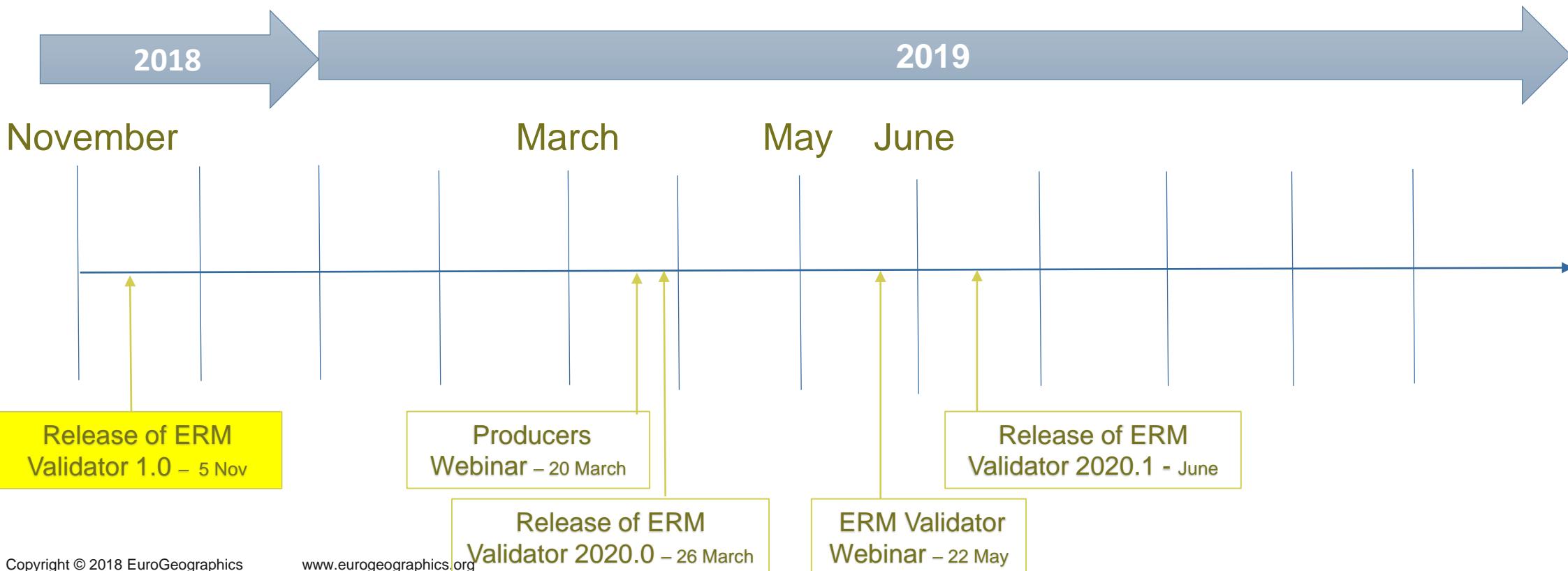


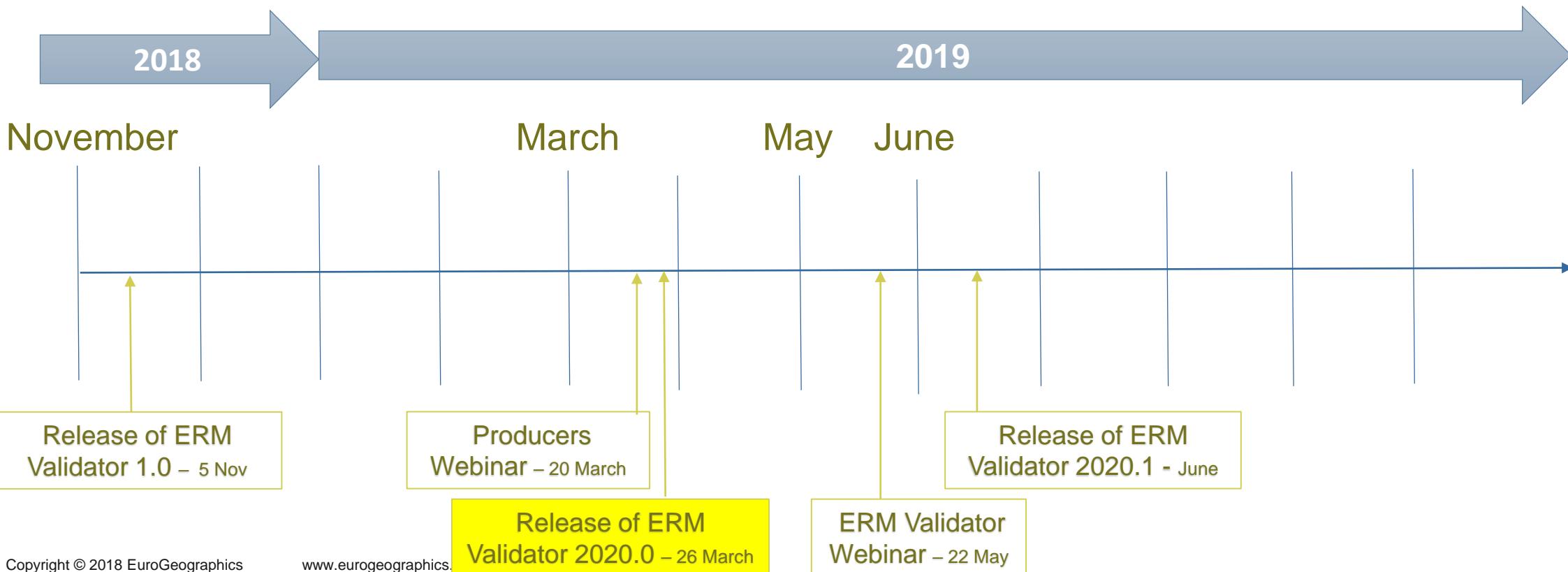
ERM Validator 2019

Marieke Kuijer and Tony Baving
(Kadaster NL)

