



SYMSITES

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1. Abstract

Summary by main partners of the planned dissemination and communication activities after the end of the project

https://www.dropbox.com/scl/fi/lojbq40lzf09zuljxalqf/SYMSITES_D5.5_Replication-Guidance-Package.pdf?rlkey=t5ezvp5e6g6nkszc5hc9ki4n&st=27wdx93f&dl=0

2. Objectives

To summarise the foreseen activities of the consortium after the end of the project

3. Description of the work

Post-Project Dissemination Actions by SYMSITES partners

AITEX - Coordinator

Following the completion of the SYMSITES project, the Spanish Ecosite will implement a set of targeted post-project dissemination actions aimed at ensuring long-term visibility, knowledge transfer, and uptake of the project results by key stakeholders in the water, wastewater and sustainability sectors.

Over the coming months, dissemination efforts will focus on the presentation of the Spanish Ecosite outcomes in **high-profile scientific, technical and professional forums**, addressing both research-oriented and practitioner-oriented audiences. The dedicated dissemination activities will be carried out to ensure long-term visibility, uptake and transferability of the project results to relevant technical, scientific and stakeholder communities. These actions will build on the outcomes achieved during the project and will target both European and international audiences involved in wastewater treatment, resource recovery and sustainable biotechnologies.

Participation in Conferences and Scientific Events

The Spanish Ecosite will continue to disseminate SYMSITES results through participation in **international and national conferences** relevant to anaerobic digestion, wastewater treatment and resource recovery. In this context, results will be showcased at:

- The **19th IWA World Conference on Anaerobic Digestion (AD-19)**, to be held in **Valencia (Spain)**, **9–13 June 2026**, a leading international forum gathering researchers, technology providers and practitioners working on anaerobic biotechnologies and circular economy solutions.
- [\[worldwater...ngress.org\]](https://worldwater.congress.org/)
- The **META Conference 2026 in Murcia (Spain)**, a well-established national meeting point for the wastewater and chemical engineering community, bringing together universities, research centres and professionals from the water sector.
- The **1st IWA-Young Water Professionals Iberoamerican Conference**, to be held in **Madrid (Spain)**, where early-career researchers and professionals present innovative approaches and emerging solutions in the water sector, supporting capacity building and long-term uptake of SYMSITES concepts.
- XIII R&D Congress organised by Polytechnic University of Valencia, creating synergies
- Also, the project will be presented as best practice and success story in the European Textile Platform general assembly when the topic is related to sustainability and water management in the textile sector

Key dissemination action will be the **presentation of SYMSITES results at international scientific and technical conferences** related to wastewater valorisation, circular economy and environmental biotechnology. In particular, project outcomes are expected to be showcased at well-established events such as conferences and workshops organised by the Water Europe Platform, in which AITEX is active member presenting the technologies developed in the project and the main results obtained.

These events provide an excellent platform to reach researchers, technology developers, utilities and decision-makers, and to position SYMSITES results within the broader context of innovation in the water sector.



At national level, **participation in specialised technical conferences and sectoral forums** such as SENTIATECH platform, which has specific focus in water technologies and encompasses the main stakeholders in the sector at national level. These events typically gather universities, research centres, engineering companies and public authorities, allowing SYMSITES results to be discussed in a practical and applied context, with emphasis on replicability, operational lessons learned and scalability of the developed solutions.

Participation in Trade Fairs and Industry Exhibitions

To complement scientific dissemination, the Spanish Ecosite will target **industry-oriented dissemination** through participation in major **international water and environmental technology fairs**, which provide direct access to utilities, technology suppliers, engineering companies and decision-makers.

In particular, dissemination activities may include attendance and networking activities at:

- **Aquatech Amsterdam**, recognised as the **world's leading trade exhibition for process, drinking and wastewater technologies**, bringing together thousands of water professionals, technology developers and utilities from around the globe. Aquatech offers an ideal setting to communicate SYMSITES results linked to sustainability, resource recovery and innovative wastewater treatment concepts. [\[aquatechtrade.com\]](http://aquatechtrade.com)
- **IFAT Munich**, the **world's leading trade fair for environmental technologies**, covering water and wastewater management, waste, recycling and circular economy solutions. IFAT represents a key opportunity to position SYMSITES results within the broader sustainability and circularity agenda and to reach an international industrial audience. [\[messe-muenchen.de\]](http://messe-muenchen.de)

Participation in these fairs will focus on networking, bilateral meetings and informal dissemination of project outcomes, rather than on dedicated exhibition stands, ensuring cost-effective post-project visibility.

