Data Management Plan

D14.1

Authors:

Padraic McKeever (Fraunhofer)
Ferdinando Bosco (ENG)
Václav Janoušek (CEZ Distribuce)
Markos Asprou (University of Cyprus)
Lenos Hadjidemetriou (University of Cyprus)
Madalena Lacerda (E-REDES)
Nermin Suljanović (EIMV)
Amila Dervišević (EIMV)
Kalle Kukk (Elering)
Emmanouil Zoulias (University of Athens)
Luka Nagode (GEN-I)
Ákos Baldauf (BME)
Katerina Drivakou (UBE)
Bartosz Kalinowski (Transition Technologies Systems)
Dominik Falkowski (EOP)
Beatriz Alonso Santos (I-DE)

Responsible Partner	Fraunhofer
Checked by WP leader	Padraic McKeever, 04.04.2023
Verified by the appointed Reviewers	Laurent Schmitt (D4G), 18.04.2023 Asmo Karvinen (KSOY-V), 20.02.2023
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Disclaimer:

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About OneNet

The project OneNet (One Network for Europe) will provide a seamless integration of all the actors in the electricity network across Europe to create the conditions for a synergistic operation that optimizes the overall energy system while creating an open and fair market structure.

OneNet is funded through the EU's eighth Framework Programme Horizon 2020, "TSO – DSO Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation" and responds to the call "Building a low-carbon, climate resilient future (LC)".

As the electrical grid moves from being a fully centralized to a highly decentralized system, grid operators have to adapt to this changing environment and adjust their current business model to accommodate faster reactions and adaptive flexibility. This is an unprecedented challenge requiring an unprecedented solution. The project brings together a consortium of over seventy partners, including key IT players, leading research institutions and the two most relevant associations for grid operators.

The key elements of the project are:

1. Definition of a common market design for Europe: this means standardized products and key parameters for grid services which aim at the coordination of all actors, from grid operators to customers;
2. Definition of a Common IT Architecture and Common IT Interfaces: this means not trying to create a single IT platform for all the products but enabling an open architecture of interactions among several platforms so that anybody can join any market across Europe; and
3. Large-scale demonstrators to implement and showcase the scalable solutions developed throughout the project. These demonstrators are organized in four clusters coming to include countries in every region of Europe and testing innovative use cases never validated before.

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List of Abbreviations and Acronyms

Acronym	Meaning
DMP	Data Management Plan
DSO	Distribution System Operator
FAIR	Findable, Accessible, Interoperable and Re-usable
FSP	Flexibility Service Provider
IT	Information Technology
KPI	Key Performance Indicator
N/A	Not Applicable
ORDP	Open Research Data Pilot
PMU	Phasor Measurement Unit
PV	Photovoltaic
SUC	System Use Case
tbd	to be decided
TSO	Transmission System Operator
WP	Work Package

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Executive Summary

The OneNet Data Management Plan (DMP) identifies and describes the datasets which are produced by the OneNet project and published as open data. These datasets make energy data from real electrical grids and markets openly available. Open datasets will be published by OneNet's demos (Northern Cluster, Greece, Cyprus, Portugal, Spain, France, Czech Republic, Poland, Slovenia, Hungary) and by OneNet's horizontal WPs (WP5, WP11).The datasets will be freely available during and after the project on the Zenodo website [1].

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1 Introduction

Well-structured data management is an important task of every modern research project. A key element of data management is a well-defined process for the handling of research data. For transparency reasons, this process needs to be clearly defined and accessible for all potential stakeholders of the data. Therefore, it is today's common practice to maintain a data management plan (DMP). The DMP describes how a research project processes research data. The DMP provides answers to all important questions about the data processing, including data security, licensing, origin of data, format and so on. Since these answers may change during the runtime of a project, the DMP is usually regularly updated and revised. This document is the second version of OneNet's DMP and provides a full definition of the datasets to be published as open data.

OneNet will implement an Open Research Data Pilot (ORDP). An ORDP strives to publish scientific information according to the FAIR principle in publicly accessible research data repositories. The FAIR principle is explained in detail in chapter 2.

The implementation of the ORDP has two main pillars: the constantly updated und published DMP and providing open access to research data whenever possible. The conditions for a ORDP are:

- Maintenance of the DMP over the entire project duration.
- Identifying a suitable research data repository and deposition of OneNet's data in it.
- Enable the access of third parties to our data.
- Document the related information and identify, if necessary, the tools needed to use the raw data to validate our research.
- Publish the data and metadata in scientific publications.

OneNet's DMP oriented itself on best practices identified from other H2020 projects [2][3] and material provided by the EU commission [4][5]. We refer to these sources here at a central location. Material from these sources was used throughout the following document.

1.1 Task 14.4

The development of the OneNet Data Management Plan is performed in a dedicated Task 14.4.

1.2 Objectives of the Work Reported in this Deliverable

The objective of this deliverable is to identify the open datasets published by the OneNet project and describe how these datasets will be processed and shared to support the H2020 Open Research Data Pilot during the project's development and after the project's conclusion.

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1.3 Outline of the Deliverable

The FAIR data principles and OneNet's approach to realizing them are outlined in Chapter 2. The data appearing in the OneNet project is assessed in Chapter 3 and structured in datasets. The allocation of resources for making the data "FAIR" is explained in Chapter 4. Chapter 5 and chapter 6 are dedicated to data security and ethical aspects defined in the project.

