Ref. Ares(2025)5508444 - 08/07/2025

TWINRD
ECODIGITAL FUTURES

MACROECONOMIC MODELLING OF R&D FOR THE TWIN TRANSITION

D6.5 | Report on academic, policy and societal outreach (including policy briefs)

Author(s)	**Valentina Malcotti (ISINNOVA), Daniel Cassolà (ISINNOVA), Carlo Sessa (ISINNOVA)**
Version	**2.0**
Quality review	**Sakis Morfis (E3-Modelling)**
Date	**8 July 2025**
Dissemination level	**Public (PU)**
Grant Agreement	**N° 101132170**
Starting Date	**01-01-2024**
Duration	**36 months**
Coordinator	**Leonidas Paroussos (E3-Modelling)**
E-mail	**paroussos@e3modelling.com**

Funded by the European Union

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

Document History

Date	Contributors	Action	Status
20 June 2025	Valentina Malcotti, Carlo Sessa (ISINNOVA)	First draft	Draft (V0.1)
3 July 2025	Daniel Cassolà (ISINNOVA)	Content and structure review	Review (V1.0)
7 July 2025	Leonidas Paroussos (E3M) Fragkiadakis Kostas (E3M) Sakis Morfis (E3M)	Coordinator's Review	Review (V1.1)
8 July 2025	Daniel Cassolà (ISINNOVA)	Consolidation of Reviews and finalization of the document for submission	Final (V2.0)

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

Executive Summary

The initial phase of TWINRD (M1–M18) has served as a “conversation starter”, establishing the project as a facilitator for dialogues and knowledge loops across academic, policy, and societal domains through a trans-disciplinary, co-design approach. During this foundational period, outreach activities deliberately targeted expert communities, particularly within macroeconomic modelling circles and green-tech innovation sectors. These early engagements have built on existing strategic synergies to feed robust collaborations with complementary projects such as TRANSIENCE and DIAMOND, significantly enhancing TWINRD’s modelling capabilities.

Central to the project's ongoing impact is the preparation of targeted Policy Briefs, designed as key bridge documents translating complex macroeconomic modelling insights into actionable, evidence-based recommendations for policymakers. Developed through a structured co-design process involving surveys, workshops, forums, and stakeholder consultations, these briefs ensure accessibility, actionability, and multi-level relevance (EU, national, regional) through evidence-based and stakeholder-informed inputs. This deliverable outlines the thematic framework for the policy briefs, provides a clear blueprint for their proposed structure, and includes a set of guiding questions intended to facilitate meaningful stakeholder contributions. The collaborative and stakeholder-informed strategy ensures policy recommendations are closely aligned with real-world challenges and opportunities. Key themes emphasise integrating multiple modelling approaches, leveraging open innovation data, and establishing clear frameworks to evaluate and implement effective twin transition policies.

Public messaging on TWINRD’s vision—summarised by the teaser *"Can we go Green & Digital? Yes, we can model (better)!"*— will intensify in the next project phase, connecting technical outputs to relatable narratives. Moving forward, TWINRD will increasingly reach broader stakeholder groups and the general public, ensuring its research resonates widely and contributes meaningfully to addressing the societal opportunities and challenges of the twin transition.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

List of Figures

Figure 1 - TWINRD's teaser 7

List of Tables

Table 1 - Questions for stakeholders 14

List of Acronyms and Abbreviations

CDE	Communication, Dissemination, and Exploitation
CGE	Computable General Equilibrium
D	Deliverable (project reports or outputs)
EC	European Commission
EU	European Union
GA	General Assembly
H2020	Horizon 2020 Program
IAM	Integrated Assessment Models
KPI	Key Performance Indicator
MS	Milestone
NGO	Non-Governmental Organization
PDF	Portable Document Format
R&D	Research and Development
R&I	Research and Innovation
SFC	Stock-Flow Consistent (modelling approach)
SME	Small and Medium-sized Enterprises
WP	Work Packages

