AMMONIA ENERGY ASSOCIATION

Maritime Ammonia Workshop

Annual AEA Members Conference - Boston

Optimising Value from the Mapping of Maritime Projects

Agenda

Workshop start – Welcome — 5 min

Maritime Projects Mapping – Initiating the work — 10 min

An introduction to the origins and ongoing work to map and consolidate publicly available information regarding maritime ammonia projects.

Early Results – Examples of outcome — 10 min

Initial outcome – graphs, the thought process and any limitations.

Exercise : — 60 min

Facilitated exploration of the participants views on how best the mapping can provide value, using the following three framing questions:

- *What information can we provide that represents a valuable tool toward your business development activity?*
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Capture Consolidate and Closeout — 30 min

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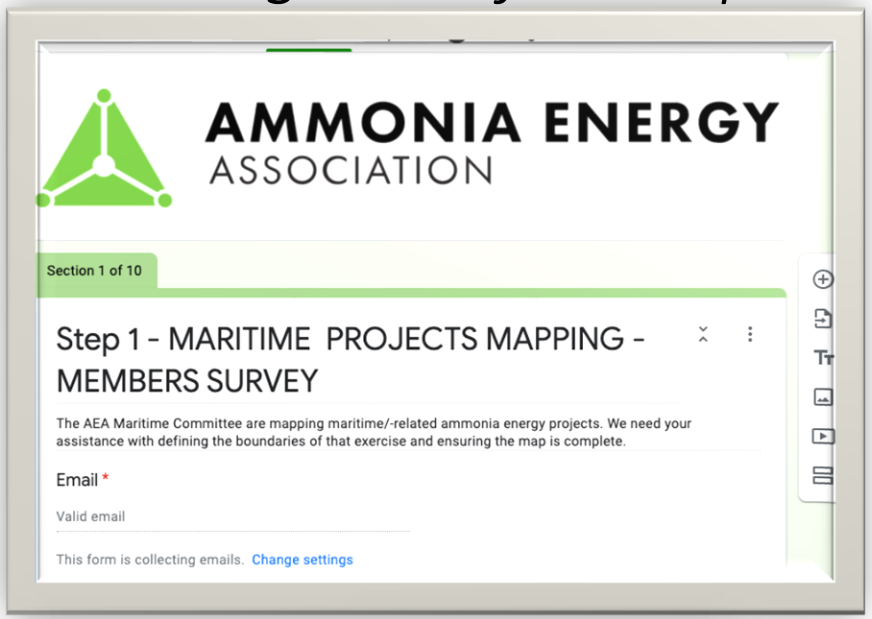
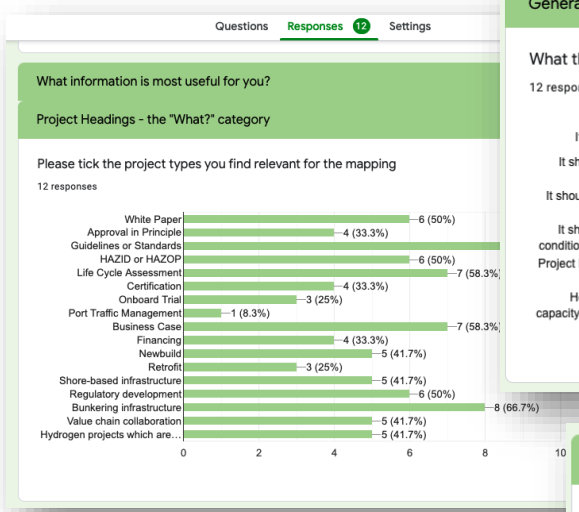
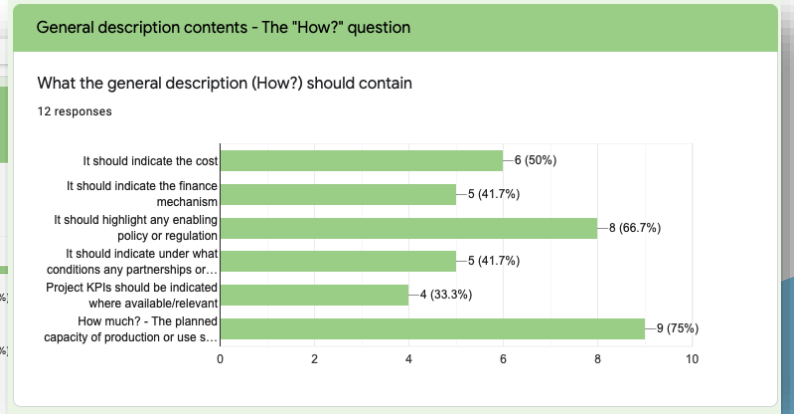
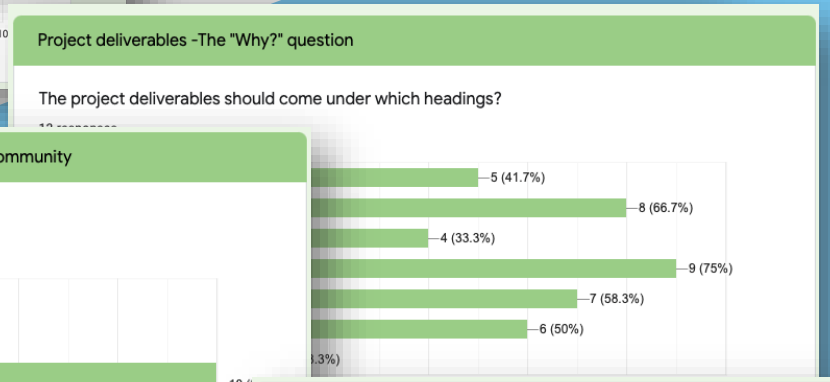
Mapping Maritime Projects

