Exchange platforms for secondary construction products

CIRCULAR South Baltic

Interreg

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Content

Summary

This report examines the significance of digital platforms in advancing the circular economy within the construction and demolition sectors of the South Baltic Region. Supported by the EU Interreg South Baltic initiative, the project seeks to foster sustainable economic growth by facilitating the reuse and recycling of construction products, with a particular focus on small and medium-sized enterprises.

The analysis underscores that, despite the increasing integration of digital tools—such as building information modeling, digital twins, Internet of Things, and advanced project management software, digital market platforms dedicated to secondary construction products are still in their emerging stages. Existing platforms predominantly serve a business-to-consumer audience and have demonstrated limited scalability for professional, business-to-business applications. This limitation is primarily attributed to challenges related to supply consistency, fragmented project linkages, assurance of product quality, logistical complexities, knowledge and experience gaps, and regulatory complexity.

Digital platforms are posited as essential instruments for mitigating these barriers by:

- Enabling efficient access to reusable products, thus mirroring the convenience of sourcing new products. To enable this access, the exchange platforms are building a diverse and robust inventory of products.
- Functioning as digital material banks and passports, providing transparent and traceable records of product quality, environmental metrics, and regulatory compliance. To promote a professional market for reclaimed construction products, digital platforms must develop service functions to meet these needs.
- Supporting procurement, project planning, tendering processes, and compliance documentation across the construction value chain, hence acting as a missing link in the circular construction and demolition value chain.

To establish a functioning digital platform for the exchange of reclaimed construction products, the platforms operate under two main business models. The business models are either based on product sales by sourcing and retailing the products themselves, or they act as a communication and auction platform to facilitate the exchange of products between seller and buyer. The platforms either operate a simple version of one of these main types to mainly a consumer segment or they develop advanced service functions to enter the professional market.

The findings are grounded in a comprehensive survey of digital exchange platforms for reclaimed construction products operating in selected regions in Germany, Poland, Sweden, and Denmark. The study systematically investigates the platforms' operational scopes, product portfolios, service functionalities, and underlying business models.

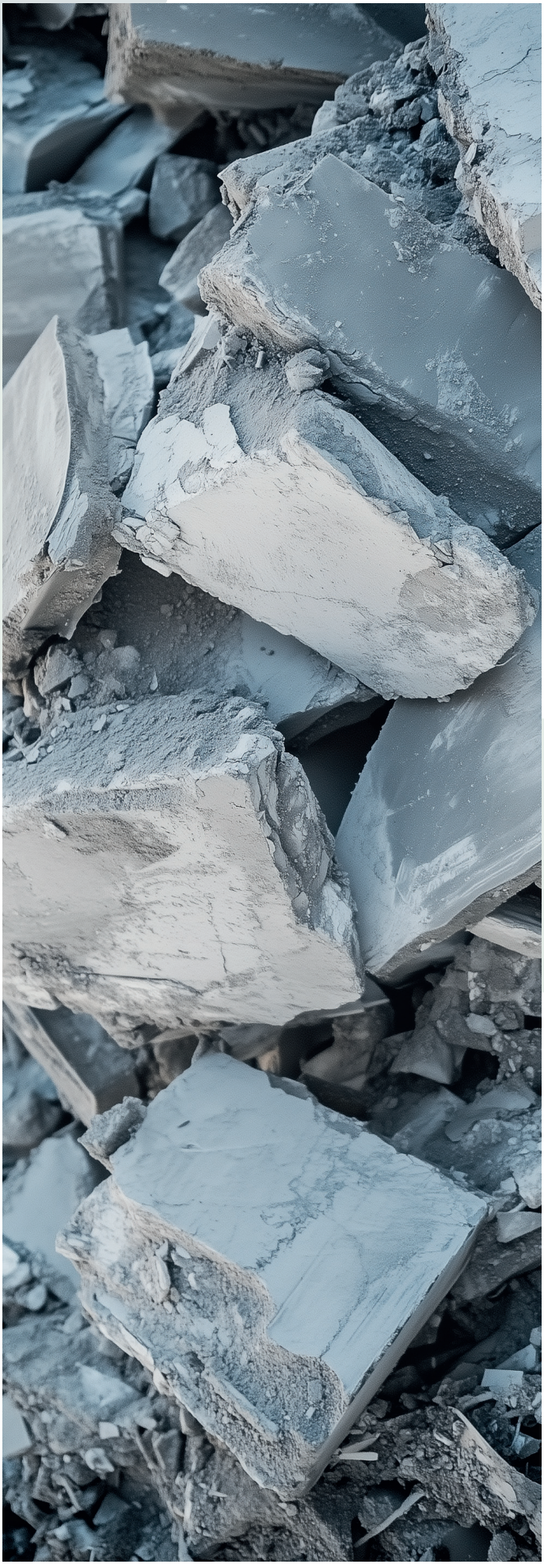
Introduction

This report is part of the project Circular South Baltic funded by EU Interreg South Baltic. The project's overarching goal is to enhance sustainable economic development of the South Baltic area by driving a circular transition within the construction and demolition sectors. This transition aims not only to reduce the environmental and material footprints of the sectors, but also to strengthen the overall competitiveness.

