beauce	vincent.beauce@ign.fr
Group C	Aliona Milentjeva (Giedrė Beconytė, Jelena Vaitkeviciene)	a.milentjeva@gis-centras.lt (g.beconyte@gis-centras.lt , j.vaitkeviciene@gis-centras.lt)
Group D	Andreas Pammer, Miriam Tanzer	andreas.pammer@bev.gv.at , miriam.tanzer@bev.gv.at
Group E	Constantin Nagorneac	cnagorneac@gmail.com

- If you have any questions concerning the ERM Validator please contact Kadaster NL → QMEG@kadaster.nl
- If you have any questions concerning EuroGeographics, the contract with Eurostat or licensing please contact Angela Baker → angela.baker@eurogeographics.org

Webinar of the EG Data Producers to kick-off production

Thank you for your attention

Contact:

Krystallo Grammenou and Alexander Reichelt
Federal Agency for Cartography and Geodesy
Richard-Strauss-Allee 11
60598 Frankfurt am Main / Germany

Email: ebrm@bkg.bund.de