Planning



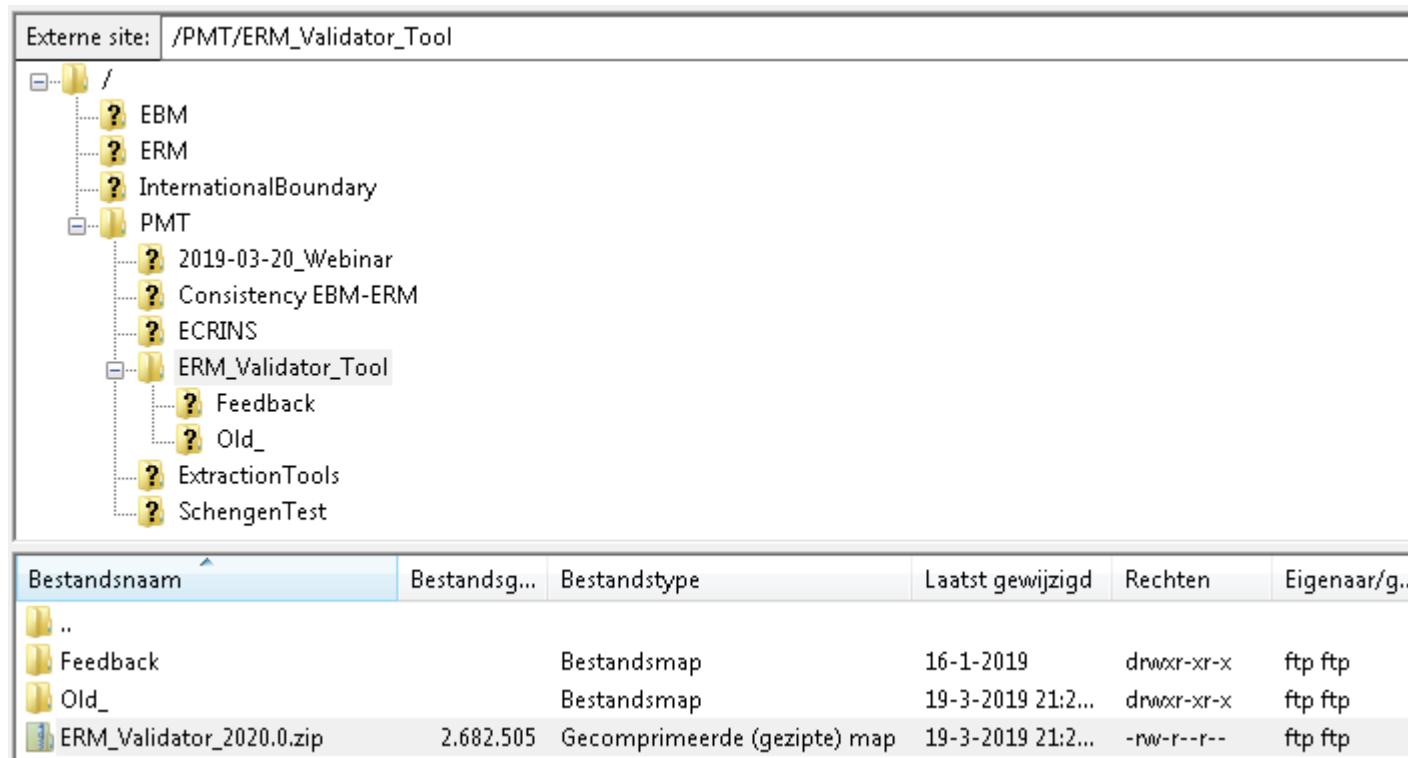
Planning



Release *ERM Validator 2020.0*

BKG-ftp server - 26 March 2019

Externe site: /PMT/ERM_Validator_Tool



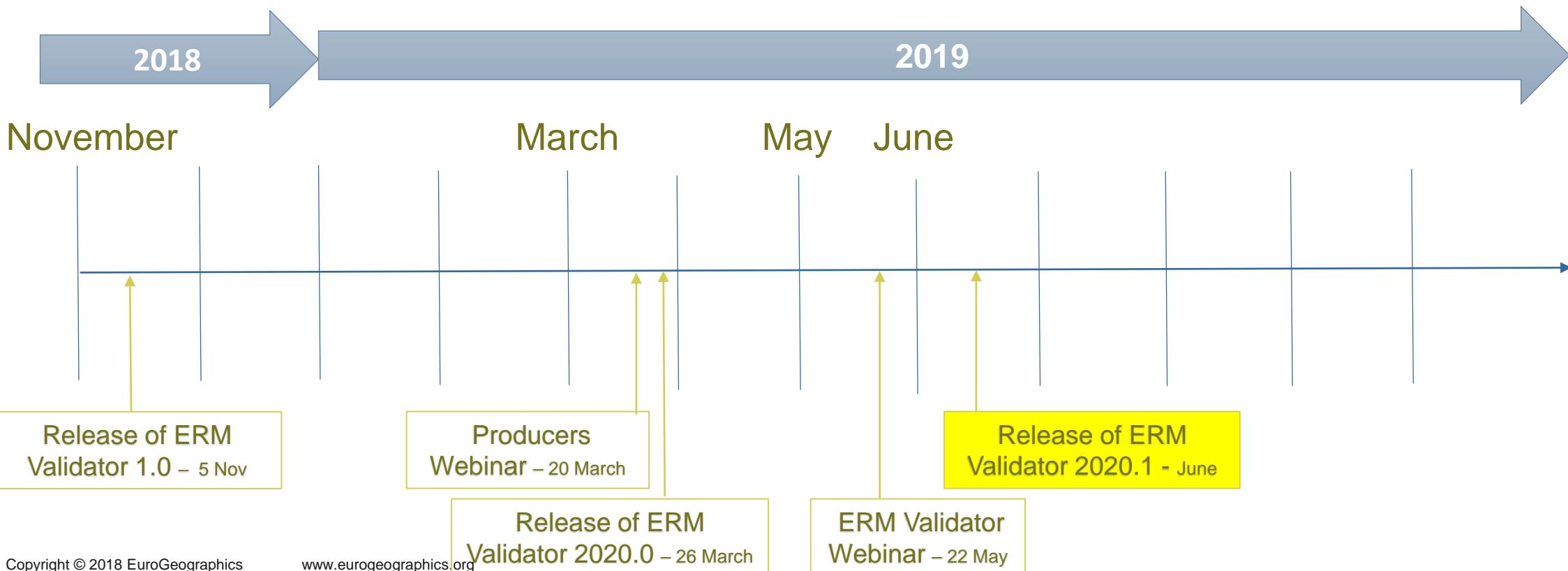
The interface shows the following directory structure:

- /
