

Data and methodologies needed for sustainable aggregates planning

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CONTENTS

- **WP4 Handbook**
- **Data needs**
- **Identified key issues**
- **Key challenges for SEE countries**

WP4 Handbook

WP4



Purpose

To identify the data needs and related analysis methodologies that can be used to turn raw data into useful supporting information for primary and secondary aggregates planning

WP4



Activities

- 4.1. Identification of data needs
- 4.2. Data analysis methodologies
- 4.3. Supporting materials on data and methodologies

WP4 Handbook

A Handbook on Data and Analysis Methodologies for aggregates planning in SEE countries as reference material for partner and other interested public

WP4 output

It discusses the various types of data needed for the planning process as well as the methods for validating and analyzing data, including approaches to demand forecasting

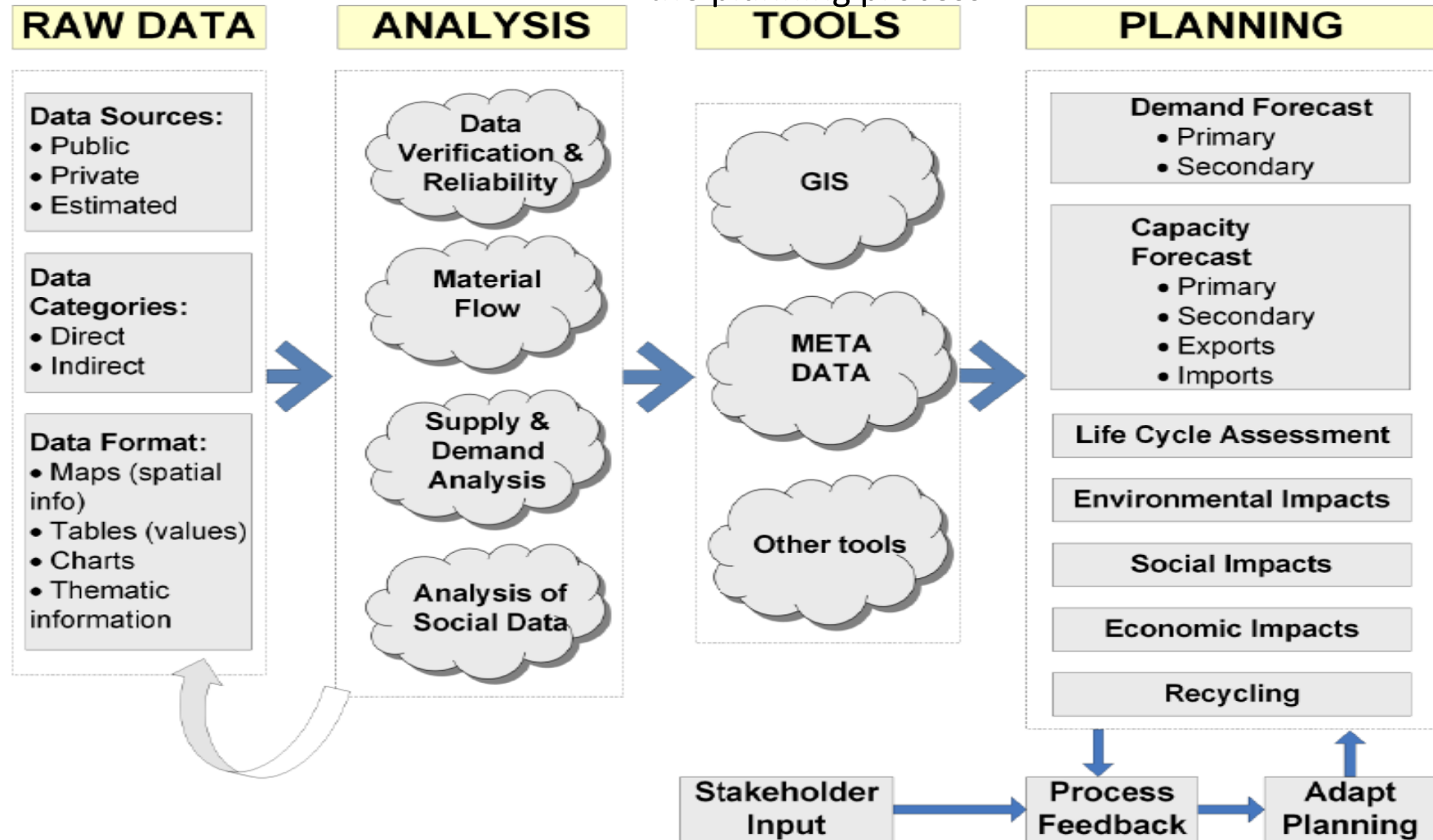


Data needs

In simple terms, when planning for aggregates supply, two questions need to be clearly answered:

- (a) How much aggregates we need to cover the needs of a particular consumption area for a specific future time-period?
- (b) How much is available from primary and secondary sources in this area?

Raw data are collected from various sources, analyzed, checked and finally used for the planning process



