## Webinar findings

*Presentation:*

DTOceanPlus will develop and demonstrate a suite of 2nd generation advanced design tools for the selection, development and deployment of ocean energy systems:

- Structured Innovation tool, for concept creation, selection and design.
- Stage Gate tool, assisting decision-making through the use of metrics.
- Deployment tools, supporting optimal device and array deployment.
- Assessment tools, providing objective information on the suitability of a technology and project.
- Digital Representation, underlying standard framework for the description and sharing of design information.

The Digital Representation aims at:

- Providing a common language and architecture for storing project information.
- Facilitating data and information exchange among different stakeholders.
- Enabling objective comparisons between various technologies.
- Enhancing the ability of sector stakeholders to work collaboratively.

Methodology for the development of this framework:

- Defining the general concept
- Consultation of potential users about their needs
- Developing the concept further
- Practical implementation
- Dissemination (e.g. this webinar)

Four guiding principles:

- Flexibility: data granularity should be able to tackle different TRLs
- Expandability: will avoid early obsolescence as the sector evolves
- Aggregation: facilitates comparisons of individual sub-systems, devices and arrays
- Communication: will allow information exchange between software tools and stakeholders

Digital objects:

- Integrate in a single structure two model perspectives (physical design and assessment) for three different design elements (environment, physical entities and processes)
- Hierarchical structure to allow future expandability and different levels of aggregation and complexity.
- Connectivity to represent the inter- and intra-relationships between instantiated objects.
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*Q&A:*

- Digital representation is a screenshot of what the project is, it is not for evaluating devices. There are other tools that will assess the technology. The user will take the final decision about which suits better to his purposes.
- Input was sought from existing engineering, construction sector, wind sector, previous work in the ocean energy sector.
- The objective of this tool is to enhance the ability to communicate among different types of stakeholders.
- The main difficulty is to tackle with projects with different levels of complexity – the metrics will be uncertain or impossible to be computed.
- A stakeholder analysis was conducted, and different use cases were developed in the beginning of the project. The user consultation produced useful information for building up the concept.