- EBM
- ERM
- InternationalBoundary
- PMT
 - 2019-03-20_Webinar
 - Consistency EBM-ERM
 - ECRINS
 - ERM_Validator_Tool
 - Feedback
 - Old_
 - ExtractionTools
 - SchengenTest

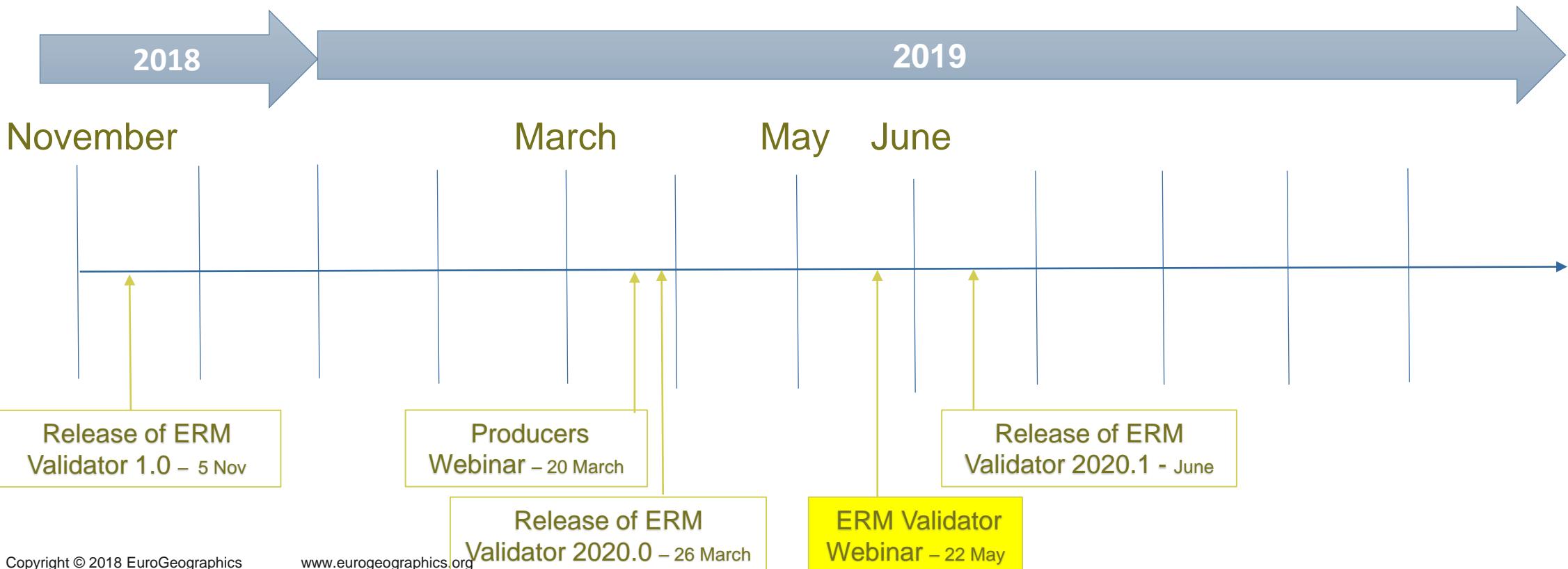
Below the directory tree is a table listing files:

