

**Twentieth session**

Geneva, 3-4 September 2018

Palais des Nations

Meeting room VII

Working Group on Environmental Monitoring and Assessment

Agenda item 5: Reporting on the Shared Environmental Information System to support a regular process of environmental assessment

SEIS Assessment Framework



Looking back

- An updated SEIS Assessment Framework was presented to the Working Group during its 19th session (ECE/CEP/AC.10/2017/5), taking into account the review questions asked for the first progress report (ECE/BATUMI.CONF/2016/8, annex I)
- The questionnaire, which supports the SEIS Assessment Framework, was updated during a Technical meeting and Country Workshop in Vienna (13-15 September 2017), together with UNECE, UNEP and EEA
- SEIS Assessment Framework was revised during the 14th session of the Joint Task Force (Rome, 2-3 October 2017), including decisions on the modalities and data flows for the SEIS mid-term review
- These steps resulted in the final version of the SEIS Assessment Framework used for the mid-term review (ECE/CEP/AC.10/2018/5)



Questionnaire design

- **25 questions + 11 sub-questions**

- Most of the questions are dichotomous ("yes/no" type) questions or multiple choice.
- D1, D2, D3, D15, D16, D18, D19, D22, D23, D24, D25 contain follow-up questions for further information for the selected data flows.
- Secretariat assists in answering D23
- 15 out of 25 questions are mandatory

- **7 categories (review criteria)**

- Relevance
- Accuracy
- Timeliness and punctuality
- Accessibility
- Clarity
- Comparability
- Institutional and organizational arrangements



ENVIRONMENT

Category	Data flow (D) question	Guidance	Possible answers	Scoring of answer
Relevance 	D1. Do you actively or passively collect user feedback to assess whether the data flow meets the needs of users?	The purpose of this question is to identify whether the disseminated information is adjusted to the users' needs. This question can be answered with "actively" (e.g., user satisfaction surveys), "passively", or "no user feedback is collected".	Actively, passively or no user feedback is collected	Actively = 1 Passively = 0 No = 0
		You can also specify further how user feedback is collected in greater detail; this is an open question and you can type an extended response, though without formatting options.	Open	None
	D2. Is the data flow used for more than one purpose (multipurpose use, e.g., for production of national indicators, production of regional indicators, various reporting obligations)?	The purpose of this question is to assess whether the data flow is used for more than one purpose. Please answer according to your understanding with "yes", "partly" or "no".	Yes, partly or no	Yes = 1 Partly = 0.5 No = 0
		If the answer to this question is yes or partly, please specify.	Open	None
D3. Do you regularly improve your data (e.g., quality of data, representativeness, time or spatial coverage) to meet the needs of users?	The purpose of this question is to see whether action is taken to improve the data to meet the needs of the users. This question needs to be answered with "yes" or "no".	Yes or no	Yes = 1 No = 0	
	If the answer to this question is yes, please specify how you improve the data.	Open	None	

Meeting the real or perceived needs of users (e.g., in terms of coverage, content and detail).



ENVIRONMENT

<i>Category</i>	<i>Data flow (D) question</i>	<i>Guidance</i>	<i>Possible answers</i>	<i>Scoring of answer</i>
Accuracy 	D4. Where do you get the primary data from (please select all options that apply)?	The purpose of this question is to check the reliability of the data. This question allows the ticking of a number of boxes. Please select as many options as apply.	A. We use the data that we produce ourselves B. We use other producers' data C. We use estimates obtained through, e.g., models or objective estimation methods	None
	D5. Are any other data sources available on the same topic?	The purpose of this question is to determine whether the data provided by a source can be checked for bias. This question requires only a yes or no answer.	Yes or no	None
	D6. If the answer to question D5 is yes, do you systematically compare the data with data from other sources?	The purpose of this question is to determine whether the data can be checked for bias. This question requires only a yes or no answer.	Yes or no	Yes = 1 No = 0
	D7. Are data validation procedures in place?	The purpose of this question is to determine whether the data quality is checked. This question can be answered with "yes", "partly" or "no".	Yes, partly or no	Yes = 1 Partly = 0.5 No = 0
	D8. Do you carry out revisions to the data?	The purpose of this question is to determine whether data are adjusted when necessary. This question can be answered with "regularly", "occasionally" or "no".	Regularly, occasionally or no	Regularly = 1 Occasionally = 1 No = 0
	D9. If the answer to question D8 is regularly or occasionally, please indicate the circumstances in which revisions are carried out.	The purpose of this question is to identify the reason for revisions. This question allows the ticking of a number of boxes. Please select as many options as apply.	A. Methodological change B. New data C. Errors D. Mandated	None

Information correctly describes the phenomena it was intended to measure.