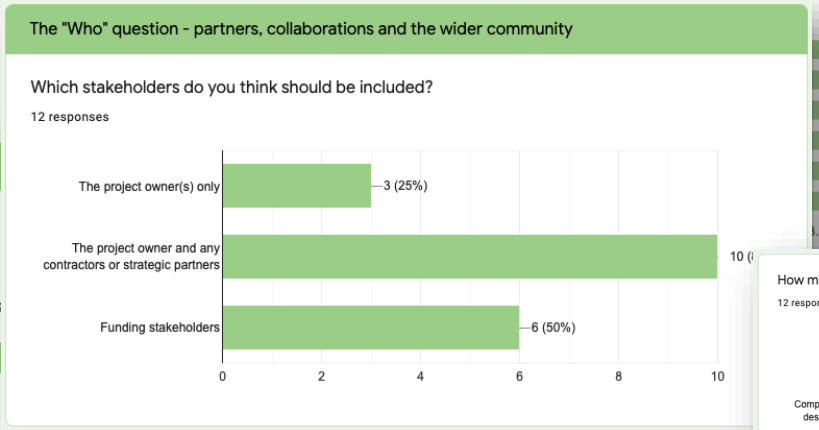
Initiating – The first step

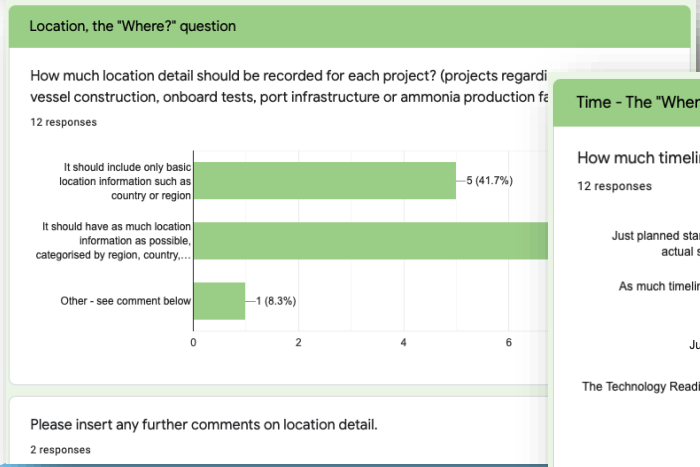


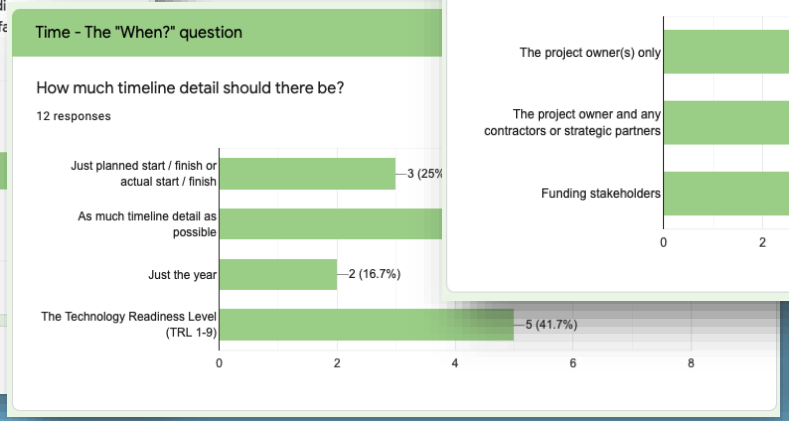


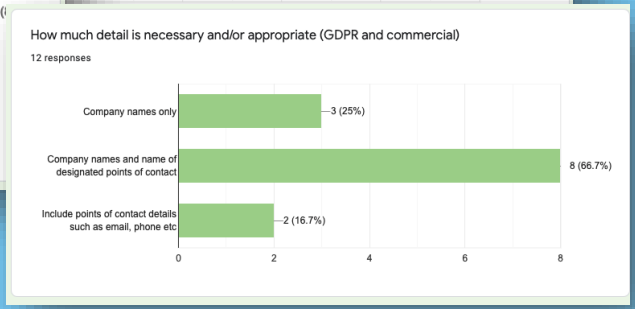












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Mapp

Initiating

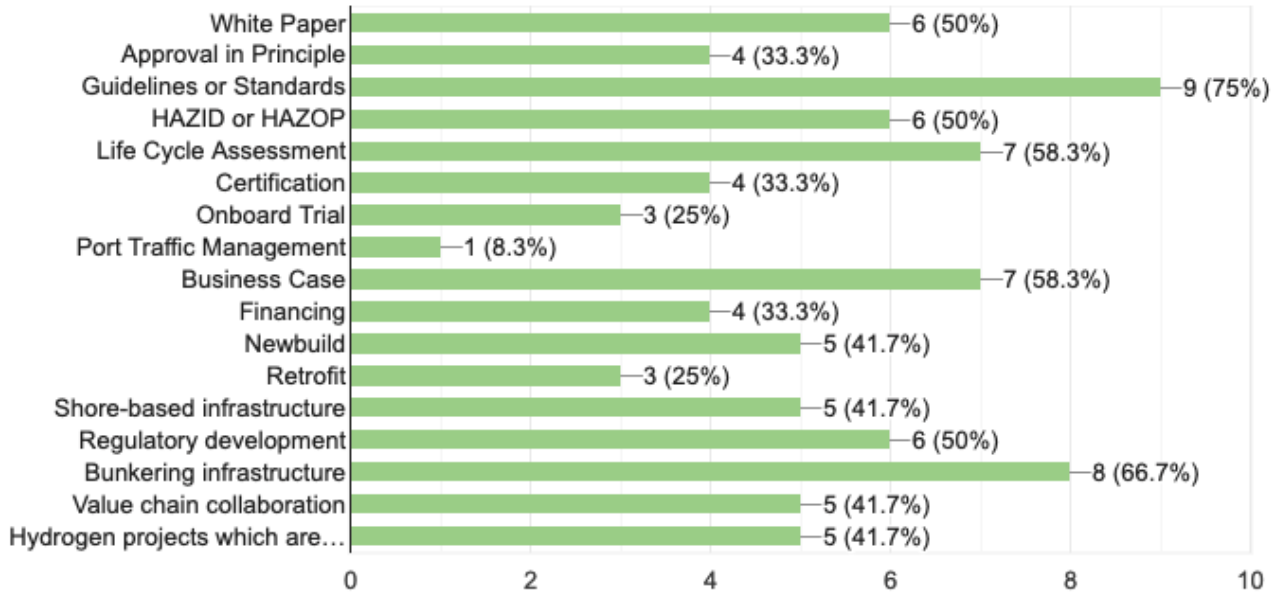
Questions | Responses 12 | Settings

What information is most useful for you?

Project Headings - the "What?" category

Please tick the project types you find relevant for the mapping

12 responses



Section 1 of 10

Step 1 - MARITIM
MEMBERS SURVE

The AEA Maritime Committee are ma
assistance with defining the boundari

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Location, the "Where?" question

How much location detail should be rec
vessel construction, onboard tests, por

12 responses

It should include only basic location information such as country or region

It should have as much location information as possible, categorised by region, country,…

Other - see comment below 1 (8.3

0

Please insert any further comments on location detail.