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

CONTENTS

Document History 2
Executive Summary 3
List of Figures 4
List of Tables 4
List of Acronyms and Abbreviations 4
Introduction 6
1. Overview of TWINRD's Outreach Activities (M1-M18) 7
2. TWINRD's Target Groups, Key Messages and Outreach Strategy 8
3. Academic Outreach 9
3.1. Synergies with the modelling community 9
3.2. Scientific dissemination 10
3.2.1. Publications in progress 10
3.2.2. Zenodo Repository 10
4. Policy Outreach 10
4.1. Engagement with expert stakeholders 10
4.1.1. The TWINRD Open Stakeholder Forum 10
4.1.2. Introductory technology survey 11
4.1.3. Participatory workshops on strategic foresight 11
4.2. Policy briefs 11
4.2.1. Blueprint for policy brief development 12
4.2.2. Thematic framework based on project results 12
4.2.3. Question for stakeholders 13
5. Societal Outreach 14
5.1. Public-facing channels 14
5.1.1. Website 14
5.1.2. LinkedIn 14
5.1.3. Newsletter 15
5.2. Press & Media 15
6. Conclusions 15

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

Introduction

TWINRD is set to transform Europe's macroeconomic modelling to support the Twin Transition, focusing on harmonizing sustainable economic development with digital progress. Current models employed at the EU level, although supportive of strategic planning in sustainable research and innovation (R&I), often fail to capture the extensive scope of R&I activities, especially in emerging green and digital technologies.

To address these gaps, TWINRD (**macroeconomic modelling of R&D for the Twin Transition**) aims to enhance existing models like GEM-E3 and NEMESIS by integrating innovative and interdisciplinary approaches that more accurately represent R&I policies. This will include the introduction of new data and technology classifications, specifically improving the modelling of green and digital technologies and refining tools to evaluate the impacts of R&I policies on socio-economic and environmental outcomes.

In commitment to openness and collaboration, TWINRD will make all models and resources developed freely available on its online platform, encouraging transparency and community engagement. The TWINRD's Open Stakeholder Forum will facilitate active stakeholder interaction and inclusive dialogue, co-designing research and scenarios to ensure findings are comprehensive and actionable both for the scientific community and policymakers.

Over three years, TWINRD brings together four leading research institutes and SMEs with extensive expertise in economic modelling and the R&I sector. This collaboration spans applied and research-oriented environments, including systems analysis and data management, ensuring a multidisciplinary approach to achieving the project's goals.



Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

1. Overview of TWINRD's Outreach Activities (M1-M18)

TWINRD's Communication, Dissemination and Exploitation (CDE) Plan, delivered at M8 (D6.2) and updated at M18 (D6.3), positions TWINRD as a dialogue-opening project that connects science, policy and society through a trans-disciplinary, co-design approach.
D6.2 provides an overview of the outreach assets and actions planned to increase the visibility of TWINRD's research, support the dissemination of project results, empower stakeholder activities, and generate academic, policy, and societal impact. D6.3 provides an update on the implementation and assessment of the outreach efforts undertaken up to now. This report summarises how TWINRD started to reach out to target groups whilst creating a knowledge-sharing and feedback loop to support project activities.

In the first eighteen months, the project has deliberately focused on trusted expert circles, laying the groundwork for wider public conversations once the modelling results are mature enough to resonate beyond the research community.
Given the highly specialised field of macroeconomic modelling in the R&D sector, the project's initial phase focused on involving a select community of experts from both academic modelling circles and the green tech business innovation sector. As the project progresses, ongoing collaboration with these expert groups will be instrumental in generating policy insights and shaping the final policy briefs, directly supporting policymakers as they design effective regulatory frameworks for research and innovation to support a just twin transition.

At the same time, TWINRD is committed to reaching beyond the research, technological and policy communities to ensure project findings are relevant and meaningful to a wider audience. To this end, the project has established a clear identity centred on the vision of "ecodigital futures," led by the teaser, *Can we go Green & Digital? Yes, we can model (better)!*, and a set of key messages. As the TWINRD conceptual model is developed and the modelling tool is released, the project's public-facing awareness-raising narratives about the twin transition's concepts and challenges will be expanded, accompanied by direct calls to action for policymakers to leverage these tools and insights to generate real societal impact.
The cumulative efforts of outreach activities and their final assessment will be reflected in the latest update (M34), documented in D6.6 - Report on Academic, Policy, and Societal Outreach & Updates (including Policy Briefs).

