

# bridge

## General Assembly

28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> March 2023

# CONCLUSIONS AND NEXT STEPS

*The presentations of the BRIGDE 2023 GA are available [HERE](#). If you do not have access to this collaborative space, we invite you to contact the secretariat [secretariat@h2020-bridge.eu](mailto:secretariat@h2020-bridge.eu) & [management@h2020-bridge.eu](mailto:management@h2020-bridge.eu)*



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## INTRODUCTION

BRIDGE is a European Commission initiative that brings together research and innovation projects that address Smart Grids, Energy Storage, Islands and Digitalisation to create a structured view of cross-cutting issues. The projects are financed by Horizon 2020 and Horizon Europe programmes. BRIDGE is organised along four working groups, namely Data management, Regulation, Business models and Consumer and Citizens Engagement. They report on the results of their work and decide on what topics to collaborate on during the coming year(s) at the annual BRIDGE General Assembly. The most recent Assembly was held in Brussels (with remote connection available) on 28<sup>th</sup> -30<sup>th</sup> March 2023.

The objective of these annual meetings is to share experience and create a better understanding among the BRIDGE projects, learn more about the projects results and help them to strengthen cooperation with a view to establish European best practice standards. BRIDGE aims to stimulate structured dialogues between regulators, authorities and innovation projects on smart grids and energy storage, as well as to facilitate the uptake of innovative technologies in the energy sector. BRIDGE also aims to synthesise and deliver conclusions and recommendations on exploiting the project results that would support, from the energy perspective, the delivery of the Green Deal and REPowerEU objectives. The full agenda of the meeting is presented in the annex.

The Assembly was very well attended, with over 300 registrations, gathered (around) 75 people were on-site and more than online 150 online attendees. The European Commission services (DG ENER, DG CNECT) presented the latest policy developments and introduced the main areas where Bridge could contribute to policy-making processes. The four Bridge working groups presented the activities and achievements of the past year and held working sessions to discuss and agree the workplans for this year. A focus session on “Setting up a common European data space for energy” presented the concept and current developments regarding the data space and discussed the way forward and potential Bridge contributions.

This year, the traditional (lengthier) presentations of new projects did not take place in the plenary sessions, and this is notably due to the high number of new projects (60) that joined the initiative. Therefore, a new way of interacting with the new projects was used instead. Project posters were presented at the GA premises, and it allowed participants to get to know them and to directly speak with the new project coordinators that were available throughout the meeting period. The BRIDGE completed projects briefly presented their main accomplishments and shared their lessons learned and recommendations for the new projects joining the initiative. Several initiatives such as ETIP Smart Networks for Energy Transition (ETIP SNET), the Smart Grid Task Force (SGTF), the Clean Energy Transition Partnership (CETP) and 2ZERO Partnership shared interesting presentations about their latest work, allowing the Bridge community to understand them better. Also, the plenary on International Cooperation jointly presented by DG ENER, RTD, JRC, and the Bridge “IElectrix project” which has activities in India, gave an insight into the international engagement. ENTSO-E and the EU DSO Entity introduced their joint preparatory work for promoting digital twins of the electricity grids.

## MAIN CONCLUSIONS AND NEXT STEPS

With BRIDGE running for more than seven years now, we can consider it as a well established and successful organisation that is attracting an ever-increasing interest.

With respect to the general organisation of BRIDGE:

1. BRIDGE can only work if the projects effectively participate in its activities and contribute to the relevant deliverables. To support that, the policy and project officers in DG Energy and CINEA, together with the



BRIDGE Secretariat will continue to facilitate the membership and participation of projects in the BRIDGE initiative and to support through specific means its activities.

2. As also outlined at the previous General Assembly, the Bridge initiative remains open to cooperation with other initiatives, external projects, and platforms such as the **ETIP SNET**, the **Clean Energy Transition Partnership** and the **2Zero Partnership**. International collaboration is also incentivised, with special regard to the International Smart Grids Action Network<sup>1</sup> and the Green Powered Future Mission<sup>2</sup>. It is important to strengthen the sharing of experiences and identify potential synergies and areas of common action. The European Commission and the BRIDGE secretariat will therefore continue to **involve external stakeholders**, in a flexible manner, to define common priority topics, synchronise efforts and optimise the global use of resources to achieve a sustainable energy transition.
3. BRIDGE should seek and implement additional areas of cooperation between the WGs. It will enrich the initiative's outcomes. The Secretariat, together with the WG Chair, will strengthen the implementation of concrete initiative to enhance the cooperation between WGs. (e.g., in the workplan, formulate joint activities among WGs such as common action, report, workshops, etc.)