The project operates in five South Baltic regions with the main target to expand knowledge and competences in small and medium-sized enterprises focused on the reuse and recycling of building products, and to develop business networks to facilitate knowledge sharing. A key outcome is to bring insights into new business opportunities and to foster new cross-border business partnerships for developing competitive circular solutions and value chains.

A fundamental objective in fostering circular business opportunities for SMEs, is to establish competitive markets, and digitalization may serve as a cornerstone in this innovation. Several digital technologies have been introduced in the build environment including building information modeling (BIM) and digital twins, drone technologies for 3D scans and flow tracking, internet of things (IoT) devices to monitor various parameters, project management software etc. Over the last years some stakeholders in the construction and demolition sectors have experimented with digital market platforms focused on reusable products from demolition or surplus products from construction. However, these platforms are typically operated as a secondary activity and have mostly been oriented towards a business to consumer market with little effect on the mainstream building industry (EmBuild, 2022). To scale up these market platforms for professional clients, there is a need to reduce fluctuation in access to products and secure compliance with product quality standards, as logistics and insurance issues are sensitive matters in the building industry (Buchard & Christensen, 2023).

The purpose of this study is to explore the role of digital platforms for the exchange of reclaimed building products, to promote markets for reused and recycled construction and demolition waste. By exploring the structure and organization of these platforms as well as the key functions offered to support a circular market, the intention with the study is to provide insights to promote and expand business to business (B2B) market platforms for reclaimed building products.



The role of digital platforms

The construction and demolition sectors are main contributors to greenhouse gas (GHG) emissions, resource depletion, and waste generation corresponding to approximately half of the total material footprint (EEA, 2024) and more than a third of waste generated (Moschen-Schimek et al., 2023) in the EU. Promoting efficient resource flows in the build environment have become a main priority in EU environmental policies with circular economy adopted as a cornerstone in the European Green Deal (Dragomir & Dumitru, 2024).

A vast amount of funding has been allocated for circular projects, with numerous pilots demonstrating circular practices in construction and waste management. However, as these single project examples are typically based on unique conditions, a variety of challenges exist to aggerate and accelerate an actual market for reclaimed construction products (Koch et al., 2024).

To establish a market for reclaimed products, there is a need to secure the link between demolition and construction projects, which currently operates under each of their own set of stakeholders, regulatory frameworks, and market dynamics. A central challenge to secure this link concerns the logistics in and between demolition and construction projects. First, this involves the mass flow logistics on site for dismantling works and for source separation, handling, and storage of CDW to preserve quality. Second, it involves the timing between supply project and application project which in some cases involve the same site and in other cases different sites. Early and continuous planning and collaboration of circular initiatives in projects constitute another challenge.

Demolition and construction projects involve several time frames each with a separate set of stakeholders with their own area of focus. While the phases from planning to execution of a demolition (or transformation) non-coherently involves a client, changing advisors, a demolition contractor, a waste management company etc., the planning, construction, and maintenance typically involves a different set of advisors, contractors etc. This fragmented process furthermore challenges coherence in data management, both in terms of securing a transparent process and through segregate stages of data delivery to secure the right documentation, altogether accommodating risk parameters and quality measures (van den Berg, 2024).

To promote circular construction and demolition there is a need to establish incentive structures with robust business models as the processes of reusing and recycling are considered more expensive than purchasing new products. There is a need to support a lack of knowledge on identifying and realizing a circular potential and experience in efficient circular operations in demolition, waste transformation, and logistics. Lastly, there is a need for supporting compliance with a complex regulatory landscape including building codes and harmonized product standards.

Digital platforms may serve several important roles to alleviate these challenges throughout the circular value chain. The primary role of a digital platform to exchange reclaimed building products, is to establish a market for reuseable and recyclable products.

To establish such a market, the foremost need is to provide easy access to source such products as effectively as when purchasing new products. Meanwhile, a range of additional needs are recognized for reclaimed products to compete with new products. A key part is that production and marketing of new building products follow strict quality standards with information to comply with CE certification.

To accommodate this need, a digital platform may additionally aid in several phases. In pre-demolition audit and waste reporting a platform may provide a collective server to store information thus acting as a digital material bank. This also provides the opportunity to communicate future available products prior to demolition in line with the thought of buildings as a material bank (Rose & Stegemann, 2018).

By registering products (potentially long time) before the actual demolition, this may support the logistics for waste management and storage. In the transformation of waste to resource through e.g., reuse or recycling, a digital platform can store crucial information, hence acting as a product passport. This can potentially concern both declarations of performance, environmental information to prove non-hazardous products or to declare environmental performance. Further in value chain this information can also support tenders by providing details for project programming or for background descriptions for quality criteria.

Methods

The aim of this study was to explore digital market platforms for reclaimed construction products. Based on a survey study of existing digital market platforms in Germany, Poland, Sweden, and Denmark, the study dives into the scope of operation, products offered, provided service functions, and business models behind these platforms.

As an initial step to identify relevant platforms, representatives from each region were responsible of identifying platforms through their network. Moreover, a market scan was performed in each of the participating countries in the South Baltic area. Through the search 25 digital platforms were identified across all four countries.

To qualify as a relevant digital marketplace for this study, two selection criteria were chosen regarding if the marketplace:

1. Has an online platform for construction products, with the possibility to browse products.
2. Has a selection of secondary products either reclaimed from demolition or as surplus products from construction.