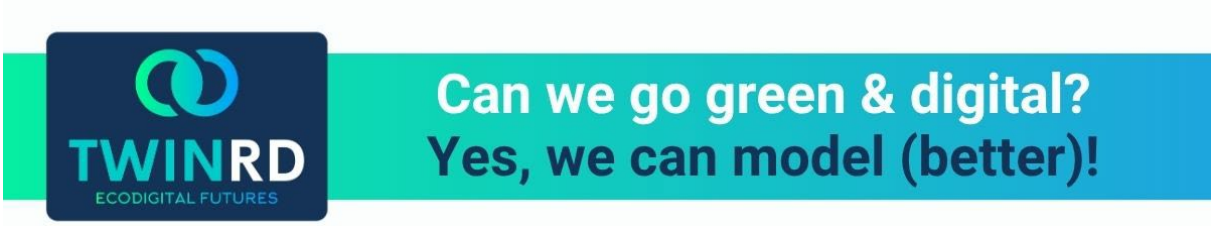


Figure 1 - TWINRD's teaser

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

2. TWINRD's Target Groups, Key Messages and Outreach Strategy

TWINRD's Communication, Dissemination and Exploitation (CDE) Plan, delivered at M8 (D6.2) and updated at M18 (D6.3), positions TWINRD as a bridge project connecting science, policy and society through a trans-disciplinary, co-design approach.
Four headline target groups were defined at the proposal stage and refined in D6.2:

- **R&I Policymakers** (EU, national, regional levels)
  As primary drivers of research and innovation policy, policymakers influence strategies, funding, and regulations crucial for the twin transition. Outreach ensures they are equipped with up-to-date research insights to develop policies that address evolving societal needs and align with the objectives of the green and digital transitions, fostering solutions that are inclusive and future-oriented.

- **Business Innovation Leaders** (Green & Digital Sectors)
  Business innovators play a central role in advancing sustainable and digital technologies. TWINRD's outreach engages these leaders to facilitate market adoption, accelerate technological solutions, and promote economic and environmental benefits through collaboration and knowledge exchange.

- **Social Innovation Leaders**
  Social innovators address societal challenges through inclusive and impactful approaches. By reaching out to these actors, TWINRD fosters cross-sector collaboration, ensuring that research outcomes are responsive to diverse social needs and contribute to community empowerment and social inclusion, towards a just twin transition.

- **European Scientific Research Community** (H2020 & Horizon Europe projects, macroeconomic modelling consortia, etc.)
  Researchers and consortia across Europe contribute essential expertise to the project's interdisciplinary approach. TWINRD's outreach builds synergies with these communities to advance scientific knowledge, promote evidence-based policymaking, and strengthen the European research landscape for sustainable development. TWINRD leverages cross-synergies with other European projects working on similar models, to enhance the development of a next-generation macroeconomic model that can better capture the dynamics of the Twin Transition.

Through targeted outreach to these groups, TWINRD maximises the societal relevance and impact of its activities, ensuring that research, policy, business, and society are all actively engaged in shaping Europe's green and digital future.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

To guide the project's outreach strategy, TWINRD prioritises understanding stakeholder motivations. To this end, TWINRD makes extensive use of detailed analysis of stakeholders' motivations and expectations, as these are essential for a mutual understanding of R&I pathways and the implications of new macromodel tools for R&I policy assessment and expected social innovation.

3. Academic Outreach

Modelling better, together. TWINRD's academic outreach mobilises the European scientific community to push the frontiers of integrated green & digital macromodelling into a collective, interdisciplinary endeavour which entails collaboration in upgrading existing models and developing ones that better capture the complexities of green and digital transformations.

3.1. Synergies with the modelling community

TWINRD has established a fruitful synergy with the TRANSIENCE Project by building on its open-source CGE model, OPEN-GEM. While the TRANSIENCE scope focused on industrial transformation and did not incorporate R&D dynamics, its transparent and modular modelling framework provided a strong foundation for further scientific advancement. Hosted openly on GitHub, OPEN-GEM enables cross-project learning, replication, and shared use across institutions.