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2 FAIR data

The FAIR data principle is required to be used in EU-Projects by the "Guidelines on FAIR Data Management in Horizon 2020"[6]. It should support the exchange of scientific data and lead to knowledge discovery and innovation. The FAIR data approach is described by the acronym:

- **F**indable data: Clear naming and versioning of (meta-) data, easy to find by both humans and computers.
- **A**ccessible data: It is clearly specified how the data is made available, including needed tools, protocols, authentication and authorization.
- **I**nteroperable data: The published data uses standards and vocabularies that allow interoperability with applications and workflows for analysis, storage and processing.
- **R**e-usable data: The goal of the FAIR is reusability; therefore, it is clearly defined when and for which duration data is made available and under which licensing the data was published.

2.1 Making data findable, including provisions for metadata

The FAIR Data Management Guideline asks:

- Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)?
- What naming conventions do you follow?
- Will search keywords be provided that optimize possibilities for re-use?
- Do you provide clear version numbers?
- What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

OneNet's approach is:

The datasets will be published on the Zenodo repository [1]. Zenodo is a general-purpose open-access repository developed under the European OpenAIRE [4] programme and operated by CERN. Zenodo is free of charge to upload and access. It allows researchers to deposit research papers, data sets, research software, reports, and any other research related digital artefacts.

The datasets will be produced and published by the OneNet partners responsible for the WPs or demos producing the datasets and will be labelled to identify the dataset producer, data category and dataset. Each dataset will contain a metadata file describing the resource and explaining the meaning of the data.

The individual data resources in the datasets will be given version numbers, to distinguish different versions of the dataset produced during the project.

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Digital Object Identifiers will be used to give the data resources persistent and unique identifiers.

The datasets will be given appropriate keywords, e.g. *energy; market; flexibility; profile; consumption; temperature; electric; grid; production; demand; time; load; generation; battery.*

2.2 Making data openly accessible

The FAIR Data Management Guideline asks:

- Which data produced and/or used in the project will be made openly available as the default? If certain datasets cannot be shared (or need to be shared under restrictions), explain why, clearly separating legal and contractual reasons from voluntary restrictions.
- How will the data be made accessible (e.g. by deposition in a repository)?
- What methods or software tools are needed to access the data?
- Is documentation about the software needed to access the data included?
- Is it possible to include the relevant software (e.g. in open source code)?
- Where will the data and associated metadata, documentation and code be deposited? Preference should be given to certified repositories which support open access where possible.
- Have you explored appropriate arrangements with the identified repository?
- If there are restrictions on use, how will access be provided?
- Is there a need for a data access committee?
- Are there well described conditions for access (i.e. a machine readable license)?
- How will the identity of the person accessing the data be ascertained?

OneNet's approach is to publish its datasets as open data on the Zenodo repository [1].External entities, e.g., researchers, can use the interface of the Zenodo repository to search for and download the OneNet data, The Zenodo platform is freely available to be used by the public, without the need to register or open an account for browsing or downloading data. The data will be stored in standard formats (such as .csv files) to be freely accessible for all external entities to download.

2.3 Making data interoperable

The FAIR Data Management Guideline asks:

- Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for

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formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins)?

- What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?
- Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?
- In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies?

Making data interoperable mainly depends on the use of suitable standards for the creation of metadata along with an appropriate associated vocabulary (e.g. search keywords).

The data produced by OneNet will be published with full explanations of the meaning of the data and its context in the accompanying metadata documentation. The use of a text format for the data and the provision of full explanatory metadata will facilitate interoperability.

2.4 Increase data re-use (through clarifying licences)

The FAIR Data Management Guideline asks:

- How will the data be licensed to permit the widest re-use possible?
- When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.
- Are the data produced and/or used in the project useable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why.
- How long is it intended that the data remains re-usable?
- Are data quality assurance processes described?

OneNet datasets will be published as open data under the Creative Commons CC-BY-SA 4.0 license [7]. This license allows the datasets to be used if the data source is accredited and if the same licensing conditions (CC-BY-SA 4.0) are applied to its derivative use. The datasets will continue to be accessible on Zenodo after the project.

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3 Data summary

This chapter is structured with sub-chapters for the horizontal WPs and each of the clusters or demos, allowing each part of OneNet to separately define and describe their datasets.

Because all the datasets are published as open data, the privacy and security aspects are largely common, as is the tool used for storage, see Table 1. This applies by default to all the datasets below. Only deviations from the default handling are described on a per-dataset basis in the sub-chapters below.

Factsheet	
Data security and privacy default handling	
Classification level of data	All datasets are open data, licensed by Creative Commons — Attribution 4.0 International — CC BY 4.0.
Data privacy	None of the datasets contains personal or private data.
Exploitation and dissemination	
Availability (long-term storage)	The datasets are available without any time limit on Zenodo https://www.zenodo.org/ under OneNet (search using the project number 957739).

Table 1: Default Data Security, Privacy and Storage for all Datasets

The following categories for datasets have been identified to appear in the OneNet project:

Data Categories Overview:

- Cross-platform services (categorisation, business subjects, data quality requirements etc. from WP5)
- Grid Data
- Metering Data
- Market Data
- DSO flexibility market data
- Resource Data (flexibility service providers information)
- Prediction and Planning
- Data series used in OneNet Northern demo
- Demos KPI values
- Use Cases of OneNet Northern demo

The datasets published under these categories are described in a factsheet presented in the following sub-chapters. These datasets are curated versions of the raw datasets which are generated through the execution

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of the OneNet horizontal WPs and demos. These curated versions of these raw datasets will be made openly available in the Zenodo repository [1].