Through the selection process 16 platforms were chosen for the further survey process, and 12 of these agreed to participate.

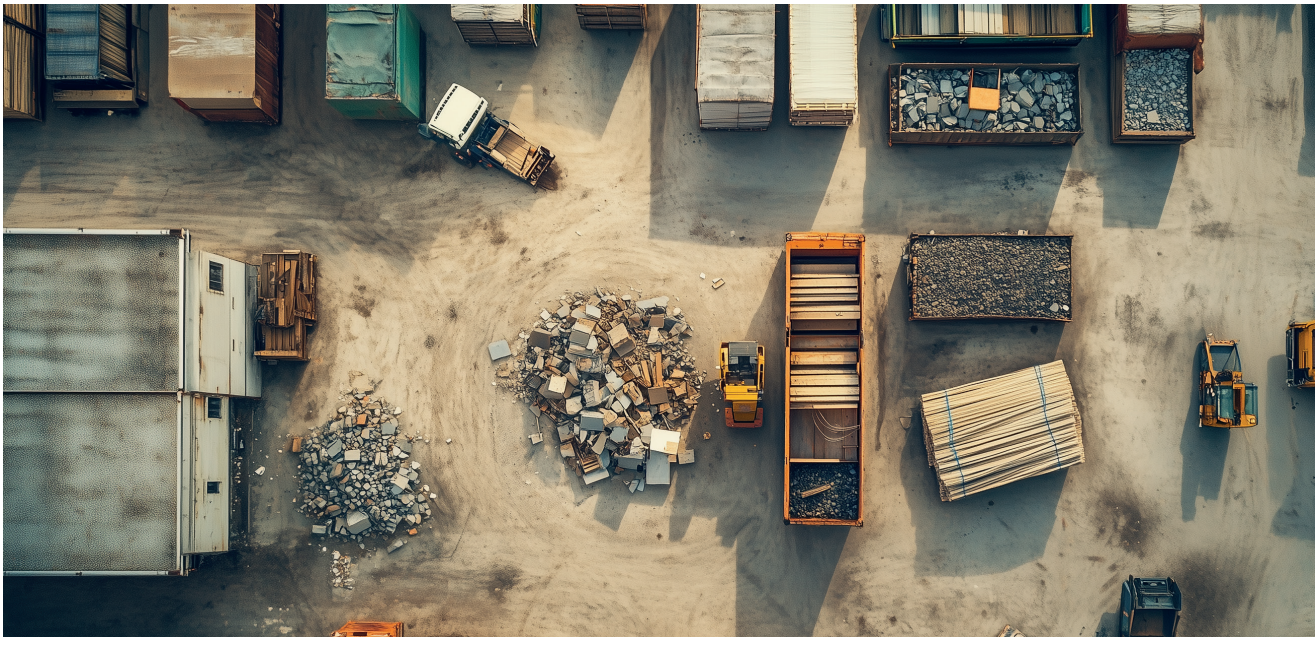
For the survey study an excel based template was designed focussing on four main sections.

These overall sections were designed to dive into:

- Basis information e.g., scope, location, number of employees, legal status
- Types and amounts of products
- Offered services e.g., consultancy, logistics, documentation
- Business models e.g., required resources, pricing mechanisms, costs and revenues

The collection of data was conducted by reaching out to all the selected platforms through the regional representatives, and in some cases by contacting the platform's official contact information and identify the right informant. The informant was typically the CEO or a like for minor firms, while in larger firms the respondents were often a sustainability manager. Hence, most surveys were answered by the firm representative and in some cases followed by follow up questions.

For initial investigation and later qualification, a search for public information on the firms was conducted as supplement. A few of the surveys were conducted as remote interviews.



Results

Across the four studied countries the largest number of digital platforms were identified in Denmark, Sweden, and Germany. All the identified platforms operate with a national scope while two platforms operate internationally to some extent.

Common for all platforms is a relatively low number of employees, with only three platforms operated by over 10 employees. Some of the platforms are developed by larger companies in the construction or demolition sectors with the reuse platform as a side activity occupying 5-10 employees dedicated to the second-hand store.

These include demolition companies initiating the platform as an attempt to sell off reusable items from demolition projects, municipal waste companies trying to increase reuse, and building product suppliers sourcing reclaimed products as part of their assortment. Other platforms are start-up companies with the reuse platform as core activity.

Many of the start-ups operate under a shareholder structure of externally invested capital. An overview of the studied platforms is provided in Table 1.

Countries	Stakeholder type	Scope	Legal status	# of employees
Denmark (4 platforms)	Market platform	National	Shareholder	3
	Market platform	National	Shareholder	4
	Product supplier	National	Private	2400
	Demolition contractor	National	Private	6
Sweden (4 platforms)	Market platform	National	Private	-
	Public platform	National	Non-profit	-
	Waste company	National	Non-profit	7
	Market platform	International	Private	16
Germany (3 platforms)	Market platform	National	Shareholder	< 10
	Market platform	International	Shareholder	< 10
	Market platform	National	Private	70
Poland (1 platform)	Architect	National	Non-profit	-

Table 1: Overview of the studied digital platforms.

