



D5.3 Policy Roadmap (based on 21 sites)

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Short description of the content

This Policy Roadmap builds on 21 Strategic Business Plans and examines key findings, barriers, and challenges for the implementation of transformative activities identified in Entrepreneurial Discovery Workshops (EDWs). It also highlights existing needs for shaping and supporting the implementation of new policy initiatives. Action items include immediate actions for demonstration of how RIS4Danu impacts selected sites and rolling out the Ris4Danue approach across Europe.

Provides Policy Road Map

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1 INTRODUCTION

BACKGROUND

Globalisation, technological advancements, and political upheavals have precipitated European structural transformations, leading to the widespread closure of industrial plants and industrial sites. These closures have had a profound socio-economic impact on workers and communities, particularly in regions with a long-standing industrial heritage like the Danube. This area, known for centuries of manufacturing and industrial activity, now faces significant challenges as many facilities shut down due to these global shifts. Such closures affect the immediate economy and disrupt the social fabric of the regions involved.

Historically, responses to plant closures have typically focused on reopening the facilities with new investment or repurposing them for community, cultural, or commercial uses. However, these sites also offer significant potential as anchors for bundling stakeholders' activities and knowledge to develop new solutions for a green and digital transition – with positive spill-over effects for the entire region. This development approach can strengthen the region's ability to simultaneously tackle economic, environmental, and social challenges, aligning with the goals of the European Green Deal. There are compelling arguments for implementing innovative and inclusive policy frameworks at recently closed industrial sites to maximise the potential of existing opportunities. Some of the arguments are as follows:

- Industrial sites retain both tangible and intangible value even after their closure. With their specific infrastructure and distinctive histories, brownfields form unique assets that can be revitalised through innovative activities. Structurally weak regions in particular should not forgo such assets.
- Following plant closures, local municipalities are tasked with crafting intelligent social and labour market interventions to mitigate the resultant shocks. An innovation-led revitalisation of these sites, focusing on new, sustainable value chains, offers significant and enduring support to these efforts.
- By its very nature, the termination of industrial activity acts as a catalyst for transformation. Harnessing this momentum to drive a broader transformation initiative can accelerate the region's industrial evolution toward a more sustainable, dynamic, and environmentally friendly development trajectory.
- Plans for sustainable industrial site revitalisation cannot only draw on large (financial) support schemes, such as the EU's Just Transition Fund (JTF). There is also an increasing trend among private investors and lenders to incorporate green and social ratings into their investment assessments.

SUSTAINABLE SMART SPECIALISATION FOR THE RE-OPENING OF INDUSTRIAL SITES IN THE DANUBE REGION – RIS4DANU

In the course of the 2022-2024 Horizon Europe project “Sustainable Smart Specialization for the Re-Opening of Industrial Sites in the Danube Region” (RIS4Danu), we were able to develop and test a novel and challenge-oriented methodology for plant revitalization. Based on a revised approach to Smart Specialisation (S3), adapted to the particular setting of disused industrial sites and oriented towards addressing wider social and environmental sustainability challenges, the RIS4Danu project facilitated the stakeholder-driven identification of transformational goals for disused industrial sites and the development of transformational roadmaps for their sustainable and innovative revitalisation.

This novel approach to industrial site revitalisation takes four crucial aspects into account¹:

- Better alignment of local (business) interests with regional strategic priorities;
- Reconciliation of business interests and opportunities for green economic growth;
- Identification of and building on existing (regional) assets and opportunities; and
- Identification of funding synergies and addressing barriers to innovation.

RIS4Danu provides a groundwork for the development of a transformative direction for industrial sites in the Danube region and for advancing green structural change in a place-based way. By working with 21 disused industrial sites in 11 European regions in nine Danube countries, we gathered first-hand experience in the decision-making processes on plant revitalization and developed a targeted workshop methodology based on Smart Specialisation and its inherent Entrepreneurial Discovery Process (EDP). Entrepreneurial Discovery Workshops (EDW) were conducted in each of the participating regions. They brought together stakeholders to develop transformative goals and ideas for the sites as a first step to a long-term journey to re-open the respective sites.

ROADMAP

RIS4Danu serves as a preparatory action, introducing a new, innovative approach to the revitalisation of industrial sites. It provides first-hand experience and guidance to place based policies that can be deployed across European regions. The report presents the results of 21 Strategic Business Plans developed for revitalising industrial sites in the Danube Region. It discusses the principal findings, obstacles, and challenges to executing the transformation initiatives which were highlighted in the Entrepreneurial Discovery Workshops (EDWs). The chapters offer vital lessons and recommendations for moving forward with preparing RIS4Danu for implementation. This includes measures to attract the investments needed for achieving the transformative objectives of selected Danube sites and demonstrating their transformative impacts. The document also outlines strategies to expand the RIS4DANU initiative throughout Europe.

The remainder of the report has been structured to present the RIS4DANU approach for the revitalisation of industrial sites. This is followed by a synthesis of the 21 Strategic Business Plans in Chapter 3. Chapter 4 delves into the key findings and insights gathered from these plans. The concluding chapter offers actionable recommendations for implementation. Additionally, summaries of all the Strategic Business Plans are provided in the annex.

¹ See Eichler, Martin; Foray, Dominique; Ziegler, Oliver (2024): Revitalisation of Disused Industrial Sites: Aligning Local Interests and Regional Priorities for Green Growth. A Workshop Concept based on Sustainable Smart Specialisation. Institute for Innovation and Technology (iit), Berlin, DOI: 10.23776/2024_04.

2 RIS4DANU APPROACH TO INDUSTRIAL SITE REVITALISATION

The methodology of the innovation policy tool of Smart Specialisation Strategy (S3) provided the starting point for such a novel approach, with an inclusive and interactive Entrepreneurial Discovery Process (EDP) at its core.

RIS4DAU approach engages regional stakeholders from business, science, government, and civil society—collectively known as the quadruple helix—to lead a structured discovery process. Through evidence-based analysis, regional assets, capacities, and challenges were assessed and aligned with sustainable transformation opportunities for each disused industrial site.² Stakeholders developed a transformative green vision for each site, defining new functions or business models, and crafting a strategic roadmap that includes investments, research, development, innovation, and educational initiatives. Subsequently, these insights are developed into Strategic Business Development Plans. These 20-page documents, essential for the sustainable reopening of industrial sites, encompass location-specific challenges, market research, and financial strategies. Additionally, this phase includes enhancing the transformational roadmap by identifying tailored funding synergies, policy recommendations, and a policy road map.

The RIS4Danu project conducted 21 Entrepreneurial Discovery Workshops (EDWs) across the 11 participating regions along the Danube River. Our novel approach takes four critical aspects into account to successfully transfer the S3 concept from a regional to the industrial site level: 1) Merging local business interests or local community needs, with regional strategic priorities for innovation and competitiveness. 2) Focusing on market potential for green growth and green business models, 3) building on existing assets and capacities 4) using public and private funding for revitalisation.