3.1 WP 5: Open IT Architecture for OneNet

3.1.1 Data Category: Cross-platform services

3.1.1.1 Data Set: Cross-platform services

Factsheet	
Data Category name	Cross-platform services
Dataset name	Cross-platform services
Dataset description	The dataset includes a list of services identified within the OneNet project, expected to be implemented for enabling an interoperable data exchange and cross-platform access. The cross-platform services were divided into 10 categories and harmonized. For each of those services ontologies, vocabularies, data format, data quality and security requirements were defined.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	No
Origin of data	Analysis conducted within the OneNet project, starting from surveys collected from partners and related projects and extended with the support of the OneNet demos.
Timeplan for dataset	March 2023
Format of the open datasets	
Format of the data	CSV & open web-based accessible list
Metadata and documentation	Self-described in the catalogue regarding their functional specification; further information may be found on D5.3 & D5.6.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	This list of services allowed to define a “standardized” list of possible applications of the OneNet system.
Data utility, usefulness to external parties	The cross-platform services could be also exploited as standard reference for any “smart energy” application which need an interoperable and standardized data exchange.

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3.2 Northern Cluster Demonstrator, WP7

3.2.1 Data Category: Use cases of OneNet Northern demo

3.2.1.1 List of system use cases

Factsheet	
Data Category name	Use cases of OneNet Northern demo
Dataset name	List of system use cases
Dataset description	Names of the system use cases implemented in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	N/A
Origin of data	Demo partners, H2020 projects EU-SysFlex and INTERRFACE
Timeplan for dataset	Use cases are already public via relevant OneNet deliverables, however, are constantly updated until end of project (March 2024) and will be made available via BRIDGE Initiative's use case repository.
Format of the open datasets	
Format of the data	CSV
Metadata and documentation	N/A
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	System use cases define the development needs and the implementation of the demo.
Data utility, usefulness to external parties	Enables to rely on and replicate the use cases by the followers.

3.2.1.2 List of roles

Factsheet	
Data Category name	Use cases of OneNet Northern demo
Dataset name	List of roles
Dataset description	Names of the roles, incl. definitions, used in OneNet project Northern demo. Harmonised roles of HEMRM were used if available, new roles were proposed if missing in HEMRM.
Source of the data	
Re-use of historical data	Roles from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	N/A
Origin of data	Demo partners, HEMRM, BRIDGE Initiative
Timeplan for dataset	Roles used are already public via relevant OneNet deliverables.

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Format of the open datasets	
Format of the data	CSV
Metadata and documentation	Harmonised Electricity Market Role Model defines the roles. If not existing in HEMRM, use cases provide the definitions.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Harmonisation of the roles used in the demo.
Data utility, usefulness to external parties	Enables to understand easily by anyone the meaning of roles used in the demo.

3.2.1.3 List of data objects

Factsheet	
Data Category name	Use cases of OneNet Northern demo
Dataset name	List of data objects
Dataset description	Names of the data objects, including definitions and parameters, used in OneNet project Northern demo. Mapping of data objects to CIM (Common Information Model).
Source of the data	
Re-use of historical data	Data objects from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	N/A
Origin of data	Demo partners, H2020 projects EU-SysFlex and INTERRFACE, Common Information Model
Timeplan for dataset	Q2 2023.
Format of the open datasets	
Format of the data	CSV
Metadata and documentation	CSV (same file as referred to in the “format of the data”. Additional documentation may include related CIM updates, possibly in UML readable format – to be confirmed.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Harmonisation of data objects used in the demo.
Data utility, usefulness to external parties	Enables to understand easily by anyone the meaning of data objects.

3.2.2 Data Category: Data series used in OneNet Northern demo

3.2.2.1 Resource data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Resource data
Dataset description	List of resources tested in OneNet project Northern demo.

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Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.2 Prequalification data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Prequalification data
Dataset description	List of prequalification data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

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3.2.2.3 Bid data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Bid data
Dataset description	List of bid data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.4 Purchase offer data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Purchase offer data
Dataset description	List of purchase offer data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.

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Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.5 Grid data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Grid data
Dataset description	List of Grid data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.6 Optimisation results' data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Optimisation results' data
Dataset description	List of optimisation results' data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.

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Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.7 Baseline data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Baseline data
Dataset description	List of baseline data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.8 Metering data

Factsheet

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Data Category name	Data series used in OneNet Northern demo
Dataset name	Metering data
Dataset description	List of metering data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.9 Sub-metering data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Sub-metering data
Dataset description	List of sub-metering data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	

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Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

3.2.2.10 Settlement data

Factsheet	
Data Category name	Data series used in OneNet Northern demo
Dataset name	Settlement data
Dataset description	List of settlement data tested in OneNet project Northern demo.
Source of the data	
Re-use of historical data	Use cases from other projects and initiatives were considered as input.
Data from live trial measurements, sensors	Most of the data is simulated. Some real data is also used.
Origin of data	Demo partners
Timeplan for dataset	End of project (March 2024).
Format of the open datasets	
Format of the data	CSV, XML, JSON – to be confirmed
Metadata and documentation	tbd
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Simulated data is public. Real data is private.
Data privacy	Private data can be disclosed only if anonymised or aggregated.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Necessary for the testing in the demo.
Data utility, usefulness to external parties	Enables testing of other technical solutions for flexibility market using the same data.

