



UNITED NATIONS  
ENVIRONMENT PROGRAMME



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ECONOMIC COMMISSION FOR EUROPE

**Working Group on Environmental  
Monitoring and Assessment**

**Sixteenth session**

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Item 5 of the provisional agenda

**Review of the progress in establishing the Shared  
Environmental Information System in the pan-European region**

**Reporting the performance in establishing and  
operating the Shared Environmental Information  
System**

**Note by the Secretariat**

**Introduction**

1. The United Nations Economic Commission for Europe (ECE) Committee on Environmental Policy (CEP) at its twentieth session (Geneva, 28–31 October 2014) adopted targets and performance indicators for measuring the progress in establishing and operating the Shared Environmental Information System (SEIS). It further mandated the Working Group on Environmental Monitoring and Assessment (Working Group) to review the progress in the establishment of SEIS, based on the adopted targets and performance indicators, with a view to preparing an evaluation report on progress made by the pan-European countries in establishing SEIS for the Batumi Environment for Europe (EfE) Ministerial Conference in 2016. An initial assessment report should be presented to the CEP at its twenty-first session (Geneva, 27–30 October 2015).

2. The preparation of the initial progress report, as well as any future reports, requires from the Working Group that it collects information from the pan-European countries on their application of the performance indicators in establishing and operating SEIS. The Working Group should hence adopt a reporting tool to be used by countries on SEIS reporting.

**Targets, performance indicators and reporting**

3. The performance indicators are applied by countries, and the results should be reported through a common, user-friendly reporting tool.

4. The reporting tool should allow the countries to prepare a concise but informative and precise report within a relatively short period of time and not requiring extensive national consultations. It should show, which of the data agreed to constitute the pan-European SEIS

are effectively produced and shared together with the necessary accompanying information (metadata). It should further help in identifying possible gaps per data flow under any of the SEIS three building blocks: content, institutional cooperation and infrastructure and show progress in eliminating those gaps.

5. The reporting tool should also facilitate the review of countries' reports to make an analysis of the performance in establishing and operating the pan-European SEIS by the ECE secretariat with the support of the European Environment Agency (EEA). Such an analysis could then serve as a basis for the Working Group to discuss the progress in establishing and operating SEIS in the region and to prepare its overall progress report for the consideration and further actions by the CEP.

## **Reporting tool**

6. The specifications for the reporting tool, for it to have all the necessary features and, at the same time, be user-friendly and not require extensive national reporting consultations when providing the required information, make the development of such a tool a challenging endeavor.

7. The Working Group should discuss and agree how to develop the reporting tool and, at the same time, decide on the modalities of work in the next several months, so that it can provide timely its first report on the implementation and operation of SEIS for the Batumi Conference and the initial draft of it for the twenty-first session of the CEP.

8. To support the discussion of the Working Group on the development of the reporting tool, a concept for it is proposed in the annex.

9. The proposed reporting tool is designed as a simple electronic application, available on-line. It is to provide summary records of:

- a. performance evaluation for each data flow and for all flows as aggregated average,
- b. identified gaps, and
- c. changes over time as graphical presentations for separate data flows and aggregated flows.

10. The electronic tool should also allow communication between the responsible entity for SEIS at the country level and the ECE secretariat and EEA on the review of performance, which should be especially useful for situations when the self-evaluation and that one made by reviewers vary.

11. To further decrease the burden of reporting for the countries, in particular at the time of launching of the reporting tool, the available information with the ECE secretariat and EEA on the data flows' accessibility and availability could be pre-filled into the electronic tool.

## **Issues for consideration**

12. The following issues are proposed for consideration by the Working Group:

- a. Which should be the reporting tool for evaluating SEIS implementation and operation based on the targets and performance indicators? How can it be

made user-friendly and simple in use so that it would not require extensive national reporting consultations?

- b. How should the progress in SEIS establishment be reviewed in 2015, assuming that the development of the reporting tool would take time? Should there be a manual review for a sample group of countries for 2015 in accordance with the agreed concept?
- c. Which should be the modalities of work of the Working Group, so that it can provide timely its initial report on the implementation and operation of SEIS to the Committee on Environmental Policy at its upcoming twenty-first session?

