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#### 1 A brief overview

The int:net project aims at fostering the harmonisation of interoperability (IOP) activities on energy services throughout Europe by forming an interdisciplinary network of stakeholders, which will engage in a constant exchange on the topic during the project period and beyond. int:net specifically will impact the interoperability landscape for energy services by pursuing specific objectives during the project.

This workshop series will explore the application of CGMES 3.0 by engaging TSOs, DSOs, research institutions, conformity labs, standardisation bodies, and vendors. The int:net project organises a series of weekly workshops to explore use cases and test respective solutions. The goals of the workshop series are as follows:

- Vetting of data exchange specifications,
- Demonstrating TS-DSO interactions based on existing standards,
- Discussing the testing of interoperability on all levels,
- Preparing for cross sectoral interoperability.

A final two-day event on May 16 and 17 will conclude the series with a hackathon and public presentations in Brussels, at ENTSO-E premises.



## 2 Benefits for participants

Participating in the workshop series between February and May brings various benefits, as outlined below. The estimated time effort for participants will be around 1 hour in meetings every week. The final workshop will require physical presence in Brussels for two full days.

#### 2.1 Utilities – TSOs and DSOs

System operators will receive the latest information on CGMES v3.0 and related specifications, like the Common Information Model (CIM). This is relevant for the implementation of the Network Codes. Together with an overview of the state-of-art technologies to support flexible data exchange services will assist for the design and planning of the Network Code's implementation.

#### 2.2 Research institutions

Institutes will get a better picture of gaps and expectations towards R&D for the next years. Further, the latest information on standards will be presented to build a basis for further enhancement.

## 2.3 Conformity labs

Laboratories will be able to gather details to assess the most relevant use cases. These might be included into upcoming conformity assessment procedures.

#### 2.4 Standardization bodies

Organizations will collect information on areas where standards should be enhanced. On top, current industry priorities will be discussed.

#### 2.5 Vendors

Vendors will receive updates on upcoming needs by the industry. They will be able to demonstrate their readiness to support complex data exchanges as well as innovative solutions. This is essential for performing power system simulations or data analytics. Vendors will also be able to promote their products via direct interactions and eventually as part of a concluding IOP report.



## 3 The agenda

Please find here a brief description and the roadmap.

### 3.1 Weekly online meetings

The weekly meetings will serve as preparation for the final physical workshop. The first kick-off online meeting will take place with all registered participants on 13<sup>th</sup> of February, 16:30 PM. Participants should join all following calls, which will be decided and agreed on the kick-of meeting, following surveys to find suitable days.

Tentative topics to be discussed are:

- Demonstrate DSO  $\rightarrow$  TSO exchange of power system model including diagrams and geographical location,
- Demonstrate TSO → DSO exchange of power system model including diagrams and geographical location,
- Demonstrate different variants of boundary set exchange,
- Demonstrate extensive usage of reference data,
- Demonstrate power system project exchange,
- Demonstrate possibilities for exchange using JSON-LD instead of CIM XML.

The meetings focus on discussing issues and introducing topics for the physical workshop.

### 3.2 Workshop on May 16 and 17

The physical workshop will pivot around concluding the weekly meetings and finding common ground. The weekly calls serve as preparation for this event, which will take place during two full days in Brussels, in ENTSO-E premisses.

For the workshop, we will have a round table discussion on the general implementation of CGMES v3 and other topics such as usage of boundary and reference data, the setup of data exchange processes, and how to manage transitions, conformity (e.g., how to improve FAT and define workable SAT), and data exchange serialization topics. This will include an active exchange in form of hackathons. The workshop will also include testing of data exchanges using prototypes tools to demonstrate and vet the standardization approaches.

A more specific agenda will be shared after the kick-of meeting.



# 3.3 Outlined Roadmap

Period	Activities	Who?
<b>20 Jan. – 10 Feb.</b> (17:00h CET)	Registration process – vendors.  All interested vendors are welcome to register using the link to the registration form and submit the required information:  • software/product to be tested;  • expected number of participants (The participation by vendor can be limited depending on expected overall number of participants. Also limit vendors participation can apply if too many vendors register for the IOP. In that case only vendors providing products for TSOs and DSOs will be allowed and/or the test procedure may be adapted).  • contact information of all participants	Vendors: Solution and product providers
<b>20 Jan. – 10 Feb.</b> (17:00h CET)	Registration process – test witnesses.  All interested witnesses are welcome to register using the link to the registration form  ENTSO-E and E.DSO nominate experts who have experience with the tools to be tested and have knowledge of the CGMES 3.0. Information sessions (weekly online calls) for interested experts by TSOs and DSOs will be organized before the physical event in Brussels.	Witnesses: TSOs, DSOs, Research Institutions, Conformity labs, Standardization bodies, etc
<b>13 Feb.</b> (16:30h CET)	Kick-off meeting – align with the participants to discuss the scope clarify.	All participants



<b>13 Feb – 8 May</b> (Proposed: Mondays from 16:00 to 17:00 CET)	<ul> <li>Weekly calls with all participants and vendors.</li> <li>To prepare the topics below, to clarify open questions, and to discuss test procedures.</li> <li>Different vendors will be testing different elements/topics (2-3 vendors per topic):</li> <li>Demonstrate DSO → TSO exchange of power system model including diagrams and geographical location,</li> <li>Demonstrate TSO → DSO exchange of power system model including diagrams and geographical location,</li> <li>Demonstrate different variants of boundary set exchange,</li> <li>Demonstrate extensive usage of reference data,</li> <li>Demonstrate power system project exchange,</li> <li>Demonstrate possibilities for exchange using JSON-LD instead of CIM XML.</li> <li>Note: During the Kick-off calls TSOs-DSOs can transfer some use cases to the vendors.</li> <li>ENTSOE - E.DSO will selects the best use cases to be tested by vendors. This is only a min scope; we are open to extend it if demonstration proposals will be made during the weekly calls.</li> </ul>	Registered participants and vendors.
16 - 17 May	Two days physical meeting.  First day as a more traditional workshop, the following day pivots on testing in form of hackathons. The agenda will be shared after the kick-off meeting.	Registered participants and vendors.
June	Review of the IOP report.  All participants will get the chance to review the draft report, which will be edited by the int:net project.	Workshop participants and int:net community.
June - July	Publication of the final IOP Report.  As a major outcome, the report includes identified issues for standardization consideration e.g. IEC	The int:net project.



# 4 Registration

Participants need to register by February 10<sup>th</sup> and to participate with the online meetings between February and May, and the final physical workshop on May 16 and 17 in Brussels.

Please contact Bajame Allmeta (<u>bajame.allmeta@entsoe.eu</u>) for more details and <u>register here.</u>













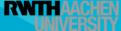
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