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3.3 Greek Demo

3.3.1 Data Category: FSP register - Resource data

3.3.1.1 FSP register

Factsheet	
Data Category name	FSP register - Resource data
Dataset name	FSP register
Dataset description	Flexibility service providers register
Source of the data	
Re-use of historical data	Yes, assets' characteristics
Data from live trial measurements, sensors	No, data provided by users.
Origin of data	Data coming from flexibility resources by flexibility providers participating in Greek demo
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	xlsx, json
Metadata and documentation	• Flexibility provider (particular/aggregator) • Kind of flexibility (demand response/energy storage/distributed generator) • Description • kind of resources, technology • Voltage level (kV) • Contracted power, P(MW) • Maximum amount of flexibility, P(MW) • Deliverable duration (h) Activation mode (automatic/manual)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create flexibility bids and operate flexibility assets
Data utility, usefulness to external parties	Technical information about flexibility resources

3.3.2 Data Category: FSP bids - Market data

3.3.2.1 FSP bids

Factsheet	
Data Category name	Flexibility services - Market data
Dataset name	Flexibility bids
Dataset description	Flexibility bids from parties participating in OneNet Greek demonstration

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Source of the data	
Re-use of historical data	Yes, assets' characteristics
Data from live trial measurements, sensors	No, data provided by users.
Origin of data	Data coming from flexibility resources by flexibility providers participating in Greek demo
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx, json
Metadata and documentation	id fsp_id - Flexibility provider (particular/aggregator) type_flex - Kind of flexibility (mFRR/aFRR/RR/redispatch) valid_from valid_to timestamp active_flex contracted power, P(MW) upward_downward price
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create flexibility bids and operate flexibility assets
Data utility, usefulness to external parties	Technical information about flexibility resources

3.3.2.2 Operator's flex request

Factsheet	
Data Category name	Operator's flexibility request - Market data
Dataset name	Flexibility request
Dataset description	Flexibility requests from the Operators participating in OneNet Greek demonstration
Source of the data	
Re-use of historical data	Yes, assets' characteristics
Data from live trial measurements, sensors	No, data provided by users.
Origin of data	Data coming from TSO and DSO participating in Greek demo
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx, json
Metadata and documentation	id type_flex_request (service) valid_from valid_to timestamp (short or long term with the request date) upward_downward availability/activation/availability & activation

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	power_flex_request (requested power)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create flexibility requests towards market participants
Data utility, usefulness to external parties	

3.3.3 Data Category: Prediction and Planning - Energy production and weather predictions

3.3.3.1 Energy production predictions

Factsheet	
Data Category name	Energy production and weather predictions
Dataset name	Energy production predictions
Dataset description	RES forecasted production data
Source of the data	
Re-use of historical data	Yes, assets' characteristics
Data from live trial measurements, sensors	No, data provided by demo.
Origin of data	Data coming from forecasting algorithms
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx, json
Metadata and documentation	• Type of production (wind/solar) • Timestamp (hourly data resolution) • Forecasted energy production [MWh] • RES name [text] • Location [lat/lon] • Temperature measured at height of 10m above ground [deg C] • Wind speed measured at height of 100 m above ground [m/s] • Wind direction [deg] • Cloud cover [%] • Solar radiation[W/m^2]
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create estimates for energy market day ahead
Data utility, usefulness to external parties	Can be used for various scientific and operational analyses

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3.3.3.2 Weather predictions

Factsheet	
Data Category name	Energy production and weather predictions
Dataset name	Weather predictions
Dataset description	Weather predictions of interest for TSO and DSO operations.
Source of the data	
Re-use of historical data	Yes, based on a historic data from available weather data bases
Data from live trial measurements, sensors	No, data provided by demo.
Origin of data	Data coming from forecasting algorithms
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx, json
Metadata and documentation	• Timestamp (hourly data resolution) • Point of Interest name [text] • Location [lat/lon] • Temperature measured at height of 10m above ground [deg C] • Wind speed measured at height of 100 m above ground [m/s] • Wind direction [deg] • Cloud cover [%] • Solar radiation[W/m^2]
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create energy predictions, information on severe weather conditions that are of interest for TSO and DSO operations.
Data utility, usefulness to external parties	Can be used for various scientific and operational analyses

3.4 Cypriot Demo

3.4.1 Data Category: Metering data

3.4.1.1 Phasor Measurement Unit (PMU) data with 20 ms resolution

Factsheet	
Data Category name	Metering data
Dataset name	PMU data
Dataset description	Data from the Cyprus power system substations for monitoring in real time the Cyprus power system operating condition. These data set includes three phase voltage and

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	current phasor measurements, frequency measurements, and rate of change of frequency (ROCOF) measurements.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	These are live data from PMUs (sensors) at the substation.
Origin of data	Cyprus power system HV substations
Timeplan for dataset	September 2023
Format of the open datasets	
Format of the data	CSV files
Metadata and documentation	• Date and time (20 ms resolution) • Three phase voltage magnitude (V) • Three phase voltage angle (degrees) • Three phase current magnitude (A) • Three phase current angle (degrees) • Frequency (Hz) • Rate of Change of Frequency (Hz/s)
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Monitoring of the power system operating condition, evaluate the response of flexibility service providers after the provision of frequency support services
Data utility, usefulness to external parties	Real data when a frequency event happens, use of real data to test different techniques.

3.4.1.2 Prosumer data (PV generation and load) with 30s resolution

Factsheet	
Data Category name	Metering data
Dataset name	Prosumer data (PV generation and load)
Dataset description	Daily load profile and daily PV generation profile from a residential prosumer reported every 30 s.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	These are live data from smart meter (for load consumption) and smart inverter (PV generation)
Origin of data	Residential prosumer
Timeplan for dataset	September 2023
Format of the open datasets	
Format of the data	CSV files
Metadata and documentation	• Date and time (30s resolution) • Active power generation by photovoltaics (W) • Reactive power generation by photovoltaics (Var) • Active power load consumption of the building (W) • Reactive power load consumption of the building (Var)
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Monitoring of the residential prosumer behaviour in case of flexibility provision.

