

Ideas for Support Group 4 - Standards, technical rules and regulations in the offshore wind sector

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Work area as outlined in annex 1 to declaration

1. The harmonisation of rules concerning aviation markings and lights;
2. The harmonisation of health and safety requirements;
3. The alignment of crew and vessel requirements;
4. The mutual recognition and harmonisation of certification standards for components in offshore wind projects;
5. Exchanging best practices on park layout constraints including line of sight requirements;
6. The establishment of a common approach, for example by establishing facilities for innovation, testing and demonstration of new technology;
7. Investigating a common approach to rules applicable to offshore turbines in territorial waters and exclusive zones.

Aim of this paper

This paper proposes objectives, priorities, deliverables and an organisation of the work to realise the objectives of the North Sea Declaration in relation to work area 4. The work is split in 2 parts: a) technical rules (item 1-5 and 7 of Annex 1 of the declaration) – based on the work of the Inter Governmental Forum and WindEurope; b) innovation (item 6 of Annex 1 of the declaration).

Strategic objectives

It is proposed to set 2 strategic objectives:

- a. Harmonisation and/or alignment and/or mutual recognition of rules for as many as possible of the issues listed above that have the (likely) highest potential for cost-reduction of offshore wind;
- b. Reduce the levelised cost of electricity at final investment decision for (fixed) offshore wind.

Proposal for prioritisation – part a – technical rules

Regarding issue a. the Inter-Governmental Forum has already done valuable work, and WindEurope has made an overview and analysis of the issues. The issues are many, and assuming that we can't tackle all at the same time, prioritisation is needed. The key criterion is of course the impact on cost, but this

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needs to be considered in relation to the complexity of the issue – therefore further refinement is needed. Some of the issues may be more relevant for other Support Groups and their Work Area (in particular SG1): this needs to be discussed.

The following criteria are proposed as a tool to map and prioritise the subject areas:

1. Plenty of information is available on the issue;
2. Legislation is not yet fully formed in many countries;
3. The EU has an interest in leading the international standardisation work;
4. Legislation is (likely) to be adapted anyway due to technological progress;
5. Mutual recognition of standards or rules may be an easy possible solution;
6. A technically straightforward solution is available;

The table on the following page identifies the priorities, considering only those issues in the WindEurope Report that fall within the scope of SG4. Other issues should be addressed by SG1 (Handling of UXO's, Environmental Noise) and this should be discussed between both Support Groups. Other issues may be addressed in SG4 even if not exactly within its scope (in particular Decommissioning and Suverys), but this needs to be discussed among the participating countries in SG4.

This table serves as a catalogue of ideas to assist participating countries in choosing a topic for which they will lead the work towards the deliverable (see below).

		Where information is plentiful	Where legislation is not yet fully formed	Where there is a need to demonstrate European leadership	Where change would happen anyway due to technological progress	Where mutual recognition above harmonisation is preferred	Where a technically straightforward solution is available	Suggested for SG4	
More complex regulation	High impact								
	Fair impact	Helihoist							
		Colour markings							
		Aviation lights							
		Inspection intervals - safety							
		Helicopter use							
		Emergency services							
	Intermediate impact	Marine safety rules							
		Project certification							
		Inspection/Maintenance intervals							
	Low impact								
	Park layout								

It is suggested to set as **deliverable**: An inception report that includes:

- Identification of the authorities (national and international, if relevant) that need to be involved to realise a solution;
- Scope of a possible result¹;
- A work plan to realise the result;

and is based on at least one meeting of the identified authorities of all North-Sea Declaration countries (and the relevant international authorities) that need to be involved. If this includes Commission services, DG Energy will ensure participation.

Proposal for prioritisation – area b – innovation

The Toward an Integrated Strategic Energy Technology Plan Communication (COM(2015)6317) of 15 September 2015 describes the energy research and innovation priorities for the coming years. R&D&I to reduce the cost of offshore wind energy, in order to maintain EU leadership in this sector, is one of the priorities. As a follow-up to the Communication, Member States² and stakeholders have engaged in a discussion to set targets for the priorities that are laid down in a Declaration of Intent, as an expression of the consensus reached. The Declaration of Intent is published on the SET Plan Information System website: <https://setis.ec.europa.eu/towards-an-integrated-SET-Plan>. The strategic objective as stated above is based on that declaration. The recently awarded projects have not been taken into account and may require an update of the Declaration.