Products

Different kinds of business strategies exist on the secondary market for building products. Some target as many products as possible to establish a varied assortment, while others specialize in a specific product to establish quality assessment facilities and maintain a high-quality product flow for a commercial market (Buchard & Christensen, 2023).

Common for the digital exchange platforms in this study is a broad variety of products almost representing all building product categories. The most represented product categories are doors, windows, and electricals, which are all products that are easily accessible through continuous maintenance or renovations, or when performing soft stripping during a demolition.

However, almost every other product category such as steel structures, bricks, flooring, inventory is likewise heavily represented. The only product categories that are underrepresented, are whole concrete elements and other special products that fall outside the main categories. Concrete elements are difficult to preserve during heavy demolition works unless specifically targeted, and the immediate application of e.g., concrete slaps is mainly in high performance functions as loadbearing structures.

Today the foremost application of secondary concrete is recycling by crushing and application as recycled aggregate in concrete production (silva et al, 2018).

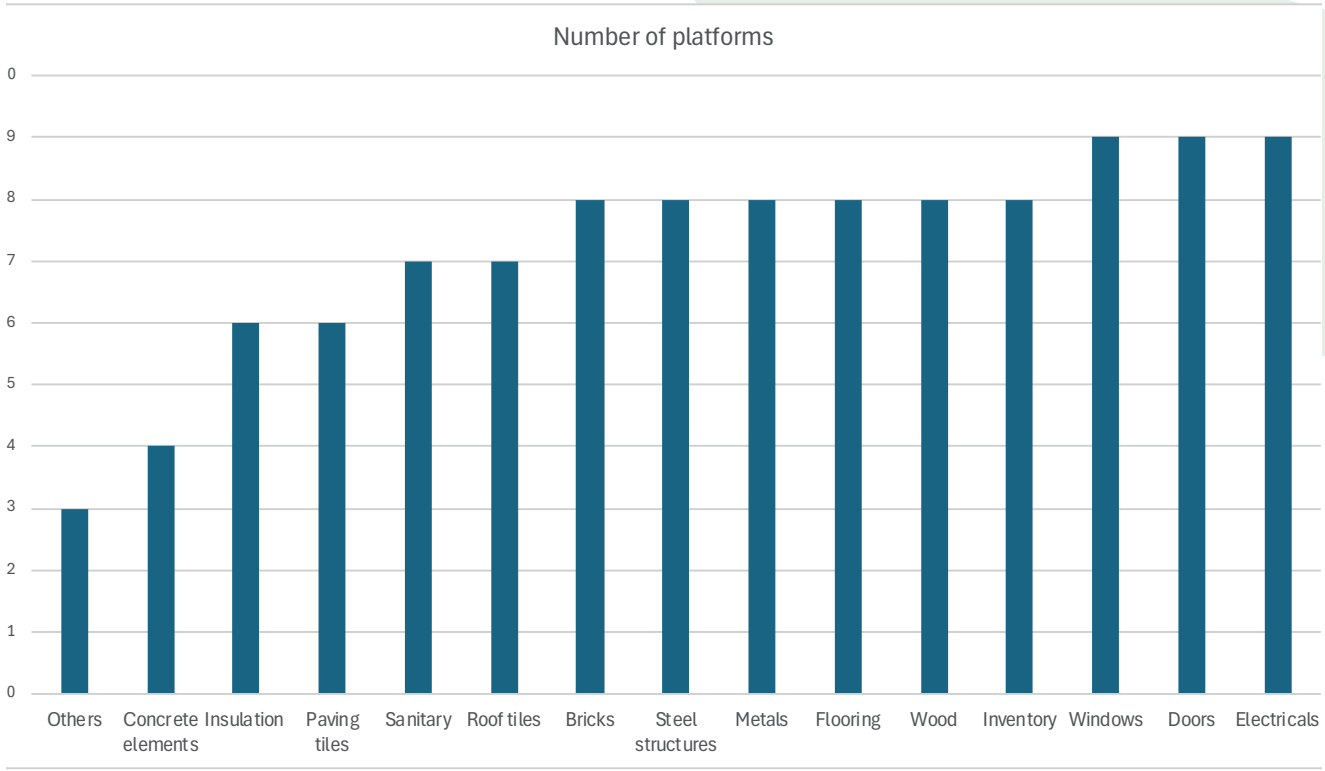


Figure 1: The number of platforms that offer different building product categories.

Service functions

A core role of digital platforms in establishing a secondary market for building products, is to provide service functions that ensure efficient logistics and compliance with different quality parameters.

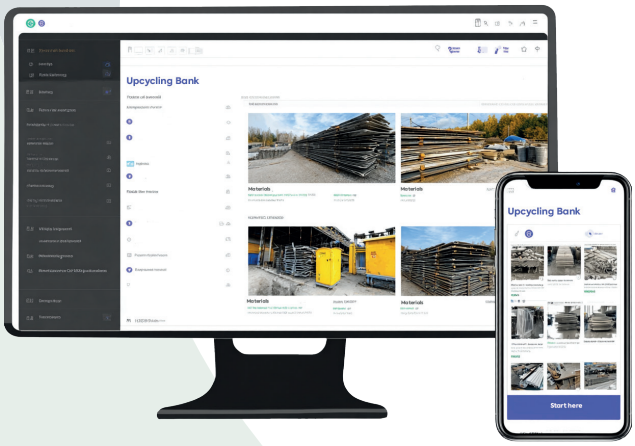
The ultimate role of a digital exchange platform is indeed to act as an online marketplace, communicating the available products for interested buyers. Hence, all the studied platforms provide an interactive product catalogue with the possibility to browse available products.