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	Real time control of prosumers load and PV by sending set points
Data utility, usefulness to external parties	Use of actual prosumer data for testing and validation methodologies related to building to grid flexibility services, building management, etc.

3.5 Portuguese Demo

3.5.1 Data Category: Resource Data

3.5.1.1 Flexibility assets data

Factsheet	
Data Category name	Resource Data
Dataset name	Flexibility assets data
Dataset description	Technical data from FSPs that will be considered for SUC01 (prequalification) and SUC02 (flexibility needs), connected at EHV and MV level. A more in-depth description of the SUCs can be found in public deliverables D5.1 and D9.1.
Source of the data	
Re-use of historical data	Yes, assets' characteristics and measurements
Data from live trial measurements, sensors	No
Origin of data	Public documentation and results from the ancillary services market in Portugal (EHV level) and measurements and survey responses from customers (supermarkets) connected at MV level.
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	• Type of flexibility (demand response/energy storage/distributed generator) • Type of resources, technology • Voltage level (kV) • Installed/Contracted capacity (MW) • Flexibility potential (MW)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Public: This set of anonymized data can be used for dissemination. Data from FSPs connected at MV level must also be aggregated at the interface level (EHV/HV).
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to determine the volume of optimal flexibilities selected to solve grid congestions identified.
Data utility, usefulness to external parties	Technical information about flexibility resources

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3.5.2 Data Category: Prediction and Planning

3.5.2.1 Flexibility potential

Factsheet	
Data Category name	Prediction and planning
Dataset name	Flexibility potential
Dataset description	Flexibility potential estimation for MV clients of a supermarket chain, measured at the EHV/HV interface, that will be used for SUC02 (flexibility needs). A more in-depth description of the SUCs can be found in public deliverables D5.1 and D9.1.
Source of the data	
Re-use of historical data	Yes, metering data
Data from live trial measurements, sensors	No
Origin of data	Results from a methodology developed in the demonstration to assess flexibility potential of supermarkets
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	• Flexibility potential (MW) • Duration of flexibility availability (h) • Activation direction (downward/upward)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Public: This set of anonymized data and aggregated (at the EHV/HV interface level) can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To provide the flexibility potential from clients at MV level (supermarkets) that can be then compared with the flexibility needs determined under SUC02
Data utility, usefulness to external parties	For simulations and to assess flexibility potential from supermarkets

3.5.2.2 Consumption and generation forecasts

Factsheet	
Data Category name	Prediction and planning
Dataset name	Consumption and generation forecasts
Dataset description	Consumption and generation forecasts calculated at the TSO/DSO interface, that will be used for SUC07 (consumption and generation forecasts). A more in-depth description of the SUCs can be found in public deliverables D5.1 and D9.1.
Source of the data	
Re-use of historical data	Yes, consumption and generation data
Data from live trial measurements, sensors	Yes, datasets derived from live trials

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Origin of data	Results from simulations by DSO and TSO forecast tools
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	• Consumption forecast from transmission level (MWh) • Consumption forecast from distribution level (MWh) • Production forecast from transmission level (MWh) • Production forecast from distribution level (MWh)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Public: This set of aggregated (at the EHV/HV interface level) can be used for dissemination.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be exchanged between TSO and DSO within SUC07 of the Portuguese demo to improve forecast accuracy and will also be used for determining the flexibility needs.
Data utility, usefulness to external parties	To demonstrate the importance of DSO/TSO coordination for a better accuracy in the consumption and generation forecast

3.5.2.3 Short-circuit contributions

Factsheet	
Data Category name	Prediction and planning
Dataset name	Short-circuit contributions
Dataset description	Short-circuit contributions from TSO and DSO calculated at the TSO/DSO interface, that will be used for SUC08 (short-circuits). A more in-depth description of the SUCs can be found in public deliverables D5.1 and D9.1.
Source of the data	
Re-use of historical data	Yes, consumption and generation data and resource data (impedance)
Data from live trial measurements, sensors	Yes, datasets derived from live trials
Origin of data	Results from simulations by DSO and TSO short-circuit forecast tools
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	• TSO short-circuit contribution at the EHV/HV interface (kA) • DSO short-circuit contribution at the EHV/HV interface (kA) • Joint TSO-DSO short-circuit contribution at the EHV/HV interface (kA)
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Public: This set of aggregated (at the EHV/HV interface level) can be used for dissemination.
Exploitation and dissemination	

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Purpose of data collection/generation, relation to project objectives	Contributions to be exchanged between TSO and DSO to determine total short-circuit contribution under SUC08, that can be used to improve assets' planning.
Data utility, usefulness to external parties	To demonstrate the importance of DSO/TSO coordination for a better accuracy in the short-circuit forecast

3.6 Spanish Demo

3.6.1 Data Category: Resource data

3.6.1.1 FSP information

Factsheet	
Data Category name	Resource data
Dataset name	FSP information
Dataset description	Anonymized technical data from flexible resources participating in OneNet Spanish demonstration
Source of the data	
Re-use of historical data	Yes, assets' characteristics
Data from live trial measurements, sensors	Yes, flexibility capacity
Origin of data	Data coming from technical documentation of flexibility resources by flexibility providers participating in Spanish demo
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	• Flexibility provider (particular/aggregator) • Kind of flexibility (demand respond/energy storage/distributed generator/efficiency) • Description • kind of resources, technology • Voltage level (kV) • Contracted power, P(MW) • Maximum amount of flexibility, P(MW) • Deliverable duration (h) • Activation mode (automatic/manual) The use of this information can be found in OneNet D9.3
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To be used to create flexibility bids and operate flexibility assets according to market clearing results
Data utility, usefulness to external parties	Technical information about flexibility resources