Within TWINRD, the team has calibrated a dedicated extension, OPEN-GEM-RD, which incorporates sectoral R&D spillovers, updated knowledge stock dynamics, and public/private expenditure feedbacks. This work is conducted in dialogue with modelling partners from TWINRD project and is informed by academic collaborations that align empirical research with structural model design. OPEN-GEM-RD is an integration point that links the TWIN R&D outputs with upgraded versions of GEM-E3.

These upgrades are collaborative in nature as 3 modelling teams – E3M, UM/UNU-MERIT, SEURECO – coordinate to ensure consistency across platforms, jointly develop calibration strategies, and align model parameters to common datasets. The group shows commitment to open science through the public release of model extensions, datasets, and sensitivity analysis tools. All datasets are openly accessible via the TWINRD Zenodo community, the official repository of the project.

Given that three out of four TWINRD partners also participate in the DIAMOND project, there is ongoing collaboration and alignment between the two like-minded initiatives. The latter project focuses on updating, upgrading, and fully opening six key Integrated Assessment Models (IAMs), enhancing their sectoral and technological detail, spatiotemporal resolution, and geographic granularity to better support climate change mitigation pathways.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

3.2. Scientific dissemination

3.2.1. Publications in progress

Working paper on *Trade tariffs and the role of R&D in the EU's Green Transition.* The paper analyses how trade tariffs and R&D affect the EU's green transition. Using a Computable General Equilibrium (CGE) model, the authors examine trade scenarios to assess the economic benefits of investing in R&D for clean energy technologies. Their findings show that timely R&D and targeted innovation can decrease the EU's reliance on imports, strengthen domestic production, and lessen the negative impacts of tariffs on the economy.

3.2.2. Zenodo Repository

A dedicated TWINRD space has been set up on the Zenodo Platform to serve as the official repository for all project publications, datasets, and resources. Partners have received instructions for uploading materials, and key datasets linked to public deliverables, such as the *Technology flows matrices for green and digital technologies* (D2.1), *R&D data for energy, green and digital technologies* (D2.2) and the *Conceptual modelling of the Twin transition* (D4.1) are already available there.

4. Policy Outreach

From modelling insights to R&I policymaking. TWINRD's policy outreach anchors the project's modelling results in the workflow of R&I decision-makers. Stakeholder consultations are at the heart of this process. Surveys, workshops and iterative briefs ensure that relevant evidence can shape recovery plans and innovation strategies at various EU and national levels. At the same time, an assessment of the evolving policy questions and needs steers TWINRD's research agenda. To enable this research-policy dialogue and make the best of it, TWINRD facilitates a process of stakeholder engagement geared toward the finalization of policy briefs informing on integrating multiple modelling approaches for robust twin transition policy design, leveraging open innovation data for strategic R&I policy development, and establishing evidence-based frameworks for twin transition R&I policy implementation.

4.1. Engagement with expert stakeholders

4.1.1. The TWINRD Open Stakeholder Forum

The Open Stakeholder Forum was launched by TWINRD through an online event in February 2025. This Forum brings together a transdisciplinary community—including researchers, policymakers, industry professionals, civil society, and other actors in technological and scientific innovation—to collaborate on improving research and innovation (R&I) policy evaluations for green and digital transformations.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

The launch event presented the project's goals, methodologies, and upcoming stakeholder engagement activities. Five external participants attended and provided input through interactive polls about challenges in their fields, future priorities for the Forum, and session insights. Attendees received follow-up invitations for ongoing participation, and regular engagement will ensure their expertise supports project validation and refinement. To increase future participation, strategies such as virtual networking rooms and breakout topic discussions are being considered.

4.1.2. Introductory technology survey

The TWINRD project conducted an initial stakeholder survey to prioritise key technologies for detailed analysis in patent activity, R&D, and technology flow matrices. The survey targeted stakeholders from research, policy, industry, and civil society to gather input on which green and digital technologies should be prioritised in the project's modelling work. Out of 37 respondents, 31 completed the survey, resulting in an 84% completion rate. The survey, designed to take 5–10 minutes, provided valuable expertise to guide technology selection.

Survey results shaped the final list of technologies for detailed study, informed the design of the first stakeholder workshop, and helped identify synergies with ongoing modelling initiatives and policy frameworks. Despite a modest sample size, the survey provided essential expert input for technology prioritisation and contributed directly to the development of one of TWINRD's core outputs (D2.2 – *R&D data for energy, green and digital technologies*).