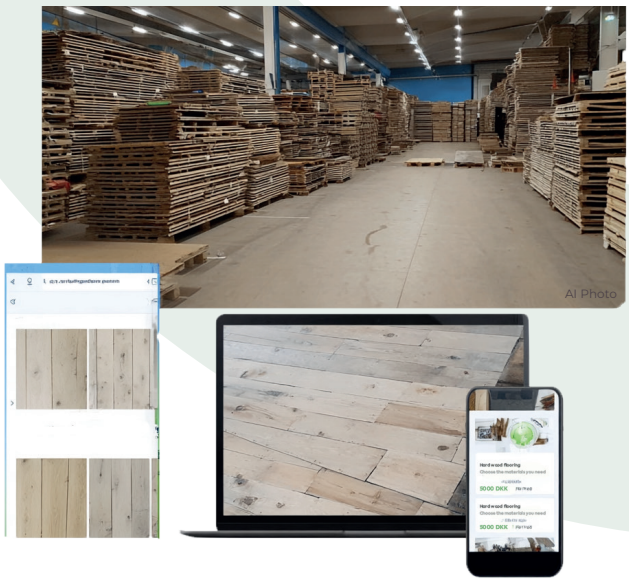
Almost all platforms also provide actual retail service for users to purchase the available products online, three platforms with the option of biddings. While some of the early movers on the secondary market operated only with an offline product catalogue provided as a document on request, most platforms today have developed online retail stores corresponding to 75% of the studied platforms. However, only five platforms have physical stores to experience and inspect the products in person.

The physical stores are typically related to the companies' existing facilities, as reuse is established as a side activity. As examples, a Danish platform was established by a demolition contractor, and a Swedish platform was developed in a collaboration between a municipality and the local public waste management company.

Besides the main function as marketplace, many of the studied platforms have also developed additional services to accommodate the different needs for maturing a market for secondary building products.

The additional service functions explored in this study will be presented in the following, as to how they are developed and contributes to market formation. An overview of the service functions provided by all platforms is illustrated in Figure 2.





	Browse products	Physical store	Retail service	Bidding	Consultancy service	Logistics service	Product passport	CO_2 saving potential	Repair	Other
Market platform, DK	X		X	X	X		X	X		X
Market platform, DK	X		X		X	X		X		X
Product supplier, DK	X	X	X			X	X	X	X	
Demolition contractor, DK	X	X	X							
Market platform, SE	X	X								
Public platform, SE	X		X	X	X		X	X		
Waste company, SE	X	X	X	X						
Market platform, SE	X	X	X		X		X			
Market platform, DE	X		X							
Market platform, DE	X		X							
Market platform, DE	X				X		X	X		
Arcitect, PL	X				X					

Figure 2: Overview of functions provided by the different platforms.

Consultancy service

Implementing circular economy in the construction and demolition sectors calls for tangible knowledge to operationalize the vast number of conceptual ideas. To meet this need six platforms have developed different kinds of consultancy services.

As an onboarding service a market platform in both Denmark and Sweden advice clients on how to set up internal structures for reuse operations e.g., how to organize inventories and marketing of reused products. This regards both the physical organizing and in relation to the online platforms. A German market platform performs pre-demolition audits to digitally map a building, and in the demolition phase a Danish market platform provides practical guidance in dismantling methods to secure efficient product handling.

In the other end of the value chain the Polish architect firm offers architectural advising on how to identify and achieve the circular potential in a project. The public platform in Sweden is a national branch network facilitating different knowledge networks and working groups to promote collaboration and knowledge exchange.

Functions provided:

- Guidance on management of inventories and sales
- Guidance on pre-demolition audit and dismantling
- Identification and application of circular potential
- Knowledge networks

Logistics service

One of the main challenges in reuse of reclaimed building products, is to coordinate the logistics between supply and application projects. This both entails the handling and transportation of the products and the timing and possible temporal storage.

The only platform providing actual logistics service is a Danish market platform and a Danish product supplier. The market platform has established a logistics network with logistics partners providing storage and transport of products, while the product supplier is using their existing delivery set up. When purchasing products, the market platform furthermore guides how secondary products should be packed (as part of their consultancy service) and collects the products in standardised batches. In sales both platforms provide a delivery service.

Functions provided:

- Packing and collection of products
- Storage and delivery of products

CO2 saving potential

By assessing the climate impact of reused building products, this highlights the environmental benefits in project decision-making.

