Report from Work Group B – Data Integration

UN-GGIM: Europe Regional Committee
5th October 2016, Budapest, Hungary

Pier-Giorgio Zaccheddu, "International affairs" @ BKG

UN-GGIM EUROPE | UNITED NATIONS COMMITEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

SUSTAINABLE DEVELOPMENT GOALS

UN-GGIM: Europe – Work Plan 2015-2018

The substantial part of the proposed Work Plan for 2015 – 2018 is the continuation of the Plan adopted in 2015:

Work Group A: Core Data

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2. Economic model for production & distribution of core data (*End 2017*)
3. Existing political & financial frameworks supporting core data availability (*Mid-2018*)

Work Group B: Data Integration

1. Definition of the priority user needs for data combinations (*accomplished*)
2. Recommendation for implementing prioritized combinations of data (*Mid-2016*)
   → To be completed in November 2016
3. Recommendation how to manage side-effects induced by data combinations (*Mid-2016*)
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→ **Follow-up work plan 2017 – 2020:** *"As a European contribution to the global process on developing a framework for monitoring UN SDG indicators, UN-GGIM: Europe will through the WG on "Data Integration", ensure a two-way interaction with the IAEG-SDG Working Group on Geospatial Information."*

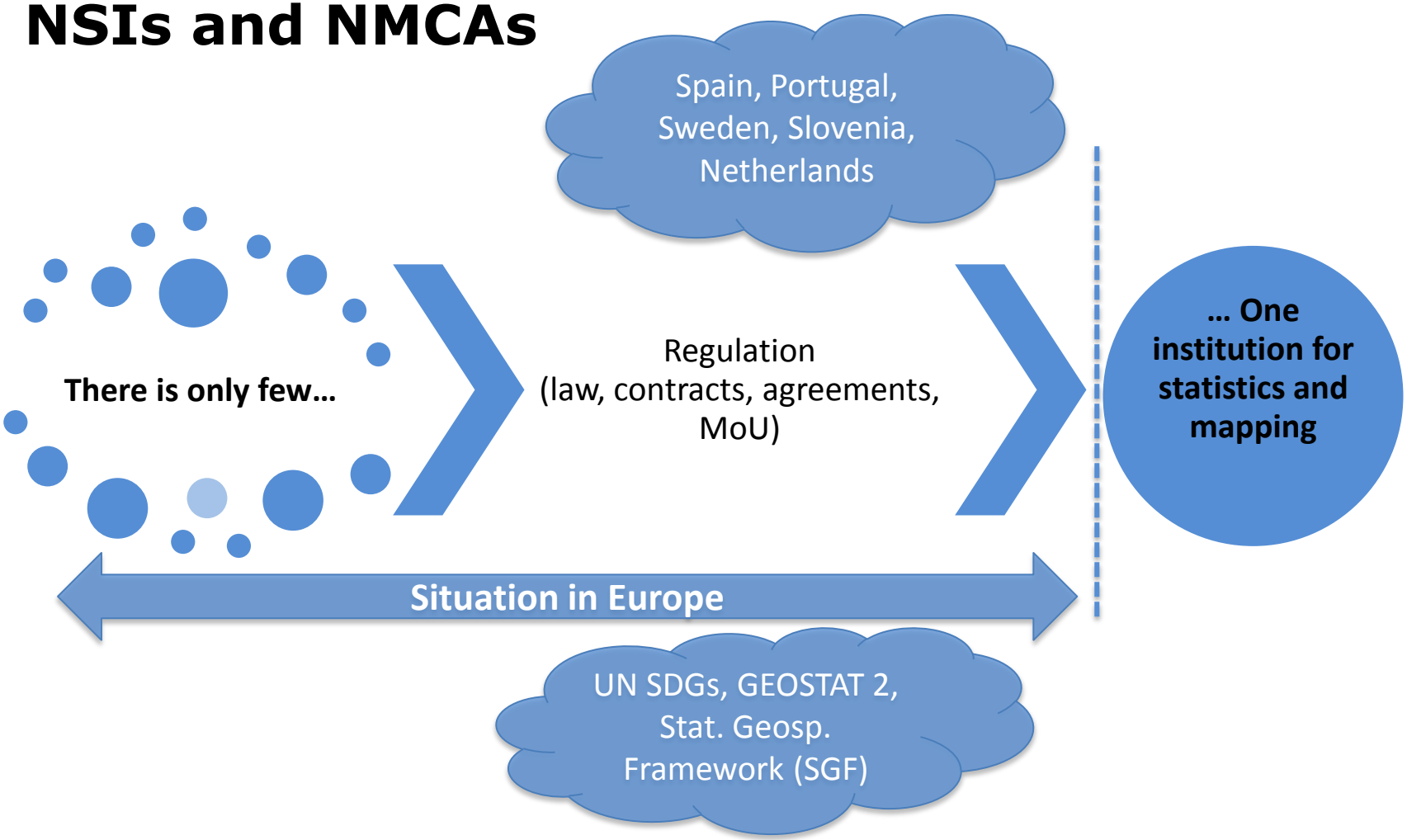
Report B1: "priority user needs " accomplished mid-2015