3.6.2 Data Category: Market data

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3.6.2.1 Market results

Factsheet	
Data Category name	Market data
Dataset name	Market results
Dataset description	Market results assessed by the local market platforms considering market bids and DSOs requirement
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	Yes, datasets derived from live trials
Origin of data	OneNet simulations. Data from local market platforms
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	.xlsx
Metadata and documentation	DSO flexibility requests: • Market type (short/long term) • Service • Product (Availability/Activation/Availability & Activation) • Requested active power (MW) • Activation direction (downward/upward) • Request date • Initial time • Duration (h) Market information • Market session • Market clearing date/time • Number of bids received • Volume of bids received (kW or kWh) • Number of bids cleared • Volume of bids cleared (kW or kWh) Result • Amount deliverable (Yes/No/Partially) The use of this information can be found in OneNet D9.3
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	This set of anonymized data can be used for dissemination as location and cost information has been omitted.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	To provide the market results to the market participants: DSOs and FSPs within the field test region
Data utility, usefulness to external parties	For simulations and product development to define future local markets

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3.7 Czech Demo

3.7.1 Data Category: Grid/ Market Data

3.7.1.1 Increase of active-power-based flexibility

Factsheet	
Data Category name	Grid/Market Data
Dataset name	Increase of active-power-based flexibility
Dataset description	Relevant data will be collected from new EV charging stations – this will be used as an aggregated source of active power-based flexibility procured for system operator (DSO) and managed through non frequency platform.
Source of the data	
Re-use of historical data	Not relevant
Data from live trial measurements, sensors	Yes
Origin of data	Data from charging stations in the Czech demo site
Timeplan for dataset	M30
Format of the open datasets	
Format of the data	Excel sheet
Metadata and documentation	Data will be collected data on available capacity of EV charging stations (active energy kW) to participate in reduction of congestion in the given nodal area.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	KPI calculation/evaluation
Data utility, usefulness to external parties	Dataset can help to understand how flexibility from EV charging infrastructure can help stabilize the system/grid

3.7.2 Data Category: Grid/Market Data

3.7.2.1 Increase of flexibility providing units

Factsheet	
Data Category name	Grid/Market Data
Dataset name	Increase of flexibility providing units
Dataset description	Data will reflect number of flexibility providers included in the register detailing increase of flexibility available for flexibility provisions.
Source of the data	
Re-use of historical data	N/A
Data from live trial measurements, sensors	Project platform
Origin of data	Demo site (project platform)

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Timeplan for dataset	3/2023
Format of the open datasets	
Format of the data	JSON
Metadata and documentation	Data will be collected on units included into the system available to provide capacity for flexibility services.
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	KPI calculation/evaluation
Data utility, usefulness to external parties	Dataset will provide an insight into how a central solution (platform) might raise a transparency and thus help to accelerate an interest of generators to provide flexibility

3.8 Polish Demo

3.8.1 Data Category: Resource data

3.8.1.1 Number of DERs registered and prequalified on the market platform

Factsheet	
Data Category name	Resource data
Dataset name	Number of DERs registered and prequalified on the market platform
Dataset description	Data about DERs, which are fully technically prequalified on the platform and data about DERs, which are registered on the platform
Source of the data	
Re-use of historical data	Yes
Data from live trial measurements, sensors	No
Origin of data	Market Platform (at Flex Platform – PL DEMO)
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.XLS
Metadata and documentation	.DOC
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	For the purpose of KPIs
Data utility, usefulness to external parties	-

3.8.1.2 Certified amount of kW of DERs

Factsheet	
Data Category name	Resource data
Dataset name	Certified amount of kW of DERs

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Dataset description	Data about the amount of kW of certified DERs on the market platform
Source of the data	
Re-use of historical data	Yes
Data from live trial measurements, sensors	No
Origin of data	Market Platform (at Flex Platform – PL DEMO)
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.XLS
Metadata and documentation	.DOC
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	For the purpose of KPIs
Data utility, usefulness to external parties	-

3.8.2 Data Category: Market data

3.8.2.1 Volume offered capacity by the flexible resource

Factsheet	
Data Category name	Market data
Dataset name	Volume offered capacity by the flexible resource
Dataset description	Data about the amount of kW, which has been offered on the market platform by FSPs during demonstration period
Source of the data	
Re-use of historical data	Yes
Data from live trial measurements, sensors	No
Origin of data	Market Platform (at Flex Platform – PL DEMO)
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.XLS
Metadata and documentation	.DOC
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	For the purpose of KPIs
Data utility, usefulness to external parties	-

3.8.2.2 Volume offered energy by the flexible resource

Factsheet	
Data Category name	Market data

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Dataset name	Volume offered energy by the flexible resource
Dataset description	Data about the amount of kWh, which has been offered on the market platform by FSPs during demonstration period
Source of the data	
Re-use of historical data	Yes
Data from live trial measurements, sensors	No
Origin of data	Market Platform (at Flex Platform – PL DEMO)
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.XLS
Metadata and documentation	.DOC
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	For the purpose of KPIs
Data utility, usefulness to external parties	-

3.8.2.3 Volume offered and volume requested regarding DSO needs for congestion management and voltage control services

Factsheet	
Data Category name	Market data
Dataset name	Volume offered energy by the flexible resource
Dataset description	Data about the amount of kWh, which has been offered on the market platform by FSPs during demonstration period
Source of the data	
Re-use of historical data	Yes
Data from live trial measurements, sensors	No
Origin of data	Market Platform (at Flex Platform – PL DEMO)
Timeplan for dataset	Q3 2023
Format of the open datasets	
Format of the data	.XLS
Metadata and documentation	.DOC
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	For the purpose of KPIs
Data utility, usefulness to external parties	-

