

TSO DSO cooperation

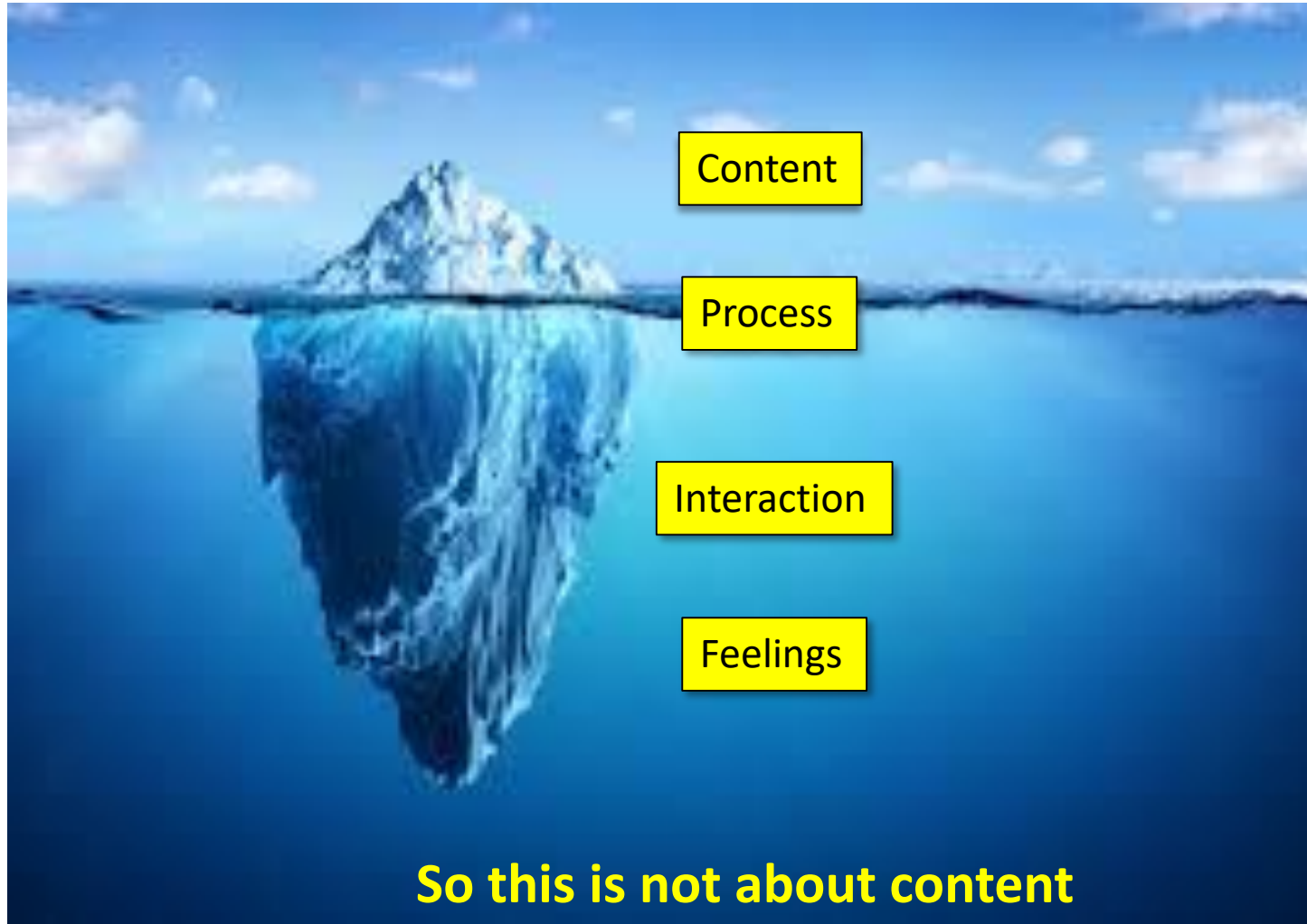
Results of the partner satisfaction survey



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The 4 levels of communications



Content:

Eg. discussing network codes

Process:

Agreeing on the joint way of working

Interaction

Having effective dialogues

Feelings

Addressing trust and emotions

Why is TSO DSO cooperation important, also on member states level ?

EU Member states are committed to European objectives:

- *Greenhouse gas reduction mitigating climate change*
- *One European Energy market*

This requires a transformation of the “one system” (also on national level):

- *Transformation to renewables energy*
- *Decentralization of power supply*
- *Cross sectoral data exchange and interoperability*
- *Open markets*

Leading to active system management of an energy system, in which in the future millions of actors will participate

- *Combining TSO and DSOs core competencies*

Society simply expects that we jointly get the job done:

- *We should evaluate how we are joining forces (feedback is a gift),*
- *We jointly could become more effective by addressing the cooperation issues (process, interactions, feelings) first, before we dive into the content.*



The 5 survey questions

Q1: How do you qualify overall TSO-DSO cooperation in your country

Q2: How do you qualify openness & transparency as well as mutual trust in the TSO-DSO relation in your country

Q3: How do you qualify the willingness of the TSO in your country to cooperate with the DSOs in the future ?

Q4: Is there a formal TSO-DSO cooperation meeting / body in your country ?

Q5: What works well in the cooperation and should be kept and what needs to be improved ?