2 responses

The Technology Readiness Level (TRL 1-9) 5 (41.7%)

0 2 4 6 8

6 (50%)
41.7%)
8 (66.7%)
41.7%)
9 (75%)
6 8 10

headings?

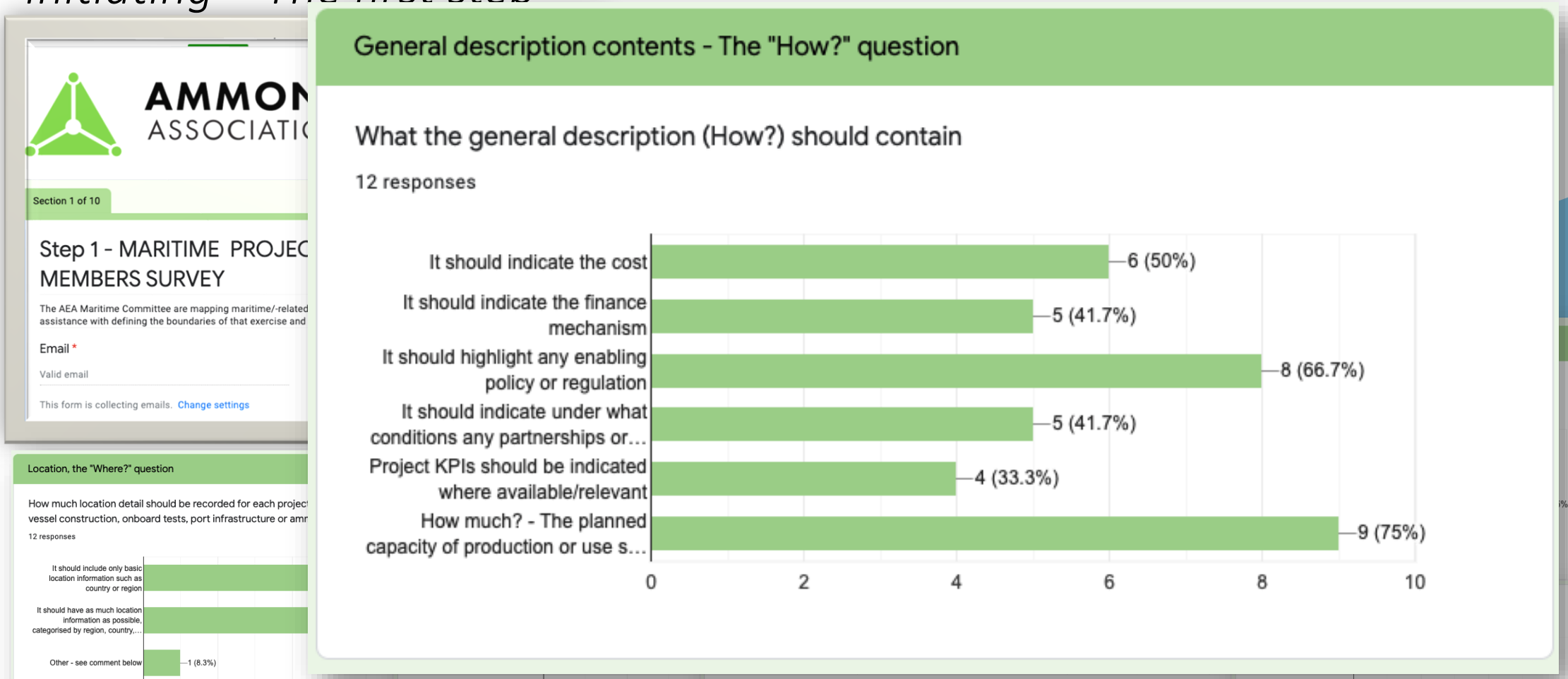
5 (41.7%)
8 (66.7%)
4 (33.3%)
9 (75%)
7 (58.3%)
6 (50%)

ssary and/or appropriate (GDPR and commercial)

3 (25%)
8 (66.7%)
Include points of contact details such as email, phone etc
2 (16.7%)
0 2 4 6 8