Bestandsnaam	Bestandsg...	Bestandstype	Laatst gewijzigd	Rechten	Eigenaar/g...
..					
Feedback		Bestandsmap	16-1-2019	drwxr-xr-x	ftp ftp
Old_		Bestandsmap	19-3-2019 21:2...	drwxr-xr-x	ftp ftp
ERM_Validator_2020.0.zip	2.682.505	Gecomprimeerde (gezippte) map	19-3-2019 21:2...	-rw-r--r--	ftp ftp

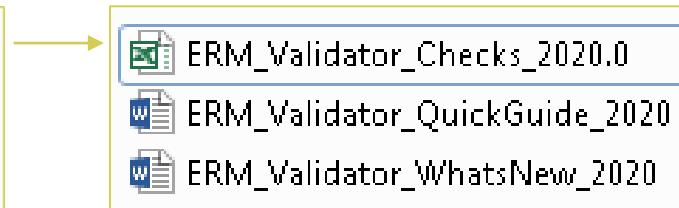
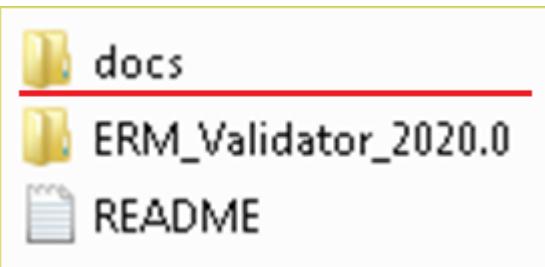
Planning



Planning



Zip-file -> docs



	Validation code	Check	Implemented ERM Validator 2020 tool?
General Data Delivery	H001	feature classes AQUEDCTL, COASTA, COASTL, DAML, DAMC, LAKERESA, LANDICEA, ISLANDA, SEAA, SEASTRTL, SPRINGL, SPRINGC, SWAMPA, RAPIDL, RAPIDSC, WATRCRSA, WATRCRSL, WELLP	<input checked="" type="checkbox"/>
	H002	coordinate system (GEOGRAPHIC, decimal degrees)	<input checked="" type="checkbox"/>
	H003	map extent (-25° < Lambda < 40° and 30° < Phi < 80°)	<input checked="" type="checkbox"/>
	H004	mandatory feature classes COASTA, COASTL, DAML, DAMC, LAKERESA, LANDICEA(BJ030), ISLANDA, SEAA, SWAMPA, WATRCRSA, WATRCRSL must have features	<input checked="" type="checkbox"/>
	H005	Empty or missing tables	<input checked="" type="checkbox"/>
Geometric resolution (Tested in projection ETRS89 LAEA)	H006	Valid Geometry	<input checked="" type="checkbox"/>
	H007	minimum allowed area size: 60 000m ²	<input checked="" type="checkbox"/>
	H008	minimum allowed distance between vertices of line and area features: 5m	<input checked="" type="checkbox"/>
Selection criteria (Tested in projection ETRS89 LAEA)	H009	minimum allowed length of a line segment: 50m	<input checked="" type="checkbox"/>
	H010	statistics of average distance between vertices	<input checked="" type="checkbox"/>
	H011	The number of LAKERESA less than 400 000m ²	<input checked="" type="checkbox"/>
	H012	The number of WATRCRSA less than 200 000m ²	<input checked="" type="checkbox"/>
	H013	The number of SWAMPA, LANDICEA less than 400 000m ²	<input checked="" type="checkbox"/>
	H014	The number of ISLANDA less than 400 000m ²	<input checked="" type="checkbox"/>
	H015	The number of dams and locks less than 125m	<input checked="" type="checkbox"/>
Data Model and attributes structure	H016	The number of dangling AQUEDCTL, WATRCRSL shorter than 1600m	<input checked="" type="checkbox"/>
	H017	The number of shoreline construction (SEASTRTL) shorter than 125m	<input checked="" type="checkbox"/>
	H018	geometrical definitions (polygon, polyline, point)	<input checked="" type="checkbox"/>
	H019	attributes: complete list, ordering, definition	<input checked="" type="checkbox"/>
	H020	attributes: has core attributes (FCSubtype, inspireId, beginLifetimeVersion, F_CODE, ICC, SI)	<input checked="" type="checkbox"/>
	H021	correct value of ICC (all FCs)	<input checked="" type="checkbox"/>
	H022	Name attribute: no special character in NAMA1 or NAMA2	<input checked="" type="checkbox"/>
	H023	allowed attribute values for COASTA (MCC, NAMxx)	<input checked="" type="checkbox"/>
	H024	allowed attribute values for ISLANDA (NAMxx)	<input checked="" type="checkbox"/>
	H025	allowed attribute values for LAKERESA (HYP, HydroID, TID, ZV2, NHI, NAMxx)	<input checked="" type="checkbox"/>