ENVIRONMENT

Category	Data flow (D) question	Guidance	Possible answers	Scoring of answer
Timeliness and punctuality 	D10. What is the frequency of the dissemination of the data flow?	The purpose of this question is to determine how regularly the data is disseminated. Please select as many options as apply.	A. Continuously/live B. Monthly C. Annually D. Multi-annually according to the legal provisions on the frequency of dissemination of the specific data flow E. No regular frequency	A–D = 1 E = 0 Maximum score is 1
	D11. When was the data flow released?	The purpose of this question is to determine when the data flow was published. Please indicate the date.	Date	None
	D12. If the answer to question D10 is one of the options A–D, what is the punctuality of the data flow's online release?	The purpose of this question is to assess whether there was a delay in the release of the data flow compared to the planned date of the release. Please specify the delay in days or weeks.	Deviation less than 4 days Deviation between 4 days and 8 weeks Deviation more than 8 weeks	Deviation less than 4 days = 1 Deviation between 4 days and 8 weeks = 0.5 Deviation more than 8 weeks = 0
	D13. What is the reference year of the data flow?	The purpose of this question is to assess the temporal coverage of the data flow. Please specify the year of the data, or the latest year if the data flow extends over several years.	Year	None
	D14. What is the timeliness of the data flow?	The purpose of this question is to determine whether the data flow was released in time to be policy relevant. Please indicate the timeliness by calculating the actual release year minus the reference year. The delay is expressed in years.	Less than 1 year 1–2 years More than 2 years	Less than 1 year = 1 1–2 years = 0.5 More than 2 years = 0

- The length of time between data availability and the event or phenomenon they describe
- The time lag between the actual delivery of the data and the target date when it should have been delivered.



ENVIRONMENT

Category	Data flow (D) question	Guidance	Possible answers	Scoring of answer
Accessibility ↓	D15. Is the data flow readily available and accessible online for users on any national platform?	The purpose of this question is to check the availability of information to the public. This question requires only a yes or no answer. If the answer to the question is “yes”, please provide the link(s) to the platforms and specify whether there is an integrated platform in place.	Yes or no Open	Yes = 1 No = 0 None
	D16. Is the primary data from public authorities readily available to and accessible by users?	The purpose of this question is to determine whether there are restrictions to obtain data. This question can be answered with “yes”, “no” or “partly”. If the answer to this question is no or partly please specify the restrictions.	Yes, partly or no Open	Yes = 1 Partly = 0.5 No = 0 None
	D17. In what formats is the information on the data flow presented?	The purpose of this question is to see how information is represented and made available to the public. This question allows the ticking of a number of boxes. Please select as many options as apply.	A. Shared Environmental Information System production template B. European Environment Agency format for data flows C. Report(s), e.g., a state-of-the-environment report D. Additional information provided E. Metadata provided F. Visual presentation included (e.g., tables, maps, or graphs) G. Link to policy context and targets	None

The ease with which users are able to access at any time the data and its supporting information online



ENVIRONMENT

<i>Category</i>	<i>Data flow (D) question</i>	<i>Guidance</i>	<i>Possible answers</i>	<i>Scoring of answer</i>
Clarity ↓	D18. Do procedures and guidelines for data quality management exist?	The purpose of this question is to determine reliability. This question requires a yes or no answer.	Yes or no	Yes = 1 No = 0
		If the answer is “yes”, please specify what resources, such as procedures or guidelines, are available to assess data quality in general.	Open	None
	D19. Are metadata available for the data flow?	The purpose of this question is to determine if further explanations including of the methods are provided and if the methods meet standards. This question requires a yes or no answer.	Yes or no	Yes = 1 No = 0
		If the answer is “yes”, please describe the metadata by selecting as many options as apply. If you select “Other”, please provide a short description of the kind of metadata.	A. Information on data quality B. Information on methodology C. Information on data sources D. Temporal coverage E. Geographic coverage F. Contact information for the data G. Information on rights H. Information on owner I. Information on processor J. Data flow(s) made available in English K. Data flow(s) made available in Russian L. Other (please specify)	None

Information is presented in a clear and understandable form and released in a suitable and convenient manner, with supporting metadata and guidance.



ENVIRONMENT

Category	Data flow (D) question	Guidance	Possible answers	Scoring of answer
Comparability ↓	D20. Do you apply internationally agreed procedures in the production of the data flow (e.g., compilation, data adjustments and transformations and statistical analysis)?	The purpose of this question is to determine whether standard techniques are used. Please answer this question with “yes”, “partly” or “no”.	Yes, partly or no	Yes = 1 Partly = 0.5 No = 0
	D21. What is the length of the time series of the data flow?	The purpose of this question is to determine the period of time covered by the data flow. Please specify the length of the time series and the units (e.g., years).	Open (length of time series)	None
	D22. Are there any breaks in the time series of the data flow (e.g., owing to a change of methods)?	The purpose of this question is to determine consistency and/or impacts. This question requires a yes or no answer.	Yes or no	None
	<i>Question to be answered by the secretariat:</i>	If the answer is “yes”, please provide the information on such breaks.	Open	None
	D23. Are there any limitations in comparing the data flow across regions and countries?	The purpose of this question is to assess any limitations in comparability of the data flows across a certain geographical area. This question will be answered by the secretariat, where needed.	Yes, partly or no	None
		If the answer to this question is yes or partly, please describe the limitations.	Open	None