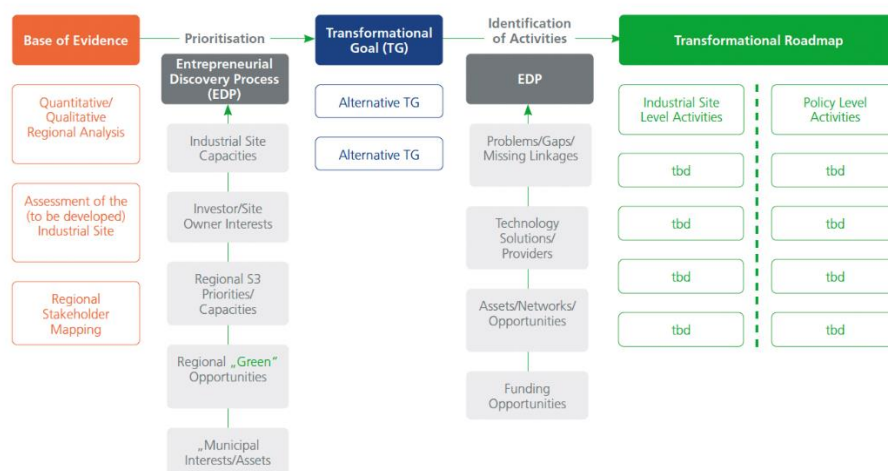


Figure 1: The RIS4Danu EDP Workshop Concept

Source: *Revitalisation of Disused Industrial Sites: Aligning Local Interests and Regional Priorities for Green Growth. A Workshop Concept based on Sustainable Smart Specialization: Martin Eichler, Dominique Foray, Oliver Ziegler*

² The robust analytical framework synthesises quantitative and qualitative data from various sources such as Eurostat, OECD, World Bank, and ESPON as well as country-specific sources. It provides evidence on i) regional economic fabric and trajectories in which industrial site is embedded ii) challenges and specific issues related to regional industrial structures and policies, iii) regional assets, strengths, existing place-based structures, and iv) barriers to implementing transformative activities.

3 SITE OVERVIEW AND TRANSFORMATIVE GOALS

The 21 Strategic Business Plans cover a wide range of sectors, from urban development to agriculture, including commodity production, infrastructure, and research and development. In addition, these plans contain various ideas that encompass a wide range of initiatives to build a more sustainable future for the region. While the Strategic Business Plans are each different, the similar patterns were identified that are relevant for the further consideration of the reuse of other brownfield sites.

A short summary of the sites and their related transformative goals are presented in the table below with detailed narratives following.

Project name	Region	Project stage	Readiness level	Main sector it addresses	Relevant main subsectors	Main activities
Green mine	Ústí nad Labem, Czech Republic	Development	Between 5 and 6	Renewable energy and sustainability	Renewable energy supply	Hydrogen energy production
Refurb campus for large facilities and commerce 4.0 at Voith	St. Pölten, Austria	Definition	Between 1 and 2	Urban development and sustainability	Construction of research facilities	Innovation hub
Hemp Mill Komádi	Észak-Alföld, Hungary	Definition	Between 1 and 3	Agricultural and agribusiness	Agro - related activities	Hemp processing
Hammerstatt-Innovations-Quartier at Slaughterhouse Villingen-Schwenningen	Villingen-Schwenningen, Germany	Design	Between 4 and 5	Renewable energy and sustainability	Renewable energy supply	Hydrogen energy production
Ceramics recycling hub ("Ceramics Hub") at Laufen Areal	Laufen AG, Austria	Design	Between 2 and 3	Goods manufacturing and infrastructure	Ecological and socio-cultural utilization of the area	Green spaces and recreation areas
Heuberg community campus at Hermle Areal	Schwarzwald-Baar-Heuberg, Germany	Design	Between 3 and 4	Urban development and sustainability	Construction of recreational facilities	Tinker Garden
Wood Crafting Campus at Priemyselny park	Banská Bystrica, Slovakia	Design	Between 4 and 5	Goods manufacturing and infrastructure	Ecological and socio-cultural utilization of the area	Furniture Production/Design/Recycling
Kassai hall joint research and training lab (KHJRT)	Hajdú-Bihar County, Hungary	Design	Between 3 and 4	Research and development	On-site education	Vocational training
Green and Inclusive Ukraine Hub at GEMER Industrial Park	Banská Bystrica, Slovakia	Definition	Between 1 and 3	Urban development and sustainability	Industrial manufacture facility	Manufacturing of green components for infrastructure
Transformation Center at Ústí nad Labem	Ústí nad Labem, Czech Republic	Design	Between 4 and 5	Research and development	Technological platform	Smart data and information services
Milk Powder Plant Berettyóújfalú	Észak-Alföld, Hungary	Definition	Between 4 and 5	Agricultural and agribusiness	Technological platform	Recycling; skills development
Thermal Power Plant Nord-Est County	Slănic-Moldova, Romania	Design	Between 3 and 4	Urban development and sustainability	Infrastructure Integration	Community hub and health services
Water Treatment Plant Nord-Est County	Slănic-Moldova, Romania	Design	Between 4 and 5	Urban development and sustainability	Industrial manufacture facility	Sustainable water treatment hub and information services
La Centrala Artelor / Distribution Power Plant Nord-Est County	Slănic-Moldova, Romania	Development	Between 5 and 6	Renewable energy and sustainability	Ecological and socio-cultural utilization of the area	Furniture Production/Design/Recycling
Automoto Association	East Serbia	Design	Between 3 and 4	Urban development and sustainability	Ecological and socio-cultural utilization of the area	Preservation and promotion of the cultural and natural heritage
CER Factory	Western Serbia	Development	Between 5 and 6	Agricultural and agribusiness	Infrastructure Integration	Sustainability hub
POUNJE Areal	Sisačko-moslavačka	Definition	Between 1 and 3	Urban development and sustainability	Agro - related activities	Food Industry Campus
Creative Park Drava (CPD)	Maribor, Slovenia	Definition	Between 1 and 3	Urban development and sustainability	Infrastructure Integration	Circular economy hub
Oil Factory	East Serbia	Design	Between 4 and 5	Urban development and sustainability	Ecological and socio-cultural utilization of the area	Enhanced Facilities
Mejle textile factory (MTT)	Maribor, Slovenia	Definition	Between 1 and 3	Urban development and sustainability	Infrastructure Integration	Integrated Urban Development
TVIN Areal	Virovitičko-podravška	Design	Between 4 and 5	Goods manufacturing and infrastructure	Infrastructure Integration	Center for Future Furniture & Technology

Table 1: Summary of the 21 sites and the development ideas discussed during the EDWs*. Source: RIS4Danu Strategic Business Plans (D4.3)

3.1 Maturity

The maturity of the ideas discussed during the EDWs is diverse and can be categorised into three main development stages: definition, design, and development. Table 1 provides the location and the development stage for the sites.

- **The definition stage** is characterised by exploration and refinement of the project’s initial concept. The primary aim is to define the main objectives of the execution of the project, the involvement of pertinent partners, and the level of support garnered from key stakeholders. Projects in this stage are distinguished by their identification of potential ideas and their efforts to craft a more precise and structured project formulation. The projects under this stage represent 33%.

- **In the design stage** the ideas represent well-defined concepts and objectives. The emphasis now shifts towards the detailed design of the undertaking. This phase encompasses activities such as market and demand analyses, technical evaluations, economic and financial assessments, as well as identification of functional and operational requirements and limitations. Notably, the majority of the projects are situated in the design stage, comprising 52%.
- **The development stage represents** just 24% of the ideas. It is the phase where all necessary resources are arranged, partners and stakeholders are engaged, and all studies have been made already. It is followed by project implementation.