#### With respect to the individual sessions:

1. The **Business Model** working group will continue to address its current tasks for the next year with the aim to provide standardized approaches and methodologies that would help the projects to build efficient BMs that would be useful and sustainable for the market.
2. The **Regulatory working group will** continue its work in 2023 with following changes: for each individual action, the sub-topics will be re-assessed to 1) capture the input from novel projects and 2) to remove overlapping topics between actions.
3. The **Data Management working group** will cover in 2023-2023 the following topics and activities:
  - a. Use-case repository: technical platform; governance
  - b. Data Exchange Reference Architecture (DERA)
  - c. Reference framework: Generic Business Processes
  - d. BRIDGE standard User Group
  - e. Interoperability of home appliances
4. The **Consumer and citizen engagement working group will focus on the following topics and activities.**
  - a. The Subgroup Indicators of Engagement will use the list of indicators and the guidelines produced during period 2022-23 as a starting point to further optimize stakeholder engagement measurement. This includes focussing on testing, refining, grouping and deepening.
  - b. The Subgroup development and use of Smart Tools finds that further mapping of projects with design approaches could be beneficial to elicit methods and tools with examples of best practices as final results evolve. It could be useful to create a catalogue of methods and tools for each mode of a process model with description and examples so that a structured approach is made easier for projects.
  - c. The Subgroup Strategies of Engagement concludes that further research is needed to understand the role of different stakeholders influencing project outcomes, to further understand the multiple

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<sup>1</sup> ISGAN is an initiative of the Clean Energy Ministerial, as well as a Technology Collaboration Platform of the International Energy Agency. To learn more visit: [ISGAN - Homepage \(iea-isgan.org\)](https://www.iea-isgan.org/)

<sup>2</sup> The Green Powered Future Mission was launched in 2021 by Mission Innovation. To learn more visit: [Green Powered Future Mission – Mission Innovation \(mission-innovation.net\)](https://www.mission-innovation.net/)



motivations and perceived barriers of citizens and households joining as active participants in new energy systems, how inclusive practices can boost energy transition.

- d. Making the results of the subgroups available to the BRIDGE repository to ensure wide access of the findings.

## Focus Topic Session: SETTING UP A COMMON EUROPEAN DATA SPACE FOR ENERGY

### BACKGROUND

This session focused on presenting the concept and current developments regarding the common European energy data space (CEEDS), and discussed the way forward. The EC introduced the topic and the main policy elements. A group of Horizon Europe projects (represented by IntNet), which aim to demonstrate energy data spaces and ensure interoperability, presented their envisaged inputs. The BRIDGE Working Groups (WGs) presented their views, relevant findings from their work, and recommendations for future developments. The session aimed at defining how the BRIDGE community could support the way forward.

### CONCLUSIONS

- The Bridge community is ready, and keen to contribute to this work stream. This will work in close coordination between the four working groups, and by keeping linkages with other work streams (e.g. expert groups established by the European Commission, cross-sectoral developments regarding data spaces (including the Data Innovation Board and Data Spaces Support Centre), work carried out for establishing other sectoral data spaces, e.g. for mobility or for green financial instruments for building renovations).
- The Data Management Working Group has already completed deliverables that could be used as building blocks for the work on CEEDS. Those include a use case repository (in process of being made available on the EIRIE platform), a proposed reference architecture for data exchanges in energy (DERA, with its version 3.0 being finalised), work on the interoperability of energy assets that could provide flexibility to the grids.
- A cluster of six new HE projects (5 Innovation Actions plus one Coordination and Support Action), which recently became members of Bridge, will develop and demonstrate energy data spaces, and will address interoperability matters within the energy sector (with added cross-sectoral considerations, e.g. synergies between energy and mobility/smart charging).
- The 'data space project cluster' participants are closely cooperating with each other and will cooperate within the wider Bridge community to ensure synergies and capitalize on Bridge relevant deliverables and results.
- All the Bridge working groups (WGs) are relevant for, and willing to contribute. Apart from the immediate linkages with the work of the Data Management WG, the work of the Regulations, Consumers and citizens engagement, and Business models WGs are highly relevant for building CEEDS.
- An open and engaging discussion touched upon many relevant aspects, and questions that need to be addressed, when developing CEEDS. Those included; use cases and the identification of 'low-hanging fruits' that are ready for quick deployment as well as a long term vision on use cases that will become crucial in the future; regulatory aspects surrounding data sharing, data privacy, data ownership and roles and responsibilities in relation to newly developed data activities; fair distribution of both costs and benefits/value reaped from data sharing; ways of addressing both B2B and B2C use cases and related data sharing; learning from/liasing with other sectors (e.g. mobility data space); securing consumer engagement; considering system integration within the energy system; future-proofing the approach by balancing a pragmatic approach for rapid deployment of mature use cases with a longer-term view to cater