- **Comparability over time**
- **Comparability through space**
- **Comparability between domains**



ENVIRONMENT

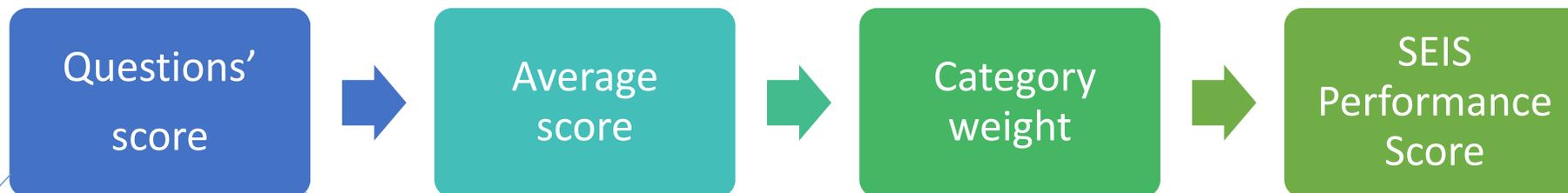
<i>Category</i>	<i>Data flow (D) question</i>	<i>Guidance</i>	<i>Possible answers</i>	<i>Scoring of answer</i>
Institutional and organizational arrangements	D24. Is there national legislation, plans, programmes or strategies in place related to the production of the data flow?	The purpose of this question is to determine whether there is legislation, plans, programmes or strategies in place to identify necessary information. This question requires a yes or no answer.	Yes or no	Yes = 1 No = 0
		If the answer is “yes”, please provide the names of the legislation, plans, programmes or strategies and the period covered. Also, please list all institutions that are involved in producing the data flow and provide the link to the most relevant website where further information may be found.	Open (name of legislation, plan, programme or strategy; period covered; all institutions involved; website)	None
Institutional and organizational arrangements are in place to ensure regular production and sharing of environmental indicators, data and information	D25. Are there any legal or institutional arrangements for regular production and sharing of data between various institutions at national level in place?	The purpose of this question is to determine whether there are inter-agency agreements in place that regulate the regular production of data flows and exchange and sharing of information and data. Inter-agency agreements include legally binding procedures, specific inter-institutional agreements or procedures for production of data flows and exchange of data and information. This question requires a yes or no answer.	Yes or no	None
		If the answer to this question is yes, please specify.	Open	None



The SEIS Performance Score

- Focus on data quality and quality assurance
- Not all categories of the SEIS Assessment Framework are considered of equal importance, which has resulted in the use of a weighting scheme
- Results for thematic and individual SEIS indicators can be reported, alongside the aggregated national performance score underlying the respective data flows