## **Annex: Concept for the reporting tool to measure the performance in establishing and operating SEIS**

13. The reporting tool is designed to enable simple and transparent measurement at regular intervals of time of the effective production and on-line sharing of the agreed data flows and related information. It was further designed to enable the identification of possible gaps across the three building blocks of SEIS: content, institutional cooperation and infrastructure, for each data flow that is not effectively produced or shared.

### ***Evaluation of effective production and on-line sharing***

14. The effective production and on-line sharing of the agreed SEIS data flows should show the following results:

- a. Data constituting SEIS are produced in accordance with the agreed methodologies and calculation methods, and
- b. Data, regularly updated, are accessible on-line and presented in a clear manner.

15. The evaluation of whether a particular data flow is effectively produced and shared can be therefore assessed from the point of view of its on-line accessibility and on-line availability of additional information explaining what the accessed data flow is showing and how it is produced.

16. The evaluation within the reporting tool focuses thus on:

- a. On-line accessibility of data flow – the flow can be easily accessed by anybody at any time on-line;
- b. Data flow up-to-date – the data flow is updated with figures of the latest agreed production period;
- c. Data flow production methodology known and meeting the agreed standard – anybody can access detailed information on the applied methodology and calculation methods for the production of the data flow; the detailed information confirms that the applied methodology is the agreed methodology for the production of the particular data flow;
- d. Data flow assessed – the data flow is supported by information about what it presents and how to understand the changes in figures over time; this information should be provided in the national language for the national public and in an international language – English and/or Russian – to be accessible to the international community;
- e. Data flow source provided – the institution responsible for the production of the data flow and its contact details are available.

17. The evaluation of the above blocks is done by the responsible entity for SEIS at the country level for each data flow and reviewed respectively by the ECE secretariat and EEA. The evaluation is done by indicating with *Yes* or *No* whether the specific requirements of each evaluation block are met (see image 1).

18. In addition, each building block can be assigned a different magnitude as per its significance to assessing the effective production and sharing of the data flows. The magnitude can be expressed by a number of smileys.

**Image 1: Evaluation of performance**

N°	Rating block	Evaluation by the country		Evaluation by UNECE/EEA		Rating
		YES	NO	YES	NO	
1	Data flow accessible online	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	😊😊😊
2	Data flow up-to-date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	😊😊
3	Production methodology available and in accordance with the agreed standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	😊😊
4	Data flow assessed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	😊😊
5	Data flow source provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	😊

19. The evaluation done for each block at subsequent evaluation points would show the changing performance of a country over time for each data flow or, when aggregated as an average for all data flows, the performance in establishing and operating SEIS. Such changing performance can be presented with graphs.

***Identification of possible gaps***

20. For cases when the specific requirements of any of the evaluation blocks are not met, a number of support questions per block should be answered through which possible gaps in any of the three SEIS building blocks (content, institutional cooperation and infrastructure) could be identified. The questions can be used for the data flows already in operation as well as for those yet to be established under SEIS in the future.

21. The questions are associated with the SEIS targets (see box 1), which only if fully met, indicate that SEIS was developed and is operated effectively. The questions form logical streams.

Box 1  
**Targets for monitoring progress for each building block of a Shared Environment Information System**

*Content*

- A1. Agreed data flows are produced (per thematic area and their interlinks) to meet country and international level policy needs and enable regular reporting and assessments.
- A2. Agreed methodologies and calculation methods (including necessary data aggregation), etc., for the production of the environmental data sets and indicators are described through metadata.
- A3. Agreed data are used to assess through indicators the progress towards policy targets established.

*Institutional cooperation*

- B1. Clear protocols for institutional cooperation in terms of data management (collection, processing and validation), sharing and assessment are established.

- B2. Interoperability protocols for intersectoral institutional cooperation enabling regular and timely data flow (national and international) and public access are established.
- B3. Data on-line sharing policy is defined and implemented.