EuroRegionalMap
Pan-European Dataset at Medium Scale

QuickGuide
- Producer version for ERM 2020 -

Security reference level:	Restricted to Eurogeographics code of conduct
Producer Manager:	Eurogeographics for Cartography and Geodesy
Regional Coordinates:	Eurogeod (The Netherlands), IGN-France , DG-Cartes (Luxembourg), BGS (Great Britain), OSPC (Republic of Ireland)
Number of pages:	6 pages
File name:	ERM_Validator_DutchDatabase
Date:	19 March 2019

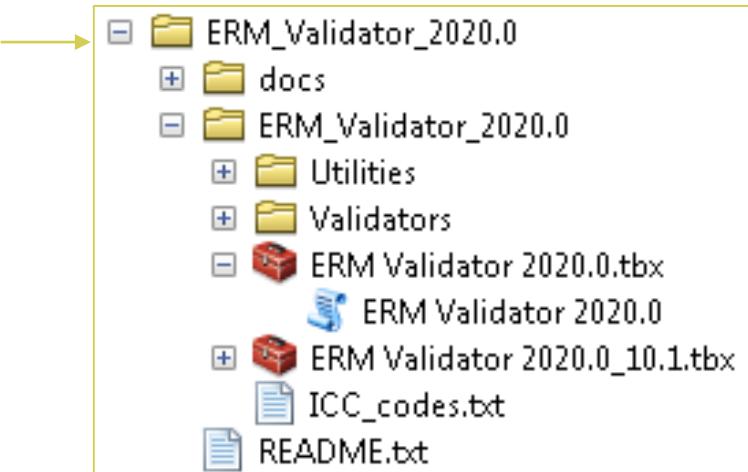
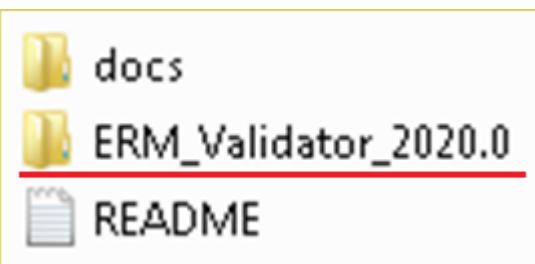


EuroRegionalMap
Pan-European Dataset at Medium Scale

What's New in ERM Validator 2020.0
- Producer version for ERM 2020 -

Security reference level:	Restricted to Eurogeographics code of conduct
Producer Manager:	Eurogeographics for Cartography and Geodesy
Regional Coordinates:	Eurogeod (The Netherlands), IGN-France , DG-Cartes (Luxembourg), BGS (Great Britain), OSPC (Republic of Ireland)
Number of pages:	6 pages
File name:	ERM_Validator_WWWfile-excel
Date:	19 March 2019

Zip-file -> tool



Utilities	Bestandsmap
Validators	Bestandsmap
BNDValidations	Python File
BNDValidations	Compiled Python File
ERM Validation01.pyt	XML-document
ERM Validator 2020.0	ArcGIS Toolbox
ERM Validator 2020.0_10.1	ArcGIS Toolbox
EuropeanLevelValidations	Python File
EuropeanLevelValidations	Compiled Python File
GenericValidations	Python File
GenericValidations	Compiled Python File
Hydro_Topology	JSON-bestand
Hydro_Topology.json.bak	BAK-bestand
HydroValidations	Python File
HydroValidations	Compiled Python File
ICC_codes	Tekstdocument
main	Python File
main.py.bak	BAK-bestand
MiscTopology	JSON-bestand
MiscValidations	Python File
MiscValidations	Compiled Python File
MultiThemeTopologyValidations	Python File