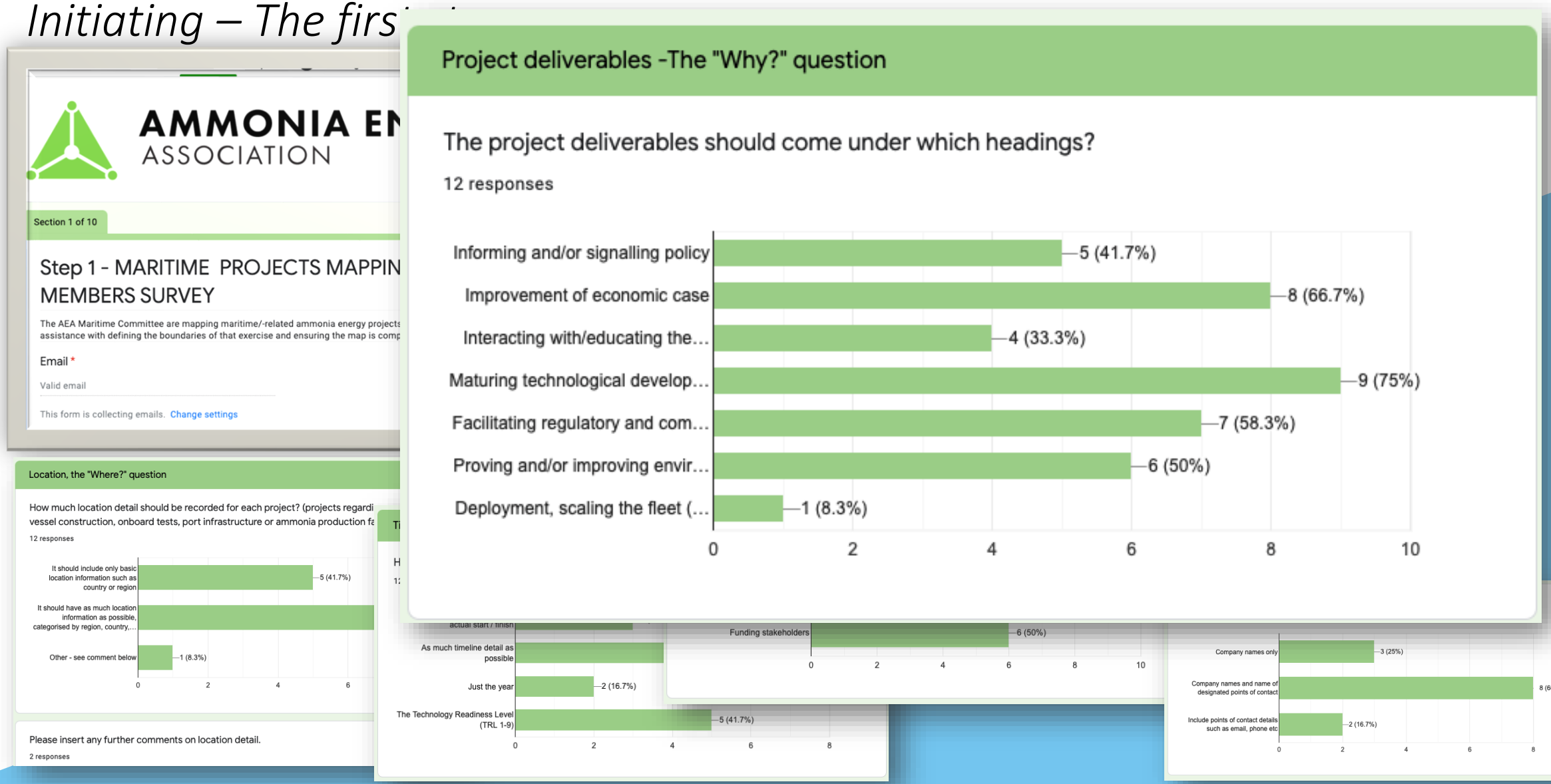
Mapping Maritime Projects

Initiating – The first step



Mapping Maritime Projects

Initiating – The first



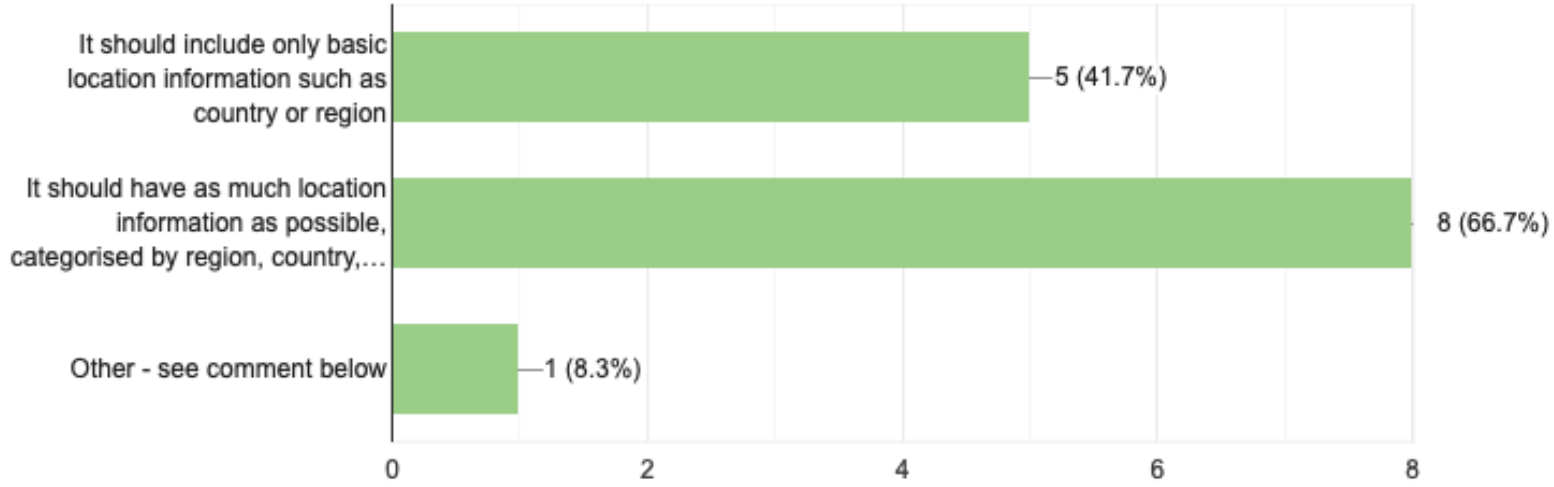
Mapping Maritime Projects

Initiating – The first step

Location, the "Where?" question

How much location detail should be recorded for each project? (projects regarding e.g. vessel construction, onboard tests, port infrastructure or ammonia production facilities)

12 responses



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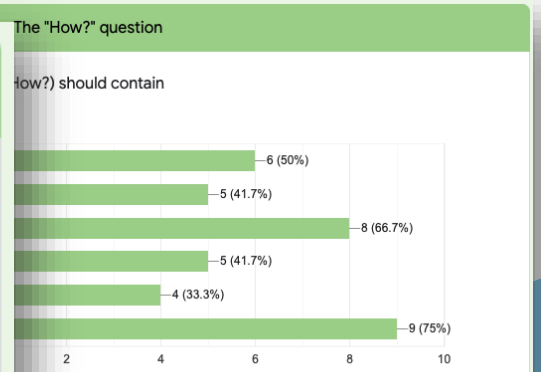
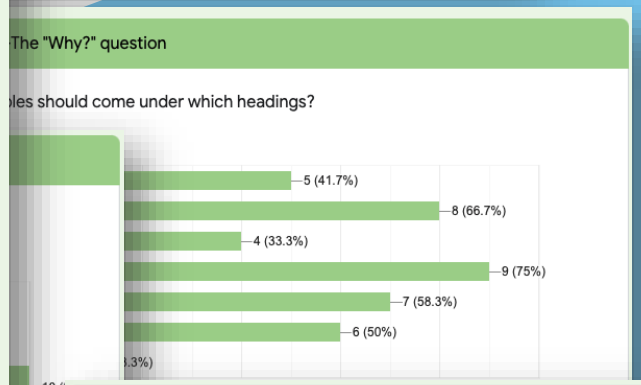
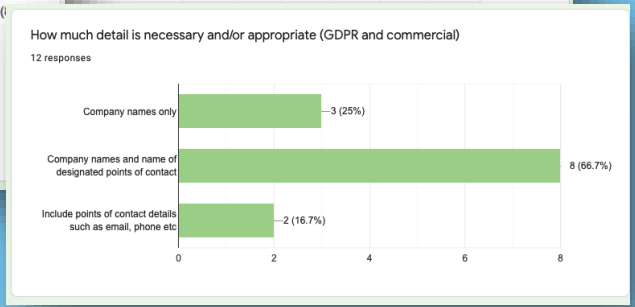
2 responses







Mapping Maritime Projects

Initiating – The first step

AMMONIA ENERGY ASSOCIATION

Section 1 of 10

Step 1 - MARITIME PROJECTS MAPP
MEMBERS SURVEY

The AEA Maritime Committee are mapping maritime/-related ammonia energy p
assistance with defining the boundaries of that exercise and ensuring the map is

Email *

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Questions Responses 12 Settings

What information is most useful for you?