*Infrastructure*

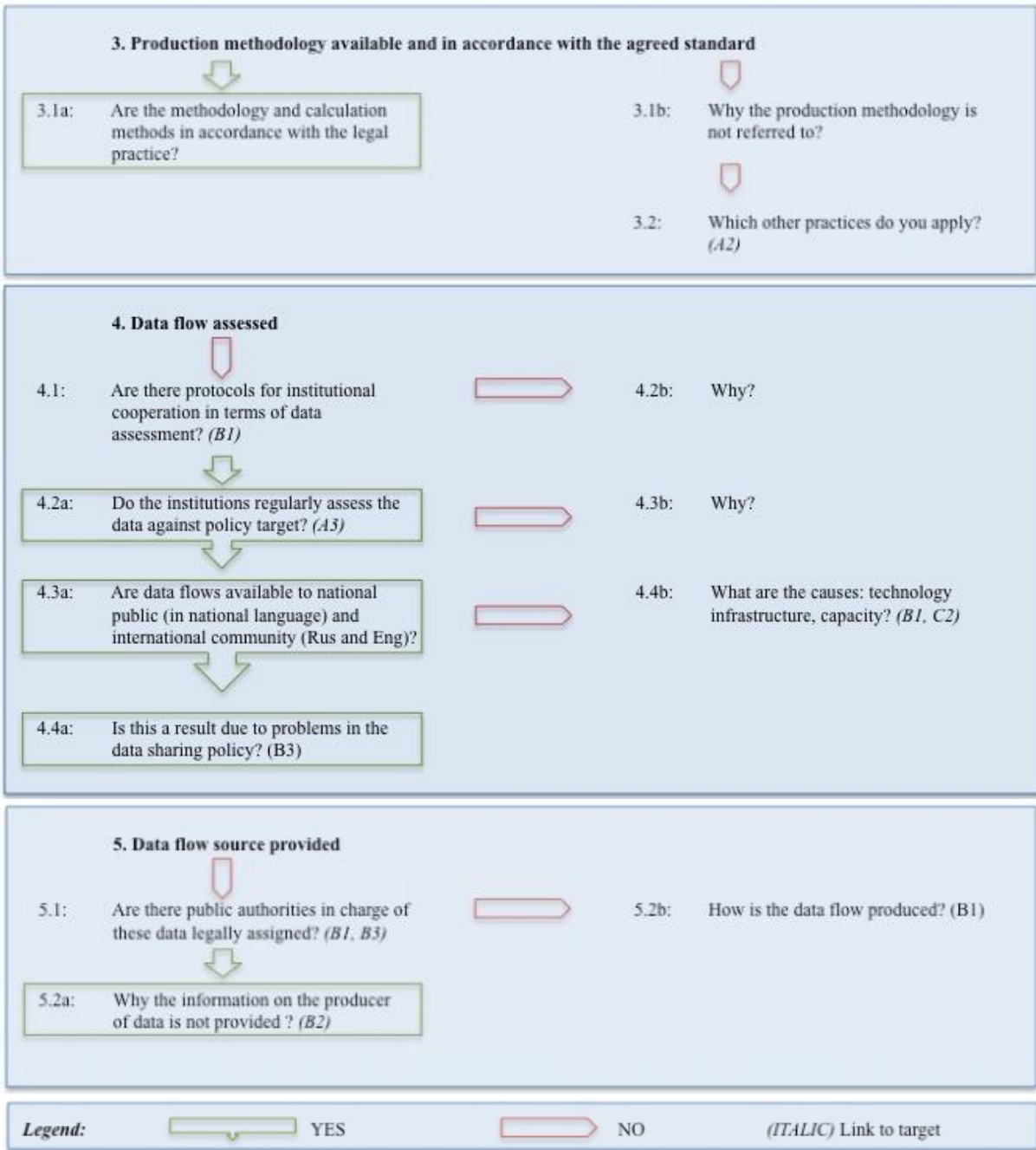
- C1. Availability of electronic databases to data managers is ensured.
- C2. Data are available on-line described/structured by metadata.
- C3. Any data exchange is based on agreed open standards.