Responses received

32 DSOs + 1 association in total, covering 20 countries

 Austria -Netz NOE -Energienetze Steiermark	 Belgium [collective] -Fluvius -ORES	 Cyprus -Electricity Authority of Cyprus	 Germany [collective] -Bayernwerk (E.ON) -Innogy -Rheinische Netzgesellschaft -EWE Netz	 Greece -HEDNO
 Lithuania -ESO	 Netherlands -Alliander -Enexis -Stedin	 Poland -Enea Operator -Energia -PGE	 Italy - Areti - xxx	 Slovenia -SODO
 Spain -Iberdrola -UFD -Viesgo	 Sweden -Vattenfall	 France -Enedis	 Ireland -ESB Networks	 United Kingdom -NIE Networks
 Portugal -EDPD	 Latvia -JSC Sadales tikls	 Czech Republic -ČEZ Distribuce	 Ukraine -DTEK Grids -Ukrainian DSO association	 Finland -Caruna

20 TSOs covering 17 countries

 Elia	 Energinet	 Elering	 Amprion, 50 Hertz, TransnetBW, Tennet DE
 MAVIR	 Egrid	 Terna	 TenneT NL
 Statnett	 PSE	 REN	 Transelectrica
 Eles	 RED	 National Grid	 RTE
 Finland			

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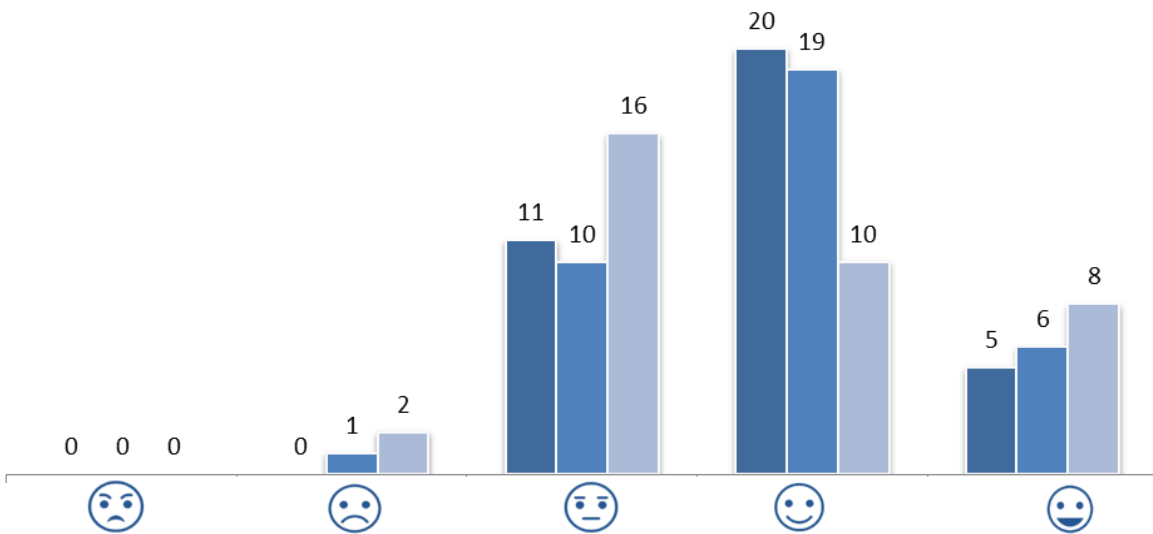
DSO responses: findings on TSO DSO cooperation

- In the majority of cases, the conditions for cooperation were assessed as satisfactory, but in some Member States (like in Italy), the cooperation conditions need to be defined into detail.
- There is a need for creating a joint vision as well as assigning roles and responsibilities for new functionalities. That means intensifying mutual discussions in a well-structured way while working out common solutions.
- In case of a negative assessment of the cooperation with a TSO was given in the responses, this is oftentimes the result of:
 - A marginalization of the DSOs' needs and roles, DSOs not being perceived as a full partner,
 - TSOs making use of their prevailing position as overall system operator of the electricity system,
 - Lack of mutual consultation on preparing proposals prior to presenting them at the NRA or ministry level.
- It becomes clear that in order to promote further cooperation in all Member States, improvements are needed, in some countries in particular, primarily concerning the relations and cooperation on mutual dependencies and solutions to be adopted in future market models.

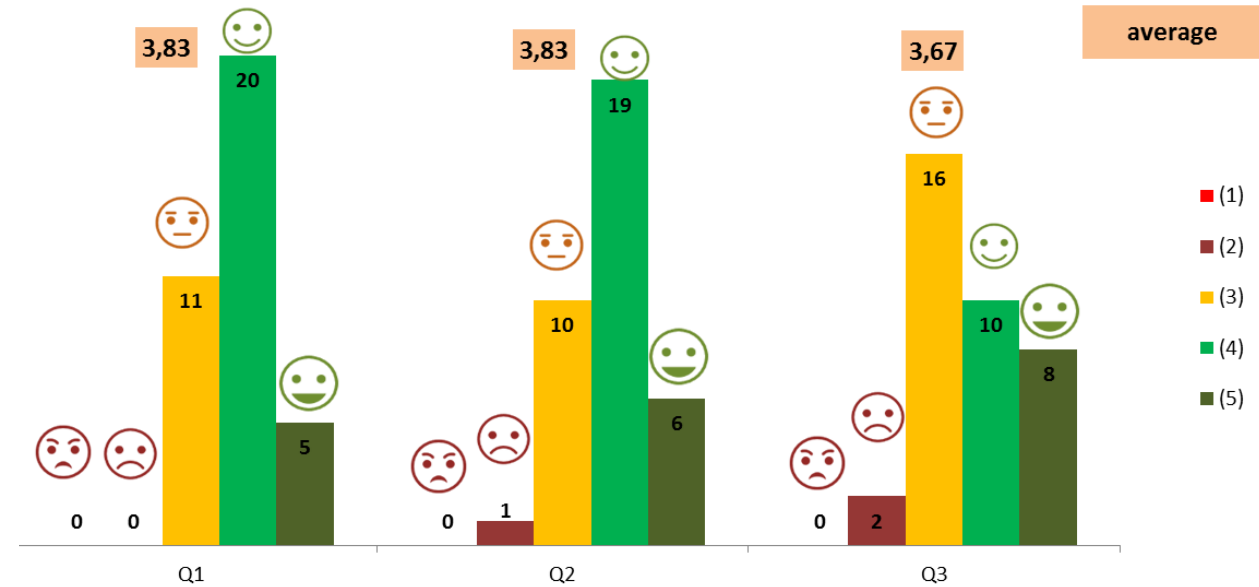
DSO qualification on TSO-DSO cooperation (Q1,Q2,Q3)

(with additional input from Eurelectric)

Number of received answers to questions asked in given categories of satisfaction level.