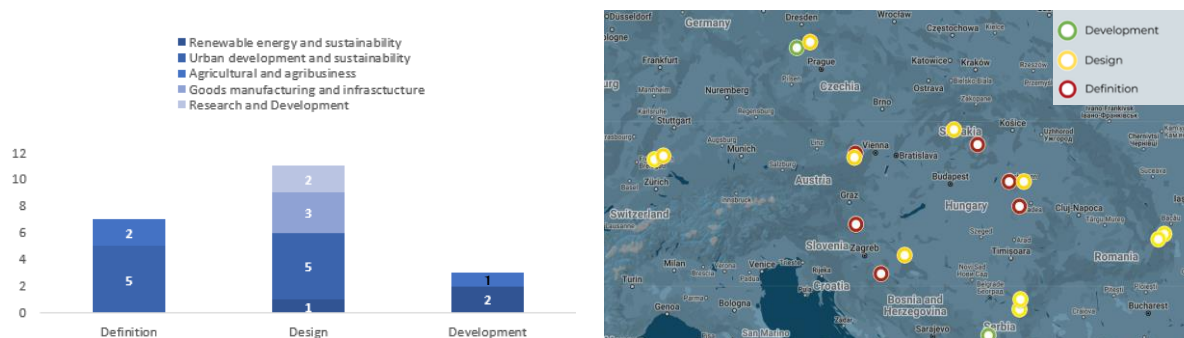


Figure 1: Sites' location and distribution by developing stage, source: RIS4Danu Strategic Business Plans, own elaboration.

3.2 Sectors

In addition, each site's focus can be categorised into five main sectors: Renewable Energy and Sustainability, Urban Development and Sustainability, Agriculture and Agribusiness, Manufacturing and Infrastructure, and Research and Development. Figure 2 displays the distribution of the maturity of the ideas for re-opening the sites.



Figure 2: Main sectors of the sites and their locations in the Danube region, source: RIS4Danu Strategic Business Plans, own elaboration.

- **Urban Development and Sustainability (47% of projects):** This sector drives the vision of future cities, emphasising resilience and versatility. The portfolio features sustainable multifunctional spaces, business hubs, educational and training centres, co-working arenas, and diversified living and commercial quarters.
- **Research and Development (10% of projects):** Within this category, projects are geared towards state-of-the-art facilities, prominently featuring an electromobility lab and cutting-edge robotics research infrastructure.

- **Goods Manufacturing and Infrastructure (10% of projects):** This segment prioritises integrative production ecosystems. With a spotlight on ceramics and wood, the goal is to facilitate synergy between companies, amplify sectoral prominence, fuel material research, and anchor specialised production arenas. The complementary “Agriculture and Agribusiness” projects encompass green hydrogen innovation, contemporary farming practices, sustainable energy exploration, and community immersion. The final piece, under "Renewable Energy and Sustainability," zeroes in on the sustainable processing of hemp and production of renewable energy (refer to Figure 3).

3.3 Ownership

Most of the industrial sites in RIS4Danu are privately owned. Furthermore, there are a few other Strategic Business Plans under different ownership schemes. For example, there is a site, which is owned by the municipality (Heuberg Community Campus at Hermle Areal). In another case, the industrial site has a public and private shareholder (Wood Crafting Campus at Priemyselny Park).

Annex 1 includes a summary of all Strategic Business Plans according to their current state of development.

4 FINDINGS AND INSIGHTS

While the Strategic Business Plans from stakeholders across the 21 regions varied greatly, a common pattern or set of characteristics was observed in most plans. The findings are summarised below.

Finding 1: Digital and green transformation are key drivers and provide promising opportunities.

Digital and green transformations are prominently featured as central themes across the analysed Strategic Business Plans. This trend indicates a paradigm shift where sustainable industrial transformation is increasingly viewed not only as a regulatory necessity but as a significant strategic opportunity. It is noteworthy, however, that the interpretations and roles of sustainability and industrial transformation differ across concepts.

Finding 2: Most Strategic Business Plans are at an early stage.

Most of the Strategic Business Plans are in the initial stages of development, predominantly within the definition or design phases (refer to Figure 2). While a few plans demonstrate more advanced stages with well-defined concepts and objectives, none yet represent comprehensive business models. The early stage of these plans often reflects uncertainty in technical feasibility and a lack of detailed focus, particularly in plans with broad, non-specific objectives. This raises concerns about the feasibility of fully addressing all goals during implementation. Nevertheless, irrespective of the number of stated goals and activities, a strong interdependence amongst them was observed, suggesting potential synergistic benefits in future activities.

Finding 3: Owners prioritise new goals for the industrial sites, which bear little relation to their previous usage.

The extent to which the Strategic Business Plans build on historically developed competencies and exploit this reorientation of industrial sites varies considerably. In most instances, the

transformative goals of the Strategic Business Plans have relatively little to do with the former functionality of the industrial sites. One exception is the transformative goal to turn the former ceramics plant in Wilhelmsburg (Lower Austria) into Circular Ceramics Hub.

Finding 4: Key drivers, core partnerships, and the tasks of key stakeholder groups remain unclear.

Active participation in EDWs underscores the need for a deeper understanding of the reasons for this involvement. Success hinges on identifying a key leader/driver who is not necessarily the owner of the industrial site. It is crucial that this leader has an ongoing commitment to guide the initiative and the ability to bring together all necessary parties. Furthermore, while the Strategic Business Plans often concentrate on site owners, it is vital to involve local and regional policymakers as well to forge effective partnerships. Understanding and aligning the site owners' goals with broader economic development or innovation policies is essential.

Whether an industrial site is owned by the municipality or not, the policy makers and municipalities play an essential role in all plans. The policy makers provide the necessary soft and hard infrastructure and can often create a political and legal framework which makes the implementation of the Strategic Business Plans successful. For example, this can be useful in the context of the circular economy, when a municipality enacts local legislation that promotes “Reduce, Reuse, Recycle”.

The evaluation of the Strategic Business Plans showed that municipalities were often unaware of their future role and that regional policy makers were mostly absent. In plans where the Strategic Business Plans are to be further implemented, it is crucial to agree on a definition of roles and tasks for the municipalities and to coordinate them with all the stakeholders involved. The EDWs have also shown that most stakeholders still don't have sufficient knowledge on how to act together in the context of EDW, what the corresponding distribution of roles looks like, and what tasks or purposes the instrument of the EDW have.

Finding 5: Challenges in financing strategic business plans despite a mature funding landscape.

This report evaluates the funding needs delineated in the Strategic Business Plans against existing funding opportunities across local, national, and European contexts. The objective is to pinpoint discrepancies and potential funding gaps. A prominent observation is that most of these plans require a blend of private and public funds. Private funding because they involve commercial business ideas, and public funding because the essential elements of most plans involve added value for the region and citizens. However, the analyses of the Strategic Business Plans also made it clear that obtaining funding from local and national sources is very difficult. Local authorities do not have the means necessary. This is due to the fact that the current structural funds for the programme period 2021 - 2027 are already allocated for other measures (see Operational Programmes of the project partners). In addition, industrial sites are mainly privately owned, which makes public investment by local or national actors difficult.

Although there is a wide variety of funding programmes, there are only a few that focus on industrial sites or that can support the bulk of the necessary investments (See Chapter 5 and Annex 1). Most EU funding programmes could finance smaller aspects of the implementation of the Strategic Business Plans (e.g. R&D activities of a digital hub), but only after the main investments have already been covered by others. A notable EU fund dedicated to the transition towards a low-carbon economy is the Just Transition Mechanism (JTM). However, feedback from funding experts highlights the JTM's complexity, protracted nature, and its demanding requirement for national-level co-financing.

Finding 6 Investment, gaps, and skills scarcity.

Even though most of the Strategic Business Plans showed similar patterns and approaches, the implementation and financing have to be assessed individually. An important take-away from the EDWs is the realisation that not only business modelling, but also financing, is a challenge. Due to the very different nature of each case, different funding/financing approaches are required. An in-depth analysis of the existing financing instruments at the European level underlines the high level of complexity, which is also clearly overwhelming for most stakeholders. A lack of funding, and uncertain and lengthy regulatory processes deters municipalities from planning investments in green and digital transitions.