The SEIS Performance Score



Yes = 1
Partly = 0.5
No = 0

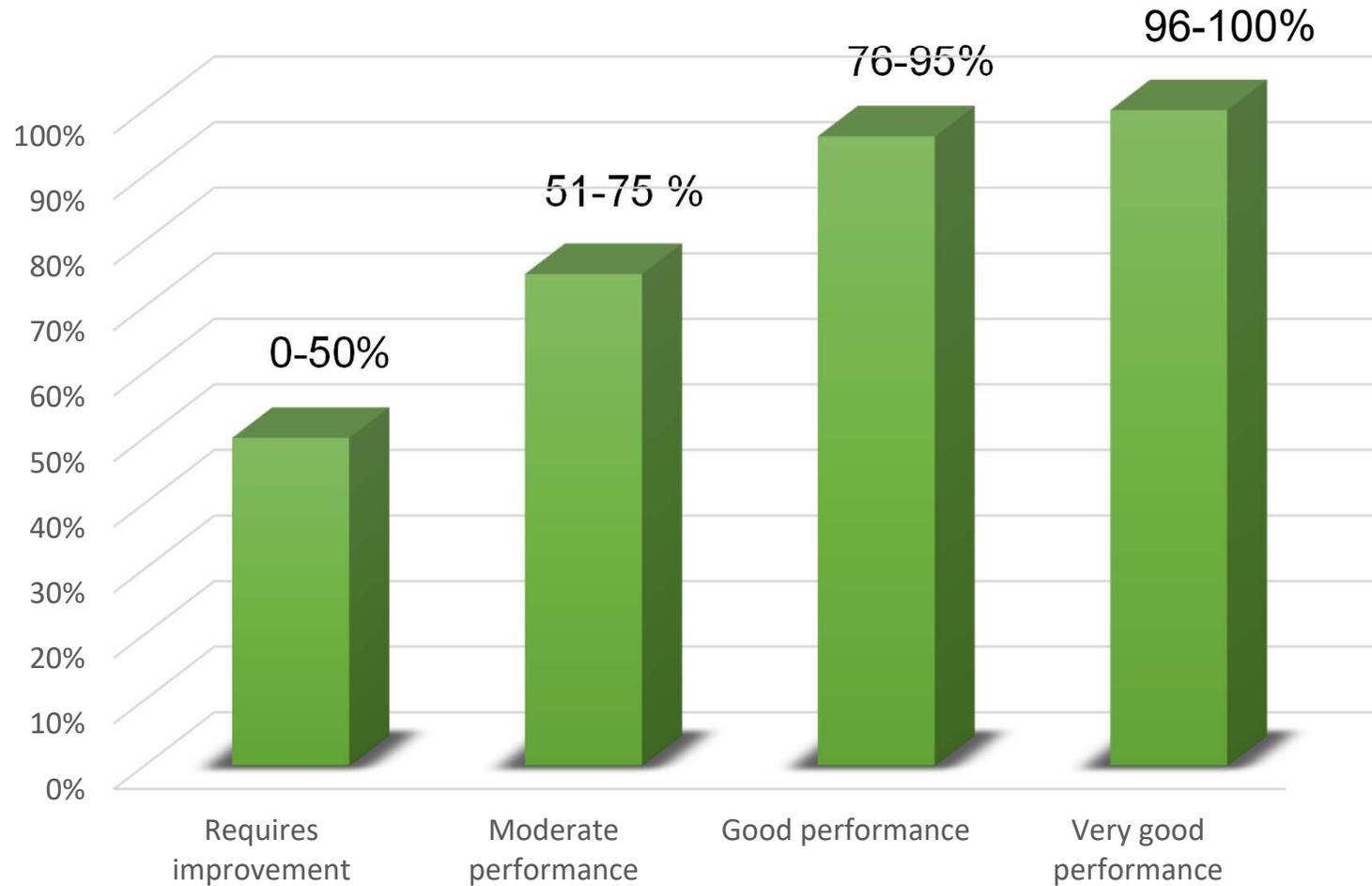
Open questions =no score

Actively = 1	Deviation less than 4 days = 1	Regularly = 1	Less than 1 year = 1
Passively = 0	Deviation between 4 days and 8 weeks = 0.5	Occasionally = 1	1-2 years = 0.5
No = 0	Deviation more than 8 weeks = 0	No = 0	More than 2 years = 0

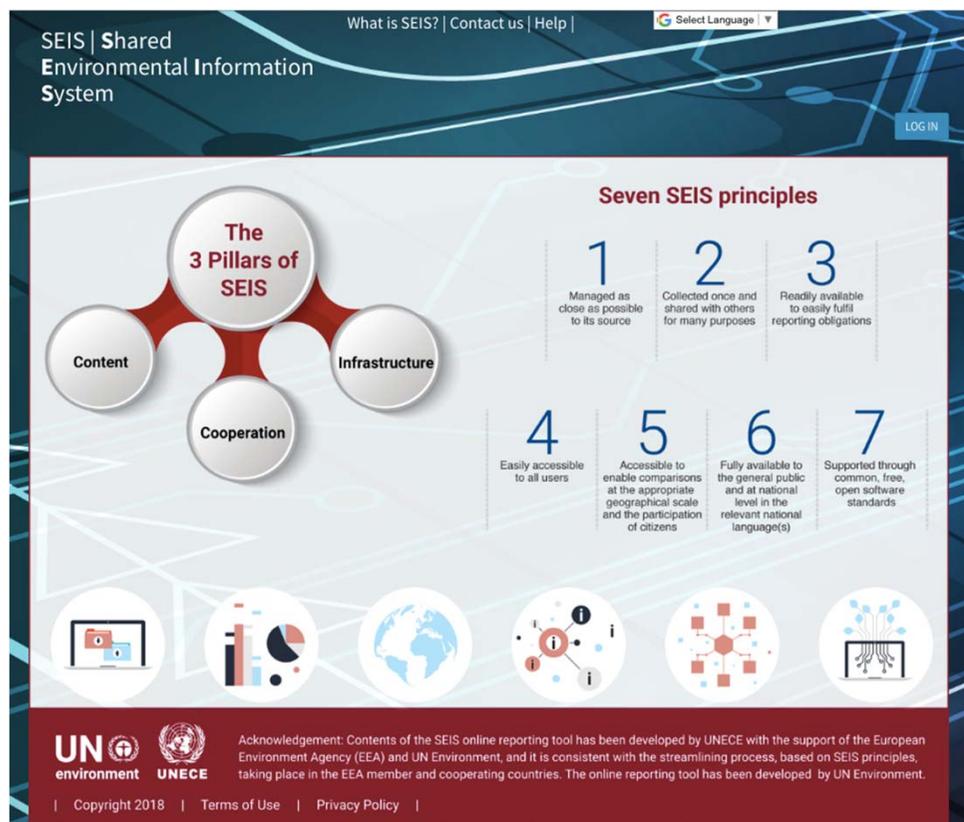
<i>Category</i>	<i>Weighting (%)</i>
Relevance	20
Accuracy	10
Timeliness and punctuality	10
Accessibility	20
Clarity	10
Comparability	20
Institutional and organizational arrangements	10
Weighted average (100%)	