Technical Publications and Online Dissemination

In addition to event-based dissemination, the Spanish Ecosite will prepare at least one **technical dissemination article** summarising the main results, impacts and lessons learned from the SYMSITES project. This article will target a specialised professional audience and will be submitted to sector-specific platforms such as aguasresiduales.info, ensuring outreach to utilities, engineers, consultants and other stakeholders in the Spanish wastewater sector.

Complementary online dissemination actions will include:

- Publication of news items and technical summaries on the institutional websites and communication channels of the Spanish Ecosite partners.
- Sharing of links to SYMSITES public deliverables and results through professional networks and sectoral platforms.

In parallel, **targeted dissemination towards early-career professionals and innovation networks** will be carried out through participation in events and seminars addressed to young researchers and professionals in the water and environmental sectors. These activities will contribute to knowledge transfer, capacity building and long-term exploitation of SYMSITES concepts by fostering engagement with the next generation of experts.

Together, these post-project dissemination actions will ensure that SYMSITES results remain visible, accessible and influential beyond the project lifetime, supporting their integration into future research, innovation and implementation activities in the water and circular economy sectors.

Overall Impact

Through this combination of **scientific conferences, professional fairs, specialised publications and online channels**, the Spanish Ecosite aims to ensure that SYMSITES results remain visible and accessible beyond the



project lifetime, supporting their transfer into future research, innovation activities and practical implementation in the water and sustainability sectors.

Danish EcoSite

Vision of the Future of the: Circular Water and Nutrient Use on Bornholm

The SYMSITES Ecosite on Bornholm envisions a future where wastewater is no longer treated solely as a waste and discharged, but as a strategic local resource that supports climate adaptation, resilient agriculture, and circular resource use. The Ecosite demonstrates how advanced treatment technologies, combined with local cooperation and climate awareness, can create value even within current regulatory constraints.

Vision and Opportunities

Bornholm is among the most drought-prone regions in Denmark, with recurring spring-summer water deficits driven by high sunshine hours and limited rainfall. Climate projections indicate that these conditions will intensify. The Ecosite's long-term vision is to contribute to local drought resilience by enabling safe, controlled reuse of treated wastewater as supplementary irrigation water, reducing pressure on groundwater resources while maintaining agricultural productivity.

At the same time, the Ecosite explores how energy, nutrients, and water can be recovered from wastewater streams through integrated solutions such as anaerobic membrane bioreactor (AnMBR) technology. In a future regulatory context that allows reuse, the Ecosite could function as a decentralized hub supplying irrigation water with nutrient value to nearby farms, while producing biogas from high-organic waste streams. This creates opportunities for:

- Climate adaptation through alternative water sources
- Local nutrient recycling
- Reduced environmental discharge to the Baltic Sea
- Strengthened collaboration between utilities and agriculture

Demonstrated Results

Pilot activities under the SYMSITES project have shown that the treatment concept works technically. The AnMBR process delivers a stable effluent quality that meets EU requirements for agricultural water reuse, and on-site irrigation trials with crops such as spinach, as well as parallel tests with willow and peppers, have demonstrated practical applicability.

The treated water contains nitrogen and phosphorus in moderate concentrations, contributing to fertilization without exceeding typical crop requirements. While it does not replace conventional fertilization, it provides a measurable nutrient benefit. Importantly, the treated water cannot be discharged to the Baltic Sea due to nutrient content, reinforcing irrigation as the most meaningful end-use.

Key Challenges to Address

Despite promising results, several challenges shape the future pathway of the Ecosite:

- Regulatory framework: Denmark has opted out of EU Regulation 2020/741 until at least 2029, currently preventing reuse of treated wastewater for irrigation. Upscaling of the Ecosite is therefore not an option at the moment.
- Energy balance: Municipal wastewater alone has too low organic content to sustain energy-efficient AnMBR operation; access to high-COD waste streams such as food waste is crucial but limited on an island.
- Infrastructure and scale: Bornholm's decentralized wastewater system makes full-scale implementation complex, while storage and distribution of reclaimed water require significant investment.
- Alignment of supply and demand: Reclaimed water only creates value if agricultural demand, storage capacity, and delivery systems are in place.