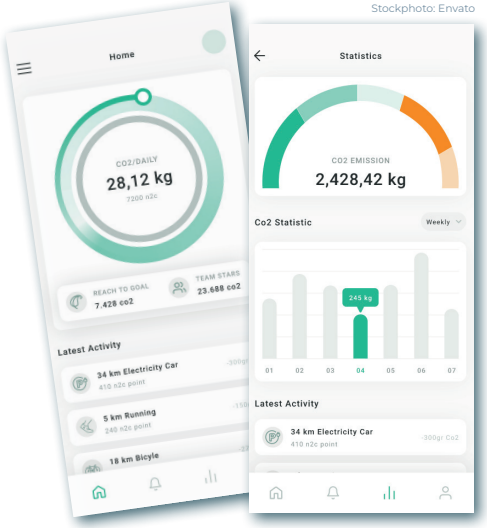
With the focus on GHG emissions across most countries and in EU policies, lifecycle assessment (LCA) on reclaimed products may form a strong parameter. In Denmark LCA requirements have been introduced for the construction of new buildings.

Five platforms have developed calculators to assess the CO2 saving potential of reusing different products. These calculators are often based on standardised database values on a product category level. However, some platforms provide the opportunity to perform more detailed calculations on specific products chosen by the user.

As some platforms offer both an internal inventory for organizations to manage their own products and a public marketplace to sell products, the CO2 calculator may both provide information for buyers but also be used to monitor progress for the organisation internally.

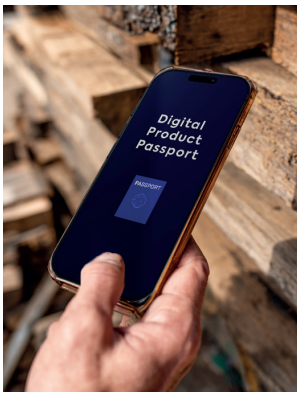
Functions provided:

- Information on CO2 saving potential when purchasing
- Monitoring of circular progress for internal inventories



Product passport

Another central challenge in promoting a market for secondary building products, is compliance with the harmonized quality standards e.g., as laid down by the European Commission in the Construction Product Regulation.



To meet these requirements, some platforms have developed product passports to provide information on technical and environmental performance. Five platforms have incorporated product passports for mainly two purposes.

A market platform in Denmark is collecting data to CE-certify products, and as additional function the market platform has entered agreement with an insurance company to provide warranty on all products in their assortment. This meets a crucial barrier in promoting a market for reclaimed building products, as risk and responsibility often hinders reuse in commercial projects. A different Danish market platform has developed a digital structure together with partners, on what kinds of data and in what format is need. In this way the users can add the information themselves, and the platform is more thought as a template to organize this information.

An additional function provided by some platforms, is internal inventories for users to aggregate the product passport information in a digital material bank. A German market platform also assists collecting the data for the product passport when performing pre-demolition audits. They have developed a digital concept to automatically convert data from a pre-demolition audit into product passports.

Functions provided:

- Product passport structure to add quality information on products
- Technical and environmental information to CE certify products
- Internal material bank to keep a digital inventory on products

Repair

Only one platform provides minor repair of products to prepare for reuse to limited degree. However, for some products preparation operations are necessary – e.g., to clean bricks for old mortar or to sand the surface on old floorboards.

While it seems that most of the platforms focus on a broad variety of products to achieve inventory volume, preparation operations of reclaimed products often require specialized facilities and quality assessment procedures like European Technical Assessment (ETA) to achieve CE-certification. Hence, this kind of repair operations are often performed by specialized waste treatment companies that focus on a specific product (Buchard & Christensen, 2023).

Business model

To achieve an understanding of how digital platforms for exchange of reclaimed building products operate, the different types of business models were explored.

This resulted in a typology of two main kinds of business models, namely membership-based business models and product sales-oriented business models.

In addition, it was found that the business models also differed in the level of advancement, which is closely linked to the number of service functions provided by the platforms.

An overview of the different types of business models is provided in Figure 3.

Figure 3: Typology of business models for digital exchange platform of reclaimed building materials.

Product sales-oriented business model

A business model based on product sales is similar to a regular retailer of building products. These firms are in possession of the products, and the revenue comes from product sales.

In this category falls the platforms, that are often initiated as a side activity to demolition contractors or waste management companies, hence they do not generate the main revenue for the firms. However, some platforms have specialized in second hand sales e.g., by focussing on high-value goods or by offering e.g., logistics service, warranty, and consultancy service.

The main users of product sales platforms are households and small contractors, while product sales platforms with more advanced functions are targeting professional construction clients for larger commercial projects. The simpler product sales platforms require accounting systems to manage inventories, storage for products, and personnel for sales and marketing.

Some platforms also have a physical store. To establish and manage a more advanced products sales platform, this comes with higher costs for software development and access to specialized knowledge for some of the advanced service functions. The advanced platforms may also generate revenue on consultancy service.

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Membership-based business model

A business model based on memberships is operated as a user-to-user sales platform like eBay and Vinted. These firms are not sourcing products to sell but facilitate user-to-user sales, while generating revenue from subscriptions.

The simple version of this platform merely functions as a marketplace with the possibility to browse secondary building products. The more advanced ones also provide a license to a personal site to monitor and manage your own inventory. Thus, the advanced platforms also sell different additional consultancy services.

The main users follow the tendency of product sales platforms with households and small contractors for the simpler platforms and professional construction clients for the more advanced ones. The main resources required for memberships-based platforms are the website for the digital marketplace and marketing to communicate it to the market. It also requires some personnel to run the platform.