Project Headings - the "What?" category

General description contents - The "How?" question

What the general description (How?) should contain

12 responses

Location, the "Where?" question

How much location detail should be recorded for each project? (projects regardi
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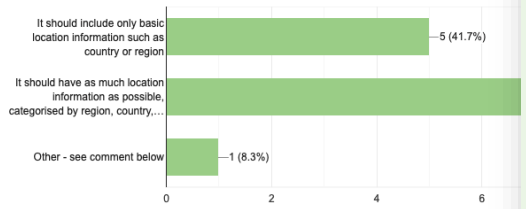
12 responses



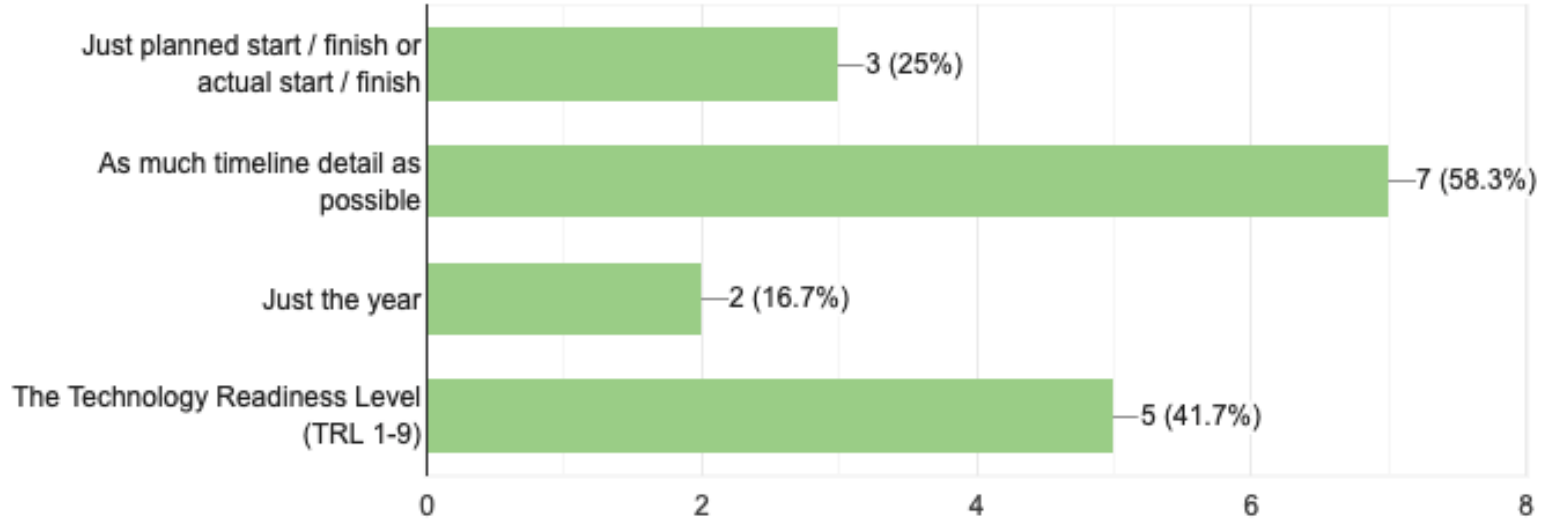
Please insert any further comments on location detail.

2 responses

Time - The "When?" question

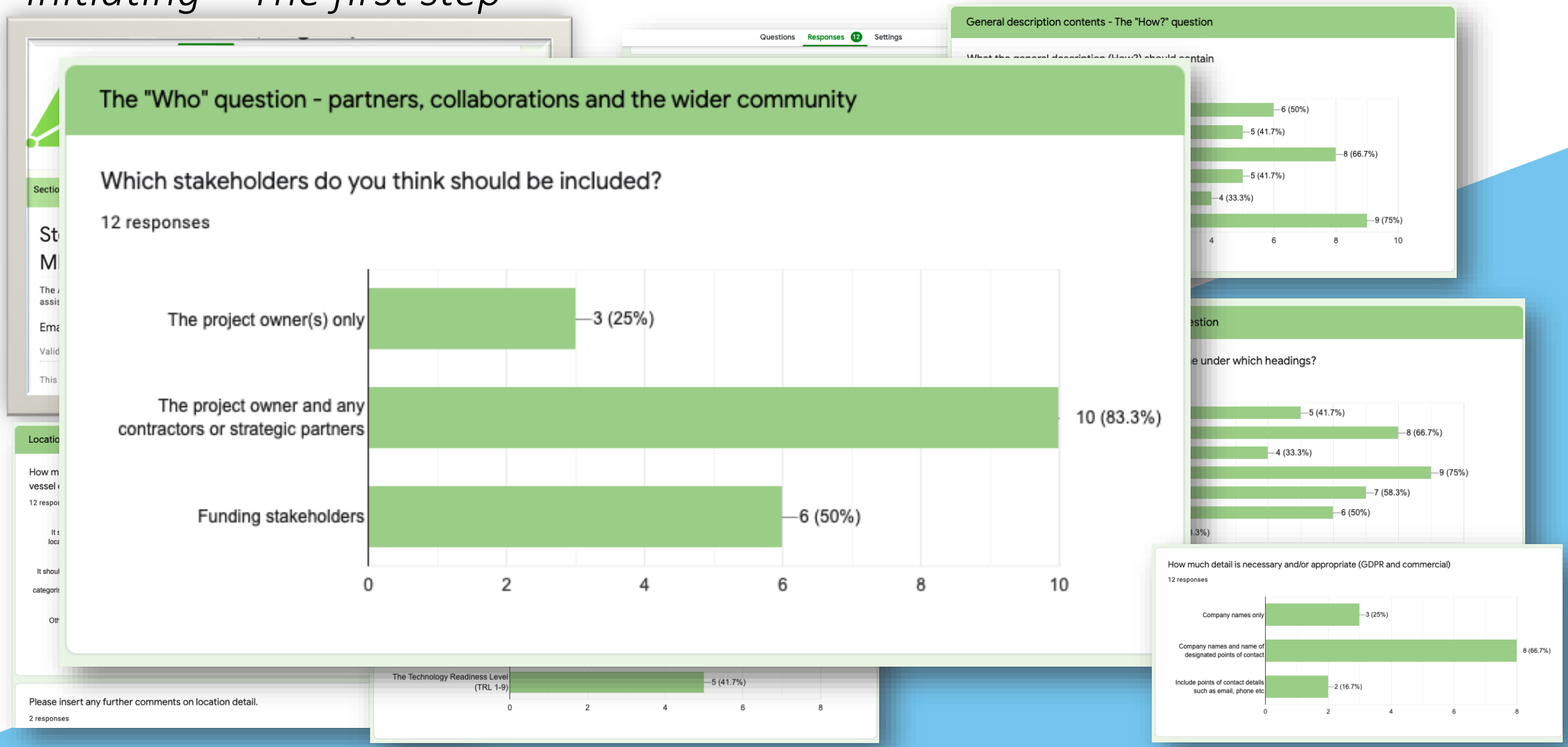
How much timeline detail should there be?