Performance score



Questionnaire available as an online reporting tool and as a Microsoft Excel workbook for reporting across the pan-European region including for the mid-term review



Reporting on Progress in Establishing SEIS in the pan-European Region for the mid-term review and for piloting the SEIS Assessment Framework, February 2018

Please fill in all cells highlighted in orange

Name of the country for which the questionnaire is being completed:

Name of the institution that is taking the lead in completing the questionnaire:

Individual or organizational contact points for the data or metadata, including information on how to reach the contact points:

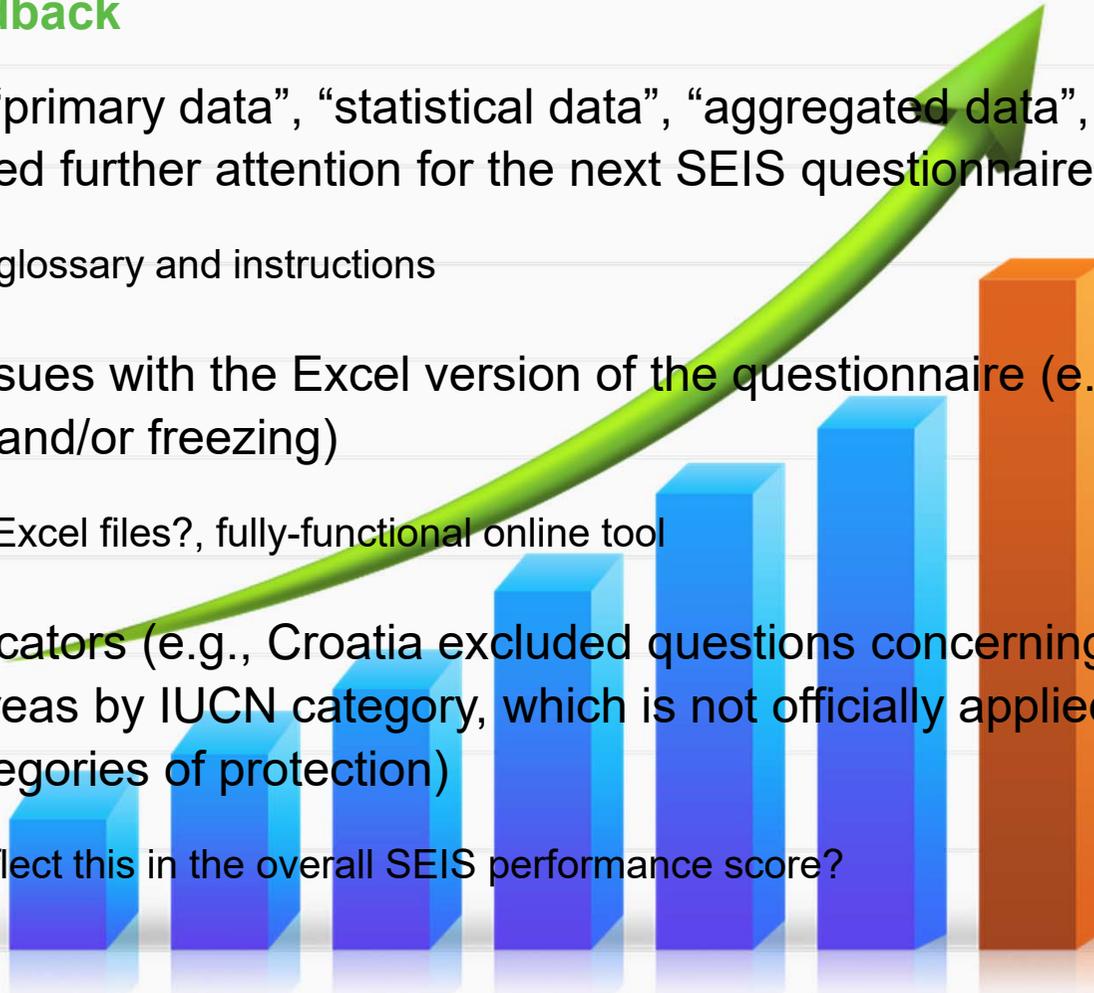
Theme: A. Air pollution and ozone depletion
 Indicator: A2. Ambient air quality in urban areas
 Data flow: Annual average concentration of PM10 - validated