22. The questions may refer to one or more SEIS targets and cross-check other questions referring to the same SEIS targets (see image 2). They are related to the specific actions that were formulated under the SEIS performance indicators.

23. The questions, as they are forming logical streams, would only appear in the reporting tool if they would belong to a particular stream.

**Image 2: Support questions formulated as logical streams**





**Reporting tool as an electronic application**

24. The visuals below present the reporting of performance through an electronic reporting tool. The design, question streams, formulation of the questions or any particular function may be further adjusted when the electronic application is developed.

Performance rating by country

Reporting on performance in establishing and operating the Shared Environmental Information System

Rating process: Dataflow accessible online (1) (2015)

Dataflow: PM2.5

N°	Rating block	Evaluation by the country		Evaluation by UNECE/EEA		Rating
		YES	NO	YES	NO	
1	Data flow accessible online	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺☺
2	Data flow up-to-date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
3	Production methodology available and in accordance with the agreed standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
4	Data flow assessed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
5	Data flow source provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺

Rating the performance for the data flow: Emissions of PM2.5, first rating block 'Yes' as an answer, no need to pass to support questions

Reporting on performance in establishing and operating the Shared Environmental Information System

Rating process: Dataflow up to date (2) (2015)

Dataflow: PM2.5

N°	Rating block	Evaluation by the country		Evaluation by UNECE/EEA		Rating
		YES	NO	YES	NO	
1	Data flow accessible online	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺☺
2	Data flow up-to-date	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
3	Production methodology available and in accordance with the agreed standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
4	Data flow assessed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺☺
5	Data flow source provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	☺

Please answer questions

Second rating block: 'No' as an answer, need to pass to support questions in order to identify possible gaps

Display of questions, Scenario 1, showing one of the possible logical question streams

Reporting on performance in establishing and operating the Shared Environmental Information System

Rating process: Dataflow up to date (2) (2015)

Dataflow: PM2.5

Scenario 1

Q12 Q13 Q14 Q15 Q16

**Q12:**

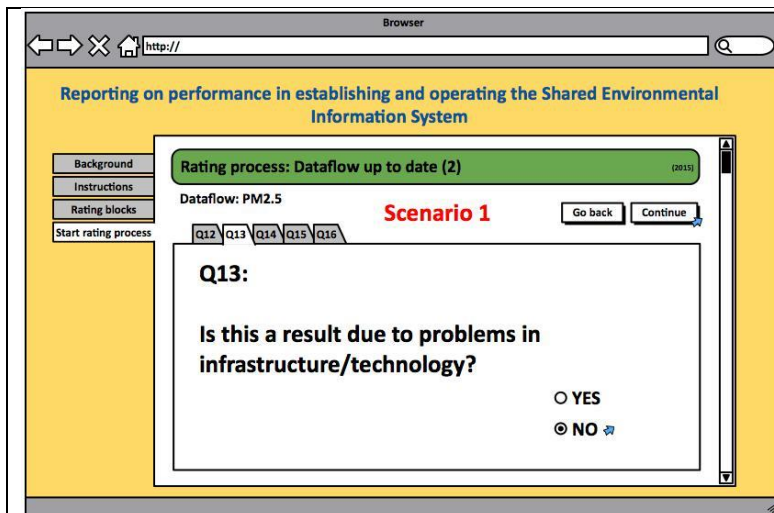
Is this a result due to problems in institutional cooperation?