12 responses



Mapping Maritime Projects

Initiating – The first step



Mapping Maritime Projects

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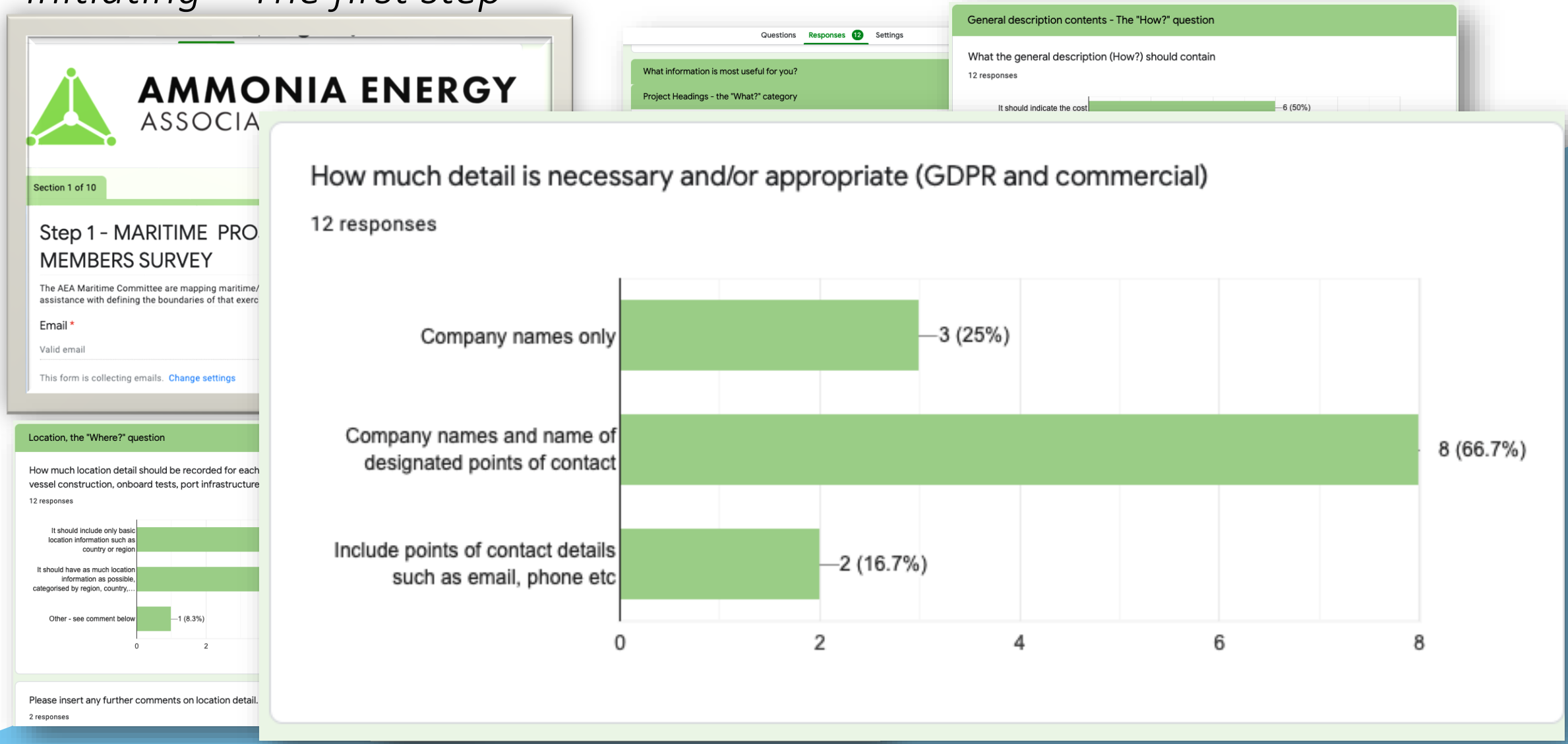
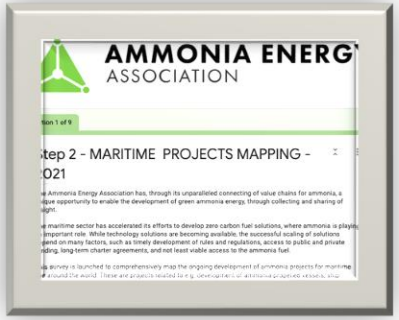


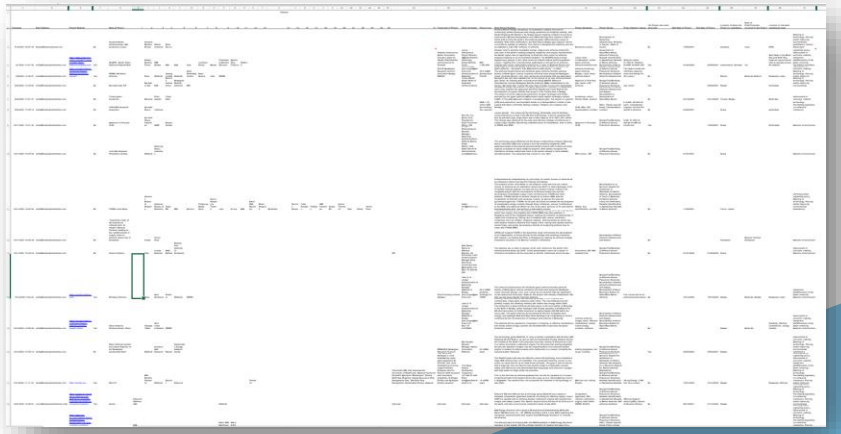
Mapping Maritime Projects

Initiating – Pre populating from the public domain

50 projects have been mapped, work in progress to complete all available.