Outlook

The future Ecosite on Bornholm is **NOT** defined by immediate large-scale deployment, but by its role as a living laboratory. It builds evidence, reduces uncertainty, and prepares both utilities and agriculture for future solutions where regulation, climate need, and technical readiness align. In doing so, the Ecosite positions Bornholm to act quickly and responsibly when conditions allow—possibly turning wastewater into a locally adapted resource for a changing climate.

GREEK EcoSite

The vision for the future of the Greek EcoSite, is strongly aligned with the transition toward a circular, decentralized, and resource-efficient waste management system that integrates environmental protection with energy recovery and sustainable development.

At its core, the Greek EcoSite represents a holistic model of industrial urban symbiosis, where different waste streams:

- municipal wastewater,
- industrial effluents (from the olive oil industry), and
- fermentable household waste

are no longer treated as burdens but as valuable resources.

The future vision builds upon this principle, aiming to scale and optimize such integrated systems across similar regions in Greece and the Mediterranean.

A key element of this vision is the full valorization of waste into high-value outputs. The Greek EcoSite demonstrates the ability to convert mixed waste streams into multiple products: methane and hydrogen for energy, bioplastics to replace fossil-based plastics, treated water suitable for irrigation, and solid bio-based materials such as FORBI, biochar and compost. In the future, this multi-output approach is expected to evolve into a zero-waste biorefinery concept, where nearly all incoming wastes are transformed into useful resources, minimizing landfill disposal and environmental impact. The recovery of up to 25.1 kWh/m³ from methane and additional energy in the form of hydrogen highlights the system's potential to contribute significantly to local energy autonomy.

Another important pillar of the future EcoSite is water reuse and circular water management. The system consistently produces high-quality treated effluent that complies with Greek legislation for restricted irrigation, with very low levels of contaminants and pathogens. This supports a vision in which wastewater treatment plants evolve into water resource recovery facilities, supplying reclaimed water for agriculture and industry, especially in water-scarce regions. The integration of advanced polishing steps, such as biochar adsorption for removing emerging contaminants, further strengthens this capability and points toward safer and more sustainable reuse practices. The production of biochar from industrial solid wastes, such as olive stone, adds significantly to the overall urban-industrial symbiosis concept towards a more circular economy.

The future EcoSite is also envisioned as a low-emission and climate-neutral infrastructure. By replacing conventional aerobic wastewater treatment with anaerobic membrane bioreactors, the system reduces energy consumption and sludge production while generating renewable energy. The project's KPIs explicitly aim at near-zero greenhouse gas emissions and minimal water discharge, reinforcing its alignment with European Green Deal objectives. As optimization continues, such systems could become key contributors to climate mitigation strategies at the municipal level.

Equally important is the decentralized and modular nature of the EcoSite concept. The pilot operates at a relatively small scale (2 m³/day), demonstrating that effective waste valorization can be achieved locally, close to the waste source. The future vision foresees the replication of similar units in rural, peri-urban, and island communities, reducing



the need for large centralized infrastructure and long-distance waste transportation. This approach is particularly relevant for Greece, with its geographically dispersed population and strong seasonal variability due to tourism.

The EcoSite also promotes community engagement and behavioral change, as seen in the implementation of the brown bin collection network for household food waste. In the future, increased citizen participation will be crucial for improving waste separation at source, enhancing feedstock quality, and ensuring the long-term success of circular systems. Educational initiatives and local stakeholder involvement are therefore expected to play a central role.

Finally, the future Greek EcoSite can be seen as a blueprint for integrated circular economy hubs, combining waste management, renewable energy production, water reuse, and material recovery within a single facility. By strengthening collaborations between municipalities, industries, and research institutions, such systems can foster innovation and create new economic opportunities, particularly in green technologies and bio-based industries.

In conclusion, the vision of the Greek EcoSite extends beyond a pilot wastewater treatment system. It represents a transformative model for sustainable resource management, where waste is converted into energy, water, and valuable materials through advanced, decentralized, and digitally optimized processes. Its future lies in scaling up, replicating, and integrating these systems into broader environmental and economic frameworks, contributing to a more resilient and circular society.