Data needs

Data pertaining to primary aggregates need to include the following:

1. Data for safeguarding aggregate resources and/or operations in land use plans;
2. Data on the extent, quality and if possible quantity of aggregate resources and their relationship to national planning designations;

important for identifying areas of future mineral workings and protecting aggregates resources against sterilisation

Data needs

3. Data that describe the current extent of permitted reserves, the rate of depletion through sales, the rate of replacement through new permissions and the resultant landbanks*;
4. Data on sales, production/ production capacity, consumption and imports/exports, usually a result of surveys;
5. Compilation of annually updated directories of active and inactive (permitted) aggregate quarries;
6. Data on aggregates demand; this will be the result of demand forecasts scenarios, based on appropriate methodologies.

* *A landbank is the sum of permitted reserves at a given point in time and for a given area. It is usually expressed in terms of years supply at an average rate of output. It provides an indicator of the degree of need for new permissions to be granted*

Data needs

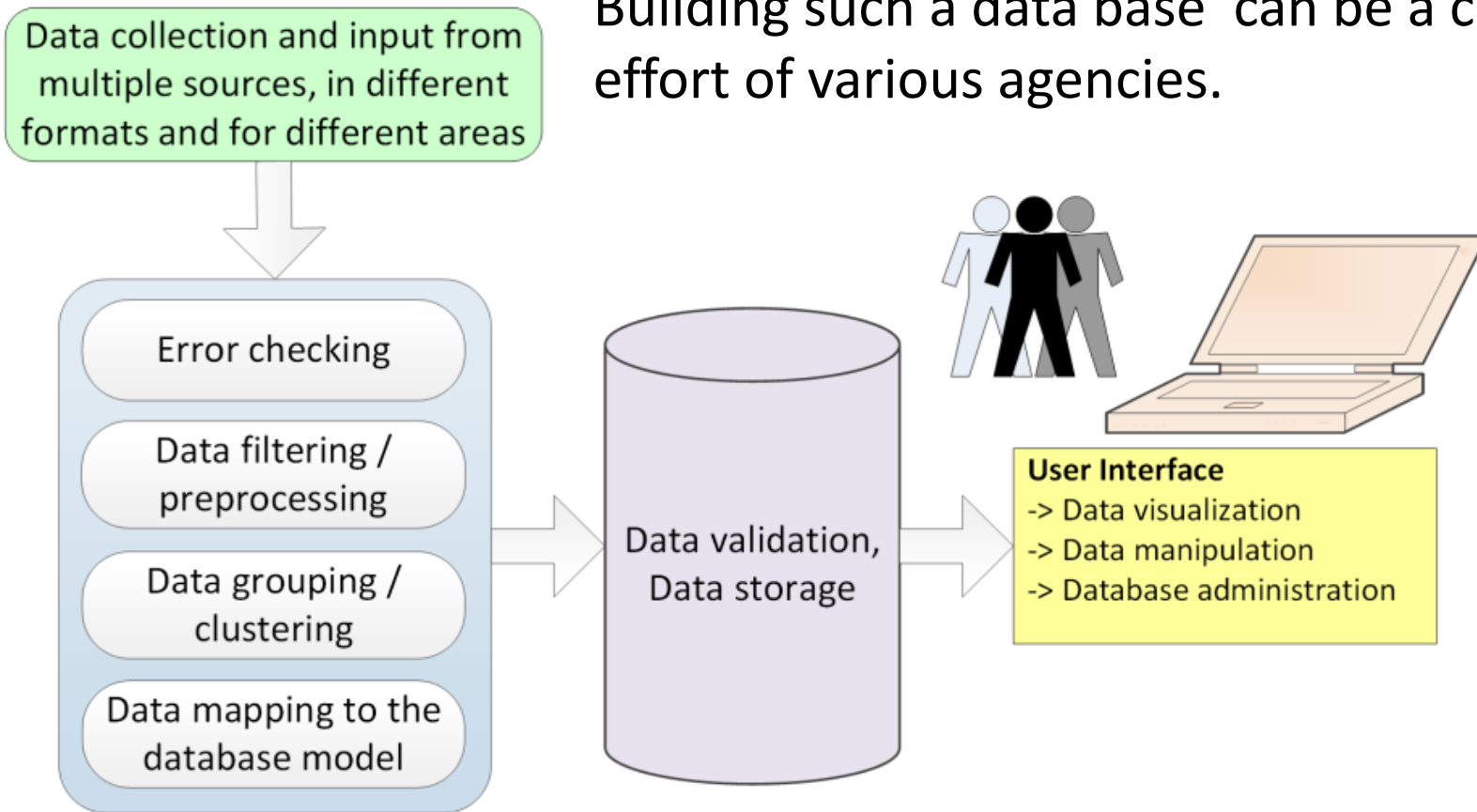
Data pertaining to secondary aggregates need to include the following:

1. Volumes and percentages per type of secondary resources produced;
2. Volumes and percentages per type of secondary resources recycled*;
3. Volumes and percentages of recycled used as aggregates, replacing primary.

** Calculations of the % of C&DW recycled are usually based on the quantities managed by the recycling facilities. Data on recycling, use and quantities managed by the recycling facilities and disposal of C&DW at licensed landfills, may be collected via voluntary surveys and from existing databases*

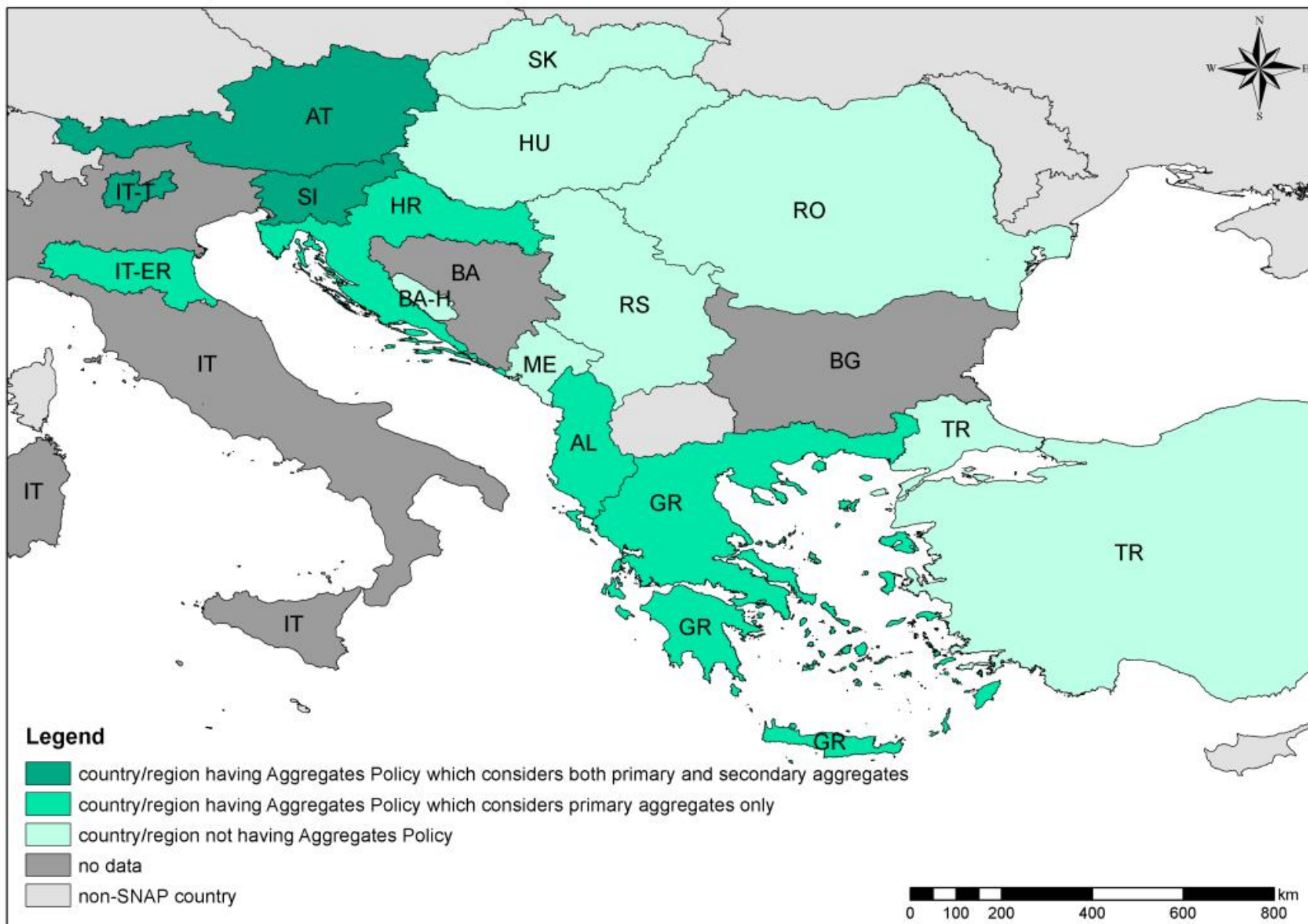
Data needs (format, storage...)