European funding schemes primarily serve as supplementary tools, specifically targeting niche sectors (e.g., to develop a new concept for ceramics or battery recycling equipment with higher precision or efficiency than what is currently available on the market). However, many investments go beyond the coverage of these European funds, leaning heavily on private sector contributions. A salient challenge in this landscape is the evident skills gap in dual transition fields, because it demands expertise spanning environmental, technical, engineering, and sustainable business modelling, among others. Notably, eleven key industrial sites either lack these resources or have not harnessed them effectively. Such constraints underscore the significant funding gap, further strained by the often-limited resources of local actors.

5 CONCLUSIONS AND RECOMMENDATIONS

Brownfields across Europe represent a significant opportunity for green transformation of regions and industries. A green, innovation-driven approach to revitalising industrial sites holds particular value for the European Cohesion and innovation policy, which empowers municipalities and regions to develop their own strategies for structural change and transformation in alignment with the EU's strategic objectives. It raises the question on how to align regional smart specialisation strategies with municipality level intervention with positive spill-over effects for the entire region.

RIS4Danu's analysis of the 21 Strategic Business Plans reveals a robust pipeline of ideas for repurposing unused industrial sites. These plans outline several innovative and critical transformational goals, emphasising the necessity for their diligent implementation. Despite the diversity of these ideas, there is a notable consistency in their transformative goals and actions. Moreover, the key challenges identified across these plans are largely comparable, underscoring common areas that demand strategic focus for successful execution.

The Strategic Business Plans underscore their critical role within the EDP. The RIS4Danu project and methodology are essential exercises in two respects: On the one hand, it demonstrates how to bring together local stakeholders and interested parties to discuss and identify transformative goals for the revitalisation of industrial areas. On the other hand, it shows how difficult it is to transform brown sites into green sites. Strategic business plans serve as a tool for structuring the ideas and goals that are connected with the transformation of industrial sites. The project has also shown how complex the path from an idea to the successful revitalisation of an industrial site is.

The Green Transformation at Ris4Danu industrial sites faces three key challenges that must be effectively addressed to transform sustainability ideas into actionable business plans. Only in a few plans is there a straightforward approach. Instead, most plans represent a series of sustainability-related ideas that need to be streamlined and turned into business plans. It is imperative to address these challenges effectively; failure to do so would render the Strategic Business Plans merely aspirational, rather than operational. Those challenges are:

- 1. Refining the early-stage Strategic Business Plans.** It remains a major challenge to develop Strategic Business Plans in such a way that they are proven to have a clear and realistic framework for investment, which would motivate concrete public and private investors to participate. While politicians often aim for multiple outcomes, this can dilute focus and make it more difficult to achieve the key objective. This requires a structured process of engagement with key stakeholders. Realistic investment opportunities need to be considered from the outset. For effective implementation management, it is important to emphasise the value of maintaining discipline and simplicity in case objective
- 2. Role of municipalities.** Eleven plans showcase the increasing role of municipalities in the green and digital transitions of industrial sites. To nurture sustainable practices across urban planning, energy efficiency, circular economy, and transportation, the level of expertise needs to be enhanced, which creates a significant need to also enhance the role of the municipality. As noted above, the role of the municipality was not recognised in the partnerships with the key drivers as they were defined in the Strategic Business Plans. However, both are necessary to drive the implementation process forward. If there is no key driver committed to the whole process, it will be difficult to form such partnerships. Such partnerships are usually based on successful collaboration between regional, local, and national actors but the possibility of these partnerships is challenged by the current approach which is emphasising regions without including the role of the municipalities in the green and digital transformations.
- 3. Access to Green financing.** Smart Specialisation policies, with their excessive focus on research and innovation, generally neglect the need for investment, as is also reflected in the RIS4Danu business plans. The main challenge is and will remain securing adequate green financing for revitalising industrial sites, including physical infrastructure and commercialisation of technologies or products. Firstly, because the Strategic Business Plans are still at an early stage. Secondly, realistic financing options have not yet been considered. The Strategic Business Plans are more like a list of ideas that have not yet been tested for their financial viability. Thirdly, investments in industrial sites are inherently complex. This is particularly the case when the objectives of the owners of the sites are different from those of the local or regional policy makers. In other words, securing funding may be less complex if the revitalisation of the sites is in line with the objectives of RIS3 and contributes to these objectives.

Compounding these difficulties is the limited scope of current public funding options, which fall short of addressing the multifaceted needs of these projects. Moreover, there is a gap in the capacity of participating regions to navigate the intricate funding landscape, particularly in understanding the roles and priorities of significant players like the European Investment Bank and national public development banks within the Green Deal framework³. These banks, because of Green Deal, must prioritise environmental and social dimensions in their lending decisions, underscoring the need for a strategic blend of funding sources.

³ Such as SID – Slovenian Export and Development Bank, L-Bank (State Bank of Baden-Württemberg), Bayerische Landesbank (BayernLB)

5.1 RECOMMENDATIONS

Recommendation 1: Obtaining a clear commitment from actors towards a strategic partnership. Irrespective of the final design of the Strategic Business Plans and their financing, a clear and long-term commitment of key actors is needed from the outset. In doing so, it is important to take into account the different interests of the actors and to encourage them to act together. So far, this kind of commitment has not been made clear in any of the Strategic Business Plans. From this commitment, key drivers and partnerships can be formed to take ideas forward, formulate a clear industrial business case, and secure funding.

Recommendation 2: Focusing and streamlining the Strategic Business Plans to achieve the greatest possible transformative impact. Overall, most of the Strategic Business Plans are a collection of ideas for transformative goals and activities, but are still at an early stage. This is good since it is important to establish a trustworthy process from the beginning. But now, these Strategic Business Plans need to be further developed and streamlined. The latter is important in order to achieve the greatest possible transformative impact for the industrial site with the limited resources available. In this context, a limited number of transformative goals with high interaction should be considered.

Recommendation 3: Defining the role of and business model for the municipalities. Municipalities will play a pivotal role in fostering sustainable measures across sectors, such as urban planning, energy efficiency, circular economy, and transportation. They can play different roles and conduct different tasks. The latter will depend on the business model envisioned for the municipality.

- **The municipality as the main investor.** In this case, the municipality is the main actor. As the owner of the industrial site, it has every opportunity to implement the concept as it sees fit. At the same time, the municipality acts as the primary investor. This can be particularly useful if the business model of the industrial site is not solely based on commercial benefits but also has a focus on promoting public welfare.
- **The municipality as part of a public-private partnership.** Some strategic business plans suggest that both private and public interests are considered. The case of the Berettyóújfalu milk powder factory is a good example. It contains a more commercially oriented strategic line (sustainable packaging production site based on a circular economy) and a more socially oriented strategic line (Social Innovation Hub for a liveable and sustainable city of Berettyóújfalu, including a senior housing complex and a childcare facility to meet the growing demand in the city). Here it is clear that this hub does not have a purely commercial objective and can make an important contribution to the common good. This is undoubtedly a challenge for the public sector and for the municipality as one of several investors. A public-private partnership is the obvious solution to ensure joint action despite differing interests. Within the framework of an ongoing public-private dialogue, it could be ensured that all relevant actors (i.e., not only the investors) regularly exchange information and make and implement joint decisions for the entire operation of the industrial site for everyone's mutual benefit.
- **The municipality as developer and initiator, but not as investor.** A third option is for a municipality to act as an instigator and project developer, but not as an investor. This is often a relevant role for a municipality. Many industrial parks are based on this division of roles. Even if the municipality does not act as a direct investor, it must have a high degree of entrepreneurial thinking.