for use cases that might be envisaged, but not entirely mature now; ensuring the durability of results provided, beyond the life time of specific project.

## NEXT STEPS

The process of developing CEEDS is complex, with many work items/deliverables that need to be addressed. Coordination between various work streams (within and outside the Bridge community) is essential. Bridge, through its working groups, will support the European Commission services towards the implementation of CEEDS by providing advice, building blocks/tools/methodologies, and evidence and lessons learnt from the various projects.



## Parallel Session 1 – Business Models

### BACKGROUND

The session focused on discussing ongoing activities throughout the period 2022-2023 and pave the way forward. Interactive discussions took place with the projects to identify any gaps and good practices. On the gaps' identification, thorough discussions were conducted on how we approach and tackle them and how we collectively build methods that will help projects. On the good practices, selected projects shared their study case and their insight. This parallel session was seen as a starting point of more online workshops that will follow to promote projects collaboration and finalize the report of 2022-2023 period.

### CONCLUSIONS

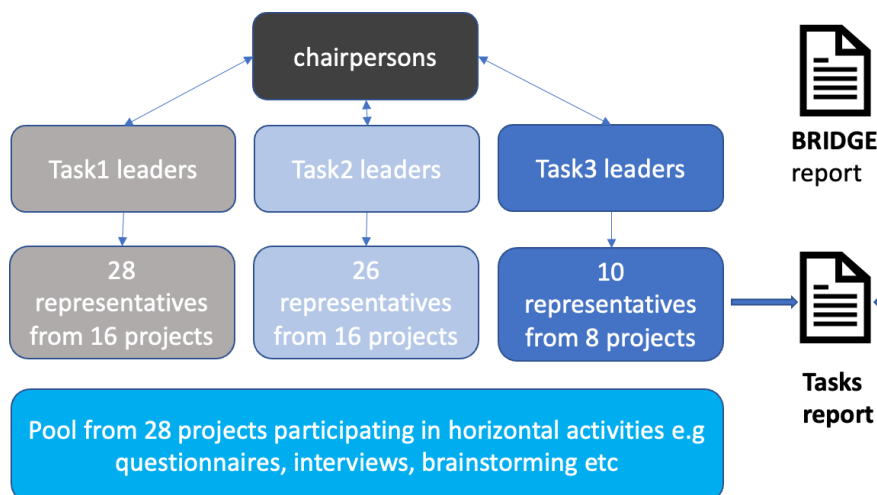
The BM WG representatives in the plenary session of the BRIDGE GA presented its new chairs, structure, and the new topics that the projects have collaborated. Furthermore, the initial results of the projects' collaboration have been shared providing insights and paving the way forward.

In specific:

The topics of interest were presented. Each of the topic is served by different tasks as follows.

- **Design of tools to evaluate the benefit of the services and solutions.**
  - **Task1:** Investigate the tools to capture business ideas and build BM
  - **Task2:** Quantification methods for BM benefits of services and solution under various UC scenarios
- **Design of BM to better include data value chain observability.**
  - Task 3: Investigate the types and characters of the data value chains in BMs of BRIDGE projects

To deal with these tasks in efficient way the following structure of governance is fostered:



By analyzing the initial results of the collaboration, the following conclusion have been derived:

Business Model Canvas (BMC) is the most popular tool for the business model creation in the BRIDGE projects. Its limitations have been identified through the activities of the group and they need to be tackled by combination of tools. Nevertheless, a standardized process is now missing. Also, most of the projects do not use quantification methods for their BM and for the ones that they would like to follow this pathway i.e. Cost Benefit Analysis (CBA), a standardized process is missing as well. Finally, no project treats data sets as Key Exploitable Results (KERs). The valorization of data through BM creation is needed.