4.1.3. Participatory workshops on strategic foresight

A central part of stakeholder engagement in TWINRD is a three-stage series of online participatory foresight workshops, beginning with a User Requirement Workshop, followed by a Scenarios Analysis Workshop, and concluding with a Policy Recommendations Workshop. The User Requirement Workshop has been postponed to allow for more comprehensive project development and to ensure optimal conditions for stakeholder participation. This delay enables the project team to present more mature results and refined analytical frameworks, increasing the value of stakeholder contributions. The workshop's main aim is to bring together modellers and stakeholders to align expectations, promote shared understanding, and ensure that research and modelling activities reflect stakeholder interests and priorities.

4.2. Policy briefs

Policy briefs constitute an essential element of TWINRD's policy outreach strategy, designed to translate complex macroeconomic modelling insights into actionable policy recommendations for R&I decision-makers across Europe. These briefs will serve as bridge documents connecting TWINRD's enhanced modelling capabilities with real-world policy implementation needs.

Five principles will guide TWINRD policy briefs to ensure maximum impact and utility. Firstly, it will foreground *accessibility* by translating complex technical concepts into policy-relevant

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

language that is understandable and usable by decision-makers. Secondly, *actionability* will be supported through clear, feasible recommendations with specified timelines for policy implementation. Third, all briefs are *evidence-based*, drawing upon robust modeling results and stakeholder consultation to provide policy advice that is credible. Fourth, *multi-level relevance* is addressed by preparing content that is applicable in EU, national, and regional policy contexts, recognizing the different governance levels involved in twin transition policies. Finally, the briefs will be *stakeholder-informed*, incorporating valuable feedback gained through the Open Stakeholder Forum consultations to ensure that policy recommendations reflect real needs and constraints.

4.2.1. Blueprint for policy brief development

TWINRD's policy briefs will be developed in structured manner with a view to maximizing their utility for policymakers operating at different levels (EU, national, regional) and across various sectors. The blueprint consists of:

- *Executive Summary* (1 page): Key findings and policy recommendations summarized at a glance.
- *Policy Context* (1-2 pages): Current challenges and opportunities in the twin transition.
- *Modelling Insights* (2-3 pages): Evidence-based analysis based on TWINRD's enhanced GEM-E3, NEMESIS, and Twin R&D models.
- *Policy Recommendations* (2-3 pages): Specific, actionable recommendations with implementation pathways.
- *Conclusions* (1 page): Summary of priorities and follow-up actions.

4.2.2. Thematic framework based on project results

The policy brief themes will be developed based on TWINRD's results, which represent the scientific and methodological innovations of the project and which will be translated into actionable guidance for European R&I policymakers. The provisional list of policy briefs below will be refined based on stakeholder input and policy priorities emerging during the co-design process:

- *Enhanced Macroeconomic Models for Twin Transition: Integrating Multiple Modeling Approaches for Robust Twin Transition Policy Design*
  - Comparative policy analysis utilizing the new Twin R&D model alongside upgraded GEM-E3 and NEMESIS models with improved R&I representation.
  - Guidance for policymakers on interpreting and utilizing evolutionary-Keynesian modelling approaches coupled with traditional macroeconomic models.
  - Policy frameworks for implementing the TWINRD modelling suite into practice for evidence-based policy assessment.
- *Technology Flow Data and Open Access Resources: Leveraging Open Innovation Data for Strategic R&I Policy Development*
  - Policy insights based on technology flow matrices for green and digital technologies made openly available through TWINRD's open-source platforms.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Guidelines for policymakers on accessing and interpreting both technology flow datasets and TWINRD's open-source modelling resources.
- Capacity building recommendations for policy institutions to integrate technology flow analysis and modelling tools from open access platforms.

- *Policy Recommendations for Twin Transition: Evidence-Based Framework for Twin Transition R&I Policy Implementation*
  - Evidence-based guidance for the design and evaluation of EU R&I twin transition policies.
  - Strategic recommendations for balancing green and digital technology investments in R&I policy portfolios.
  - Evaluation frameworks for monitoring and refining twin transition policies based on empirical evidence.