Category/ Quality Criteria	Question	Format/Options for Answer	Scoring of answer	Answer Country Self-Assessment	Score	Average Category Score	Weight Category/Quality Criteria	Weighted Category Score
Relevance	D01. Do you actively or passively collect user feedback to assess whether the data flow meets the needs of users?	Please select an answer: Actively Passively No user feedback is collected	Actively=1 Passively, No=0		error			
	Please specify how feedback is collected.	Open	None		n/a			
	D02. Is the data flow used for more than one purpose (multipurpose use, e.g. for production of national indicators, production of regional indicators, various reporting obligations)?	Please select an answer: Yes Partly No	Yes=1 Partly=0.5 No=0		error	#VALUE!	20%	#VALUE!
	If the answer to this question is yes or partly, please specify.	Open	None		n/a			
	D03. Do you regularly improve your data (e.g. quality of data, representativeness, time or spatial coverage) to meet the needs of users?	Please select an answer: Yes No	Yes=1 No=0		error			
	If the answer to this question is yes, please specify how you improve the data.	Open	None		n/a			
	Please select all options that apply:			Please select all options that apply: A. We use the data that we produce				



General Feedback

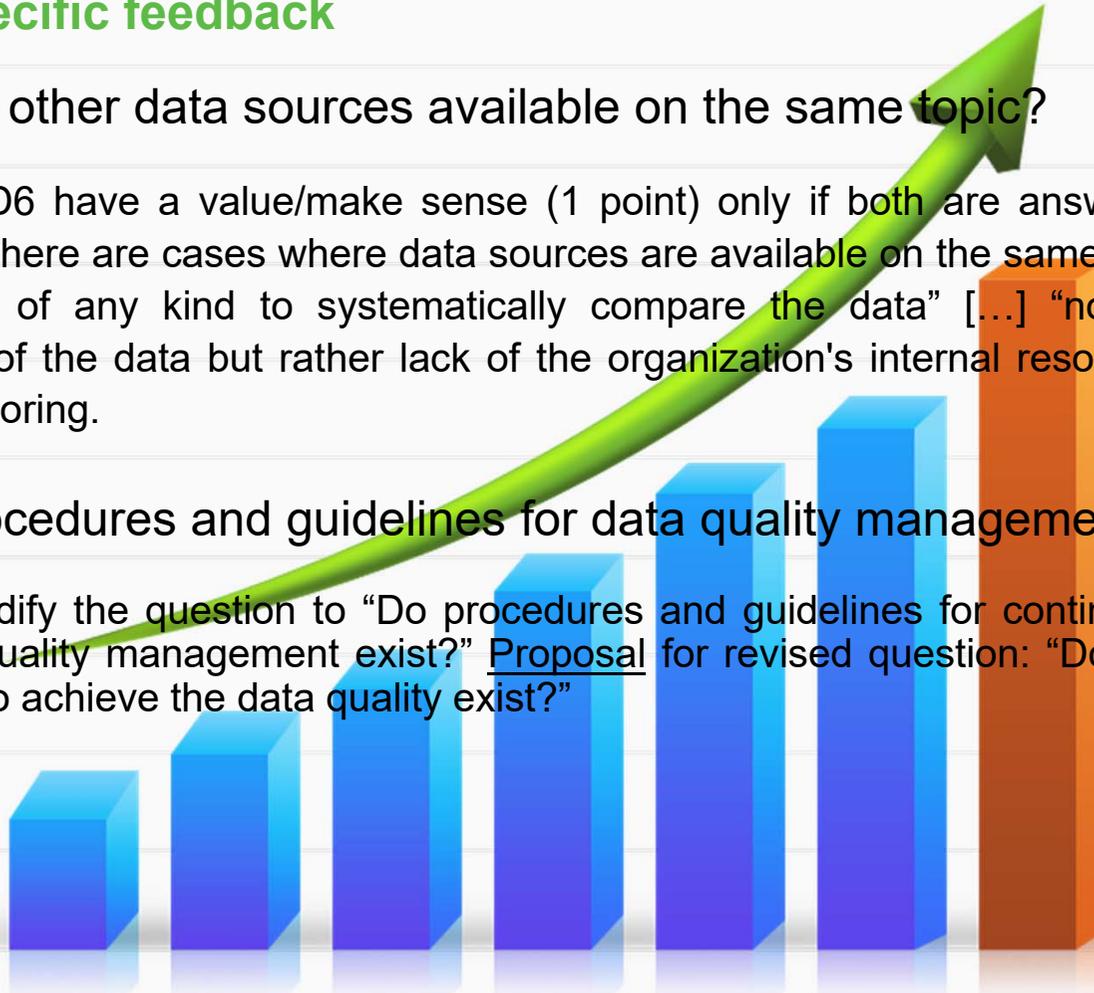
- Terms like “primary data”, “statistical data”, “aggregated data”, and “data flow” will need further attention for the next SEIS questionnaire
 - Improved glossary and instructions
- Technical issues with the Excel version of the questionnaire (e.g., Excel not responding and/or freezing)
 - Separate Excel files?, fully-functional online tool
- Missing indicators (e.g., Croatia excluded questions concerning the total protected areas by IUCN category, which is not officially applied to Croatian national categories of protection)
 - How to reflect this in the overall SEIS performance score?