Level of satisfactions for given questions with average levels of satisfaction with cooperation.



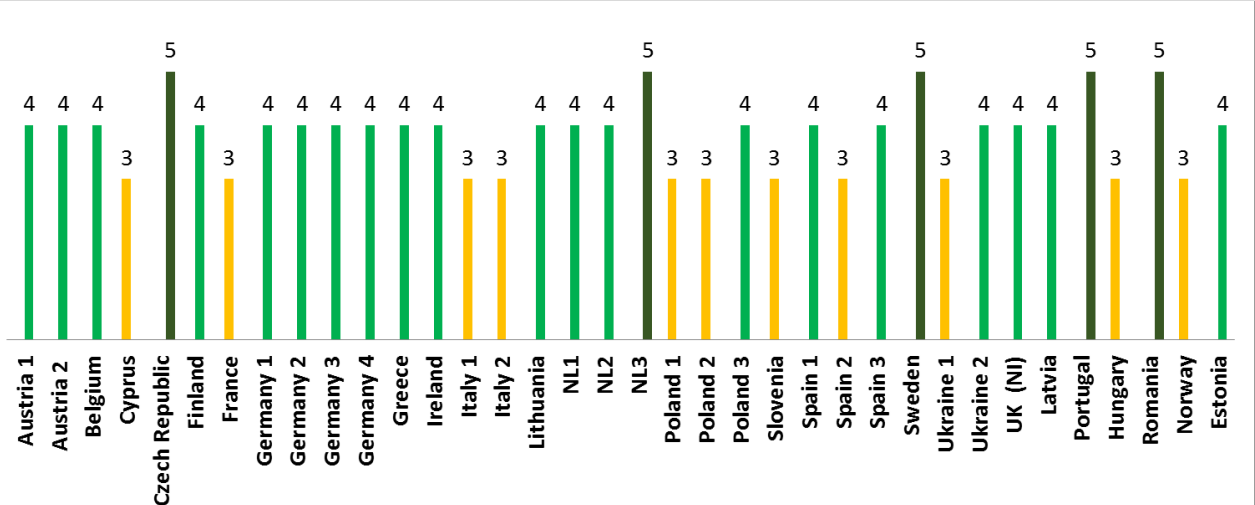
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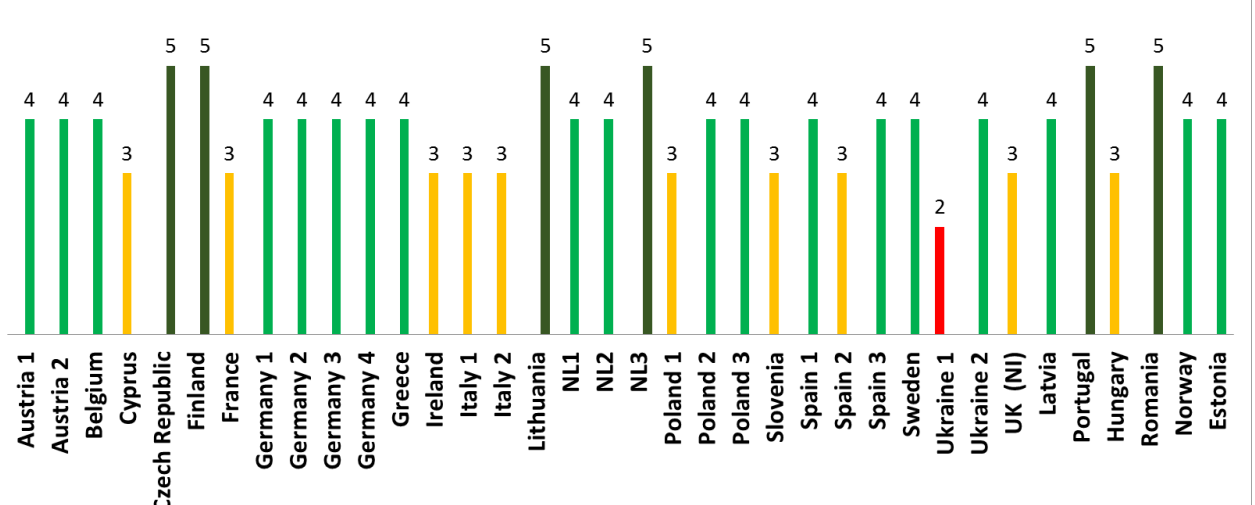
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Level of DSO satisfactions for questions Q1,Q2,Q3