The next step is to identify synergies for cooperation across Member States and research institutions, and concrete actions, to reach these targets, and elaborate the 'initial ideas' listed in the Declaration of Intent. The declaration includes a commitment to elaborate a detailed implementation plan for the delivery of these targets, via an ad-hoc working group of Member States and stakeholders. This group will make use of the work of the European Technology and Innovation Platform for wind energy (ETIP-wind): this is the organisation of industrial stakeholders set up at the request of the Commission to provide advice on R&D&I in the area of wind energy.

One of the issues identified is 'better infrastructure for large scale deployment including appropriate and sufficient test and validation centers', and the work of the ad-hoc group will overlap with work area 6 of Support group 4 (The establishment of a common approach, for example by establishing facilities for innovation, testing and demonstration of new technology). It is therefore suggested to elaborate work area 6 of Support group 4 via this ad-hoc working

¹ This may include clarification why certain countries have certain standards; advantages and disadvantages of specific standards. It needs to include an analysis which standards and regulations could be harmonized and how.

² When referring to Member States in the framework of the SET Plan, it includes all countries that participate in Horizon2020, e.g. including Norway, Iceland and Turkey.

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group, that has to report to Support Group 4 and to the SET Plan Steering Group (consisting of representatives of all Member States, officially appointed by the responsible Minister for energy research). Existing test centers and R&D institutes will need to participate in the ad-hoc group.

There currently seems to be no shortage of test facilities, but a first step could be to work towards a common framework for testing facilities (e.g. cooperation to define common test methods, technical parameters, and possibly mutual recognition of (some of) the test results). In the mid-term it is expected that the next generation of (very large) wind turbines will make testing very expensive for individual manufacturers. Depending on the results of the first step, a second step could therefore be the creation of common test & demonstration centres.

It is suggested to set as **deliverables**:

- As part of the Implementation Plan, a work programme for the realisation of a common framework for testing facilities;
- Draft a common framework for testing facilities in the framework of the Implementation Plan of the SET Plan target on offshore wind that:
 - provides an inventory activities of existing test centres in countries that have signed the North-Sea Declaration (and the rest of the EU);
 - defines common test methods, or mutual recognition thereof, for new offshore wind technologies;
 - mutually recognises (some of) test results;
- Agreement on a roadmap towards common offshore wind test centres for the North-Sea Declaration countries;
- Further deliverables depend on this roadmap

Overall working method – suggestions

- Ensuring transparency by sharing the reports of the support groups to all experts of each of the four support groups (thus not only to members of coordinators committee). There seems to be no direct risk of overlap for WG4 with the other work areas, but the coordinators group will ensure that if such overlap is identified it will be adequately dealt with.
- Yearly (bi-lateral) meeting between the chairs of the support groups
- Granting an observer status to one member per support group to attend the other support groups
- Involvement of industry in the work on technical rules and standards (part a above) will be done through the invitation of WindEurope to (part of) the meetings of Working Group 4.
- Furthermore, WindEurope is asked to nominate a person per topic (or block of topics) to advise the country that is responsible for that work.
- Agreement on how and under which conditions other experts can be involved, for instance in workshops (paid by countries themselves or from a central budget?)

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Annex 1 – previous table including all topics from WindEurope's Regulatory Practices report

			Where information is plentiful	Where legislation is not yet fully formed	Where there is a need to demonstrate European leadership	Where change would happen anyway due to technological progress	Where mutual recognition above harmonisation is preferred	Where a technically straightforward solution is available	Suggested for SG4
Low hanging fruits	Fair impact	Helihoist							
		Surveys through construction							
		Data storage and sharing							
	Intermediate	Handling of UXOs							SG 1(?)
More complex regulation	Fair impact	Colour markings							
		Aviation lights							
		Inspection intervals - safety							
		Helicopter use							
		Emergency services							
		Marine safety rules							
	Intermediate	Project certification							