Recommendation 4: Involving local and regional policy makers. Although there was a high level of interest in the EDW, local or regional politicians were only present in a few plans. Experience has shown that regional policy-makers can make a significant contribution to the process of implementing Strategic Business Plans on the industrial site level. This applies not only to political lobbying, but also to public co-financing. Particularly at the level of RIS3 strategies (regional or national), it is important to actively involve relevant representatives and give them the opportunity to shape Strategic Business Plans accordingly. Ideally, the

implementation of Strategic Business Plans can be an instrument for a strategic approach to the transformation of an entire region (Strategic Business Plans as a tool for local economic development). By doing so, key constraints and barriers for the successful implementation of a given Strategic Business Plan can be addressed at the proper policy level.

Recommendation 5: Ensure coherence between site transformation and local/regional development strategies. Experience shows that the revitalisation of industrial sites can be facilitated when there is a high degree of coherence between transforming the site and local/regional transformation. This is particularly the case when site regeneration can be used as an important element in the implementation of the local/regional transformation processes. Therefore, when developing strategic business plans, care should be taken to ensure that the transformative objectives are aligned with local/regional innovation/transformation strategies. This not only facilitates bringing together stakeholders from all levels (site, local, and national) with a common goal, but also ensures the necessary financial mix of public and private investments.

Recommendation 6: Bridge gaps for green and digital transitions. Address the investment considerations early and involve essential financial partners. While many Strategic Business Plans currently lack specific investment details, it is crucial to address these considerations early on. Delaying such discussions until later phases could hinder project progression. The synthesis emphasises a shortage of expertise among stakeholders regarding investment opportunities provided by public development banks. Local partners are advised to address investment aspects immediately, integrating essential financial partners like development banks. This facilitates mutual dialogues on public-private investment interests. An interdisciplinary approach is vital to devise a comprehensive investment plan, especially one that balances environmental, social, and economic factors. This proactive local collaboration is a stepping stone to financing the green digital transformation of sites. Development banks need to shift from passive roles—merely responding to demands (project takers)—to becoming development partners of brownfield industrial site projects.

Recommendation 8: Explore other financial options outside of EU funding schemes. The Strategic Business Plans primarily considered EU funding schemes as options to co-finance the mandatory investments. However, there are many more options, especially ones which come from private sources. It is recommended to further explore options like social or environmental impact bonds or other new financial tools connected with the green transformation. Several banks have already issued green bonds, like NLB Slovenia. The current EU Green Taxonomy has increased the interest of private investors due to the role that the taxonomy regulation plays in green transformation. Integrating financial partners in the strategic partnership also ensures proper competences in this regard.

Recommendation 9: Adapt existing funding schemes to support local development. Regions and their actors transform in many ways. Industrial sites can play an important role as enablers for industrial transformation since they can also impact an entire region. While there are many funding programmes for innovation and R&D on the regional, national, and European levels, there is still an exception when it comes to investments linked to industrial site-based transformation. Existing funding mechanisms need to be adapted in order to facilitate future investments in the course of the regional innovation processes.

5.2 STRATEGIC ACTIONS TOWARDS THE IMPLEMENTATION OF THE RIS4DANU APPROACH

In the course of RIS4Danu, we were able to develop and test a novel and challenge-oriented methodology for industrial sites revitalisation. We believe that the RIS4Danu project has the quality and innovative capacity to be transformed into a large-scale Europe programme.

Developed in collaboration with an advisory board and participants from the closing conference on April 23, 2024, we propose two strategic actions: 1) The focus of actions should remain on the revitalisation of disused industrial sites as RIS4Danu successfully demonstrated the effects, which changes at local levels can have on the sustainable development of a whole region, and 2) rolling the RIS4Danu approach out across Europe. Effective and timely implementation of these actions is expected to stimulate investments and the attainment of the Green Deal goals by 2030. Overall these actions combine three dimensions of the place-based approach, which are

- Supporting local communities facing industrial plant closure in coping with the economic, environment, and social effects;
- Facilitating green and digital industrial transition and sustainable growth in EU regions; and
- Contributing towards the convergence of European regions that differ greatly in terms of their economic development and prosperity.

ACTION 1: Transform RIS4Danu Business Plans into Investment Plans 2024 -2025

Objective: Implement small-scale programmes in cooperation with interested 2-3 RIS4Danu sites to convert RIS4Danu business plans into actionable investment plans, showcasing economic and environmental impacts.

Actions:

- Establish strategic partnerships with key stakeholders including municipalities, banks, and investors to support green initiatives.
- Develop comprehensive business plans in collaboration with local governments and financial institutions, detailing project specifics such as financial structures, expected outcomes, and environmental benefits.

Expected Outcomes:

- Enhanced capacity of local regions to attract investments in green projects.
- Creation of demonstrable models of economic and environmental success that can be replicated across other regions in the Danube and beyond.

ACTION 2: Rollout of RIS4Danu across Europe

Objective: Launch the RIS4Danu programme on a large scale across Europe to revitalise brownfields. The goal is to align the action with macroregional programmes like INTEREG Alpine Space, Danube, Central Europe to overcome existing founding barriers to investments in green and digital transformation.

Actions:

- Define the programme in collaboration with INTEREG
- Establish the industrial sites revitalisation green fund: Engaging Funding Agencies and Banks.

Expected Outcomes:

- Deployment of a new Ris4Danu model across Europe to increase investments in green projects with the focus on brownfield investments.
- Enhanced support for local communities and municipalities to achieve Green Deal targets and improve the competitiveness of industries and companies, while also enhancing the well-being of citizens.

ANNEX 1: Summary of the Strategic Business Plans

DEVELOPMENT STAGE

GREEN MINE

Region: Ústi nad Labem, Czech Republic

Sector: Renewable Energy and Sustainability

Ownership: Privately owned

Vision: To repurpose the ČSA surface mine into a sustainable and attractive region.

Main transformative goals:

The main transformative goal of this strategic business plan is to heal the former coal site for future generations by returning it to a better condition than when the mining took it over. This is essentially detailed in three specific transformative goals:

- Renewable energy supplies via floating, land-based, and other photovoltaic power plants; combined with pumped and other storage systems and hydrogen production.
- Site-based economic and social empowerment, including CO2-free residential buildings, specially profiled high-tech industrial structures, and other related activities.
- Ecological and socio-cultural utilization of the area, including landscaping activities.
- Green Mine has a vision to build what was originally a coal region into a modern, more diverse economic and living region, which will attract businesses and people.

LA CENTRALA ARTELOR / DISTRIBUTION POWER PLANT NORD-EST COUNTY

Region: Slănic-Moldova, Romania

Sector: Renewable Energy and Sustainability

Ownership: Privately owned

Vision: To create a Sustainable Social Hub that combines artistic facilities and activities with a profit-oriented café.

Main transformative goals:

The main transformative goal of the revitalization of the Distribution Power Plant is to become a shared facility for creative and cultural activities as well as a café to linger for the local tourist community. In particular, the combination of the art studio and the café will enhance Slănic-Moldovas holistic attractiveness for residents and visitors. This is essentially detailed in three specific transformative goals:

- **After School Care Centre:** The Distribution Power Plant will build on past activities in providing care and after-school education services for local children. This idea arose because of the fact that members of the artist's association are (voluntarily) working in the education sector.
- **Spa shop:** The Distribution Power Plant will transform into a local shop for spa products and information on the local mineral springs, connecting to the asset of being located in a health tourism area.
- **Sustainable Social Hub:** The Distribution Power Plant will further develop into an art studio as well as a showroom for contemporary art. While these visions build on the existing usage of the facilities, the novelty would be an adjacent café and concept store, where tourists and residents could go out but also buy some of the upcycled products and artwork.

CER FACTORY

Region: Western Serbia

Sector: Agricultural and agribusiness

Ownership: Owned by the state of Serbia

Vision: To create a Sustainable Agri-Food Campus as a dynamic hub where farmers, entrepreneurs, researchers, and policymakers collaborate to advance sustainable agri-food practices, promote economic development, and nurture environmental stewardship.