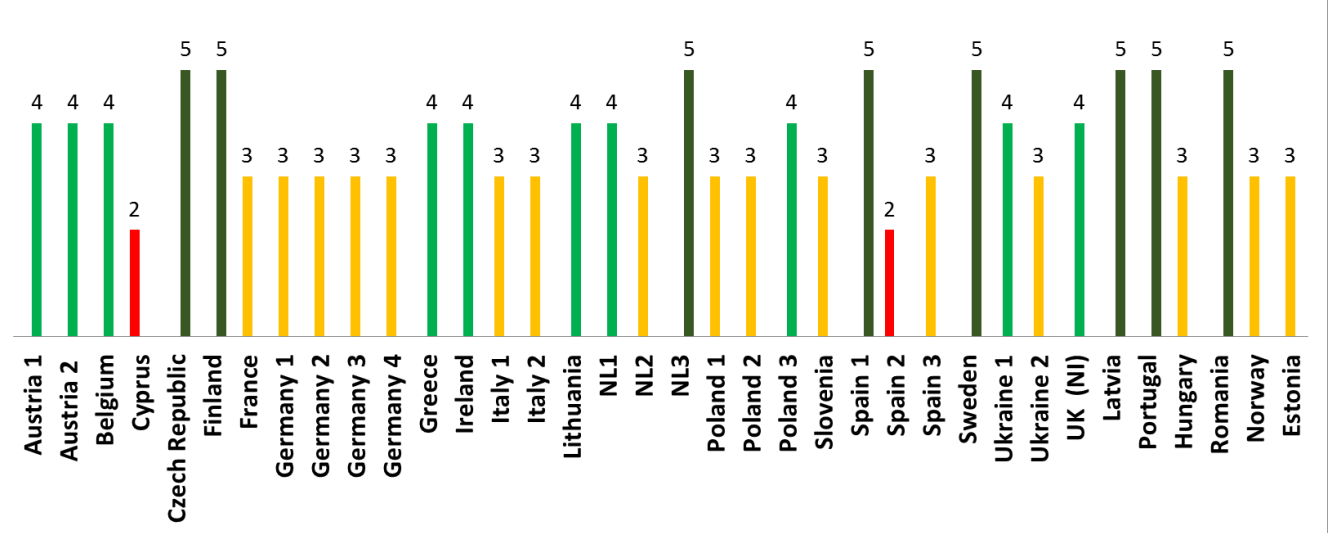
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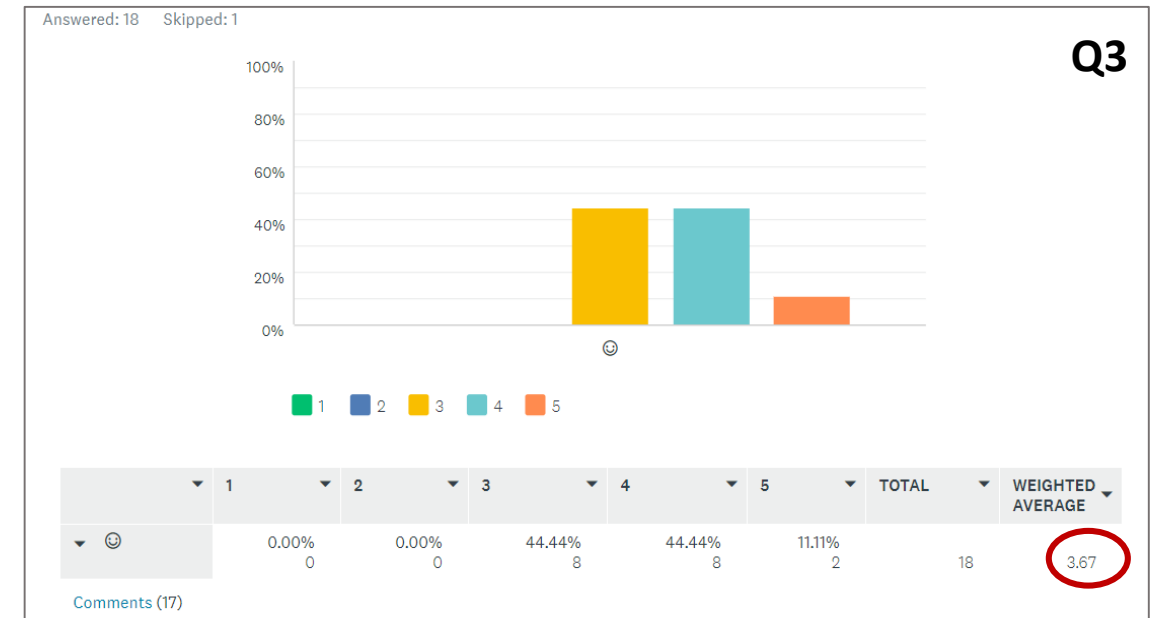
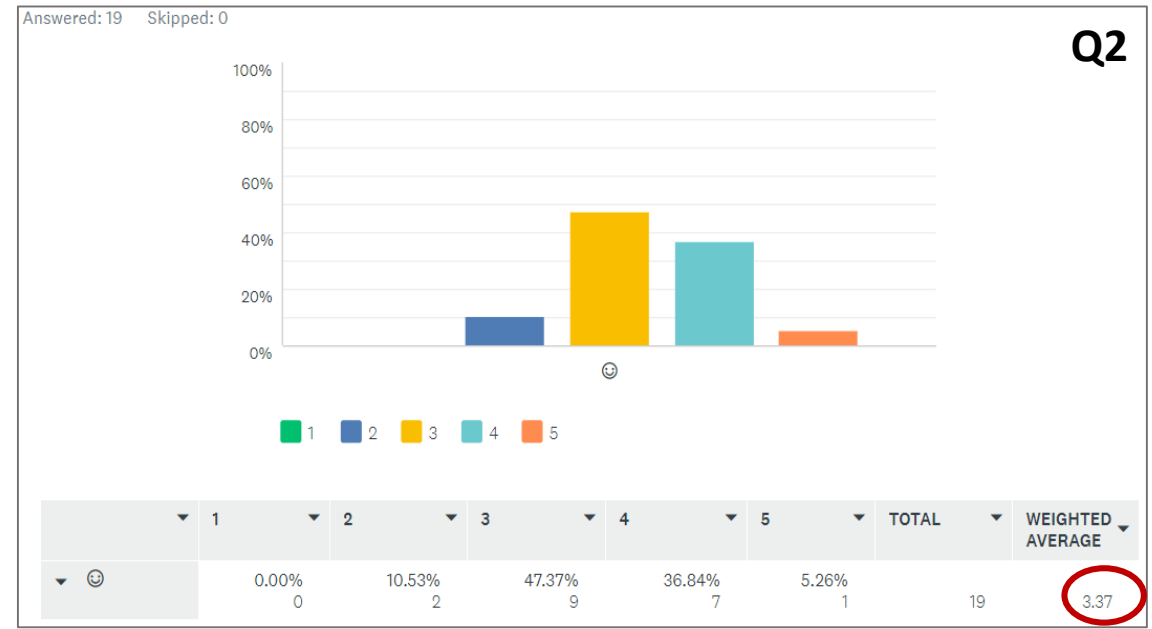
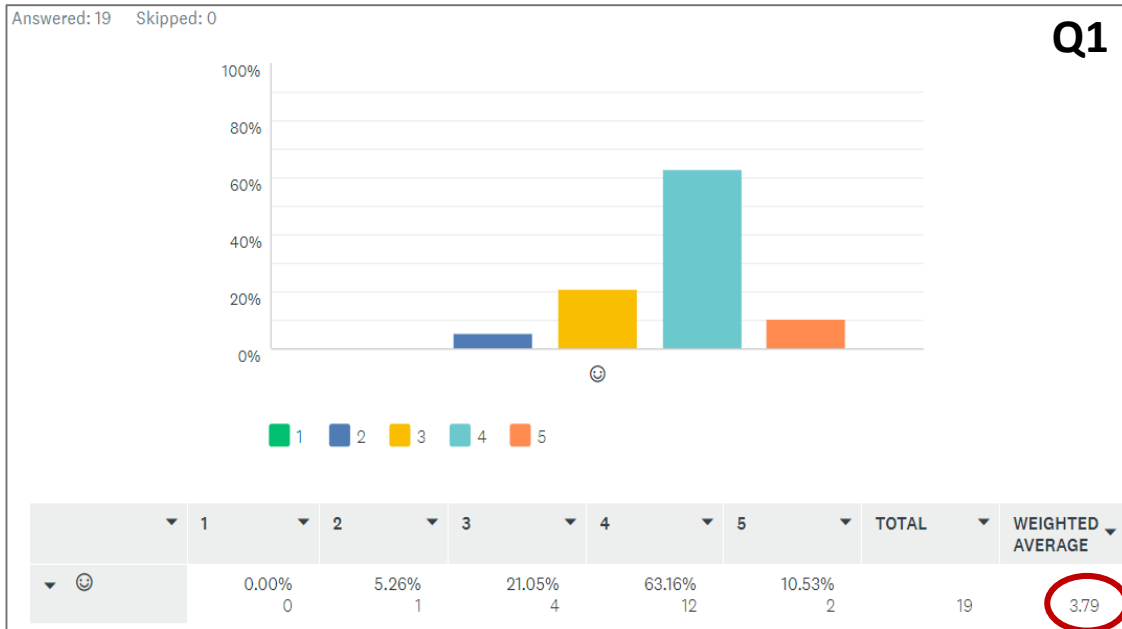
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TSO responses: findings on TSO DSO cooperation