Question-specific feedback

- D5. Are any other data sources available on the same topic?
 - “D5 and D6 have a value/make sense (1 point) only if both are answered with "yes", however, there are cases where data sources are available on the same topic but lacking resources of any kind to systematically compare the data” [...] “not related to the accuracy of the data but rather lack of the organization's internal resources”. Proposal: Review scoring.
- D18. Do procedures and guidelines for data quality management exist?
 - To modify the question to “Do procedures and guidelines for continuous process of data quality management exist?” Proposal for revised question: “Do technology and tools to achieve the data quality exist?”



Question-specific feedback

- D19. Are metadata available for the data flow?
 - “Options E, F, G, H, I require further comments to ensure completeness”. Proposal:
 - E. Clarify geographical coverage (e.g., to which extent information can be disaggregated (country, federal district, constituent entity, municipality))
 - F. Provide information on the processor (e.g., phone number, e-mail address) or provide examples on what the processor stands for
 - G. Allow for comments to explain what rights mean at the national level.
 - H. Explanatory text related to ownership.

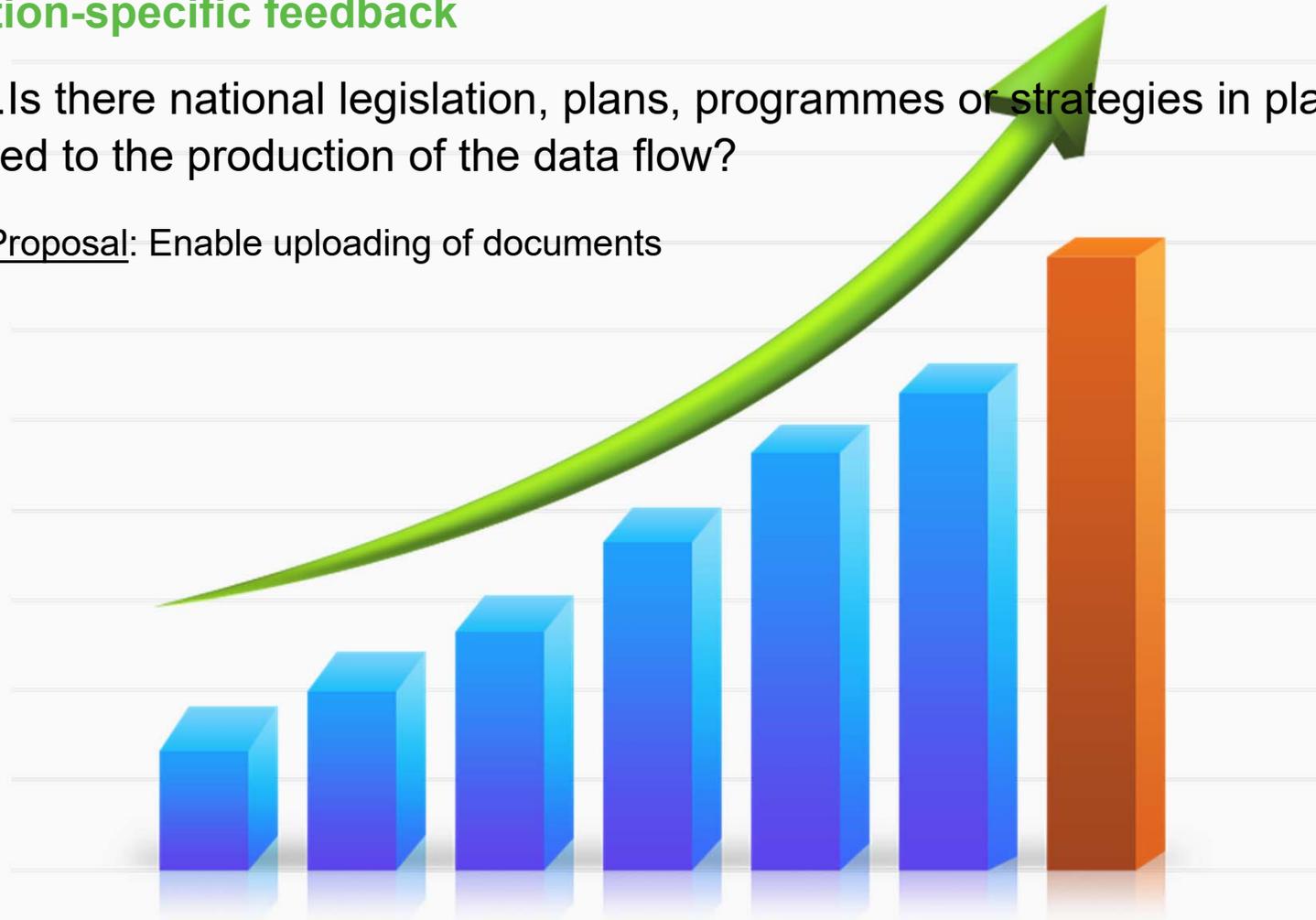
- D23. Are there any limitations in comparing the data flow across regions and countries?
 - “The question looks unclear, or not accurate enough”. Proposal: Sub-divide question (multiple choice) to cover comparability on the national, regional and international level