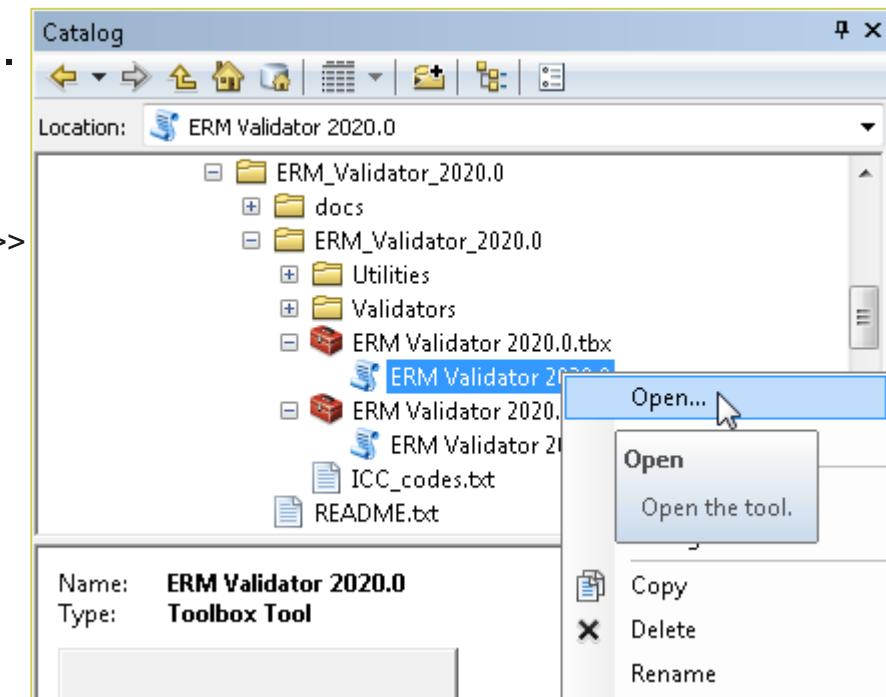
Prerequisites

- Usable from ArcGIS 10.1 onwards.
- ArcGIS standard or advanced license is needed.
- Ensure that the database that you want to validate is in ERM template format-> **otherwise, the tool will not run!**
- Ensure that there is no Topology within the dataset.

Running the tool

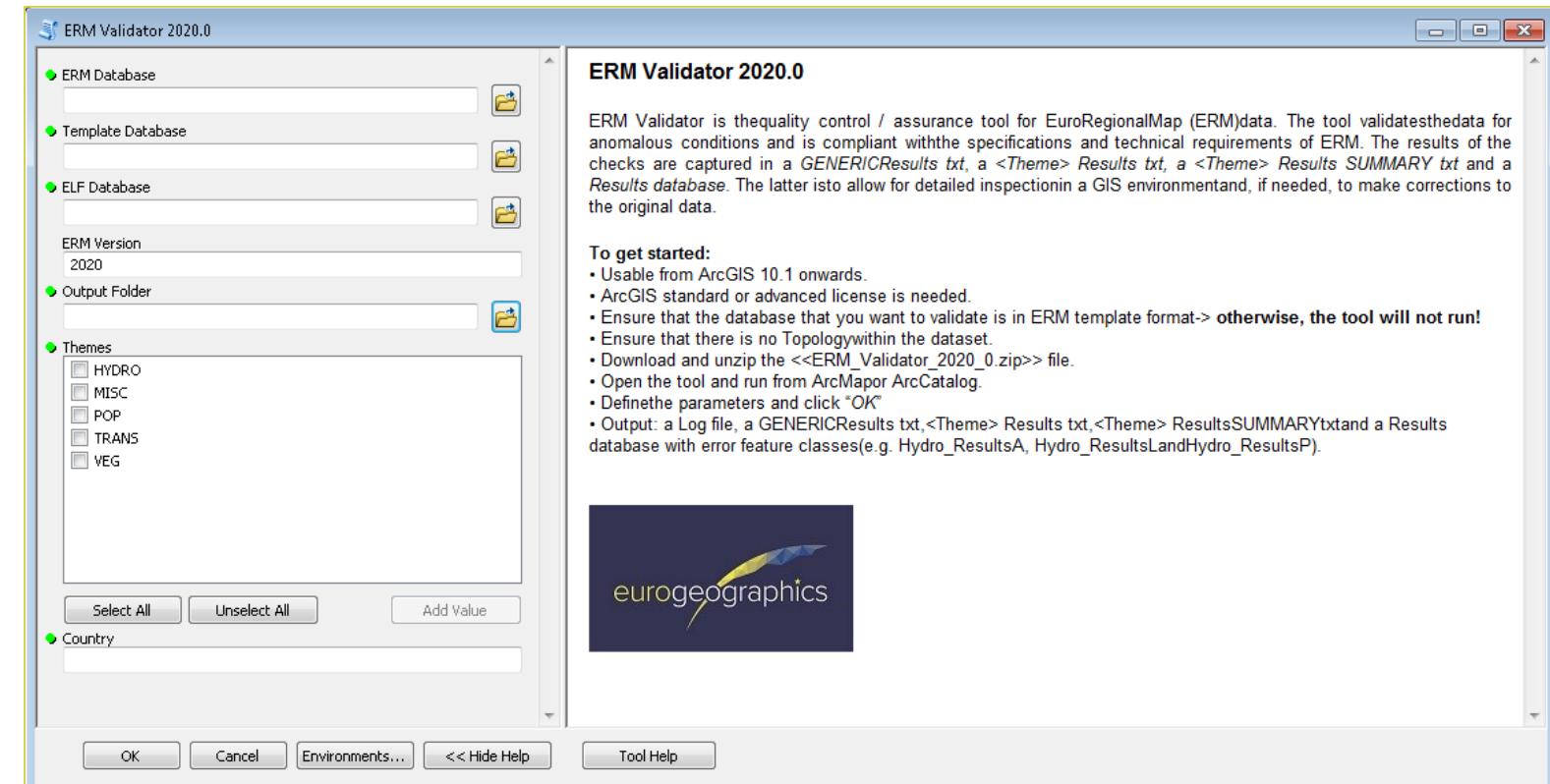
- Download and unzip the <<ERM_Validator_2020.0.zip>> file.
- Open the ArcToolbox and run from ArcMap or ArcCatalog.

