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| **Requirements survey topics:**   1. General questions 2. Identification and citation 3. Curation 4. Cataloguing 5. Processing 6. Provenance 7. ***Optimization*** 8. Community support |

**ENVRIplus Theme 2:**

Requirements information gathering exercise

***ICOS (Integrated Carbon Observation System)***

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**6. Optimization**

**NOTE:** At this time, ICOS is still in its implementation phase. For this reason, the questions are not really applicable to us, and we therefore choose not to provide answers to this part of the questionnaire.

1. Related to your answer to the generic question “What part of your RI needs to be improved”:
   1. What does it mean for this to be optimal in your opinion?

No answer provided.

* 1. How do you measure optimality in this case?

No answer provided.

* + 1. Are there any existing metrics being applied?

No answer provided.

* + 1. Are there any standard metrics applied by domain scientists in this discipline?

No answer provided.

* 1. Do you already know what needs to be done to make this optimal?

No answer provided.

* + 1. Is it simply a matter of more resources, better machines, or does it require a rethink about how the infrastructure should be designed?

No answer provided.

* 1. What would you not want from an 'optimal' solution? For example, maximizing one attribute of a component or process (e.g. execution time) might come at the cost of another attribute (e.g. ease-of-use), which ultimately may prove undesirable.

No answer provided.

Follow-up questions to answers from other sections which suggest the need for the optimization of certain RI components.

1. Do you have any use case/scenarios to show potential bottlenecks in:
   1. The functionality of your RI, for example the storage, access and delivery of data, doing processing, handling the workflow complexity etc.

No answer provided.

* 1. Ensuring the non-functional requirements of your RI, for example ensuring load balance in resource usage etc.

No answer provided.

1. To understand those bottlenecks:
   1. What might be the peak volume in accessing, storing, and delivering data?

No answer provided.

* 1. What complexity might the data processing workflow have?

No answer provided.

* 1. Are there any specific quality requirements for accessing, delivering or storing data, in order to handle the data in nearly real time?

No answer provided.