Main transformative goals:

By leveraging bio-based products, renewable energy sources, and intelligent agricultural techniques, the campus aims to create a resilient and prosperous future, addressing critical challenges. The key transformative goals for making a Sustainable Agri-Food Campus are as follows:

- **Focus:** R&D on Machinery and Equipment for Smart & Sustainable Agriculture—Investing in machinery and equipment tailored for smart and sustainable agriculture promotes innovation and efficiency in farming practices, contributing to long-term environmental and economic benefits.
- **Education Component:** Upskilling Component (vocational training)—Implementing vocational training programs addresses skill gaps and empowers stakeholders with the knowledge and expertise needed to adopt advanced agricultural technologies effectively.
- **Entrepreneurship Component:** Acceleration and Mentorship Program for Food-related Start-ups—Supporting food-related start-ups through acceleration and mentorship programs fosters entrepreneurship, innovation, and the development of a vibrant agri-food ecosystem.
- **Energy Supply:** Renewable Energy Self-sufficiency—Striving towards renewable energy self-sufficiency ensures sustainable operations at the Agri-Food Campus, reducing their carbon footprint and enhancing resilience against energy-related challenges.

DESIGN STAGE

HAMMERSTATT-INNOVATIONS-QUARTIER AT A FORMER SLAUGHTERHOUSE

Region: Villingen-Schwenningen, Germany

Sector: Renewable Energy Supply

Ownership: Privately owned

Vision: To recover the abandoned historic Slaughterhouse and create a Science Park specialized in green innovations.

Main transformative goals:

The transformative goal is to create a multifunctional innovation quarter that incorporates a flexible and modular mix of uses in a historic site that was nearly forgotten. This will include a dedicated space for experimentation and research in hydrogen energy. The construction of indoor and outdoor event areas that can host a variety of events. And the construction of a dedicated start-up center and coworking office that would provide a supportive environment for start-ups and freelancers from various industries, encouraging cross-sector collaboration and innovation. The establishment of the hydrogen (H₂) space, will provide a dedicated space for experimentation and research in renewable energy. These spaces will provide platforms for training, knowledge transfer, and start-up activities. They will ensure that the quarter becomes a hub for new ideas and inventions, encouraging both local and international business models.

CERAMICS RECYCLING HUB ("CERAMICS HUB") AT LAUFEN AREAL

Region: Laufen AG, Austria

Sector: Goods Manufacturing and Infrastructure

Ownership: Privately owned

Vision: To create a ceramics hub as a competency center for the processing of ceramics and the reuse of complex materials.

Main transformative goals:

Overall, the main transformative goal focuses on converting the site into a ceramics-recycling hub ("Circular Ceramics Hub"), whereby a research and training campus for complex materials will be operated entirely with renewable energies. The following is a list of the main transformative goals that came up in the EDW's discussion:

- **Ceramics Competence / Ceramics Hub:** The goal is to strengthen the regional ceramics industry by implementing a site with various application areas such as construction, design, and technology.
- **Circular economy (“challenging materials”):** To reuse and recycle ceramics and other challenging materials. The intention is to develop ideas for promoting a circular economy, sustainability, and resource efficiency.
- **Education campus (regional needs / materials management):** Establishment of an education campus that targets the regional needs in relation to materials management and ceramics.
- **Renewable energy self-sufficiency:** The use of renewable energy sources such as solar and hydroelectric energy in the ceramics industry.
- **Urban integration / traffic concept:** To integrate a sustainable urban ceramic production site and a ceramic hub. The vision includes multimodal transport solutions, intelligent logistics systems, and sustainable mobility concepts.

HEUBERG COMMUNITY CAMPUS AT HERMLE AREAL

Region: Schwarzwald-Baar-Heuberg, Germany

Sector: Urban Development and Sustainability

Ownership: Owned by Gosheim Municipality

Vision: To develop an inclusive community campus with diverse areas and activities. Including the creation of a mixed-use neighborhood for intergenerational living. The site also aims to establish an energy community for renewable power generation to ensure functionality and sustainability of the campus.

Main transformative goals:

During the discussions of the EDW various transformative ideas around the redevelopment of the former industrial site in Gosheim were identified.

- **Firstly, there was a significant emphasis on "Gemeinschaftliches Wohnen," or communal living.** This could include shared living spaces for company employees, intergenerational housing, or multicultural housing. This goal aligns with the broader need for housing in Gosheim and to enhance the quality of life for its residents.
- **The second goal was the formation of an "Energiegemeinschaft," or energy community.** There was a clear consensus on the need for sustainable and eco-friendly practices in the redevelopment project. This could involve the use of renewable energy sources, energy-efficient buildings, or collective arrangements for energy generation and consumption.
- **Thirdly, the creation of "Co-Working Spaces / Shared-Service Centers" on the site.** Given Gosheim's rich industrial heritage and the presence of major companies in the region, there is a need for spaces that promote collaboration, innovation, and entrepreneurship. This goal could involve the development of co-working spaces for commuters, a start-up center, or shared facilities for business services. Lastly, there was enthusiasm for creating a "Tüftler-Garten," or a tinker's garden. This goal reflects the desire for a space where people can come together to innovate, experiment, and learn. It could be a shared maker-space or an area for community workshops, tying into the themes of creativity, lifelong learning, and community engagement.

WOOD CRAFTING CAMPUS AT PRIEMYSELNY PARK

Region: Banská Bystrica, Slovakia

Sector: Goods Manufacturing and Infrastructure

Ownership: Approx 65% is owned by the Municipality of Hnúšť'a. Another 35% is owned by a private company

Vision: To build a wood campus intended to serve as the main area within an industrial park, solely dedicated to activities related to wood processing and related industries.

Main transformative goals:

The transformative goals envisioned in the EDW conversations, were related to the creation of a thriving complex for all wood-related industries. The wood crafting hub will encompass a variety of sites and activities, including:

- **Furniture Production/Design/Recycling:** A space for the creation and design of eco-friendly furniture and the implementation of recycling practices.
- **Wood Eco-House Production:** A production line for the construction of eco-friendly partially prefabricated wooden frame structures for prefabricated building using sustainable wood materials.
- **New Products:** An industrial manufacturing facility to produce wood applications for cars, especially fiber-based materials. Different fiber-based materials will be designed, promoting eco-friendly and lightweight solutions.
- **Wood-based Energy Production:** A wood pellet production facility.
- **R&D Labs for New Wood-based Materials (e.g., Fiber):** State-of-the-art research and development laboratories that will focus on discovering and refining new wood-based materials.
- **(Inclusive) Education Programs for Wood Crafting:** The campus will offer educational programs, fostering skill development and inclusivity.

KASSAI HALL JOINT RESEARCH AND TRAINING LAB (KHJRT)

Region: Hajdú-Bihar County, Hungary

Sector: Research and Development

Ownership: Privately owned

Vision: To reactivate the former Hungarian Rolling Bearing Works Industrial Hall by converting it into a support facility for electro mobility.

Main transformative goals:

The key talking points that came up in the EDW's discussion between the stake- and shareholders during the workshop are listed below:

- **Strong Service Center:** The Kassai Hall will serve as a platform for shared services by providing space for offices and workstations.
- **Electro Mobility Support Facility:** The Kassai Hall will provide offices and workstations for services around electro mobility and the development of electric vehicles in the Debrecen region. This includes, in particular, the areas of vocational and further training, qualification, and R&D.
- **Energy Storage and Management Hub:** The Kassai Hall will serve as a hub for the further development of energy storage solutions, from R&D through experimental set-ups to implementation and subsequent management.