Once the data are identified and collected, they need to be compiled, validated and stored in a data base for retrieval by authorized users. Building such a data base can be a collaborative effort of various agencies.



Identified key issues

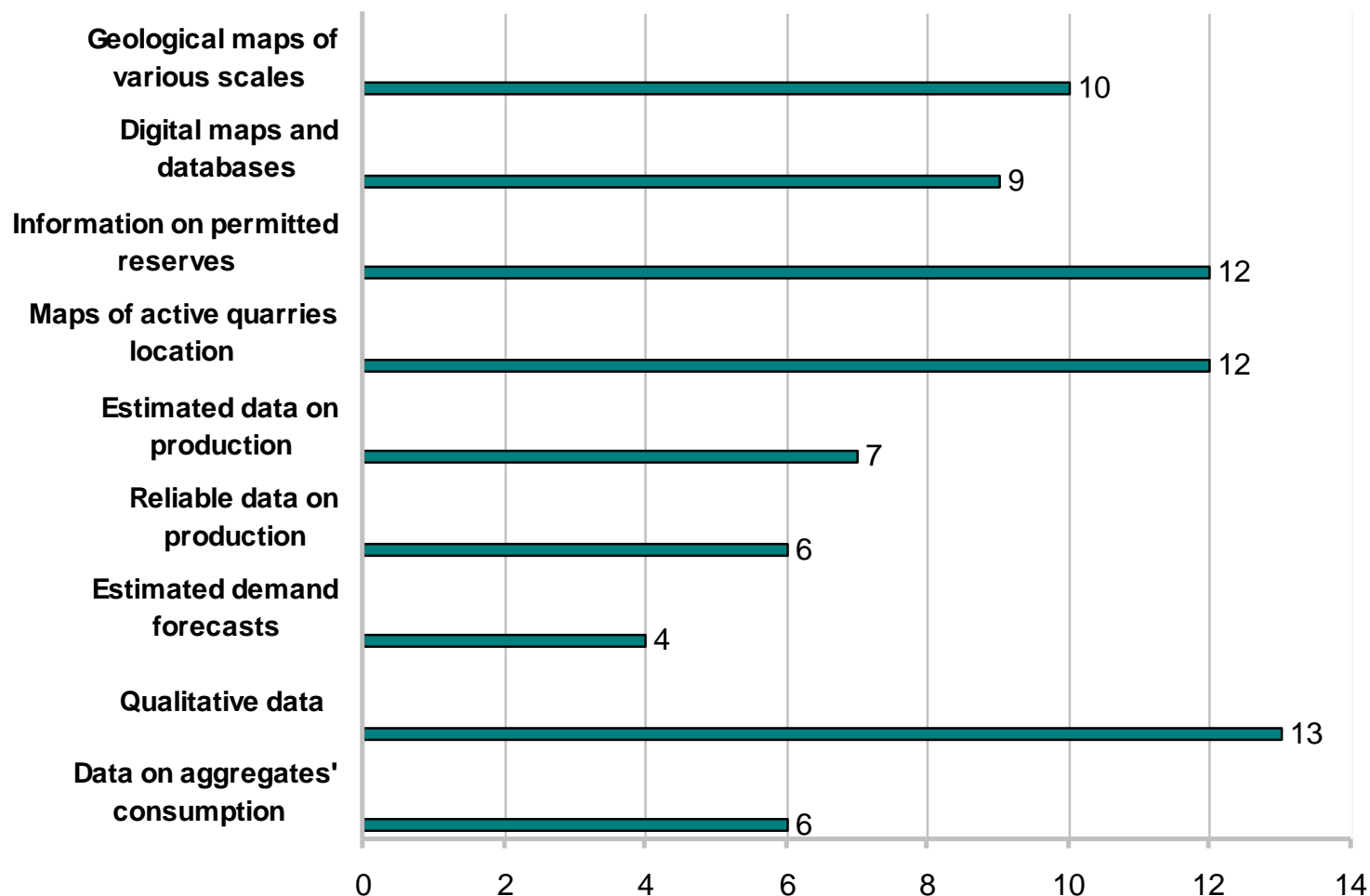
- The issues related to primary aggregates in most SEE countries, are at the moment managed separately, from those related to secondary resources, which make planning for SSM very challenging;
- Lack of reliable data on secondary resources which, in most SEE countries, are not considered in planning for aggregates supply;
- Specifically, data on % of recycled of secondary resources used as aggregates are practically absent, with the exception of one or two countries/regions;



Identified key issues

- Data are collected from different sources, not regularly updated and crosschecked and not always available in digital form;
- Lack of demand forecasts and of application of other data analysis procedures (e.g. validation, MFA) in the majority of SEE countries;
- Data are not always compatible and easily traceable, thus raising reliability issues.

Availability of data per data category in 13 SEE countries/regions



Key challenges for SEE countries

Generally the SEE region faces a lack of data to support aggregates planning and inadequate capacity and competence for addressing primary and/or secondary aggregates planning

Planning authorities in each country/region should:

Adopt and implement a land use planning policy for aggregates that safeguards aggregate resources in order
to promote investment in extractive industries

Key challenges for SEE countries