Next, the parallel session built on the main findings of the three active tasks. BM WG representatives presented in more details the main findings and the insights shared so far and performed vivid discussions on the limitations, the needs, and the good practices with the projects and EC and CINEA representative. To be effective, each task leader presented shortly the results and based on them shared the questions that have driven the brainstorming session with the projects' representatives. In details:

**Task 1 – tools to capture business models:** The projects' delegates agreed that the BMC along with the Cost benefit analysis needs to be adapted to future scenarios, e.g., through an open-source platform. Through close collaboration of BRIDGE projects, it is important to investigate how projects value and use data to achieve their objectives. Building on use cases already defined in the Data Management WG, a use case repository and data would be very useful to guide projects (e.g. open access tools by EU projects, repository of representative networks) and in order to design realistic BMs, this would help to tackle the difficulty of sharing sensitive data. The **needs of Task1** identified are summarized below:

- Need for a quantification of value stream through the creation of a cost benefit analysis template that now is missing.
- Need for a standardisation of various factors to be included in BM analysis (e.g. regulatory, market etc.)

**Task 2 – quantification methods:** The projects' delegates agreed that using structured use cases (from DM WG) as reference would help projects to tackle challenges, e.g., getting value/revenue data on local flexibility markets; currently there is limited revenue data on new markets that are publicly available. In order to tackle the confidentiality of specific business cases of companies, structured equations could be used to calculate revenue and other values generation, where the equations coefficients and parameters would be defined not as precise numbers but at least in ranges (e.g., grid investment, flexibility markets); this would allow quantifying the value streams. The **needs of Task2** identified are summarized below:

- Need to measure social aspect in CBA.
- FARCROSS proposition for cost benefit analysis framework (methodology, definition of KPIs for use cases) might be helpful for other BRIDGE projects and be the baseline for a standardized process.

**Task 3:** Data valorisation is important to improve the cost effectiveness of new solutions upon commercialisation, and so to speed up their deployment in the market, which is an EU priority.. So far, the valorisation of data is addressed but could be covered in more detail in the data management plan in the projects, a potential solution to better capturing data value is to expand data management plan accordingly and add guidelines. Use cases are a good base to analyse the value of the data and so a cooperation between the BM WG and the Data Management WG could be beneficial. The **needs of Task3** identified are summarized below:

- Data is considered as crucial from projects and we need to identify how the data valorization route can be shown satisfactorily with the help of BM tools and the data management plan of the projects.

## NEXT STEPS

The BM WG will continue to address these tasks for the next year with the aim of providing standardized approaches and methodologies that would help the projects to build BMs that would highlight the revenue and other value streams, and so would foster their replication and scaling-up on the market. To this end the needs as identified above per task will be further investigated and the projects will collaborate on through the following activities:





## Future activities

- Workshops to engage and discuss identified issues with BRIDGE BM WG members and external stakeholders/ experts.
- Preparation of the 2023 report to be submitted to the EU.
- Regular meetings with BRIDGE members to get more feedback and discuss the findings of the BRIDGE survey.
- Exchange of knowledge and best practices between the BM WG and the Data Management WG



## Parallel Session 2- CONSUMER & CITIZEN ENGAGEMENT

### BACKGROUND

The Consumer and Citizen Engagement Working Group (CCE WG), previously Consumer Engagement, is part of the BRIDGE initiative and aims at creating a structured cross-cutting understanding of the role and methodologies of engagement in European R&I projects. The session reported about the main findings of the WG as a result of the activities taking place throughout the last year (March 2022-23). These findings are structured around three focal points: Indicators of Engagement, Smart Tools and Strategies of Engagement. which will feed into the implementation of the Digitalisation of Energy Action Plan<sup>3</sup> published by the EC on October 2022. In addition, the session identified priorities which guide the activities for the next period.

### CONCLUSIONS

The work of the WG CCE has three focal points:

Indicators of engagement	Strategies of engagement	Smart Tools for Engagement
aiming to collect qualitative and quantitative indicators to assess consumer engagement over time	aiming to collect strategies and methods and underlying assumptions used by projects to engage consumers and citizens	aiming to collect a list of Smart Tools targeted consumers and the approaches to development and use.

During the period 2022-23 the WG came to the following conclusions, which are structured according to its three focal points.<sup>4</sup>


#### Indicators of Engagement

To measure engagement over time different stages of engagement have been identified, based on different theoretical frameworks. For each of the stages a variety of indicators have been developed.