- Definition of the priority user needs for combinations of data (Mid-2015).

  Title: "Definition of priority user needs for combinations of data"

- Collect policy relevant use cases, focus on evidence based decision making
- Elaborate use cases → derive user needs → recommendations
- 40+ Use cases were collected
- 5 Recommendations
- Report uploaded on the UN-GGIM: Europe website

Report B2: "methods" – Interaction between NSIs and NMCAs

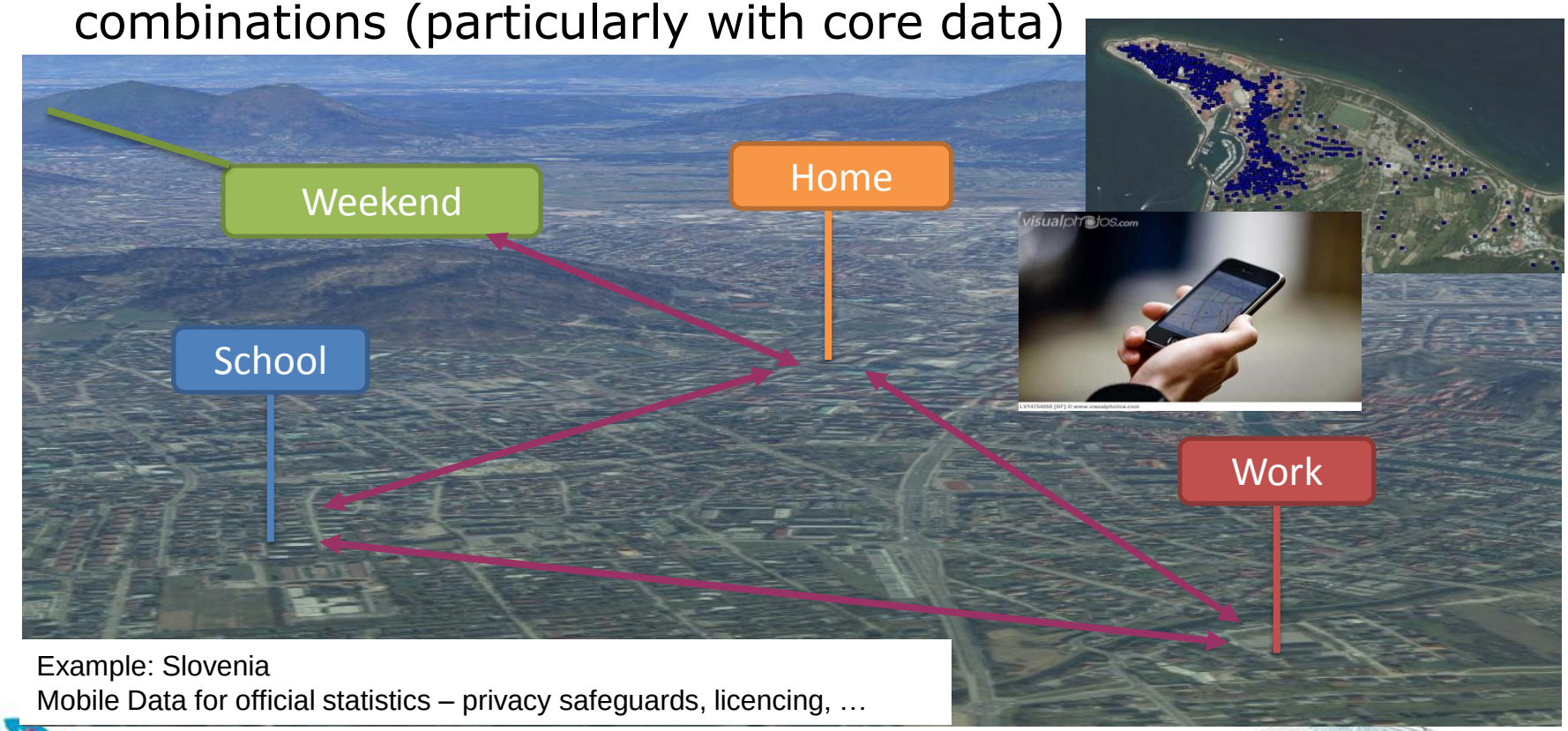


→ Recommendations for improving the interaction

Report B2: "methods" – Multiple sources

Review of the current use of data from multiple sources

- identify case studies and best practices relevant for data combinations (particularly with core data)



Example: Slovenia
Mobile Data for official statistics – privacy safeguards, licencing, …

Report B3: "side-effects" – mainly obstacles

- What is a "side effect"?
  - *"[...] is something that occurs unintendedly after the data combination and needs further effort to be removed, exploited or steered... maximize the positive effects and minimize the negative […]"*