The advanced platforms require more software development to design and upgrade the additional functions, that are offered. Furthermore, these specialized functions along with the consultancy service requires access to specialized knowledge, that can either be developed in-house or acquired externally.

Overcoming barriers

As argued in section 2.1, a variety of challenges occur in the formation of a market for secondary construction products including the logistics in and between projects, limited standards and quality control, a lack of incentives and efficient techniques, fragmented collaboration and data management, and a lack of tangible knowledge. Digital market platforms may serve a crucial role in alleviating these challenges and act as the link between supply project and application project in a circular value chain.

First of all, there is a need to establish a volume of secondary construction products to promote a flow of reused and recycled products on the market. All the studied platforms offer a broad range of construction products covering most of the product categories.

These products are communicated to the market in two main ways. Either the platforms act as the link between seller and buyer, or the platforms are taking ownership of the secondary products to prepare and sell them on the market. However, only 42% of the platforms are targeting large-scale professional buyers, as the requirements on a B2B market are higher regarding quality and documentation of the products.

While these platforms may focus on selected products with higher quantities, they also discard more products from re-entering the market. Thus, a cost benefit assessment is formed either by the suppliers or by the platform in terms of, which products justify the workload of preparing them. In this preparatory work digital platforms serve an important role in managing the logistics of communicating the products to the market and in some cases taking over responsibility of transport, storage etc.

Besides providing access to secondary construction products, some of the platforms have developed additional specialized services to meet the needs of establishing a market. These services have to a great extend been developed in the firms (mainly the once with the exchange platform as their core activity) through participation in pilot projects. As argued, there is a need for knowledge to progress in circular construction. This regards both how to source products, how to preserve and document them, and how to design for reuse and apply the secondary products in construction.

In the demolition process a challenge is both to document the potential products for reuse and to preserve them in an efficient way.

By offering pre-demolition audits and linking them directly to a product passport and an inventory, it becomes easier for the owner of the products to communicate them to a professional market, and even possible to communicate the products prior demolition. This potentially avoids the need for storage and eases the logistics between supply and application project, as the whole building is regarded a material bank to be planned for harvesting immediately after demolition.

Moreover, to enhance the quality of preserving products in demolitions, there is a great need to turn the present mentality of considering old buildings as a waste problem, that needs to be handled as quickly and cheap as possible. Hence, by participating in the actual demolitions to advise the demolition contractor in identifying reuse potential and afterwards on how to handle products, this improves the circular business case.

Changing this mentality must be a joint effort and requires collaboration across the value chain, from how the demolition is planned and procured, to how the products are preserved and applied. Meanwhile, in this transition period there is a potential for stakeholders to take the role of facilitating and supporting these connections whether it's a contractor, an advisor or in this case a market platform.

A central challenge in promoting a professional market for secondary construction products, is to document whether the products comply with harmonized quality standards. To meet the need of documenting environmental conditions and technical performance, some platforms of this study either provide a digital structure with overall guidance to organize this information, they provide the service of performing a pre-demolition audit with an automated product passport, or they are having the products certified to sell the products themselves. Besides providing the right information on secondary construction products, an additional challenge is to accommodate the financial risk of applying them in a new building.

Construction projects come with large investments, and the risk profile is high regarding potential damage due to a reused product. This may cause significant delays in construction or high and immediate maintenance costs. Thus, it is also a challenge, that warranties are typically not provided to reclaimed construction products. One of the studied platforms have agreements set up with an insurance company, thus all products have a product warranty targeting both damage on personal injury and property damage, construction client insurance, and sudden pollution.

Some secondary construction products are argued to be more expensive than new ones due to the higher preparation costs. This challenges the business case for reused products. Indeed, this calls for lowering the preparation costs by developing more efficient methods for both demolition, preparation for reuse, and documentation. In this regard the consultancy services provided by some of the platforms bring valued knowledge to the table. Meanwhile, there is also a need to communicate the reduced GHG emissions potential.

To promote the environmental value of secondary products some platforms have added a CO2 footprint for all products, while other platforms have integrated a CO2 calculator to the users dashboard.

Recommendations

The recommendations focus on two crucial elements of promoting a market for secondary construction products, namely the main needs when establishing and scaling a digital platform for the professional market, and policy recommendation to promote such a market.

Development of digital platform

Platforms should be equipped to function both as intermediaries, linking suppliers with purchasers, and where appropriate, as direct custodians who certify, prepare, and market products.

Establishing a robust platform with a diverse inventory

To facilitate the formation of a robust market for reclaimed construction products, digital platforms should prioritize the development of a comprehensive and diversified inventory. This entails the strategic sourcing and continuous updating of listings across product categories.

Furthermore, platforms should integrate a variety of tools and functions to establish a user-friendly interface and meet the needs of professional stakeholders. As a minimum the platform must have an interactive catalogue with all products presented in categories and the possibility of browsing through specific product attributes. Additional services to enhance market transparency and interest may include storage and delivery processes, digital product passports and material banks, CO2 calculators etc.

Enhancing market confidence

To effectively serve large-scale, professional stakeholders, digital platforms must adopt and maintain harmonized standards for product certification and documentation, mirroring the rigor present in primary construction product markets. This includes the systematic provision of technical and environmental performance information through mechanisms such as digital product passports and certification protocols for the respective products.