YES

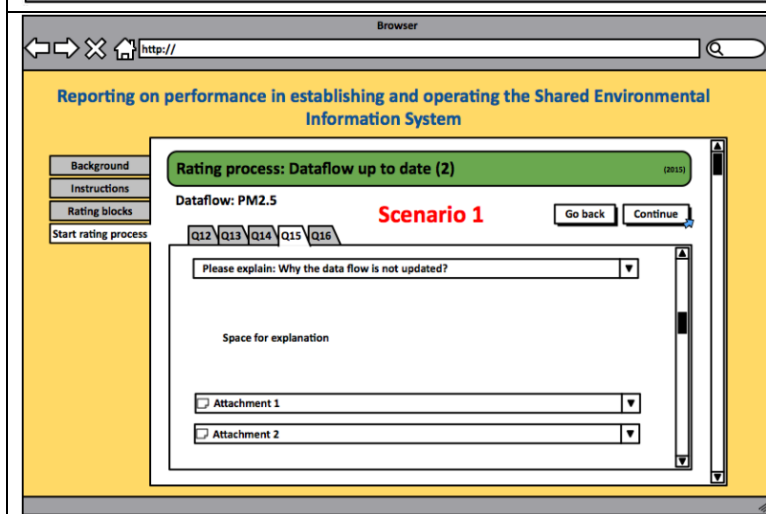
NO

No identification of gaps through the first closed question



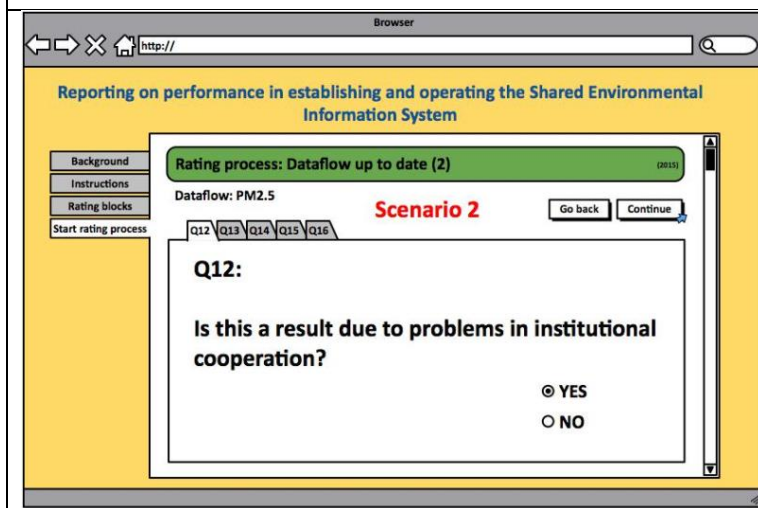


No identification of gaps through the second closed question

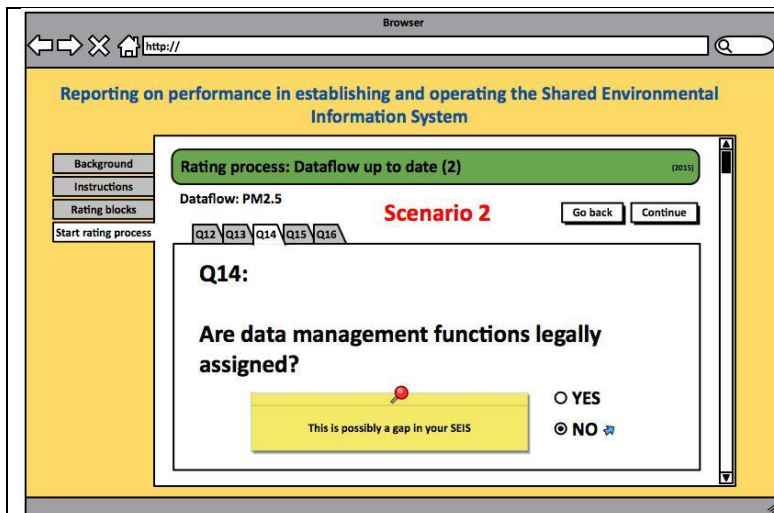


Request for an additional explanation

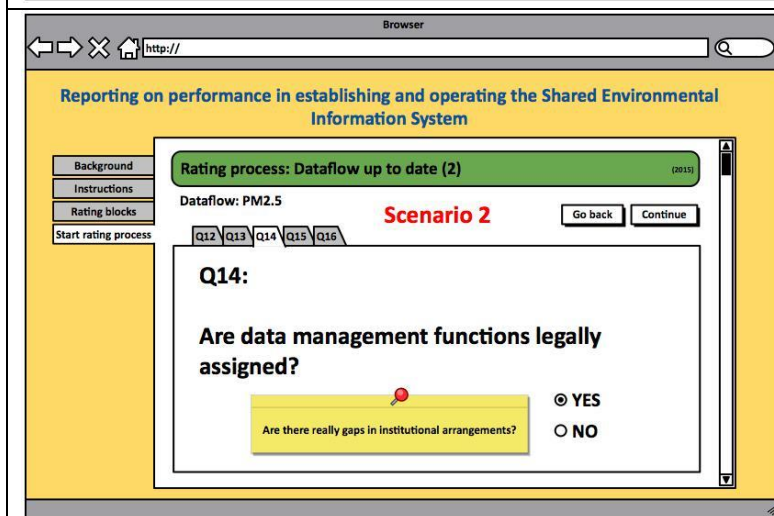