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3.9 Slovenian Demo

3.9.1 Data Category: Market data

3.9.1.1 Info about bidding

Factsheet	
Data Category name	Market data
Dataset name	Info about bidding
Dataset description	The SLO_BIDDING_DATA dataset includes data regarding tendered bids, accepted bids and price of capacity bids (monthly aggregates)
Source of the data	
Re-use of historical data	no
Data from live trial measurements, sensors	no
Origin of data	DSO Market platform
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	CIM XML
Metadata and documentation	*.docx, XSD
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	Demonstrate demo activities, market development
Data utility, usefulness to external parties	

3.9.1.2 Info about activations

Factsheet	
Data Category name	Market data
Dataset name	Info about activations
Dataset description	The SLO_ACTIVATION_DATA dataset includes data about requested activation energy, delivered activation energy and price of delivered energy (monthly aggregates)
Source of the data	
Re-use of historical data	no
Data from live trial measurements, sensors	no
Origin of data	DSO Market Platform
Timeplan for dataset	Q2 2023
Format of the open datasets	
Format of the data	CIM XML
Metadata and documentation	*.docx, XSD
Exploitation and dissemination	

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Purpose of data collection/generation, relation to project objectives	Demonstrate demo activities, market development
Data utility, usefulness to external parties	

3.10 Hungarian Demo

3.10.1 DSO flexibility market data

3.10.1.1 DSO_flex_bid_prices

Factsheet	
Data Category name	DSO flexibility market data
Dataset name	DSO_flex_bid_prices
Dataset description	Bid auction data of a DSO flexibility market simulation data in a demo area based on past real measurement, power, and gas exchange data
Source of the data	
Re-use of historical data	DSO flexibility market simulation data in a demo area based on past real measurement, power, and gas exchange data
Data from live trial measurements, sensors	no
Origin of data	Demo area simulation
Timeplan for dataset	2023 Q2
Format of the open datasets	
Format of the data	CSV
Metadata and documentation	
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	The objective is to simulate the operation of the DSO flexibility market extensions implemented in OneNet in based on past real measurement, power, and gas exchange data
Data utility, usefulness to external parties	To observe the correlation between bid prices and power and gas exchange prices.

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3.11 WP11 From OneNet demonstrators to EU wide implementation of coordinated market schemes and interoperable platforms for standardized system products

3.11.1 Data Category: Demos KPI values

3.11.1.1 Northern cluster KPI values

Factsheet	
Data Category name	Demos KPI values
Dataset name	Northern cluster KPI values
Dataset description	This dataset includes the KPI values that were used to evaluate the results of Northern cluster demonstrator within the OneNet project. For each of those KPIs, calculation formulas and calculation methodologies were defined.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	Some of the KPI values are based on live trial measurements, some are the results of calculations for which data from sensors/measurements were used
Origin of data	Northern cluster demos calculations
Timeplan for dataset	M37 (October 2023)
Format of the open datasets	
Format of the data	Excel files
Metadata and documentation	Calculation methodology and formula
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Public
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	This list of KPIs was collected as part of the Northern demo evaluation activities.
Data utility, usefulness to external parties	This list could be used by external parties for assessing their own operations.

3.11.1.2 Eastern cluster KPI values

Factsheet	
Data Category name	Demos KPI values
Dataset name	Eastern cluster KPI values
Dataset description	This dataset includes the KPI values that were used to evaluate the results of Eastern cluster demonstrator within the OneNet project. For each of those KPIs, calculation formulas and calculation methodologies were defined.
Source of the data	

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Re-use of historical data	No
Data from live trial measurements, sensors	Some of the KPI values are based on live trial measurements, some are the results of calculations for which data from sensors/measurements were used
Origin of data	Eastern cluster demos calculations
Timeplan for dataset	M37 (October 2023)
Format of the open datasets	
Format of the data	Excel files
Metadata and documentation	Calculation methodology and formula
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Slovenian demo KPIs: Public Hungarian demo KPIs: Public Polish demo KPIs: Public Czech demo KPIs: Public
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	This list of KPIs was collected as part of the Eastern demo evaluation activities.
Data utility, usefulness to external parties	This list could be used by external parties for assessing their own operations.

3.11.1.3 Southern cluster KPI values

Factsheet	
Data Category name	Demos KPI values
Dataset name	Southern cluster KPI values
Dataset description	This dataset includes the KPI values that were used to evaluate the results of Southern cluster demonstrator within the OneNet project. For each of those KPIs, calculation formulas, baseline explanations and calculation methodologies were defined.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	Some of the KPI values are based on live trial measurements, some are the results of calculations for which data from sensors/measurements were used
Origin of data	Southern cluster demos calculations
Timeplan for dataset	M37 (October 2023)
Format of the open datasets	
Format of the data	Excel files
Metadata and documentation	Calculation methodology and formula
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Greek demo KPIs: Public Cypriot demo KPIs: Public
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	This list of KPIs was collected as part of the Southern demo evaluation activities.

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Data utility, usefulness to external parties	This list could be used by external parties for assessing their own operations.