- Side effect classification
  - using the aspects of (interoperability) frameworks
- Collection of side effect examples (description)
  - side effects in existing B1 examples and other Member States examples
- How do side effects influence interoperability and usability?

→ We received contributions from SE, DE, FI, PL, RS, ES
→ Sent to ExCom for approval

Report B3: “side-effects” – examples

a) Matching statistics with administrative boundaries

Mecklenburg-Western Pomerania:

12 Administrative districts
6 Towns not attached to an administrative district

Administrative reform

04.09.2011

6 Administrative districts
2 Towns not attached to an administrative district

31.12.2010

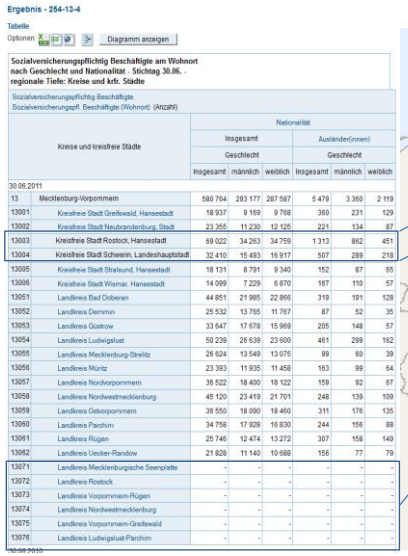
30.06.2011

Employment rate 2011

Population aged 15 – 64 years

Employees subject to social insurance contribution (Place of residence)

Employment rate 2011
(Reference date: 30.06.)