In addition, using existing and ongoing work of the WG CCE, stakeholders have been grouped in different stakeholder groups, which is essential to account for differences.

Differentiating stages and stakeholder groups allows a more nuanced measuring of engagement unfolding over the project's life span.

In line with these conclusions and previous work, upcoming actions will include but are not limited to:



**Indicators of Engagement**

1. Engagement indicators repository/tool
2. Improved measurements and metrics
3. Categorisations that match BRIDGE projects pilots

#### Strategies of engagement

<sup>3</sup> COM (2022) 552 final

<sup>4</sup> For details please refer to our final report, which will be available by end of May.



Three issues have received special attention within this focal point: gender and equality, effectiveness of strategies and nuancing stakeholders in engagement efforts. These issues thereby indicate their broader importance when aiming to design and implement inclusive and effective engagement.

Gender and equality highlight the need to be aware of differing roles that people can and aim to have in the context of energy. Energy literacy and digital skills are important keywords in this context.

Being aware of barriers and challenges (e.g. time and resource scarcity), but also success factors (e.g. being aware of local needs and values and/or using co-design tools) are fundamental for successful engagement.

A nuanced understanding of the stakeholders that are to be engaged and their diverse rationales for participating is important- as they inform the tailor-made design of engagement strategies.

In line with these conclusions and previous work, upcoming actions will include but are not limited to:



**Strategies of Engagement**

1. Align work with Indicators and Smart Tools SGs
2. Engagement strategies by stakeholder characterisation
3. Guidelines for engagement, inspiration/best practices

### Smart tools for engagement

Work under this focal point has focused on the notion of “design” for smart tools. Many projects follow a design approach to (digital) energy innovation in BRIDGE projects.

A range of design-oriented mindsets and approaches to innovation in the development of digital interactive applications have been identified – and a paper to be published in an academic journal has been produced.

The continuous struggle is how to keep the approaches user- centered, and several methods are used to keep the people-focus at all development stages. The methods include interactions that seek a deeper understanding of people and look at the context and system in which the design will be part of.

The work highlights those challenges (such as power struggles, issues of ownership and/or sustaining co-creation over time) can be overcome or mitigated by paying attention to the notion of value: Understanding the value sought by participating actors can ensure that value is created and exchanged for participation.

Together, these actions will further strengthen the relevance, scope and accessibility – and with it the importance to consider consumer and citizen engagement in the energy transition.

In line with these conclusions and previous work, upcoming actions will include but are not limited to:



### Smart Tools

1. Engagement tools repository/tool
2. Integration with DoEAP
3. Harmonisation of design Innovation approaches

## NEXT STEPS

### WG CCE 2023-24: Connect, integrate and strengthen.

*Connect, integrate and strengthen* is the motto that will guide and inform the WG CCE’s work and agenda for the coming period.

The CCE WG will connect to other initiatives outside the BRIDGE ecosystem. Connections with the SSH flagged energy projects and with the upcoming Smart Energy Expert Group are of special relevance to explore. First contact on leadership level has already been established.

Further integrating the results and findings is an explicit aim of the WG, which has been developed through several internal discussions and agenda setting sessions. Providing data/findings to a common repository fosters this aim for integration. More importantly, contributing to ongoing work on the repository by testing and optimising engagement strategies, digital tools, and related indicators, will support the WG CCE’s aim to make its results accessible to a broader audience.

Integration also relates to the importance to connect the different focal points of the WG, as they reinforce and feed into each other. Integrating findings also relates to the importance to sharing knowledge between the BRIDGE WGs. Finding common ways to ensure the replicability of the resources and tools developed and/or gathered by BRIDGE WGs is an important milestone to be achieved. In this sense, conversations with the Business Models and Regulations WG have already started and follow up meetings (for example in the form of common workshop/brainstorm sessions) will be set up to further develop cross work activities and outputs.

### Planning and alignment

The WG has set out a meeting schedule, both on subgroup, WG level and leader’s level. Monthly SG level meetings, and bi-monthly leaders and WG level meetings will ensure the alignment of the WG. This provides a structured working environment while simultaneously allowing future potential readjustments.

### Defining Deliverables





To deliver concrete and (policy-) relevant output/input to relevant stakeholders both within and outside the EC the WG will further concretize its intended deliverables during the upcoming meetings (May/June). The scope agreed during the GA and subsequent leader's and SG meetings provides the broader framework for this.