3.11.1.4 Western cluster KPI values

Factsheet	
Data Category name	Demos KPI values
Dataset name	Western cluster KPI values
Dataset description	This dataset includes the KPI values that were used to evaluate the results of Western cluster demonstrator within the OneNet project. For each of those KPIs, calculation formulas, baseline explanations and calculation methodologies were defined.
Source of the data	
Re-use of historical data	No
Data from live trial measurements, sensors	Some of the KPI values are based on live trial measurements, some are the results of calculations for which data from sensors/measurements were used
Origin of data	Western cluster demos calculations
Timeplan for dataset	M37 (October 2023)
Format of the open datasets	
Format of the data	Excel files
Metadata and documentation	Calculation methodology and formula
Data security and privacy (where different from default handling of Table 1)	
Classification level of data	Spanish demo KPIs: Public Portuguese demo KPIs: Partially public, see Table below. French demo KPIs: Public
Exploitation and dissemination	
Purpose of data collection/generation, relation to project objectives	This list of KPIs was collected as part of the Western demo evaluation activities.
Data utility, usefulness to external parties	This list could be used by external parties for assessing their own operations.

For the Portuguese demo the classification of the demo KPIs values as open data is the following:

KPI	Classification level
Number of FSPs	Open
Active participation	Open
Volume of transactions (Power)	Not confidential but not open [1]
Volume of transactions – cleared bids (P or Q Availability)	Not confidential but not open

[1] This characterization refers to data mainly dependent from congestions emulation and therefore is not realistic values to be disclosed.

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Volume of transactions – cleared bids (P or Q Activation) (Energy)	Not confidential but not open
Available Flexibility	Open
ICT costs	Not confidential but not open
Accuracy of the RES production forecast calculated 24 hours in advance	Not confidential but not open
Accuracy of load forecast calculated 24 hours in advance	Not confidential but not open
Total power of avoided congestions through flexibility activation	Not confidential but not open
Number of avoided technical restrictions	Not confidential but not open
Share of false positive and negative congestion forecasts	Not confidential but not open
Maximum ratio of false-positive and negative congestion forecasts	Not confidential but not open
Requested flexibility	Not confidential but not open
Reduction in RES curtailment	Not confidential but not open
Comparison between the Isc max forecasted for the 63kV by the planning and the maximum short circuit value registered for the series under analysis	Open
Comparison of the rated short circuit current of the circuit breakers for the 63kV and maximum short circuit value registered for the series under analysis	Open
Nº of congestions/violations on DSO network	Not confidential but not open
Nº of congestions/violations on TSO network	Not confidential but not open
Improvement of the Forecast	Not confidential but not open
Successful ending of Prequalification Process	Open
Nº Prequalification process that needs additional information	Open

The full list of KPI values that were calculated by each demo is available in D11.1 [8], while the initial list of OneNet KPIs along with their definition, calculation formula and objective is presented in D2.4 [9].

4 Allocation of resources

Each of the WP or demo leaders will be responsible for the preparation of the datasets and their storage on the Zenodo platform. They will each register on the Zenodo platform and will upload their own datasets.

For the Northern Cluster demonstration all data will be uploaded once, according to the timeplan of the respective dataset as described above.

For the Portuguese demonstration, Zenodo will be updated once, after the demonstration simulations, which is expected for the Q3 2023.

For the Spanish demonstration, Zenodo will be updated once, after the demonstration simulations, which is expected for the Q2 2023.

For the Cypriot demo all data will be updated once, after the demonstration simulations, which are expected on M36 (September 2023)

For the Polish demo, Zenodo will be updated once, after the whole demonstration process, which end is expected for the Q3 2023(September).

For the Greek demonstration, Zenodo will be updated once, after the demonstration simulations, which is expected in the Q3 2023.

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Regarding the KPI values, Zenodo will be updated once, after the OneNet demonstrations end, in Q4 2023.

5 Data security

Each partner is responsible for the security, recoverability, and storage of their own generated data (according to their institution or company practice).

As seen in Ch. 3, the datasets that will be published by OneNet partners do not contain any data which is considered sensitive, i.e. the datasets are suitable for publication as open data.

Long-term preservation of the open datasets will be achieved by publishing the datasets on the Zenodo platform, which will provide storage of the datasets.

6 Ethical aspects

The reference for ethical and legal issues in OneNet is the EU General Data Protection Regulation (EU) 2016/679 (GDPR) [10].

The considerations of OneNet related to sharing and long term preservation of customers' personal data are detailed in the confidential D1.2 deliverable.

However, as seen in Ch. 3, the datasets that are defined in this report relate to technical data and not personal data, so that no ethical considerations arise concerning the publication of these technical data as open data.

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References

[1] Zenodo https://zenodo.org/

[2] "Data Management Plan (final)" Deliverable 9.2 v1.0, Platone H2020 EU Project, 2021, https://www.platone-h2020.eu/data/deliverables/864300_M20_D9.2.pdf

[3] "Data Management Plan", Deliverable 7.11 v0.9, CoordiNet H2020 EU Project, 2020, https://private.coordinet-project.eu//files/documentos/5ebfa7077774cD7.5%20CoordiNet%20Data%20Management%20Plan.pdf

[4] OpenAIRE Website, https://www.openaire.eu/

[5] Horizon 2020 Online Manual https://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

[6] Guidelines on FAIR Data Management in Horizon 2020, European Commission, 2016

[7] Creative Commons, „About The Licenses," https://creativecommons.org/licenses

[8] "Evaluation of OneNet Demonstrators", OneNet H2020 EU Project, to be published in October 2023 at Public Deliverables - OneNet Project (onenet-project.eu)

[9] "OneNet priorities for KPIs, Scalability and Replicability in view of harmonised EU electricity markets", Deliverable 2.4, OneNet H2020 EU Project, 2021, OneNet_Deliverable_D2.4_v2-28122021.pdf (onenet-project.eu)

[10] Guide to General Data Protection Regulation (GDPR), ICO. (Information Commissioner's Office), 2018.

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