TRANSFORMATION CENTER AT ÚSTI NAD LABEM

Region: Ústi nad Labem, Czech Republic

Sector: Research and Development

Ownership: Privately owned

Vision: Urban development through the renovation of a former high school building into a Transformation Research Center.

Main transformative goals:

The transformative goal of this strategic business plan is to create and support an innovative Entrepreneurship Center that includes a Robotics and Testing Laboratory. The Transformative Research Center will support start-ups and advanced enterprises, focusing on increasing their technological competence.

THERMAL POWER PLANT NORD-EST COUNTY

Region: Slănic-Moldova, Romania

Sector: Urban development and sustainability

Ownership: Owned by the municipality

Vision: To create a Digital/Online Health Centre. This initiative aims to expand the market reach of existing health offerings, fostering customer loyalty and engagement.

Main transformative goals:

- **Expand Online Health Platform Users:** The objective is to achieve an increase in registered users on the Digital/Online Health Platform. This involves launching targeted marketing campaigns and implementing user-friendly features to enhance the overall user experience.
- **Promote Natural Products:** In alignment with holistic health trends, the aim is to replace traditional medical products with natural alternatives.
- **Launch Telemedicine Services:** The goal is to establish telemedicine services for remote consultations.

WATER TREATMENT PLANT NORD-EST COUNTY

Region: Slănic-Moldova, Romania

Sector: Urban development and sustainability

Ownership: Owned by the municipality

Vision: To create a modern water treatment facility integrated with a visitor information center, catering to both children and tourists.

Main transformative goals:

- Repurposing the former water treatment plant site into a "Clean Water Hub" to address water quality concerns, enhance commercialization, provide educational resources, and contribute to sustainable water management practices in Slănic Moldova.
- Integration of a modern water treatment facility with a visitor information center which caters to both children and tourists to promote awareness about water purification, circulation, and the connection between water and health.
- Establishment of bottling facilities for natural and thermal water to capitalize on Slănic Moldova's status as a thermal water health resort and enhance commercialization opportunities.

AUTOMOTO ASSOCIATION

Region: East Serbia

Sector: Urban development and sustainability

Ownership: Owned by the municipality

Vision: The vision is to become a dynamic center of innovation, creativity, and collaboration, where the rich history and natural beauty of the Braničevo District are celebrated and preserved for future generations.

Main transformative goals:

- Establish the site as the go-to destination for cultural and eco-tourism, providing immersive experiences that highlight the region's heritage and environmental treasures.
- Empower local entrepreneurs, particularly women, through training, mentorship, and market access, driving economic growth and promoting inclusive development.
- Forge strategic partnerships with government agencies, NGOs, and private sector stakeholders to secure funding, resources, and support for the site's revitalization and ongoing operations.
- Engage the community through outreach campaigns, events, and educational programs, cultivating a sense of ownership and pride in the site's transformation.

OIL FACTORY

Region: East Serbia

Sector: Urban development and sustainability

Ownership: Privately owned

Vision: To establish a Community, Art, & Science Center in Veliko Gradište. This idea stems from a comprehensive assessment of various factors influencing the socio-economic landscape of the region.

Main transformative goals:

In alignment with the overarching vision of the Community, Art, & Science Center, the following transformative goals serve as guiding principles in shaping its strategic direction and operational framework:

- **Renovation:** Renovation is a cornerstone of the Center's transformation, enhancing its aesthetic appeal and functional efficiency. The Center achieves optimal thermal comfort while maximizing natural light and scenic views through meticulous insulation measures and the installation of energy-efficient glass walls facing the Danube. A dedicated viewpoint and terrace offer visitors a captivating vantage point to admire the beauty of the river and surrounding landscape, fostering a deeper connection with nature and enriching the overall visitor experience.
- **Sustainable Infrastructure:** Embracing sustainability principles, the Center integrates renewable energy sources and conservation practices into its infrastructure. Solar panels harness the abundant sunlight to power the Center, complemented by natural gas and water conservation measures to minimize environmental impact. Vertical gardening initiatives beautify the space and contribute to air purification and biodiversity conservation, reflecting the Center's commitment to ecological stewardship and resource efficiency.
- **Enhanced Facilities:** Incorporating state-of-the-art audio-visual equipment and functional furniture enhances the Center's versatility and adaptability for various events and activities. From interactive workshops to dynamic exhibitions, these amenities provide a conducive environment for learning, collaboration, and creativity, ensuring that the Center remains a vibrant hub of cultural and intellectual exchange.
- **Danube River Protection Info Center:** In collaboration with the Argus Science Boat Initiative, the Center has established a dedicated Danube River Protection Information Center. This interactive space educates visitors about the importance of river conservation, biodiversity preservation, and sustainable water management practices. Through engaging exhibits, educational workshops, and outreach programs, the Center empowers individuals to become stewards of their natural heritage, fostering a culture of environmental responsibility and civic engagement.
- **Climate Change "Escape Room":** Leveraging innovative educational techniques, the Center introduces a Climate Change "Escape Room" experience. This immersive activity challenges participants to navigate through real-world scenarios related to climate change mitigation and adaptation. By fostering critical thinking, problem-solving skills, and teamwork, the "Escape Room" raises awareness about the urgency of climate action and inspires collective efforts toward a sustainable future.
- **Cross-Border Events:** As a bridge between cultures and communities, the Center hosts cross-border events that promote cultural exchange, collaboration, and mutual understanding between Veliko Gradište and Caraș-Severin County in Romania. From art exhibitions to culinary festivals, these events celebrate shared heritage, foster friendship, and stimulate economic opportunities, enriching both regions' social fabric and fostering lasting friendship bonds.

TVIN AREAL

Region: Virovitičko-podravska

Sector: Goods manufacturing and infrastructure

Ownership: Privately owned

Vision: To create a dynamic platform where stakeholders from TVIN d.o.o., alongside designers, workers, students, and technology experts, converge to explore avenues for innovation and value creation within the furniture industry.

Main transformative goals:

- **Renovation of Buildings:** This involves renovating existing buildings on the site to create a modern, attractive space conducive to innovation and collaboration. The renovation aims to provide a functional and aesthetically pleasing environment for employees, designers, and visitors. The renovation process focuses on modernizing the architectural elements of the existing buildings, incorporating contemporary design features that enhance the visual

appeal of the space. This may include sleek lines, minimalist aesthetics, and the use of high-quality materials such as glass, steel, and concrete to create a cohesive and sophisticated look.

- **Recruit/Invite/Attract Promising Designers:** Actively recruiting, inviting, and attracting promising designers to work and collaborate within the Center. By bringing in talented individuals, the Center can foster a culture of creativity, innovation, and excellence in design.
- **Create Space for Company Think Tank and Intrapreneurs:** A designated space within the Center for a company think tank and intrapreneurs. This provides a dedicated environment for brainstorming, ideation, and experimentation, allowing employees to explore new ideas and initiatives that drive innovation and growth. Designating space within the TVINX Center for a company think tank and intrapreneurs represents a strategic initiative aimed at fostering a culture of innovation, creativity, and entrepreneurship within the organization. This dedicated environment serves as a hub for brainstorming, ideation, and experimentation, providing employees with the resources and support they need to explore new ideas and initiatives that drive innovation and growth.

DEFINITION STAGE

REFURB CAMPUS FOR LARGE FACILITIES AND COMMERCE 4.0 AT VOITH

Region: St. Pölten, Austria

Sector: Urban Development and Sustainability

Ownership: Privately owned

Vision: To create an industrial site in a land that is currently a 'brownfield' and is not currently in use.