4.2.3. Question for stakeholders

To ensure policy briefs address the most relevant aspects of TWINRD's research and modeling capabilities, the questions in Table 1 will guide stakeholder engagement in the co-design process. This initial list can be updated before the participatory foresight workshops based on further project developments.

Stakeholder Group	Key Questions
European Scientific Research Community	• Which modeling results and methodological innovations should be prioritized for policy translation? • What are the key limitations or uncertainties in current findings that should be communicated to policymakers? • How can complex evolutionary-Keynesian modeling concepts be best simplified for policy audiences without losing essential insights? • What are the most robust and actionable insights emerging from the enhanced GEM-E3, NEMESIS, and Twin R&D models?
R&I Policymakers (EU, national, regional levels)	• What specific policy questions or challenges should the briefs address based on current twin transition debates? • Which target audiences (EU institutions, national governments, regional authorities) should be prioritized for each brief? • What format and communication style would be most effective for reaching decision-makers in different policy contexts? • How should model comparison results be presented to highlight areas of convergence and divergence across different approaches?
Business Innovation Leaders (Green & Digital Sectors)	• What practical barriers to twin transition implementation should be highlighted in policy recommendations? • How can policy briefs better reflect the realities of technology development and deployment in green and digital sectors?

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

	• What role should private sector insights play in shaping policy recommendations for R&I support? • Which technology flow patterns and knowledge spillover findings have the strongest policy implications?
Social Innovation Leaders	• How can policy briefs address the social dimensions and inclusivity aspects of the twin transition? • What are the key concerns regarding just transition that should be reflected in policy recommendations? • How can policy frameworks ensure that twin transition benefits reach all segments of society? • What role should civil society play in monitoring and evaluating twin transition policies?

Table 1 - Questions for stakeholders

5. Societal Outreach

From conceptual model to everyday meaning. "Twin transition" is becoming a popular buzzword, but its real significance often gets lost in technical jargon, and its social implications are downplayed. Although the twin transition is a heavily data-driven process, it leads to major societal and environmental changes through the combined effects of digitalisation and sustainability.

Once the main project output (TWINRD modelling tool) is developed and made available, TWINRD will have the opportunity to share relatable stories about the twin transition and its significance for social innovation. While the technical tool itself is not intended for direct use by citizens or civil society, it is still important to empower citizens and social innovators to join the conversation and help shape a greener, digital future alongside policymakers and researchers. The main channels for public outreach and the actions implemented up to now are provided below.

5.1. Public-facing channels

5.1.1. Website

The project website - live since 28 Jun 2024 - serves as a hub for general project information, participatory events, and provides access to public deliverables pending EC approval.

5.1.2. LinkedIn

The project's LinkedIn page (@TWINRD – Ecodigital Futures) is operational, albeit an amplification plan is foreseen (detailed in D6.3) to increase both posting frequency and partner interaction.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.

5.1.3. Newsletter

The first edition of the Twin Transition Newsletter was published in April 2025, accounting for TWINRD's 15 months of groundwork for the project's modelling output. It was disseminated both to subscribers and via other project channels. The next issue is planned for September 2025, following the first reporting period.

5.2. Press & Media

No press releases or media outreach were planned during the first half of the project. Three press releases are scheduled for key milestones: the conceptual modelling of the twin transition (upcoming, in the summer 2025), the twin transition's concept and challenges (November 2025), and the final model-based assessment and TWINRD legacy (December 2026). These will highlight major public deliverables and project outcomes.

6. Conclusions

The initial phase of the project has served as a "conversation starter" for TWINRD's outreach across academic, policy, and societal domains. While exchanges with the academic and modelling communities are already well established, broader stakeholder engagement to inform both project research and policy is now underway. Public messaging about the twin transition and the project's objectives has begun and will intensify in the next phase, helping to connect TWINRD's highly technical outputs to the bigger picture of the twin transition's opportunities and challenges.

As the project advances, the structured development of policy briefs will play a central role in translating complex modelling insights into actionable, stakeholder-informed recommendations, helping to connect TWINRD's technical outputs, rooted in a rich loop of academic and innovation knowledge, with real-world policy and societal impact.

Funded by the European Union Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Agency. Neither the European Union nor the granting authority can be held responsible for them.