Perhaps up to 150 relevant projects to be included





Timestamp | Email | Project Website | Project Name

Partners | Financiers | POC | USD

Project sum | Short Project Summary | Keywords | Scope | Vessel Details | Delivered? | Start Date | End Date | Project Location

Location of where the Project is undertaken | Ports & Terminals | Operational Route

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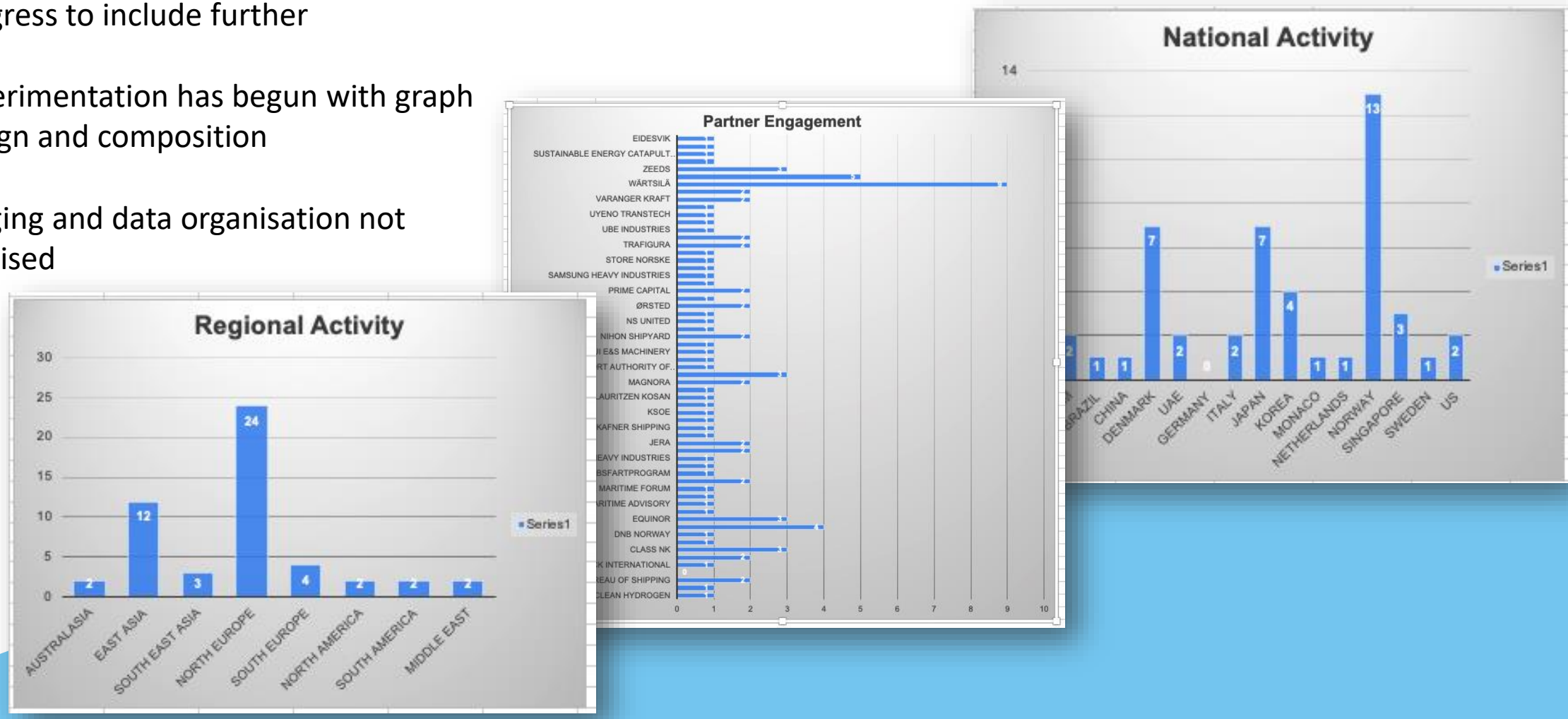
Capture Consolidate and Closeout — 30 min

Mapping Maritime Projects

Examples of outcomes - Graphs

- 50 projects have been mapped, work in progress to include further
- Experimentation has begun with graph design and composition
- Tagging and data organisation not finalised