Spanish EcoSite

Over the coming months, the Spanish Ecosite will intensify its communication and dissemination activities through participation in key international and national events, as well as through specialized technical publications. In particular, the Ecosite will be represented at the 19th IWA World Conference on Anaerobic Digestion (AD-19) (<https://iwa-ad19.com/>), to be held in Valencia from June 9 to 13, 2026, a leading global forum bringing together researchers, industry professionals and technology providers to share advances in anaerobic biotechnologies and resource recovery solutions. Additionally, dissemination actions will include participation in the Conference META in Murcia (<https://meta2026.es/>). This conference is a reference meeting point for the wastewater sector that brings together universities, research centers and experts in chemical engineering and wastewater treatment mostly at a national level. Finally, the Spanish EcoSite results from SYMSITES will be also presented at the first IWA-Young Water Professionals Iberoamerican conference in Madrid (<https://ywp-spain.es/ywp-conferencia/1st-iwa-ywp-iberoamerican-conference-2026/>), where early-career researchers present innovative work in the water sector. Complementing these activities, a technical article will be prepared and published in a specialized platform such as aguasresiduales.info, focusing on the main outcomes and lessons learned from the Spanish Ecosite, with the aim of ensuring broad outreach to both technical audiences and sector stakeholders.

KLINK

Exploitation of the κ -SDSS for Social Dimension of I-US -

Key Exploitable Result KER9 covers the κ -SDSS (Social Decision Support System), the component of the ITRMP designed to make the social dimension of I-US explicit and actionable in policy and investment decisions. Grounded in three guiding dimensions - employment and working conditions, living conditions, and community development - the κ -SDSS combines Fuzzy Cognitive Map (FCM) modelling and Agent-Based Modelling (ABM) to allow public authorities, industrial operators, and civil society actors to explore, compare, and communicate the social consequences of alternative I-US configurations and intervention strategies.

Within SYMSITES, the κ -SDSS has been applied across all four EcoSites (Spain, Denmark, Greece, Austria), yielding a set of reusable simulation assets: calibrated FCM social baselines, intervention scenario cases, and ABM experimental results structured around the Labour-Industrial Urban Symbiosis Indicator (L-IUSI) - an original socially-targeted indicator developed autonomously by Klink to measure the qualified human labour embedded in recovered material flows circulating in an I-US network. A complementary economic indicator, the Value Added-IUSI (VA-IUSI),



was also developed by KlinK to capture the economic dimension of the same flows. Together, these indicators provide a coherent proxy framework that synthesises employment quality, working conditions, and material-level value creation in a format accessible to non-specialist decision-makers.

Post-project, the primary exploitation pathway for KER9 is the provision of I-US social strategy consulting services - offered to public authorities, regional development agencies, industrial clusters, and infrastructure operators seeking to plan or scale urban-industrial symbiosis initiatives with an explicit social accountability framework. The κ -SDSS constitutes the methodological and computational backbone of such services, enabling clients to define a social baseline specific to their territorial and industrial context; to simulate the social effects of alternative ramp-up or governance strategies before committing to them; and to produce evidence-based outputs for stakeholder dialogue, public communication, and regulatory justification.

Two exploratory engagements are already being developed in this direction. Discussions are underway with the Circular Bioeconomy Cluster (Italy) and the Lombardy Clean Energy Cluster LE2C (Italy) to experimentally apply the ITRMP and κ -SDSS framework to I-US-adjacent initiatives in the Italian context, where the social feasibility of circular economy models at a regional scale is increasingly a policy priority. These engagements would represent the first replication of the κ -SDSS outside the SYMSITES EcoSite perimeter, validating its transferability and generating new calibration data from different socio-economic contexts.

A further line of post-project development concerns the deepening of socio-political simulation capabilities, particularly for contexts where regulatory barriers and governance fragmentation are the primary constraints on I-US implementation. The Austrian EcoSite at Tullnerfeld also offers a well-documented case in this regard. The ABM simulation results already highlight a distinctive pattern in the labour-social performance of industry-driven small I-US networks in that context, and the FCM baseline has captured the role of institutional actors and public administration in shaping both the I-US configuration and social outcomes. Extending the κ -SDSS modelling work at Tullnerfeld - potentially in collaboration with BOKU, regional authorities and the KLAR! network - would allow for a more fine-grained analysis of how policy instruments, spatial planning, water reuse regulations, and public-private governance models interact with employment and community dynamics over time.