Ergebnis - 254-12-4

Tabelle

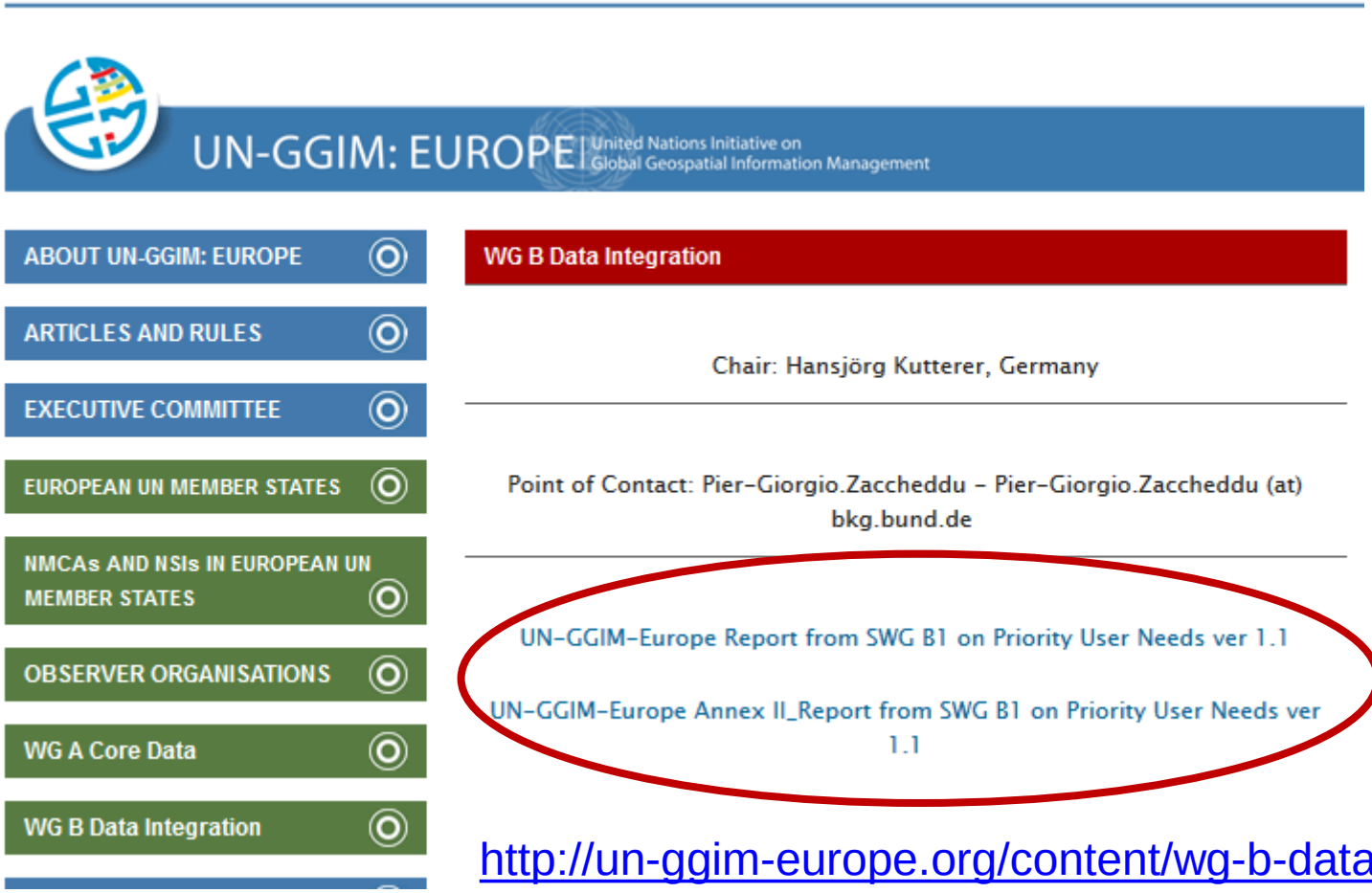
Optionen: Diagramm anzeigen

Sozialversicherungspflichtig Beschäftigte am Wohnort nach Geschlecht und Nationalität - Stichtag 30.06. - regionale Tiefe: Kreise und krfr. Städte

Sozialversicherungspflichtig Beschäftigte
Sozialversicherungspfl. Beschäftigte (Wohnort) (Anzahl)