Note: Because of a bug, there are currently two ArcToolboxes visible (<<ERM Validator 2020.0.tbx>> and <<ERM Validator 2020.0_10.1.tbx>>). The content of both .tbx are the same, so it does not matter which one you use. However, for users from ArcGIS version 10.3 and older, the script of the <<ERM Validator 2020.0.tbx>> will not be visible.



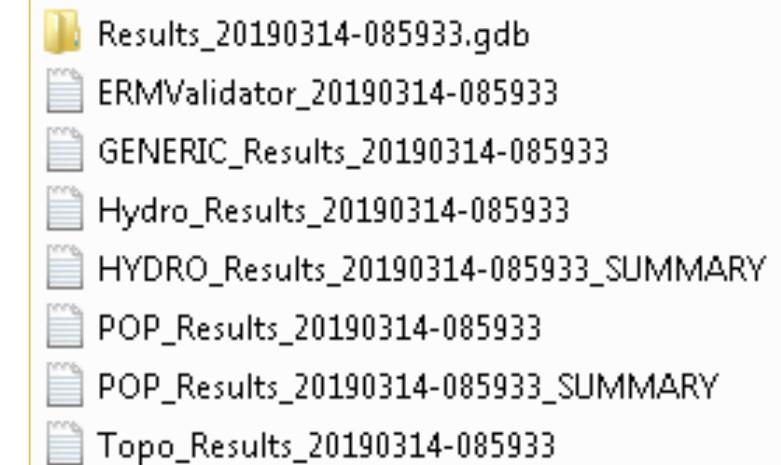
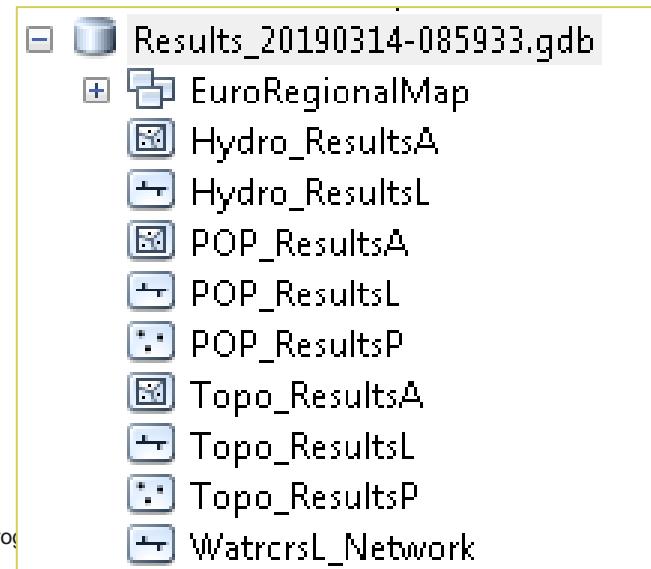
Running the tool

- Define the parameters
 - ERM Database
 - Template Database
 - ELF Database
 - ERM Version
 - Themes
 - Country
 - (ICC codes not necessary anymore)
- Click “OK”



Output

- Log file
- Generic Results txt file
- <THEME> Results txt file
- <THEME> Results SUMMARY txt file -> **input for PMS**
- Results database