A structured joint exploitation initiative is being planned by consortium partners ITG and KlinK, combining their respective networks of institutional and industrial relations to bring the κ -SDSS - together with the broader ITRMP platform - to market across multiple European territories. The initiative is conceived as a joint service offering underpinned by a licensing agreement, with the medium-term ambition of evolving into a shared consortium vehicle for future project development. Geographically, the starting point is the four SYMSITES EcoSite countries (Spain, Denmark, Austria, Greece), from which the partnership will expand along paths determined by sectoral interest and existing network reach: ITG brings established connections with regional development agencies and is already engaged with relevant OECD working groups, while KlinK contributes its Italian industrial cluster relationships, including with clean-energy and circular economy organisations such as LE2C. Portugal is also identified as an early target territory, given its alignment with Mediterranean water and waste valorisation challenges similar to those addressed by the EcoSites. A preliminary exchange of expressions of interest between the two partners is already in place, with a broader Memorandum of Understanding - formally encompassing the ITRMP and κ -SDSS - expected to be concluded in the coming months. This joint action is positioned to become a durable post-project vehicle for disseminating the social dimension of I-US as both a policy methodology and a deployable decision-support service across European regions pursuing just and circular industrial transitions.

More broadly, the κ -SDSS is positioned to inform the design of I-US strategies in European regions seeking alignment with Just Transition and Cohesion Policy objectives, where social impact evidence is increasingly required as a condition for public co-financing. The combination of an accessible simulation environment, a replicable survey-based calibration methodology, and a set of purpose-built social indicators makes the κ -SDSS a deployable tool for I-US growing policy market.





ITG

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ITG

Digital Results of Symsites. Potential Exploitation of ITRMP

Overview

The **ITRMP system** provides a comprehensive solution to considering both social economic, policy and engineering dimensions in the context of Circular Economy in general and in the specific domain of the Urban – Industry Symbiosis Framework.

Their primary competitive advantage are:

- To foster **social engagement** thanks to **I-US Game Module**
- To leverage **Policy Making** Processes thanks to the **k-DSS Module**
- To facilitate **technical feasibility analysis** to evaluate the potential of Urban Symbiosis approach in different geographical scales, thanks **to the IUSM Module**
- To promote B2B thanks to the **MATCH Module**

In terms of business models, the exploitation of the ITRMP result could be considered as a one product, or as a set of potential products with the potential to cover different needs of different potential customers, as it is shown in the next tables.

DIGITAL SOLUTIONS OF SYMSITES PROJECT: ITRMP	
RESULT	Ownership and Exploitation Organizations
ITRMP*	KLINK & ITG

(*) This includes also the I-US Game

ITRMP COMPONENT	Ownership	Exploitation Leader	Exploitation Collaborator
I-US GAME	ITG	ITG	KLINK
k-DSS	KLINK	KLINK	ITG
IUSM	ITG	ITG & KLINK	KLINK
MATCH	ITG	ITG & KLINK	KLINK
SMCO	ITG	ITG & KLINK	KLINK

SWOT. A Preliminary Approach

Although the TRL at the end of the market suggest the need to an adjustment to different market conditions, and/or the definition of a potential set of POC, a preliminary SWOT Analysis has been done for all the ITRMP, and it is summarized in the next table.