Kreise und kreisfreie Städte	Nationalität					
	insgesamt			Ausländer(innen)		
	Geschlecht			Geschlecht		
	insgesamt	männlich	weiblich	insgesamt	männlich	weiblich
30.06.2011						
13 Mecklenburg-Vorpommern	580 764	293 177	287 587	5 479	3 360	2 119
13001 Kreisfreie Stadt Greifswald, Hansestadt	18 937	9 169	9 768	360	231	129
13002 Kreisfreie Stadt Neubrandenburg, Stadt	23 355	11 230	12 125	221	134	87
13003 Kreisfreie Stadt Rostock, Hansestadt	69 022	34 263	34 759	1 313	862	451
13004 Kreisfreie Stadt Schwerin, Landeshauptstadt	32 410	15 493	16 917	507	289	218
13005 Kreisfreie Stadt Stralsund, Hansestadt	18 131	8 791	9 340	152	87	65
13006 Kreisfreie Stadt Wismar, Hansestadt	14 099	7 229	6 870	167	110	57
13051 Landkreis Bad Doberan	44 851	21 985	22 866	319	191	128
13052 Landkreis Demmin	25 532	13 765	11 767	87	52	35
13053 Landkreis Güstrow	33 647	17 678	15 969	205	148	57
13054 Landkreis Ludwigslust	50 239	26 639	23 600	461	299	162
13055 Landkreis Mecklenburg-Strelitz	26 624	13 549	13 075	99	60	39
13056 Landkreis Müritz	23 393	11 935	11 458	163	99	64
13057 Landkreis Nordvorpommern	36 522	18 400	18 122	159	92	67
13058 Landkreis Nordwestmecklenburg	45 120	23 419	21 701	248	139	109
13059 Landkreis Ostvorpommern	36 550	18 090	18 460	311	176	135
13060 Landkreis Parchim	34 758	17 928	16 830	244	156	88
13061 Landkreis Rügen	25 746	12 474	13 272	307	158	149
13062 Landkreis Uecker-Randow	21 828	11 140	10 688	156	77	79
13071 Landkreis Mecklenburgische Seenplatte	-	-	-	-	-	-
13072 Landkreis Rostock	-	-	-	-	-	-
13073 Landkreis Vorpommern-Rügen	-	-	-	-	-	-
13074 Landkreis Nordwestmecklenburg	-	-	-	-	-	-
13075 Landkreis Vorpommern-Greifswald	-	-	-	-	-	-
13076 Landkreis Ludwigslust-Parchim	-	-	-	-	-	-

Further information about UN-GGIM: Europe WG „Data Integration“ – Website



http://un-ggim-europe.org/content/wg-b-data-integration

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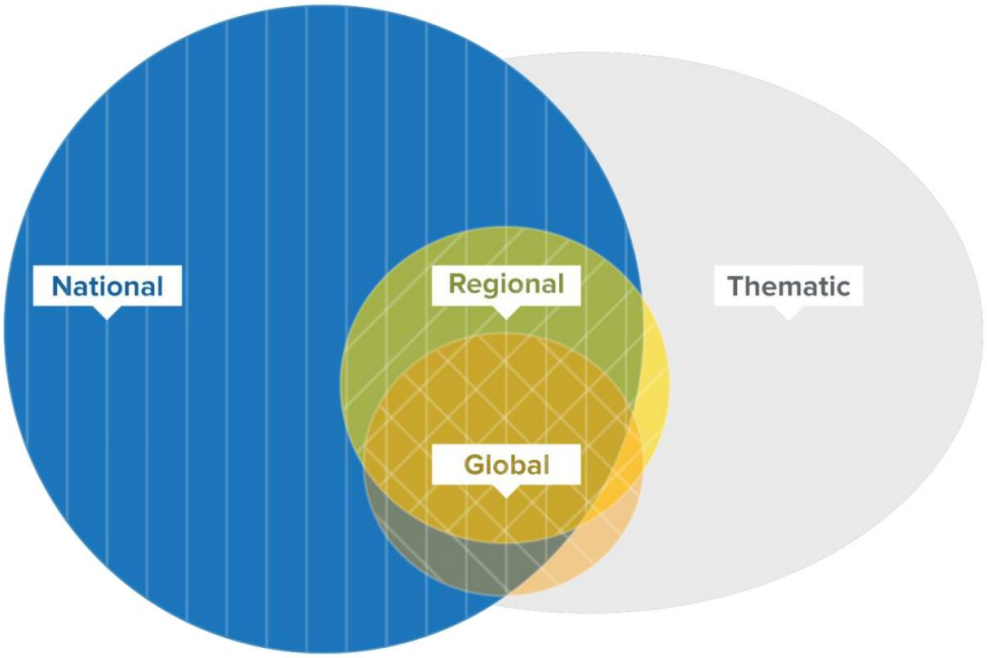
Global SDG monitoring



- Each target (169) shall be measured → at least 1 indicator/target
- Global indicators to be measured by all Members States
- Additionally regional and national indicators
- Predominantly taken from official data
- Status - # 231 indicators:
  - 40% negotiated (calculation possible)
  - 30% to be adapted
  - 10% calculation not yet possible
  - 20% to be determined