Conduct regular surveys (e.g. every 5 years) that will provide in-depth and up to date information on:

- Reserves, resources and permitted reserves of primary aggregates;
- Consumption and production volumes;
- National and regional sales;
- Inter-regional flows.

In order to monitor and revise the aggregates guidelines and to develop planning policies for the managed supply of primary aggregates.

Key challenges for SEE countries

Identify available aggregate resources that meet the quality, accessibility and technical requirements

Organise all data in electronic databases, which should be regularly updated

The databases and associated GIS will provide a valuable tool for monitoring resource depletion

Key challenges for SEE countries

Establish procedures for data validation and conduct demand forecasts. The latter may be performed by a variety of methods and should be revised regularly to reflect changing economic conditions

Demand for aggregates should be addressed with a mix of primary and secondary aggregates according to resource efficiency principles

The knowledge of what will be the condition of aggregates demand in near future will help planning authorities in the “formulation of aggregates policy” and consider what proportion of the demand should be met by the key sources of supply.

Concluding...

Decision making should be based on the best available, scientifically sound data, otherwise plans may be unrealistic particularly with respect to resource efficiency



Better data and statistics will help planning authorities track progress and make sure their decisions are evidence-based; all relevant stakeholders and data providers should act in close cooperation

Thank you for your attention!