STRENGTHS (Internal)	WEAKNESSES (Internal)
• Full-cycle integration: The system covers the entire symbiosis lifecycle, from regional planning (IUSM), policy Making (k-DSS), social engagement (I-US Game) and actor connection (MATCH) to technical operational optimization (SMCO). • Technical Depth: Features verified in relevant scenarios (Ecosites), highlighting the stakeholders e involved and advanced technologies like AnMBR, pyrolysis, and dark fermentation. • Precision KPIs: Ability to monitor and simulate real-time impacts on Carbon Footprint (kg CO₂-eq) and Water Depletion (m³-eq). • Evidence Based Policy Making, as it is the case of the results of the k-DSS. • Operational Knowledge: Transforms daily industrial operations into knowledge through experiment tracking (DoE) and product traceability.	• Data Quality Dependence and Stakeholder Engagement. The effectiveness of matchmaking and simulations relies heavily on entities providing accurate data about their waste flows, capacities and decision-making links and procedures. • Modelling Complexity: Initial configuration of flow charts and AI models in SMCO may require a technical learning curve for industrial users. • Model Maintenance: AI models and digital twins in SMCO require periodic retraining to remain valid as production conditions change.
OPPORTUNITIES (External)	THREATS (External)
• Green Deal Alignment: The system is a key tool for regions to meet European decarbonization and circular economy targets. • Market Information Gaps: Capturing the unmet demand for support in collaborations between resource suppliers and technology demanders via MATCH. • Educational Scalability: Utilizing the I-US Game as an onboarding and awareness tool for future industrial and political decision-makers. • Flexible Business Models: Potential for white-label licensing to municipalities (B2G) or industrial clusters (B2B). • Need to facilitate Policy Making analysis, and decision making based on evidence.	• Industrial Data Privacy: Possible resistance from companies to share sensitive information about waste flows or production recipes on a collaborative platform. • Niche Competition: Emergence of platforms specialized in single verticals (e.g., only biogas) that might offer deeper specific functionality than a total system. • Regulatory Changes: Rapidly evolving European environmental standards requiring frequent updates to the k-SDSS and IUSM impact algorithms. • Policy Coherence requirements, which implies the need to include policy audit procedures through the different modules.

Strategic Summary

ITRMP Module vs. Potential Revenue Model

Following the same hypothesis as in the SWOT. the next table is a preliminary analysis of the revenue model of each module. It is important to note, that, at this stage of the results (in terms of TRL and MRL), this approach mut be refined in the future in terms of pricing and cost, investment scenario, CANVAS overview and ROI, among other business parameters.



Tool	Added Value	Revenue Model. Key Preliminary Drivers &/or Dimensions	Circular Economy (CE) Impact
k-SDSS	Policy-making and investment validation	❖ Strategic Consulting License to Policy Making Consultancy Companies ❖ Government Licences to Local, Regional and National Government and/or Public Authorities ❖ Corporate Licences for Large Enterprises	Policy Coherence Support
IUSM	Regional potential analysis and scenario comparison.	❖ Licensing/White Label or Traditional: Annual fee for different potential customers: ▪ Regional governments ▪ Industrial Site ▪ Large Companies ▪ Technology Providers ❖ Impact Fees: Per-report charge for carbon/water footprint estimations.	Transforms territorial management into a circular model, reducing resource depletion.
MATCH	Cross-sector collaboration and contact facilitation.	❖ Customers: Value Chain Actors (Waste Providers, H Value Product Consumers, Tech. Providers). ❖ Subscription: Monthly fee for companies to access verified contact data and advanced search. ❖ Success Fee: Commission based on economic savings from successful resource exchange.	Solves the lack of information between waste suppliers and resource demanders.
SMCO	Technical process monitoring, Traceability and Digital Twin based on AI& Data driven	❖ Annual Licence: Per production line or asset under management.	Converts operational data into knowledge, reducing deviations and waste.
I-US Game	Serious gaming for awareness and education.	❖ White Label Educational Licensing: ▪ Universities and business schools. ▪ Municipalities, trans municipalities and regional governments ▪ Public Authorities • White label Corporate: sustainability departments.	Fosters a "circular mindset" by simulating real-world resource flows and roles.



Roadmap to Market. Next Steps by Module. A Preliminary Approach

This statement shows the next steps for one of each modules considering their specific needs and their specific potential in terms of market opportunities.