Norway and Denmark have high representation of projects

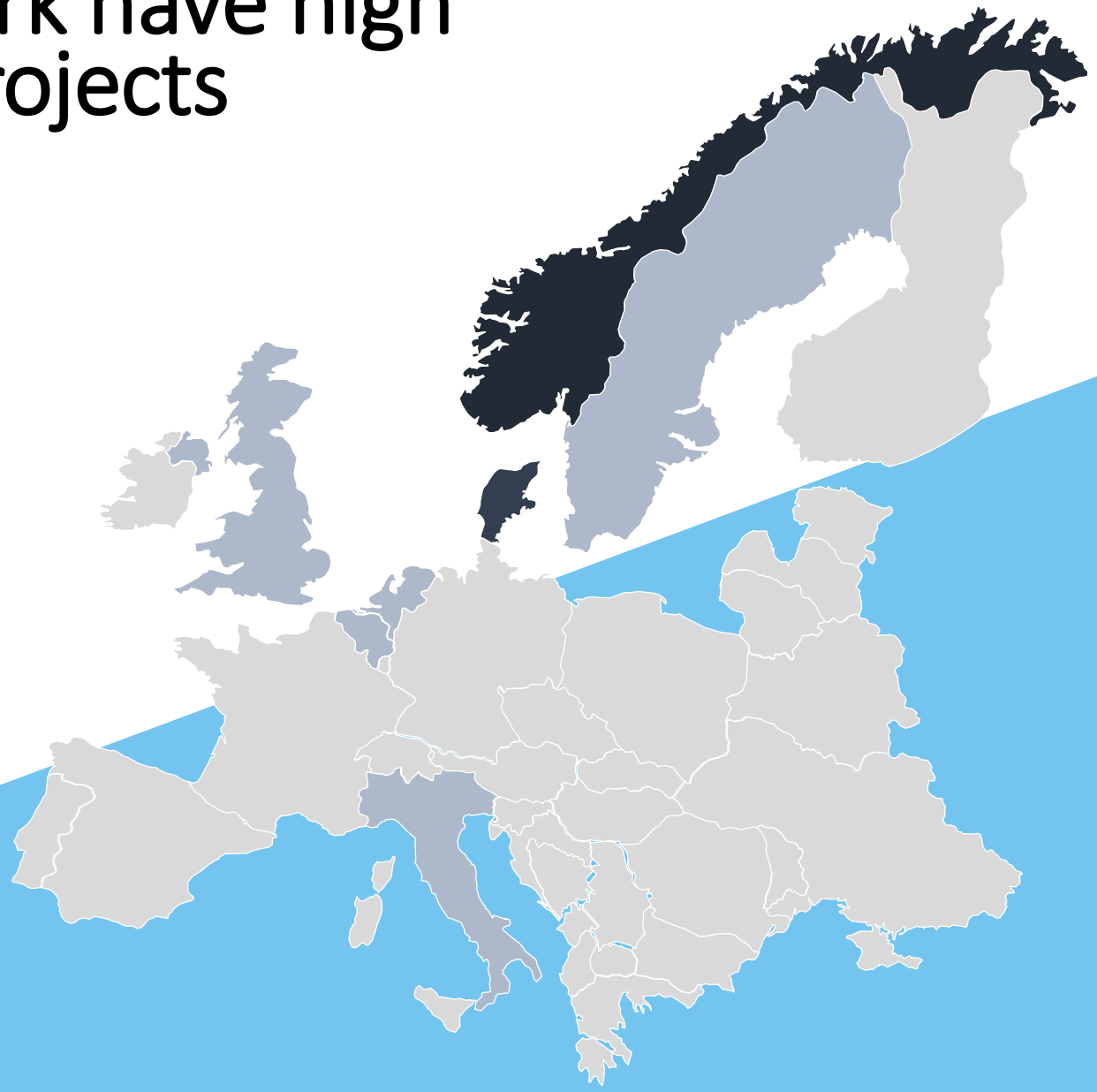
EXAMPLES

Norway:

- Scaling through regional synergies
- Land-based and offshore wind-to-hydrogen
- Bunkering infrastructure
- Offshore Supply Vessels
- Dedicated route ammonia carriers

Denmark:

- Leading engine development
- Catalysing through consortia projects



Korea, Japan and Singapore have high representation of projects

EXAMPLES

Japan:

- Ammonia energy supply infrastructure
- Vessel trials

Korea:

- Vessel trials
- Research

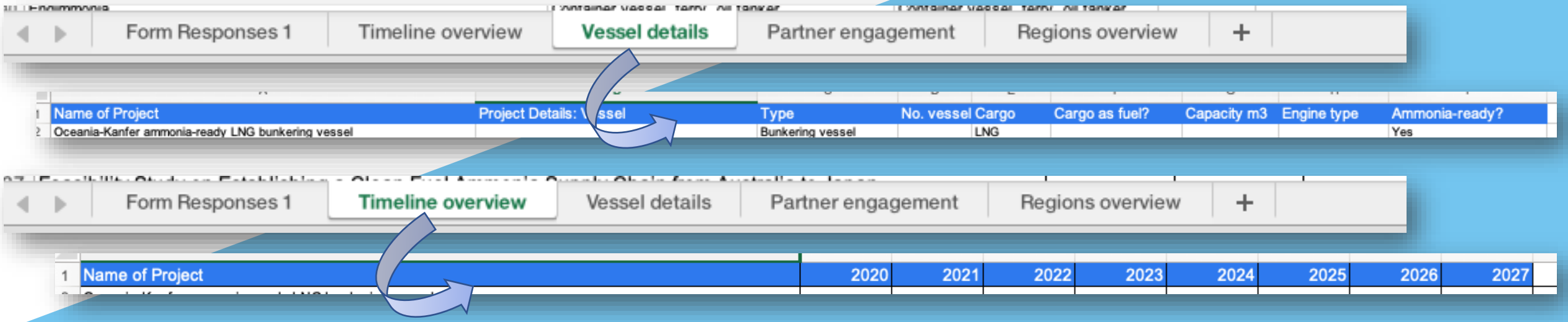
Singapore:

- Ship-to-ship bunkering
- Research

Mapping Maritime Projects

Outcomes – Further thinking

- Experimentation has begun with other data sub sets with focus on particular aspects such as vessel details and timelines
- AEA staff are using their judgement on what data sets provide value
- Annual conference presents unique opportunity for membership referral
- Focus needs to rest upon real value creation



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Capture Consolidate and Closeout — 30 min

Exercise – How do we optimise the value created from the mapping of maritime ammonia projects?

We divide up into 3 teams to answer 3 framing questions

- *Process : Your team will take 20 minutes discussing a question and recording answers, before moving on to the next question. Some headings are provided to assist with structuring your answers.*

Question 1 –
What information can we provide that represents a valuable tool toward your business development activity?

Prepared headings:
Location/Investment/ Timelines/Project category, Trade route/Ship type, others

20 min

Question 2 –
What is the user case for the information we gather – who ultimately is the information for?

Prepared headings:
Legislators- why?,
Finance- why?,
Potential partners- why?

20 min

Question 3 –
How can such a mapping help you find directions with regards to future partners or regions?

Prepared headings:
Underpinning business case development/ identifying future partners/ identifying regions for focus/ identification of where you should promote your visibility within the sector

20 min

Methodology

The exercise is designed to address the question as comprehensively as possible by approaching it from different perspectives.

Sometimes it can be difficult to avoid repeating answers between the framing questions. It can also seem that additional framing questions should be asked. These kinds of challenges are part of the process and perfectly acceptable.

What is most important is to “juice” the question as much as possible in the time available while staying generally within the bounds of the exercise.

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Capture Consolidate and Closeout — 30 min

Capture, Consolidate and Closeout

30 min

Capture–
We will capture the answers, question by question, using the team that dealt with that question last. Each team may nominate one spokesperson if they wish.

What are the additional headings, what suggestions come under each heading?

Consolidate–
It's important to boil down what we have produced so far.

-Remove repetitions and agree a structure to the answers perhaps different to that provided through the framing questions.

-Any special comments or insights derived from the exercise?

Close out–
Discussion of the next steps

What kind of timeline for the mapping exercise is reasonable

What further referral process with members is appropriate?

How should the AEA use the information externally and internally?

Should some information be AEA member only.

What is the appetite for answering detailed surveys

What obviously should not be included in the mapping exercise?

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Thank you!

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