Geospatial data can support the indicator measurement

SUSTAINABLE DEVELOPMENT GOALS

Indicator 2.4.1: Percentage of agricultural area under sustainable agricultural practices

Denominator: Agricultural Area = sum of arable land + permanent crops + permanent meadows and pastures (FAOSTAT)

Numerator: Land areas under productive and sustainable agricultural practices are those where indicators selected across the environmental, economic and social dimensions reach certain predefined values

Indicator 6.5.2: Proportion of transboundary basin area with an operational arrangement for water cooperation

Indicator 6.6.1: Change in the extent of water-related ecosystems over time

Indicator 15.1.1: Forest area as a proportion of total land area

Indicator 15.3.1: Proportion of land that is degraded over total land area

Indicator 15.4.2: Mountain Green Cover Index

http://spaceflightnow.com/soyuz/vs07/images/
http://www.d-copernicus.de/

UN structure for the SDG monitoring

global

Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG SDGs)	• provide a proposal of a global indicator framework (and associated global and universal indicators)"
IAEG SDGs Working Group on „Geographic Information" (IAEG SDG WG GI)	• advance the understanding and the role of geospatial information in contributing to the indicator framework

regional

UN-GGIM:Europe Work Group „Data Integration"	• Contribute to the global process and ensure a two-way-interaction with the IAEG SDG WG GI

Support of „Task Team UN-GGIM" for IAEG SDG (led by DK) 2016

2030 Agenda - Sus Geospatial co	Target	Indicator	Addresses	Administrative units	Built-up area polygons	Cadastral parcels	Geographical names	Habitats and biotopes	Transport networks	.....	Additional geometry
Goal: Target: Indicator:											
Definition of the indicator: (State the definition											
Indicator disaggregation: (List the indicator disa disability, geographic location and other characteris implementation of the SDGs).	**Goal 1 End poverty in all its forms everywhere**										
Current suggested use of geospatial data for by the existing metadata – the "as-is" situation).	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age , employment status and geographical location (urban/rural)	X								
Suggested geospatial data integration	**Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**										
GAP analysis: (Describe what changes in use of c suggested/current procedure for monitoring the ind requirements - going from the "as-is" situation in th	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.1.1 Proportion of the rural population who live within 2 km of an all-season road		X					X		
List required geospatial data: (Develop a list fr themes which are required to support the to-be situ	**Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable**										
Data quality requirements: (List in general term relevant parameters: Resolution, completeness, log certain international standards should be followed. resolution and disaggregation).	11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities		X	X						"Open space" polygons
Data availability: (List the data availability: 1) ge countries), 2) Source: Accessible through services or are there restriction on use).											
Data collection: (Describe how the geospatial da overcome – are there many sources to collect from											
Data interpretation: (Describe which analysis, procedures and computations are needed to provide the results needed to support the reporting requirements ("to-be" situation)).											
Method of integration: (Describe how the geospatial data are envisaged to be integrated in the monitoring cycles).											

Using INSPIRE framework and structures…

Tasks assigned to IAEG SDG WG GI supported by the UN-GGIM:Europe WG Data Integration 2016-2017

- Review the agreed global indicators through a 'geographic location' lens;
- Review the "metadata" compiled for the global indicators through a 'geographic location' lens;
- Consider and review the tier classifications for the agreed global indicator, their level of "maturity" and appropriateness from a 'geographic location' lens;
- Identify existing geospatial data gaps, geospatial methodological and measurement issues;
- Consider how geospatial information can contribute to the indicators and metadata;
- Propose means of addressing data gaps and issues

Tasks assigned to IAEG SDG WG GI supported by the UN-GGIM:Europe WG Data Integration beyond 2017

- Propose strategies for undertaking methodological work on specific areas for improving disaggregation by geographic location and in particular for national and sub-national reporting
  - And in this regard, to report to the High-Level Group, Statistical Commission and Committee of Experts on Global Geospatial Information Management; and
- Review options and provides guidance to IAEG-SDGs on the role of National Statistical Offices in considering and applying Earth observations and geospatial information primarily as a means to contribute to and validate data as part of official statistics.