- A. Information on data quality
- B. Information on methodology
- C. Information on data sources
- D. Temporal coverage
- E. Geographic coverage
- F. Contact information for the data
- G. Information on rights
- H. Information on owner
- I. Information on processor
- J. Data flow(s) made available in English
- K. Data flow(s) made available in Russian
- L. Other (please specify)



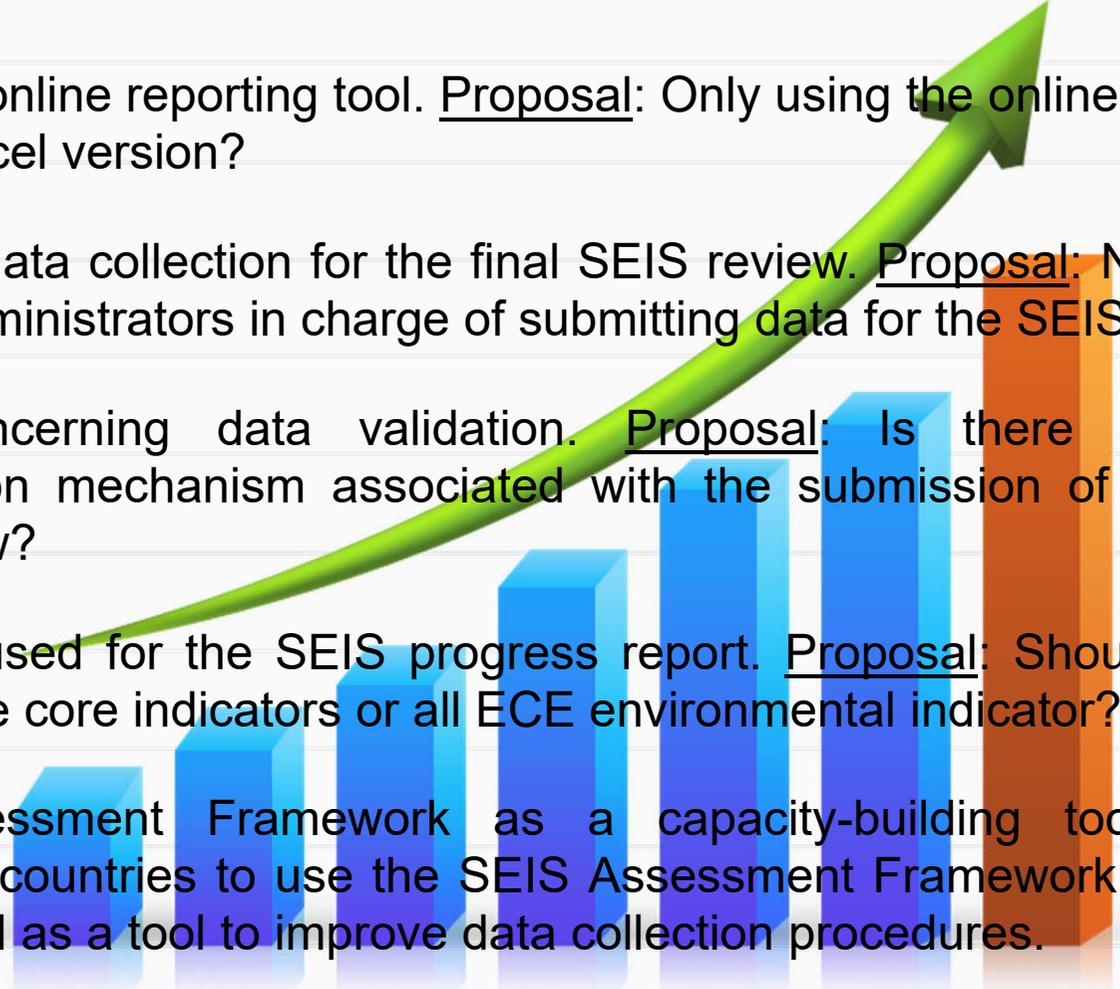
Question-specific feedback

- D24. Is there national legislation, plans, programmes or strategies in place related to the production of the data flow?
 - Proposal: Enable uploading of documents





Other items

- 
- Use of the online reporting tool. Proposal: Only using the online tool, both, or only the Excel version?
 - Improving data collection for the final SEIS review. Proposal: Nomination of national administrators in charge of submitting data for the SEIS review.
 - Issues concerning data validation. Proposal: Is there a need for a verification mechanism associated with the submission of data for the SEIS review?
 - Indicators used for the SEIS progress report. Proposal: Should the report focus on the core indicators or all ECE environmental indicator?
 - SEIS Assessment Framework as a capacity-building tool. Proposal: Encourage countries to use the SEIS Assessment Framework for capacity-building and as a tool to improve data collection procedures.



Thank you!