## Parallel Session 3 - REGULATION WG

### BACKGROUND

The session focussed on the WG activities tackled during 2022 and a discussion on the new topics and priorities to address in the 2023-2024 period. To perform the work, the main conclusions of the 2022 report and the outcomes of the 4 actions that have been developed in 2022 were presented.

### CONCLUSIONS

The **4 actions** of the BRIDGE Working Year 2022 were discussed during the plenary and parallel session of the BRIDGE GA:

- Action 1: Improve **market access** for consumers to value their flexibility.
- Action 2: Service provision by **energy communities**
- Action 3: Facilitate flexibility market **coordination** and **integration**.
- Action 4: Support the potential synergies coming from **increased sector coupling/sector integration/system integration**.

The report for 2022 will be finalized by end of April and submitted for a second round of review to BRIDGE participants before final submission to the EC (*deadline May 2023*).

Following **key messages** were formulated across the different actions:

- Importance of finding a balance between EU harmonization and local solutions (e.g., prequalification, local market design, products for local congestion management)
- Need for further elaboration of roles and responsibilities of new (regulated and non-regulated) actors and activities, for example in the context of energy communities or data spaces.
- Main barriers for flexibility provision are related to the low voltage level (minimum bid size, prequalification, baselining, settlement)
- Importance of Regulatory Sandboxes is acknowledged and might even increase in the coming years.
- Need for more 'modelling power' to assess the impact of a wide roll-out of local solutions on the overall (European) system.
- Novel regulatory initiatives and market design proposals should onboard consumer centricity during the development in contrast to assess consumer engagement strategies in a second phase.

### NEXT STEPS

#### Work Plan 2023:

- The 4 actions will continue in 2023 with following changes: for each individual action, the sub-topics will be re-assessed to 1) capture the input from novel projects and 2) to remove overlapping topics between actions.
- A brainstorm during the GA highlighted following topics to be relevant for the WG plan in 2023:
  - Sector coupling/sector integration (extension towards hydrogen, telecom, thermal storage)
  - E-Mobility (services bi-directional charging, role within a community)
  - Energy Communities
  - Energy Sharing
  - Market Design (explicit and implicit flexibility mechanisms, local flexibility markets, grid constraints, market integration)
  - System operation (investment decisions, remuneration, tariff design)
  - Data Spaces (regulatory barriers, roles and responsibilities)
- The draft work plan for 2023 will be discussed with the action leaders (deadline May 2023).
- A survey will be distributed within the BRIDGE WG Regulation to collect input with respect to relevant topics and/or a novel action (deadline June 2023)



- The draft work plan 2023 for the BRIDGE WG Regulation will be submitted for discussion with the BRIDGE Secretariat and the European Commission (deadline July 2023).
- Cooperation between BRIDGE Working Groups:
  - Joint activities are formulated to increase collaboration and synergies between different working groups.
  - Joint action with WG CCE:
    - Topic: how to include consumer-centricity in 'market design' options, in order to improve consumer engagement
    - Discussion between WG Regulation and WG CCE (all members) on priority topics (*Deadline: June 2023*).
    - Common workshop (*Deadline 2<sup>nd</sup> half of 2023*).
  - Joint action with WG Data Management:
    - Topic: data spaces
    - Scoping joint activity to be done in Q2 2023
- The WG Regulation will contribute to relevant policy initiatives, in particular the **NC Demand Side Flexibility** and the **Reform of the EU Electricity Market Design**.
  - The draft report 2022 and the draft work plan 2023 will be presented to the relevant stakeholders with a request for feedback to align the BRIDGE activities of the WG regulation, if possible, with the ongoing policy initiatives (deadline June 2023).
  - The format of the support is still to be clarified but a possibility could be that The WG regulation supports by answering to dedicated questions. For both policy initiatives mentioned above, the format and topics of support will be further discussed with the European Commission and relevant stakeholders involved in the respective processes (deadline Q2 2023).
- Knowledge sharing:
  - The feedback of a small survey with respect to the organized knowledge sharing during Q1 2023 were presented. Overall appreciation of the knowledge sharing was high with an average satisfaction score of 4,1 out of 5.
  - Points for improvement mentioned by participants:
    - Less presentation time – more time for discussion
    - Opening of sessions to audience outside BRIDGE, including appropriate publicity
    - Making the sessions more interactive
    - Usage of online polls during the session to engage participants
    - Thematic sessions centred around a specific topic
- The concept will be refined, with support of the BRIDGE secretariat and a request for interest towards the projects to present during a knowledge sharing will be send around (*deadline: July 2023*).