- Overall, TSOs provided a positive assessment of TSO-DSO cooperation in their country (3.8). There is a strong willingness to work together (3.6) but they feel there is not always the required level of openness and transparency (3.4).
- In countries with the highest grade, TSOs mentioned the existence of many formal groups and joint projects, a culture of cooperation and grid topology as reasons for good cooperation.
- In countries with the lowest grade, the cooperation is limited to participation in joint pilot projects or high-level discussion on national policies but there is an overall lack of understanding of each others' challenges.
- The key topics for future cooperation are: integration of renewables, procurement of ancillary services from distributed flexibilities, implementation of Clean Energy Package, e-mobility.

TSO qualification on TSO-DSO cooperation (Q1,Q2,Q3)



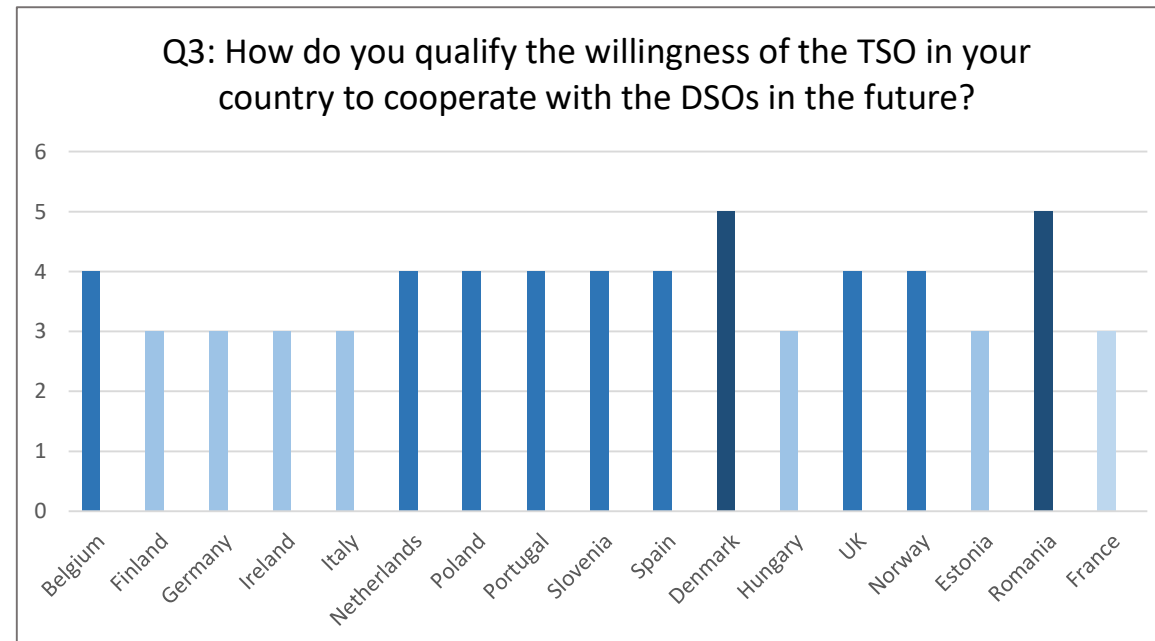
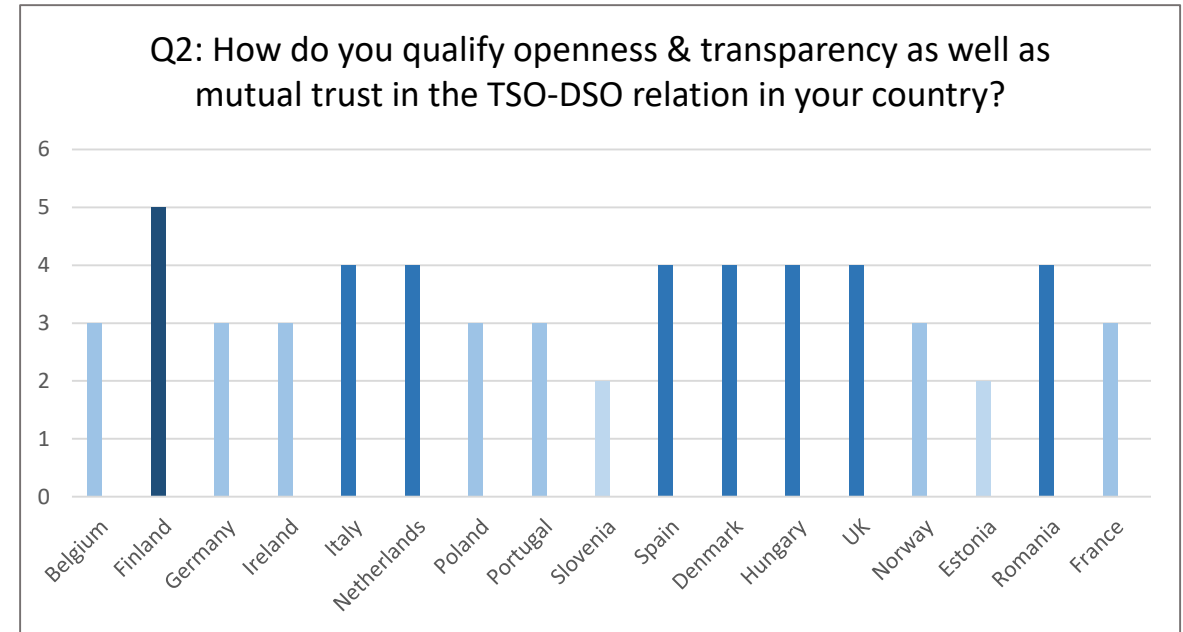
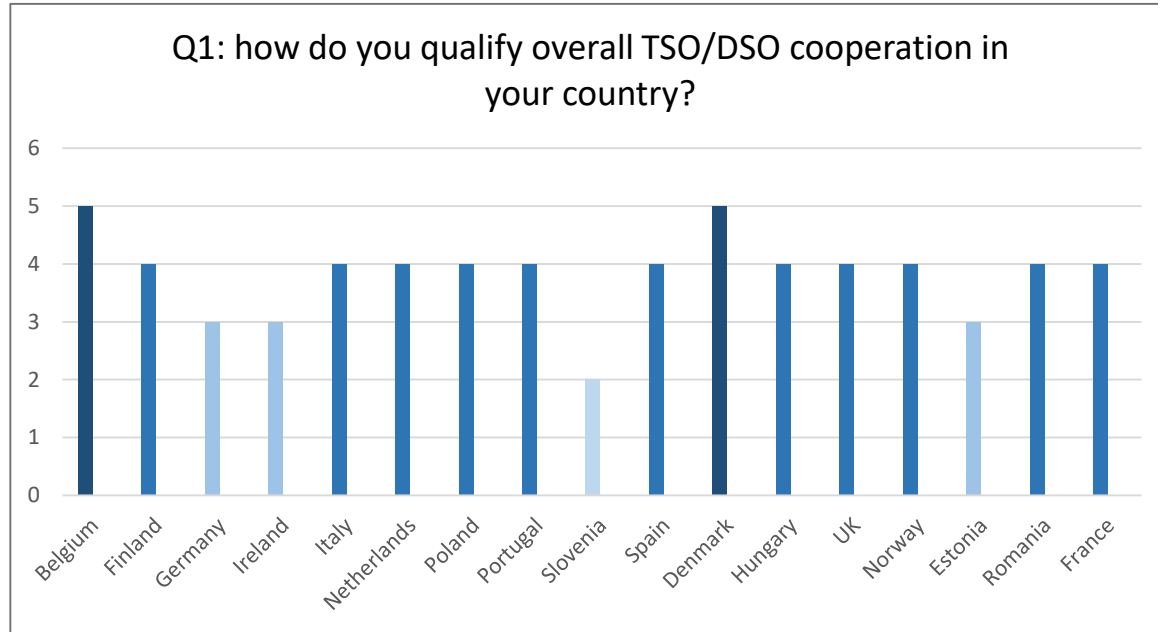
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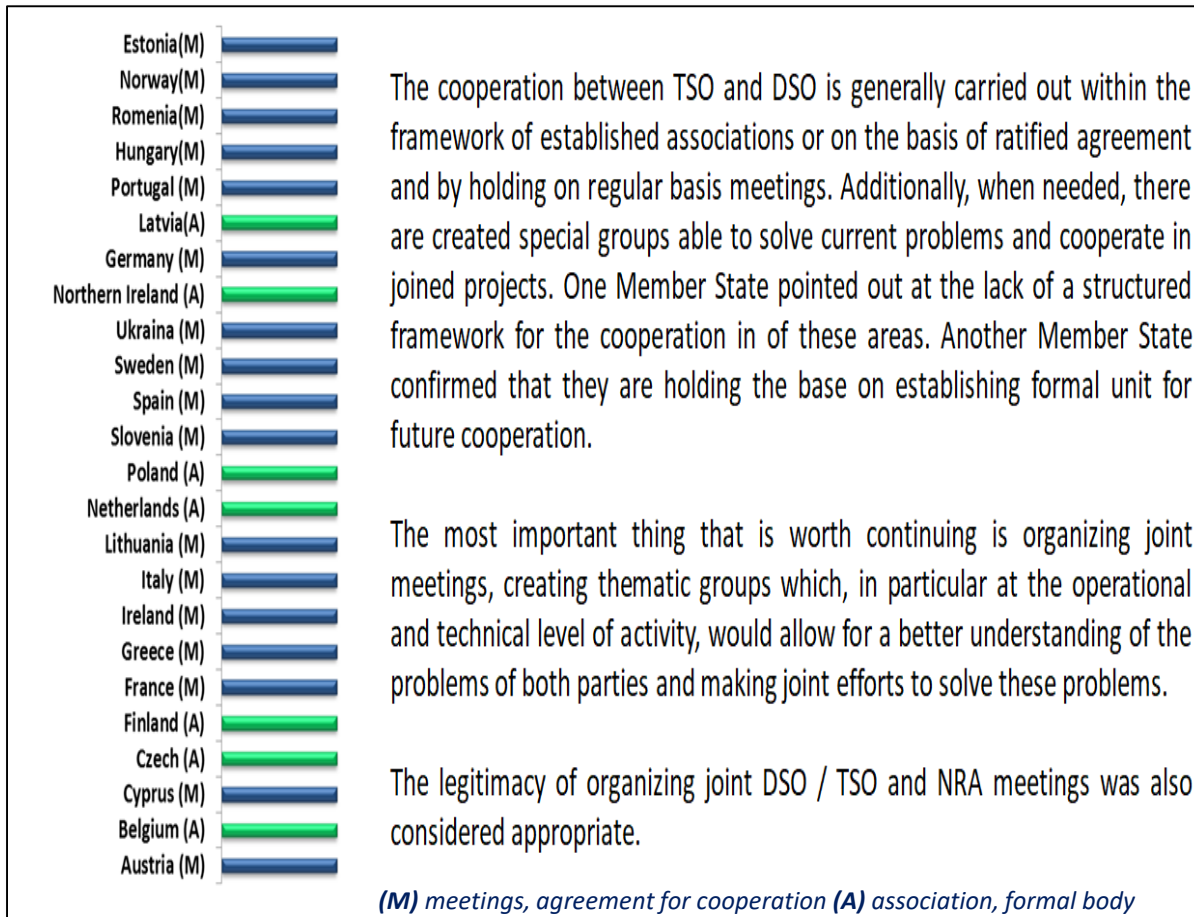
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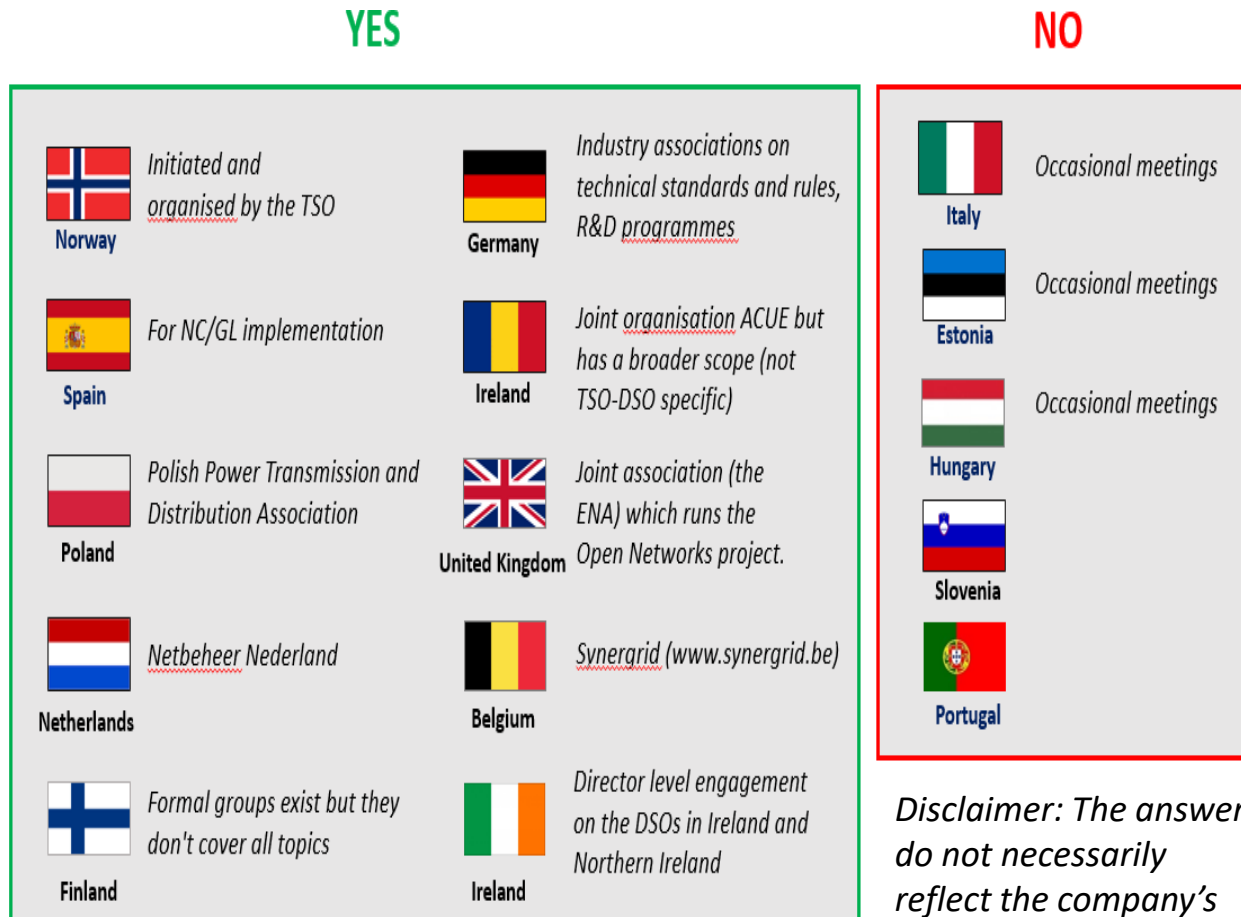
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Q4: Is there a formal TSO-DSO cooperation meeting / body in your country ?