Display of questions, Scenario 2, showing another of the possible logical question streams



Identification of a problem area

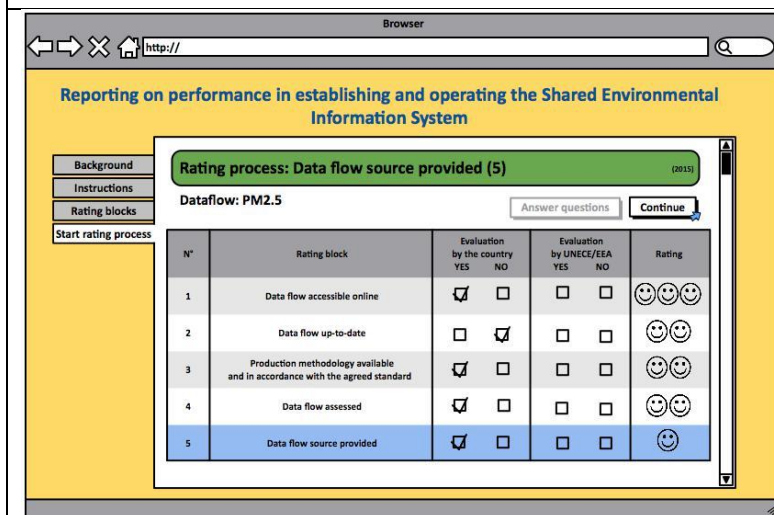


Detailing of a problem, identification of the gap



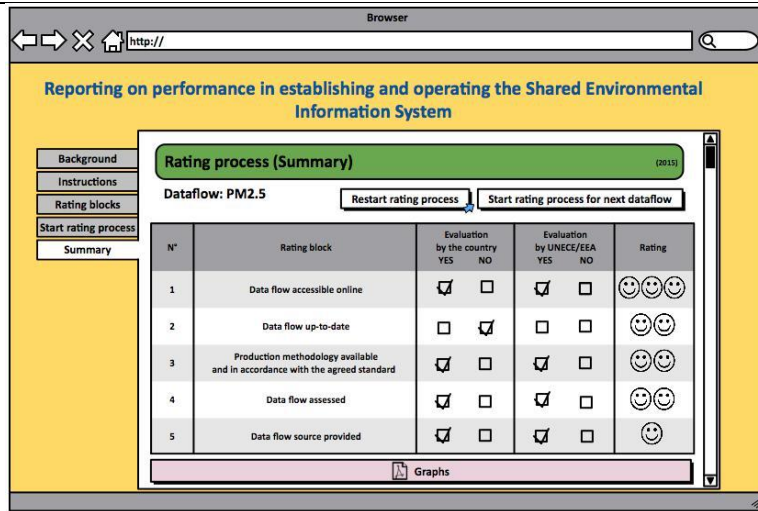
Detailing of a problem, the basis for a properly operated SEIS is ensured. This stream may continue with a question asking for further explanations