A **physical meeting** of the WG Regulation is envisioned during the second part of 2023. Possible options to be explored if a session connected to ENLIT (Paris) could be an option, or alternatively, a meeting in Brussels could be proposed. Concept and timing to be discussed with the European Commission (*deadline: August 2023*).



## Parallel Session 4 - DATA MANAGEMENT WG

### BACKGROUND

This session focused on presenting and discussing about the preliminary Data Management WG results, its learnings, and potential recommendations, covering all the five on-going Actions. The discussion also aimed: (1) to agree on the main directions to complete the on-going work; and (2) to identify relevant subsequent activities for the 2023-2024 period.

### CONCLUSIONS

Since the last General Assembly of March 2022, the five Actions of the Data Management WG have been productive and achieved valuable results. Data Management WG results are recognized to have more and more impact, e.g. by being cited in reports and reused by external stakeholders.

**Action #1:** Regarding the use-case repository, it has been implemented inside the EIRIE platform and an internal validation is on-going. The opening to all the BRIDGE participants is planned in summer of 2023. A process has been defined to operate the repository and a Validation Team will be constituted to review the use-cases that will be posted to the repository. Several new features have already been identified and will be developed in 2023.

**Action #2:** Regarding the EU Data Exchange Reference Architecture (DERA), a new version 3.0 has been developed, with the objective to add the data governance layer, simplify the architecture and align it with data spaces. The DERA is clearly seen as a well-established reference in the energy domain. Two tools are under development: (1) a *BRIDGE Federated Service Catalogue* to list the implemented services; (2) an interactive visualization of the DERA. The recommendations from the last report remain valid and the activities will continue, in particular to support the implementation and deployment of DERA 3.0 inside and outside BRIDGE.

**Action #3:** Regarding the Reference Framework, two new Generic Business Processes (GBPs) have been developed to cover (1) Energy monitoring and management and (2) P2P trading in energy community. An E-mobility GBP is still under evaluation. An update of the settlement subprocess is on-going, but only few projects implement settlement. The Reference Framework is seen as complementary to the DERA, as it provides a “business-centred” view of the dynamic interactions inside the system. Considering their similarities, BRIDGE GBPs should be used to contribute to the SGTF EG1 implementing acts.

**Action #4:** Regarding the BRIDGE Standards User Group (BSUG), it has established liaisons with CEN/CLC/ETSI CG-SG and ENTSO-E CIM Expert Group. First “code components” have been transferred by projects to the BSUG to enable their reuse by other projects. Webinars are planned to educate BRIDGE projects about standard. Projects will have to identify standards they use and give feedback to BSUG. BSUG should look at the consistency between the BRIDGE UC repository and the IEC Use-Cases Management Repository (UCMR).

**Action #5:** Regarding interoperability of home appliances, a survey has been circulated among projects to capture their experience: faced issues, bottlenecks, chosen solutions, ... While some projects are only *using* interoperability, some others are *providing solutions* to support interoperability: their results should be investigated and useful “takeaways” should be made available to all projects. A connection with the JRC work on Code of Conduct for energy smart appliances interoperability is already well-functioning, a contribution to DG ENER activities should also be considered. For the future, standards should be analysed (features, overlaps, gaps, ...) and the devices used in the projects should be further investigated.

Generally speaking, it has been agreed to keep the same organisation, with five Actions. Reports for 2022-2023 activities are planned in April (first complete drafts) and May 2023 (final versions). The Data Management WG should also accompany the future launch of the D4E WG by highlighting useful results based on past and on-going activities.