Specific tasks for the UN-GGIM:Europe WG Data Integration

- Develop practical examples (best practice) on specific national implementations on how Geospatial Information can support in processes in achieving the SDGs and where the need shows to measure, monitor and mitigate challenges
- suggest links between communities: demographic, statistical and environmental data together with the Geospatial Location – ranging from the conceptual level to specific indicators.

Possible conflicts of interest for the SDG monitoring and reporting…

Competition of different actors
concerning the definition of methods, coordination

Competition of different analysis levels
global vs. national vs. regional

Competition of available geospatial data
remote sensing data vs. In-situ (geospatial reference vs. thematic)

Competition of different analysis methods
for different resolution levels / scales

Information exchange and coordination needed
between organisations, working groups (national, European)

Lessons learned from the INSPIRE framework and implementation…

Breakout Session

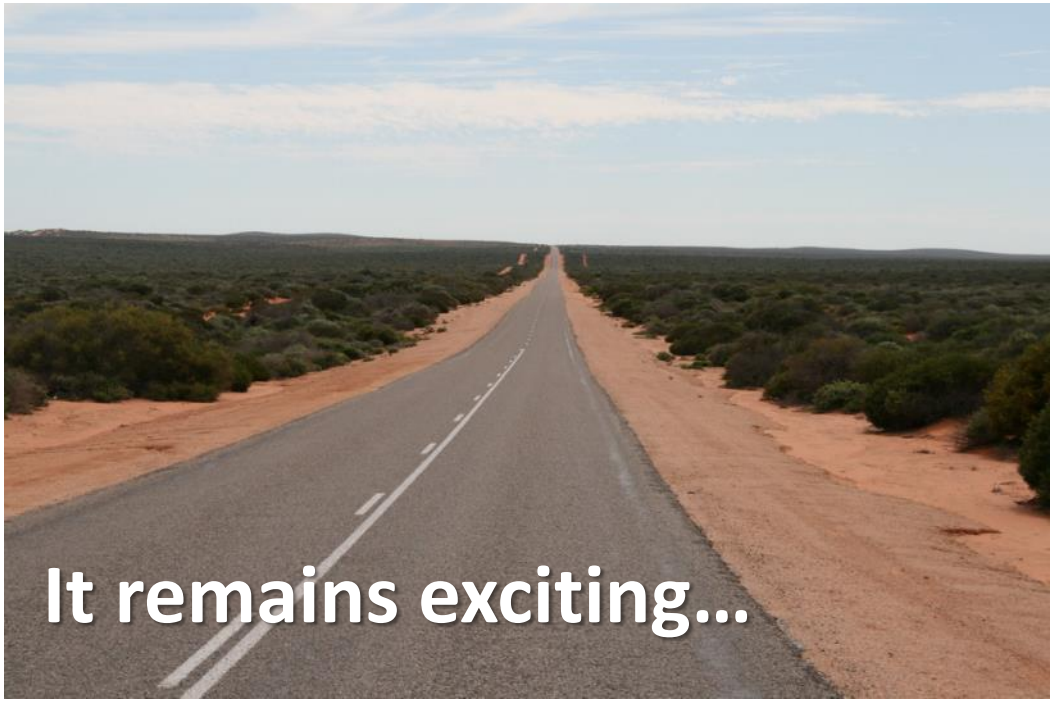
There are still some questions to be answered…

- **Who is in charge nationally to consolidate the information for the Members States?**
- **Which national ministry will be in charge for the coordination?**
- **Which national organization collects and submits the reports to the UN?**
- **Which national organisation validates the information compiled for the UN?**
- **What regional analysis for Europe are needed and who will do what?**
- **What cooperation efforts between NSIs and NMCAs are envisaged?**

Roles and tasks for the NMCAs, NSIs,…

INSPIRE (and Copernicus) for European analysis and reports

Thank you for your kind attention!



Chair: Prof. Hansjörg Kutterer
Contact: UN-GGIM: Europe, WG B „Data Integration“:
Pier-Giorgio Zaccheddu, „Technical Leader“
E-Mail: pier-giorgio.zaccheddu@bkg.bund.de