I-US GAME

1. Funds

- **Internal Capital:** Own funds to provide access to the system, communication and dissemination actions.
- **Public Funds:** To support detailed business plan definition and exploitation plan. In addition, these public funds will facilitate a new set of games aligned with exploitation pipeline.
- **Private/Investment Funds:** to accelerate the time to market

2. Future Exploitation and Sustainability

- **Onboarding Pipeline:** The game serves as a realistic entry point for the **ITRMP ecosystem**, converting players into users of professional modules like, **IUSM** and **MATCH** and **k-DSS**.
- **Waste Treatment and Data-Driven Evolution:** Sustainability is tied to the **Component Library**; as new technologies (e.g., AnMBR, Pyrolysis) or resource flows are verified in the professional tools, they are added as playable assets in the game.
- **KPI Alignment:** Long-term value is maintained by reflecting real-world environmental impacts, such as **Carbon Footprint (kg CO₂-eq)** and **Water Depletion (m³-eq)**, making it a credible simulation tool for industrial decision-makers.

3. White-Label Licensing Opportunities (B2B/B2G)

- **B2G (Municipal Focus):** customization for local authorities (to foster regional symbiosis potential using specific local maps).
- **B2B (Industrial Clusters):** Branding for industrial parks or clusters (e.g., meat or brewery sectors) to train managers in identifying "Waste-Technology" matches, considering a specific development of tailored games.
- **Technical Customization:** Licensed versions can include specific **Layouts** or **layouts of production lines** like those monitored by the **SMCO** module.
- **Educational:** Specifically for universities, high schools and vocational schools to facilitate the engagement of responsible citizens, foster new researchers and high skilled managers.

4. Long-Term Technical Sustainability and Maintenance

- **Modular Architecture:** The structure allows for low-cost expansion of the game's technical depth without rebuilding the entire interface.

5. Expected Actions

The expected actions after the project conclusions are summarized as follows:

- Communication to Board Members of ITG (Included in the Next Table).
- Dissemination on internet channels: ITG's website and social networks
- Communication in Sectorial Events. For Example, in Water Europe (Europe) or the Spanish Water Technology Platform (National)



TRUSTEE	MEMBERS	TYPE	KEY FIGURES OR COMENTS
Xunta de Galicia (Galician Regional Government): 1) Consellería de Economía e Industria (Economy & Industry ministry); 2) Consellería de Educación, Ciencia, Universidades e Formación Profesional: (Education, Science Academia, Vocational Training ministry); 3) Consellería do Medio Rural: D.X. Desenvolvemento Rural (Rural Affairs ministry); 4) Consellería do Mar: DirectorXeral de Pesca, Acuicultura e Innovación Tecnolóxica (Sea & Agticulture ministry); 5) Consellería de Vivenda e Planificación de infraestructuras: director do Instituto Galego de Vivenda e Solo (Building and Urban Planning ministry)	+ 85.000 employees	Regional Ggovernment	Integrated in Spanish government and UE governance structure
University of A Coruña (UDC); University of Vigo (UVIGO); University of Santiago de Compostela (USC)	+ 49.000 students	Public Universities (Galicia Region)	Global
Ilustre Colegio Oficial de Ingenieros Industriales de Galicia (Official Association of Industrial Engineers of Galicia) Asociación de Ingenieros Industriales de Galicia (Industry Engineering) Ilustre Colegio Oficial de Arquitectos de Galicia (Official Association of Architects of Galicia) Ilustre Colegio Oficial de Ingenieros de Caminos, Canales y Puertos de Galicia ((Official Association of Architects Civil Engineering of Galicia) Ilustre Colegio Oficial de Ingenieros de Minas del Noroeste de España – Delegación Galicia (Official Association of Mining Engineers of Northwest Spain – Galicia Branch)	+ 8.800 professionals	Professional Associations	Regional delegation Integrated in Spanish Structure
CEG -Confederación de Empresarios de Galicia	+150.000 enterprises	[Enterprises] Association	Regional delegation Integrated in SME and Spanish Confederation





TRUSTEE	MEMBERS	TYPE	KEY FIGURES OR COMENTS
INDITEX INDUSTRIA DE DISEÑO TEXTIL, S.A.	+165.000 employees	Large Enterprise	SECTOR: Textile PERATIONS Global 200 countries Publicly rated company STOCK MARKET VALUE: 180.000 M€
FINSA FINANCIERA MADERERA, S.A.	+3.000 employees	Large Enterprise	SECTOR: Wood processing and furniture components manufacturing; Timber industry. 80 Countries REVENUES:+ 1.200 M.
NATURGY ENERGY GROUP, S.A.	+ 6.000 employees	Large Enterprise	SECTOR: Electric Power Generation, Natural Gas Distribution, & Trading MARKET: 20 Countries; Publicly traded company; STOCK MARKET VALUE: > 25.000 M€



k-SDSS (Policy-Making & Investment Support)