Performance rating by country



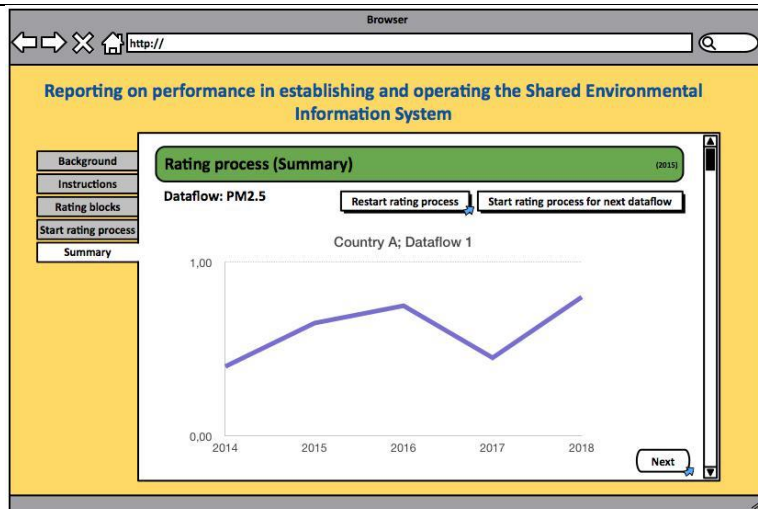
Rating done for all the rating blocks

Performance rating, review by the ECE secretariat or EEA

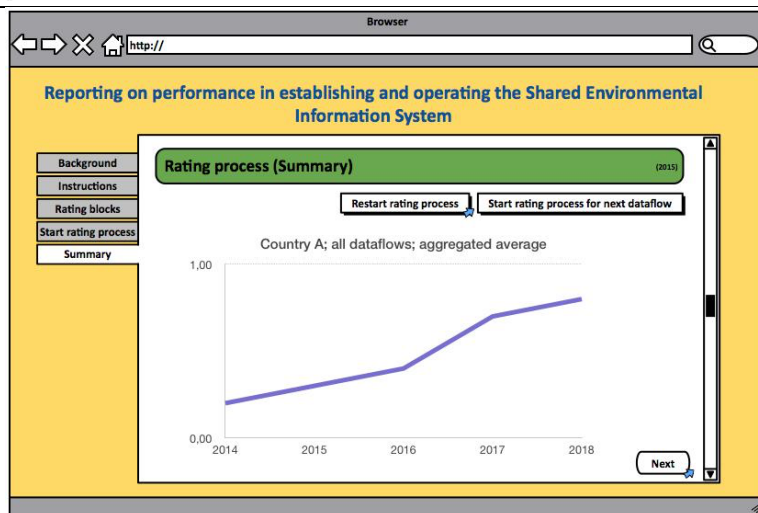


Rating reviewed, reviewer rating conforms with self-rating

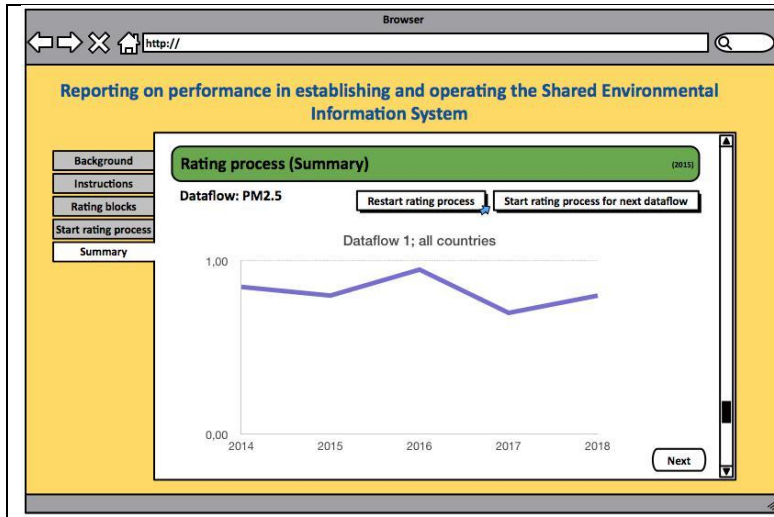
Graphical presentation of results over time



Graphical presentation of a country's performance in producing and sharing the data flow: Emissions of PM2.5



Graphical presentation of a country's performance in producing and sharing all the required data flows as their aggregated average per year



Graphical presentation of all the countries' performances in producing and sharing the data flow: Emissions of PM2.5 as countries' performance aggregated average

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