Main transformative goals:

The transformational goal for this area is to create a Refurb Campus for Large Facilities and Commerce 4.0. This site will provide access to education and on-site training. The vision is to open it up to local people, promoting new work and culture. A key goal is to achieve renewable energy self-sufficiency for part of the site.

MILK POWDER PLANT BERETTYÓÚJFALU

Region: Hajdú-Bihar County / Észak-Alföld region, Hungary

Sector: Agricultural and Agribusiness

Ownership: Privately owned

Vision: To create a packaging production facility and a living complex for the community.

Main transformative goals:

The EDW resulted in two main transformational goals with a potentially positive impact on the region for the former milk powder factory. One is a “Sustainable packaging production site based on a circular economy”. Apart from its usage as a production site for sustainable materials, the owner favored the creation of a “Social Innovation Hub for a livable and sustainable city of Berettyóújfalu”, including a senior housing complex and a childcare facility to meet the growing demand in the city. The overall goal is to create a **multifunctional Social Innovation Hub** that incorporates a mix of uses. It would host a diverse mix of residential and social facilities as well as leisure spaces, attracting a wide range of stakeholders, including families in need of childcare, elderly people, students, and the local population.

To accommodate the elderly, accessible low-maintenance apartments with common spaces and services for them will be offered. This will help them remain in their home community by providing affordable housing. An easily accessible green space will surround the two social facilities, which will serve as a ground for research and development with the establishment of a Vertical Farming Testbed, but also be accessible for the local population for various leisure activities. Since it is situated in a semi-urban area close to services and public transport it is in

a favorable location for serving social purposes and providing a sense of community to the elderly residents.

HEMP MILL KOMÁDI

Region: Hajdú-Bihar County / Észak-Alföld region, Hungary

Sector: Agricultural and Agribusiness

Ownership: Privately owned

Vision: Production of hemp and derived products with modern technology and sustainable practices.

Main transformative goals:

During the EDW several options were discussed. Finally, three main transformative goals for the site operations were commonly agreed upon.

- **Hemp Production:** The former hemp mill in Komádi will go back to work and produce hemp and deriving products with modern technology.
- **Metal and Construction Products:** The former hemp mill in Komádi will facilitate the production of metal products and other construction related materials. These will derive from renewable resources as much as possible.
- **Deepening the Agricultural Value Chain:** The former hemp mill in Komádi will specialize on certain products from the agriculture value chain. They will choose one or more of the following: fish farming, herbs for medical and cosmetic use, or bee products. Note: It is not about the production of the agricultural raw product, but about the production process on down the value chain (and, possibly, supplying the farmers with inputs).

GREEN AND INCLUSIVE UKRAINE HUB AT GEMER INDUSTRIAL PARK

Region: Banská Bystrica region, Slovakia

Sector: Urban Development and Sustainability

Ownership: Privately owned

Vision: To build a science park that encompasses a housing and a manufacturing facility, a training center, along with a R&D center specialized in sustainable materials.

Main transformative goals:

During the EDW conversations, they proposed 5 main transformative goals with collective impact intentions, including: green manufacturing, skill development, research, refugee support, and community inclusivity. The project proposals include:

- **Manufacturing of (green) Components for Infrastructure and/or Housing:** The site will have an eco-friendly manufacturing facility of components for infrastructure and housing. These components follow circular economy principles and energy-efficient designs, aiming to minimize environmental impact and promote sustainability. Using a modular approach, these components can be assembled efficiently on-site in Ukraine, supporting the country's reconstruction efforts.
- **Training Center for (basic) Manufacturing:** The hub aims to establish a Training Center that provides basic manufacturing skills to the local workforce. The center will be bilingual, accommodating the diverse communities in the region, including Roma, Hungarian, and Ukrainian communities. This initiative aims to upskill the workforce and create opportunities for employment and personal growth.
- **R&D Center for Green/Waste-based Materials/Concrete:** To create a research and development (R&D) laboratory focused on sustainable materials for the construction industry.
- **Housing Program for Ukrainian Refugees:** An initiative that addresses the pressing need for safe and sustainable housing for those displaced by conflicts or other challenges in Ukraine. Achieving so by providing a stable and nurturing living environment, striving to offer homes where individuals and families can rebuild their lives with dignity and hope.

POUNJE AREAL**Region:** Sisačko-moslavačka**Sector:** Urban Development and Sustainability**Ownership:** Owned by the Municipality**Vision:** To build a campus for activities in the food industry focusing on increasing the value of locally grown and green/bio agricultural products, providing the necessary basic infrastructure.**Main transformative goals:**

- Establishment of a real-world gaming experience or theme park to capitalize on immersive entertainment trends and attract tourists to the region.
- Exploration of medical tourism opportunities leveraging the region's natural assets, such as scenic landscapes and therapeutic resources, by establishing specialized healthcare facilities.
- Development of a food processing plant specializing in local agricultural products like chestnuts, honey, and pumpkins to add value to regional delicacies, boost agricultural productivity, and support local farmers.
- Promotion of outdoor activities and adventure tourism, such as hiking, rafting, and eco-tourism, to capitalize on Pounje's natural beauty and resources, attracting nature enthusiasts and outdoor adventurers.

CREATIVE PARK DRAVA (CPD)**Region:** Maribor, Slovenia**Sector:** Urban Development and Sustainability**Ownership:** Privately owned**Vision:** To convert the site into the Creative Park Drava (CPD) a center for the establishment of the circular economy in the Podravje region. The CPD will provide co-working space and makerspaces for start-ups and established companies. This includes, in particular, the support for economic development and further training, qualification, and R&D.**Main transformative goals:**

- **Build International Networks:** Organization of international events such as industrial/trade fairs or conferences on the topic of circular economy.
- **Creative Working Environment:** Create a creative working environment in order to attract and retain young, creative, and well-trained people.
- **Circular Economy Cluster/Focus:** To achieve the necessary density of knowledge, skills, and capital by providing space and activities for new businesses in the circular economy.
- **Provide Testbed Facilities:** To identify and attract local companies, which could benefit from participating in a circular economy. And to provide a test environment for companies to collaborate and test new business models and products within the circular economy.
- **Provide Support for Tenders:** To become an experienced and committed support for companies participating in tenders in "Green Europe".

MELJE TESTILE FACTORY (MTT)**Region:** Maribor, Slovenia**Sector:** Urban Development and Sustainability**Ownership:** Partially privately owned and partially owned by the Municipality of Maribor**Vision:** To revitalize the former textile factory site as a dynamic hub, harmonizing the rich industrial heritage with a vision for innovation and sustainability.**Main transformative goals:**

The primary objectives are multifaceted, aiming to realize a vision of transformation and sustainability:

- **Industrial Heritage Museum:** Offering guided tours, interactive exhibits, and educational programs highlighting the history and significance of the site's industrial heritage.

- **Residential Spaces:** Providing a range of apartments and housing options, with amenities such as bike and car parking spaces, charging infrastructure, and concierge services.
- **Commercial Areas:** Featuring a mix of shops, boutiques, cafes, restaurants, and entertainment venues, catering to residents, visitors, and tourists alike.
- **Office Spaces:** Furnished and equipped office and co-working spaces designed to meet the needs of start-ups, high-tech companies, and other businesses, with flexible lease options and access to shared amenities and resources.
- **Green Spaces:** Creating public parks, plazas, and recreational areas for relaxation, outdoor activities, sports, and community events, promoting health and well-being while enhancing the site's aesthetic appeal.
- **Community Services:** Offering amenities and facilities that foster a sense of community, including kindergartens, libraries, and art studios, catering to the diverse needs and interests of residents and visitors.
- **Sustainability Initiatives:** Providing eco-friendly products and services, such as electro mobility, recycling programs, and public transportation options.