



## MEMO

<b>SUBJECT</b> Assistance to the Questionnaire (task 3.2). Scope of this document is to provide assistance and further explanations and to facilitate the partners that have to respond to the questionnaire of task 3.2.		FOR YOUR ATTENTION	COMMENTS ARE INVITED	FOR YOUR INFORMATION
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Scope of this document is to provide assistance and further explanations and to facilitate the partners that have to respond to the questionnaire of task 3.2.

Starting the questionnaire

The questionnaire makes use of a question template which is uniform for all green technologies studied in the SuperGreen project. Each partner that answers to this questionnaire is provided with a collection of technologies, which is only a subset of the total technologies. The partner will have to respond to the questionnaire only for this subset of technologies. Their number is around 45-50 and they belong to several categories. For each one of these technologies the partner will fill the questionnaire form. It is desirable to deliver a single file of the questionnaire form, including the answered questions for all the technologies in the subset.

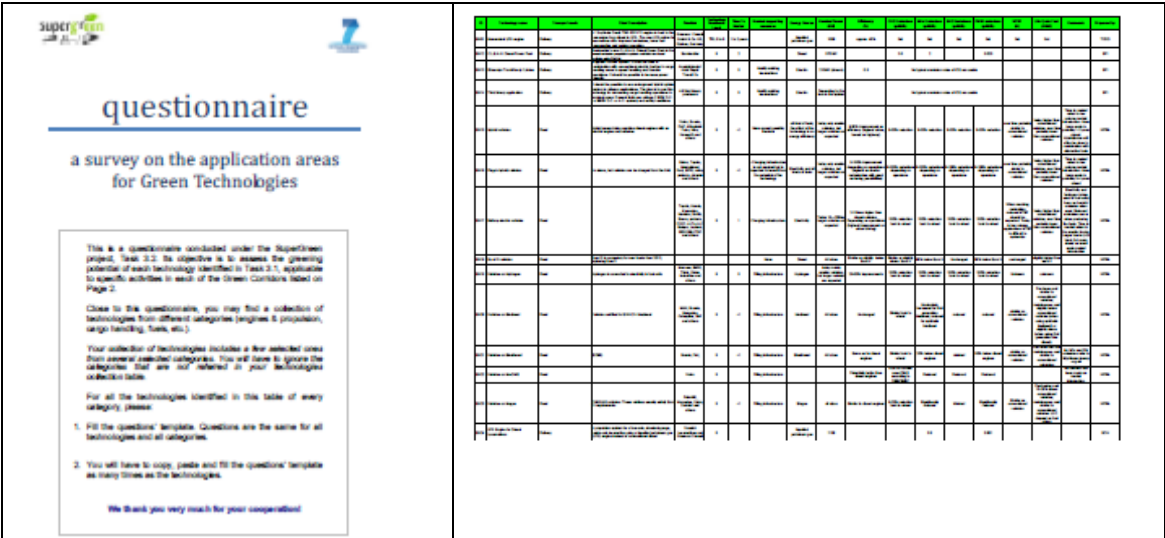


Figure 1. Images showing the tools for this questionnaire: (a) first page of the questionnaire form, (b) subset of technologies assigned to a partner.

How the questionnaire is filled

For every technology in the subset of technologies sent to the partner, the questionnaire form is to be filled. Thus, the partner will have to copy, re-produce and fill the questionnaire form for all these technologies.

At first, the partner introduces the category, the number, the name and the transport mode of the technology, figure 2, as defined in the table with the collection of technologies.

<<Vehicles >>



VE Technology:  
VE 25 - Braking energy recovery

X Railway  
o Road  
o Multimodal

o Maritime  
o Inland Waterway

Figure 2. Fields to introduce the category, number, name and transport mode for each technology.

For every technology three questions must be answered, figure 3.

<< ..... >>

☐ Railway
☐ Maritime

☐ Road
☐ Inland Waterway

☐ Multimodal



1. Please rate the impact on of this technology with reference to the following areas (1=min, 5=max). For facilitating your decision, each area is shortly discussed.

	1	2	3	4	5
<b>Economy and Efficiency</b>					
Absolute and relative costs for transferring goods, considering: (i) type & (ii) quantity of goods, (iii) type of activity at nodes, (iv) mode of transport used for each link, (v) distance for each link and (vi) average speed for each link.					
<b>Service Quality</b>					
The following issues are concerned: (i) transport time, (ii) reliability (time precision), (iii) ICT applications, (iv) frequency of service and (v) cargo security & (vi) safety.					
<b>Environmental Sustainability</b>					
Impact towards greenhouse gas emissions (carbon footprint) and polluters is considered.					
<b>Infrastructural Sufficiency</b>					
In this area, congestion cost, as the external cost of delays, and traffic bottlenecks are considered.					
<b>Social Issues</b>					
Extensive corridor land use, neighbouring to sensitive areas, social issues that arise due to traffic safety or noise are considered.					