DSO Responses



TSO Responses



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Q5: What is working well in your TSO-DSO relation and should be kept?

DSO responses

- *Discussions at eye level, regular meetings at staff level, joint activities [Austria, Belgium, Cyprus, France, Italy, Poland]*
- *Investing and maintaining human relations, trust, being able to freely to communicate [Netherlands, Sweden, Latvia, Spain]*
- *Cooperation in innovation projects [Spain]*
- *Common wg with regulator and ministry [Germany]*
- *Formal agreement for planning, operations and project delivery [Lithuania, N.Ireland]*
- *Common understanding on the need for cooperation [Portugal]*

TSO responses

- *Trust and everyday business process in operation and planning [Italy, Estonia, Finland, Hungary, Portugal, Romania]*
- *Fact-based / technical discussion, not politically driven [Germany, Spain]*
- *Genuine respect for the competent authority of each. No land grab either side for existing roles [Ireland, The Netherlands]*
- *Data management [Estonia, The Netherlands, Norway]*
- *Cooperation between experts is at high level [Slovenia]*
- *functions dedicated to the development of products related to DSOs and relations with DSOs [Belgium]*

Q6: What do you suggest doing to improve TSO-DSO relations in your country?

DSO Responses

- Accelerated decision making [**Austria**]
- More clear defined roles & responsibilities [**Cyprus, Spain, Germany**]
- Equal rights towards politicians and ministry, being consulted prior to presenting to NRA and Ministry [**France, Finland, Germany, Poland, Cyprus**]
- NRA fostering TSO DSO cooperation [**Italy**]
- Improved communication, openness, transparency [**Belgium, Ukraine, Poland, N.Ireland, Spain**]
- Common R&D projects [**Lithuania**]
- Minimize bureaucracy [**Spain, Cyprus**]
- Cooperation culture spread to a wider group [**Netherlands**]
- More open data exchange, loadprognosis [**Sweden**]

TSO Responses

 Italy	<i>Procurement of ancillary services from assets in distribution grid</i>	 Netherlands	<i>Decision making process: common responsibility can also lead to nobody feeling responsible</i>
 Norway	<i>More resources (on TSO side) to participate in more projects</i>	 Romania	<i>1. mobility 2. distributed generation, dispatching the load for them 3. new ancillary services</i>
 Estonia	<i>Flexibility market design</i>	 Spain	<i>Promote further teams at national level further assessing aspects and <u>liaising</u> with the NRA.</i>
 Germany	<i>Providing the basis for solving technical problems related to data, cost compensation</i>	 Poland	<i>Sometimes more efficiency on common actions is expected.</i>
 Slovenia	<i>A formal TSO-DSO cooperation body</i>	 Hungary	<i>The establishment of a formal body seems to be necessary.</i>
 United Kingdom	<i>Work through detailed arrangements via actual project delivery</i>	 Belgium	<i>Continuous bridging/alignment at executive level</i>
 Portugal	<i>More use cases and improve information</i>	 Ireland	<i>Agreed long term vision of what is needed in the power system</i>
 Finland	<i>Implementation of clean energy package together with DSOs in close cooperation</i>		

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Joint conclusions & recommendations



Conclusion on status of TSO DSO Cooperation:

In general satisfactory, but specific improvements on national level are possible

Recommendations

1. We advise:

- Jointly (TSO & DSOs) discuss this feedback in your country
- Agree on what could be improved

2. Next Year:

- Repeat this exercise (to learn whether we made progress)
- Expand to a “3 level” survey (Executive board, Management, working staff) in relevant areas.

ENTSOE and EDSO will actively support improving cooperation's between its members on national level.