1. Funds

- **Internal Capital:** Own funds to provide access to the system, communication and dissemination actions.
- **Public Funds:** To support detailed business plan definition and exploitation plan. In addition.
- **Private/Investment Funds:** to accelerate the time to market

2. Future Exploitation and Sustainability:

- Proof of Concepts funded by Local, Regional or National Governments and Public Authorities
- Strategic Consulting License to Policy Making Consultancy Companies
- Government Licences to Local, Regional and National Government and/or Public Authorities
- Corporate Licences for Large Enterprises

3. Long-Term Technical Sustainability and Maintenance

- **Modular Architecture:** The structure allows for low-cost expansion of the game's technical depth without rebuilding the entire interface.

4. Expected Actions

The expected actions after the project conclusions are summarized as follows:

- Set of meetings with consultancy companies
- Dissemination on internet channels: Klink's website and social networks as well as on ITG's website
- Communication in Sectorial Events. For Example, in Italian Climate Forums and Industrial Clusters Water Europe (Europe) II. MATCH (Strategic Collaboration Module)

IUSM (Regional Potential Analysis)

1. Funds

- **Internal Capital:** Own funds to provide access to the system, communication and dissemination actions.
- **Public Funds:** To support detailed business plan definition and exploitation plan. In addition.
- **Private/Investment Funds:** to accelerate the time to market

2. Future Exploitation and Sustainability:

- **Licensing/White Label or Traditional:** Annual fee for different potential customers:
 - Regional governments
 - Industrial Site
 - Large Companies
 - Technology Providers
- **Impact Fees:** Per-report charge for carbon/water footprint estimations.

3. Long-Term Technical Sustainability and Maintenance

- **Modular Architecture:** The structure allows for low-cost expansion of the game's technical depth without rebuilding the entire interface.

4. Expected Actions

The expected actions after the project conclusions are summarized as follows:

- Communication to Board Members of ITG (included above).
- Dissemination on internet channels: ITG's website and social networks



- Communication in Sectorial Events. For Example, in Water Europe (Europe) or the Spanish Water Technology Platform (National)

MATCH

1. Funds

- **Internal Capital:** Own funds to provide access to the system, communication and dissemination actions.
- **Public Funds:** To support detailed business plan definition and exploitation plan. In addition.
- **Private/Investment Funds:** to accelerate the time to market

2. Future Exploitation and Sustainability:

- **Customers:** Value Chain Actors (Waste Providers, H Value Product Consumers, Tech. Providers).
- **Subscription:** Monthly fee for companies to access verified contact data and advanced search.
- **Success Fee:** Commission based on economic savings from successful resource exchange.

3. Long-Term Technical Sustainability and Maintenance

- **Modular Architecture:** The structure allows for low-cost expansion of the game's technical depth without rebuilding the entire interface.

4. Expected Actions

The expected actions after the project conclusions are summarized as follows:

- Communication to Board Members of ITG (included above).
- Dissemination on internet channels: ITG's website and social networks
- Communication in Sectorial Events. For Example, in Water Europe (Europe) or the Spanish Water Technology Platform (National)

SMCO (Monitoring, Control & Optimization)

1. Funds

- **Internal Capital:** Own funds to provide access to the system, communication and dissemination actions.
- **Public Funds:** To support detailed business plan definition and exploitation plan. In addition.
- **Private/Investment Funds:** to accelerate the time to market

2. Future Exploitation and Sustainability

- **Annual Licence:** Per production line or asset under management.

3. Long-Term Technical Sustainability and Maintenance

- **Modular Architecture:** The structure allows for low-cost expansion of the game's technical depth without rebuilding the entire interface.

4. Expected Actions

The expected actions after the project conclusions are summarized as follows:

- Meetings with Clusters and Potential Customers to define and launch a POC (Proof of Concept)
- Communication to Board Members of ITG (included above).
- Dissemination on internet channels: ITG's website and social networks
- Communication in Sectorial Events. For Example, in Water Europe (Europe) or the Spanish Water Technology Platform (National)