Furthermore, product sales platforms should to a wider extend collaborate with insurance providers to deliver comprehensive warranties, thereby lowering barriers to market adoption and fostering trust among market participants.

Fostering strong value chain relations

The evolution of a mature market necessitates cross-sectoral collaboration among demolition contractors, advisors, clients, and regulatory bodies. Furthermore, the firms operating the platforms need strong networks to stock the inventories of the platforms. Digital platforms should assume an active role as network facilitators to promote knowledge and collaboration and in return establish a strong customer base.

Continued investments in training and professional development, as well as the broad communication of successful case studies is key to establish a strong network. To engage actively in promoting a market, hence also a healthy business for the firm, the stakeholders behind the platform must have certain expertise on reuse of construction products. This is key to develop ancillary services and to create a strong image

Augmenting economic and environmental value propositions

Acknowledging that reclaimed products may incur higher initial preparation costs, platforms should prioritize innovation in demolition, product preparation, and certification practices to enhance efficiency and cost-effectiveness. Thus, the platforms can help drive down costs and make reclaimed products more competitive with new alternatives.

Equally important is the explicit communication of long-term environmental and economic benefits, e.g., by incorporating CO_2 footprint data and calculation tools within platform dashboards. Providing transparent and easily accessible data about emissions savings and resource conservation, can empower buyers and secure compliance with green standards.

Policy recommendations for market promotion

Standardization of certification and insurance frameworks

Policy frameworks should mandate clear, harmonized standards for the certification and documentation of reclaimed construction products. Today these are mostly developed individually by each nation state. The introduction of common criteria, detailed product passports, and standardized test methods can streamline trust and comparability.

It is also recommended that insurance schemes are developed to mitigate the risks associated with secondary products.

Support for innovation

Public sector support through co-financing of pilot projects, and the provision of fiscal incentives and procurement policies, is essential for stimulating innovation and offsetting the higher initial costs typically associated with reclaimed products. These actions can encourage both established firms and new entrants to explore, test, and scale novel business models that underpin market growth and resilience.

Mandatory selective demolition and stricter taxation

Regulatory instruments should require comprehensive pre-demolition audits for significant projects, ensuring systematic identification, documentation, and market preparation of reusable products. Moreover, mandatory sorting and recycling requirements can guarantee that valuable construction resources are not inadvertently lost to landfill. By making statutory requirements for selective demolition, will preferably instead be catalogued and routed for optimal reuse or recycling within the supply chain.

In the other end to drive fiscal incentives, it is crucial to introduce high taxes on resource depletion and waste generation. This includes both a tax on virgin products and on landfilling and incineration or as a tax on CO2 emissions.

Investment in capacity building and public awareness

Policymakers should allocate resources towards professional training, knowledge dissemination, and the development of technical guidelines and digital tools that advance reuse. Furthermore, public awareness initiatives may stimulate demand and cultural acceptance. Stakeholder engagement activities can help shift perceptions to promote reclaimed products as a mainstream construction resource.

Enabling multi-stakeholder collaboration and regulatory adaptation

Active encouragement of partnerships among government, industry, academia, and civil society is vital for addressing market challenges, sharing risk, and fostering confidence in reclaimed product markets. Policymakers should facilitate networking and cooperation platforms, support joint research and development ventures, and provide forums for regular dialogue and feedback.

Where necessary, existing regulatory barriers should be reviewed and modified to better support the goals of the circular economy and facilitate the exchange of secondary construction products. This process should include stakeholder consultation and impact assessment, so that regulatory changes are well-targeted and effective in creating the enabling conditions needed for circular construction markets.

Partners on the Circular South Baltic project

Business Hub Zealand · Sustainable Business Hub · Roskilde Universitet · West Pomeranian University of Technology in Szczecin · Pomorska Izba Gospodarcza · Rostock Business · Lithuanian Innovation Centre

About the project - Circular South Baltic

Join the Future of Circular Construction

This project focuses on driving a green transition in the building and construction sector, benefiting both the environment and regional competitiveness. By fostering innovation and collaboration across borders, we aim to reduce the sector's environmental impact while supporting businesses in adopting sustainable practices.

The project is open to SMEs and stakeholders in the building and construction sectors who are committed to driving a green transition. This includes companies already working with or interested in circular solutions, such as reusing and recycling building materials, as well as those developing sustainable building processes or materials.

By participating, SMEs will gain access to new knowledge, networks, and cross-border partnerships that can help them explore business opportunities and create competitive, circular value chains. Additionally, public entities and large companies seeking sustainable solutions can collaborate to foster innovation and create a greener future for the industry.

The project will create a transnational network of SMEs, experts, and stakeholders to develop circular solutions, paving the way for a more sustainable and competitive construction industry in the South Baltic Area.

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Exchange platforms for secondary construction products

ABOUT THE PROJECT

The overall objective of the project is to promote a circular, green and economically sustainable transition in the construction sector, with a particular focus on SMEs.

The project seeks to facilitate cross-border transfer of technology and knowledge between relevant actors and to build networks between suppliers and customers around innovative circular solutions in the construction industry in the South Baltic Sea region.

For more information visit

www.ehsj.dk/CSB

Linkedin: Circular South Baltic

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