## NEXT STEPS

### Action plan

2022-2023 Reports finalisation	
Finalize draft reports (Actions #2, #3, #5)	22/05/2023
Collect feedback from DMWG participants	03/06/2023
Issue final reports	10/06/2023
Action #1 UC repository – 2023-2024	
Validate the UC repository (small group of volunteers)	April-July 2023
Open the UC repository and collect UCs from projects (with validation team)	September 2023
Define roadmap for UC repository features	November 2023
Implement new features (PANTERA / EIRIE team)	<i>Continuous</i>
Agree on common vocabulary (roles, categories, ...)	December 2023
Rotation of the Validation Team members	March 2024
Action #2 EU data exchange reference architecture – 2023-2024	
Release <i>BRIDGE Federated Service Catalogue</i> tool and associated process	October 2023
Release <i>DERA interactive vizualisation tool</i>	July 2023
Update recommendations to comply with DERA 3.0	December 2023
Develop / enhance the “data role model”	December 2023
Foster implementation and deployment of DERA 3.0 inside and outside BRIDGE	<i>Continuous</i>
Action #3 Reference framework – 2023-2024	
Contribute to SGTF EG1 Implementing acts	April-May 2023
Map SGTF EG1 Implementing acts with the BRIDGE GBPs	September 2023
Investigate expectations / potential benefits of BRIDGE GBPs for projects	September 2023
Provide references (template / libraries) for UC repository	December 2023
Develop a guideline about settlement implementation	December 2023
Action #4 Bridge Standards User group – 2023-2024	
Regular BSUG meetings helping to gather standards usage by BRIDGE projects	Every month from May 2023
Webinar about standards for BRIDGE projects	June 2023 September 2023 December 2023
Set-up a repository & process for code components to be reused by projects	December 2023
Action #5 Interoperability of home appliances – 2023-2024	
Provide results/contribution to JRC and DG ENER	May 2023
Identify “takeaways” from projects and make them available to all (via BSUG?)	December 2023
Investigate existing standards (features, overlaps, ...)	December 2023
Devices perspective: investigate devices used in projects and support identification of suitable device for projects	December 2023
Misc – 2023-2024	
Identify and describe what DMWG results will be provided as input to D4E WG	September 2023
WG meeting: kick-off (online)	May 30 <sup>th</sup> , 2023
Update participants list of each Action	June 2023
WG meeting: mid-term (in Brussels)	October 2023
WG meeting: conclusions (online)	January 2024



## Annex

### AGENDA

#### Day 1: 28<sup>th</sup> of March 2023

12:00 – 12:15	Welcome & Introduction – EC
12:15 – 12:30	Keynote speech from the European Commission
12:30 – 12:50	Plenary 1: Policy Update – Digitalisation of Energy Action Plan (DG ENER)
12:50 – 13:20	Plenary 2.1: Presentation of 2022 actions by Working Groups
13:20-14:20	Lunch Break
14:20 – 14:50	Plenary 2.2: Presentation of 2022 actions by Working Groups
14:50 – 15:20	Plenary 3: Presentation of the Smart Grid task force
15:20 – 15:35	Plenary 4: Presentation on the Digital Twin task force
15:35 – 16:05	Plenary 5: Completed BRIDGE Projects
16:05- 16:35	Coffee Break
16:35 – 16:50	Plenary 6: ETIP Smart Networks for Energy Transition
16:50 – 17:00	Plenary 7: Presentation of the Clean Energy Transition Partnership
17:00 – 19:00	Networking cocktail

#### Day 2: 29<sup>th</sup> of March 2023

DAY 2: 29/03/2022	09:00 – 10:30	<b>Focus Topic – Setting up a common European data space for energy</b>	
	10:30 – 11:15	Coffee Break + New Bridge projects posters session	
	11:15 – 13:30	<b>Parallel session 1</b> BUSINESS MODELS WG	<b>Parallel session 2</b> CONSUMER AND CITIZEN ENGAGEMENT WG
	13:30 – 14:30	Lunch Break	
	14:30 – 17:30	<b>Parallel session 3</b> REGULATION WG (ends at 16:30)	<b>Parallel session 4</b> DATA MANAGEMENT WG



### Day 3: 30<sup>th</sup> of March 2023

09:00 – 09:05	Welcome & Introduction – EC
09:05 – 09:45	Plenary 8: Completed BRIDGE Projects
09:45 – 10:05	Plenary 9: International Cooperation
10:05 – 10:25	Plenary 10: Common European Reference Framework for an energy savings application
10:25 – 10:40	Plenary 11: 2 Zero Partnership
10:40-11:00	Coffee Break
11:00 – 11:15	Plenary 12: Joint Communication
11:15 – 12:15	Plenary 13: Outcomes of the discussions on the parallel sessions
12-15 – 12:30	Conclusions and closing - Mark van Stiphout - Deputy Head of Unit ENER.B5 Innovation, Research, Digitalisation, Competitiveness
12:30	End of the BRIDGE General Assembly 2023