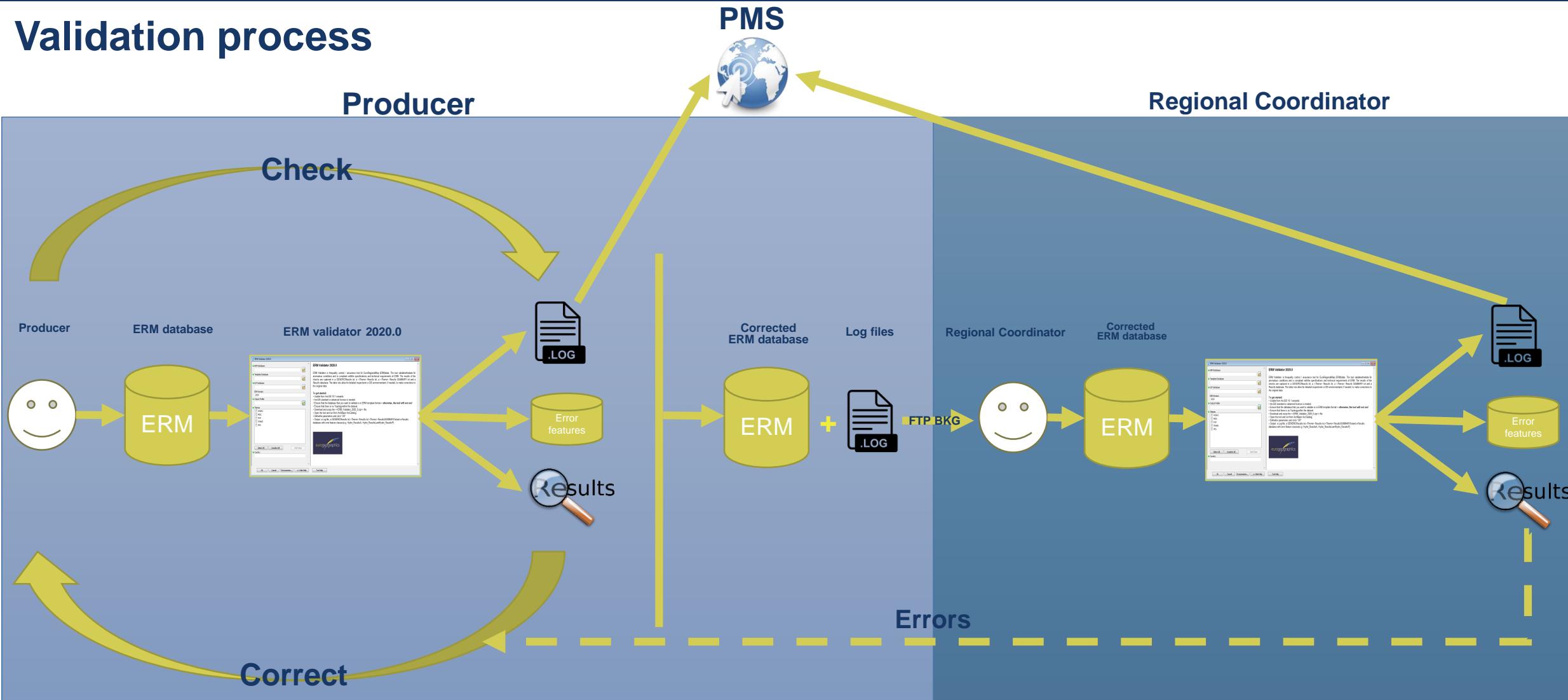
Error handling

- Load the original ERM database in Arcmap.
- Open the output txt files (e.g. Hydro_Results.txt) and load the feature classes from the result database (e.g. Results_20190319-151516.gdb) in the same Arcmap.
- Use ERM_Validator_2020.0_Checks.xls document to get more information about the error.
 - *Validation codes in the txt and feature classes correspond to the codes in this Excel document*
- The RC's would expect that the producers go through all the errors according to the .txt and/or validation results database and correct them in their original source database!
- Some errors easily could be corrected automatically (calculated field and other geoprocessing tools)
- Please send an explanation about the exceptions to the RC's.

What's new

- Documentation (Quick Guide / What's New)
- Naming of tool
- Fixes (e.g.)
 - Minimum vertex distance checks was incorrect for polygon feature classes
 - Minimum vertex distance check was not using the correct CRS
- Improvements (e.g.)
 - Improve error logging in case of crash
 - Change tool to only ask for one or more country codes. C1#C2 ICC codes are loaded from a file.
 - Generate SUMMARY files for PMT
- New validators (MinimumLengthInNetworkValidator.py / NameFieldLangCodeValidator.py)
- ICC codes automatically filled from ISO landcode
- Summary txt per theme
- Results in PMS

Validation process



Next steps

- Additional webinar on ERM Validator-> **22 May 2019 10pm CET**
- Add checks that are not yet implemented (validation report)
 - (e.g. language code, duplicate check, adjacent faces)
- Integrate consistency checks from BKG – EBM/ERM (POP)
- Add statistics session
- Outside extent
- Investigate use of tool in ArcGIS Pro

Summary

- On March 26th the new version (2020.0) will be uploaded to the BKG FTP server.
- In June, release of ERM Validator 2020.1 (including EBM-ERM FME pop checks)
- Check your Hydro and POP data with the tool before sending it to your RC.
- On May 22nd CET we will be giving a Webinar. Optional. Need help or have specific questions. We will send you an invitation for this webinar.

Thank you for your attention

Contact:

Email: qmeg@kadaster.nl