2. Please rate this technology according to your aspect towards its maturity.

☐ > 5 years
☐ 1 to 5 years
☐ < 1 year

Please expand on the above, if necessary.

3. Based on the above, please rate the greening potential of this technology for the each of the following corridors and branches:

a) Indicating whether the technology can be applicable or not,  
b) rating the applicability of the technology to the whole corridor, i.e. write 20% if the technology can be applied only at the 20% of the corridor.  
c) Comment your selection indicating the parts of the corridor that cannot be allowed to accommodate this technology.

Corridor	Branch	Applicable	Percentage of applicability	Comment
Brenner	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch B	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Fris Teinae	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Cloverleaf	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Edelweiss	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Nureyev	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Strauss	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Two Seas	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Mare Nostrum	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Silk way	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Figure 3. Questionnaire form addressed to all technologies in the technology collection assigned to each partner.

## Answering the first question

The partner is inquired on rating the impact of each technology with reference to KPI areas, figure 4. A short discussion on each KPI area is provided.

Assign a grade for each KPI area depends on:

- partner's knowledge towards the technology, for instance if the partner knows that a technology is very economic and efficient, in terms that it can transfer several types of cargo at low fuel cost and short time, then he/she may assign a grade of 5 points. But if the technology is not so efficient in terms of fuel savings but it is efficient in terms of overall transport time (which probably ends up with saving in fuel spent, etc), the partner can grade the technology with 3 or 4.
- The grades are very dependent to the overall potential of a technology to show a good/medium/bad performance in different KPI areas. It is probable that partners would have in mind some green technologies and their potential on improving the transport, as a whole. The partners can use this as a reference and, through comparison, assign grades to the technologies delivered to them.

1. Please rate the impact on of this technology with reference to the following areas (1=min, 5=max). For facilitating your decision, each area is shortly discussed.

	1	2	3	4	5
<b>Economy and Efficiency</b>  Absolute and relative costs for transferring goods, considering: (i) type & (ii) quantity of goods, (iii) type of activity at nodes, (iv) mode of transport used for each link, (v) distance for each link and (vi) average speed for each link.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Service Quality</b>  The following issues are concerned: (i) transport time, (ii) reliability (time precision), (iii) ICT applications, (iv) frequency of service and (v) cargo security & (vi) safety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Environmental Sustainability</b>  Impact towards greenhouse gas emissions (carbon footprint) and polluters is considered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Infrastructural Sufficiency</b>  In this area, congestion cost, as the external cost of delays, and traffic bottlenecks are considered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Social Issues</b>  Extensive corridor land use, neighbouring to sensitive areas, social issues that arise due to traffic safety or noise are considered.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4. Question 1.

### Answering the second question

The second question is much more straightforward. The partner is inquired to give his/her aspect towards the maturity of the technology, figure 5. There's an indicator for that on the technologies collection file delivered to the partners. However, it is important to receive feedback through this question.

2. Please rate this technology according to your aspect towards its maturity.

☐ > 5 years      ☐ 1 to 5 years      ☐ < 1 year

Please expand on the above, if necessary.

Figure 5. Question 2.

### Answering the third question

The third question, figure 6, is also important. The partner is inquired to give his/her aspect towards the greening potential of each technology by answering some sub-questions.

- First, the partner is asked to give his/her feedback on how applicable a technology can be on the selected corridors and their branches. Partner's answer can be based on his knowledge towards the applicability of the technology. Also, the inherent capabilities of technologies can facilitate the answer. For example, some of them might not be able to be applied in some corridors and/or branches, for instance an Inland Water Navigation technology cannot be implemented in a corridor that has no rivers.
- Second, the partner is asked to give feedback on the percentage of applicability of a technology in a corridor/branch. This answer is good to be based on the information and knowledge that each partner has.
- Third, the partner can deliver feedback as comments. This will facilitate the understanding of the potential of each technology.

3. Based on the above, please rate the greening potential of this technology for the each of the following corridors and branches:
- indicating whether the technology can be applicable or not,
  - rating the applicability of the technology to the whole corridor, i.e. write 20% if the technology can be applied only at the 20% of the corridor.
  - Comment your selections indicating the parts of the corridor that can/cannot be altered to accommodate this technology.

Corridor	Branch	Applicable	Percentage of applicability	Comment
Brenner	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch B	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Finis Terrae	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Cloverleaf	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch B	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Edelweiss	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Nureyev	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Strauss	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch B	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Two Seas	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Mare Nostrum	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch B	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Silk way	Main	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Branch A	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Figure 6. Question 3.