CBI Booster

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The Future of Swiss Circular Construction

How EU and Swiss Circular Economy Policies Are Shaping the Future of Construction in Switzerland

September 2025

WHITEPAPER by sus.lab

Preface

The transition to a circular economy (CE) is a key global sustainability goal, with the construction sector playing a critical role due to its significant environmental impact. This whitepaper examines the legislative framework shaping a Swiss Circular Construction Industry (SCCI) and explores potential regulatory developments for a more sustainable and resource-efficient built environment.

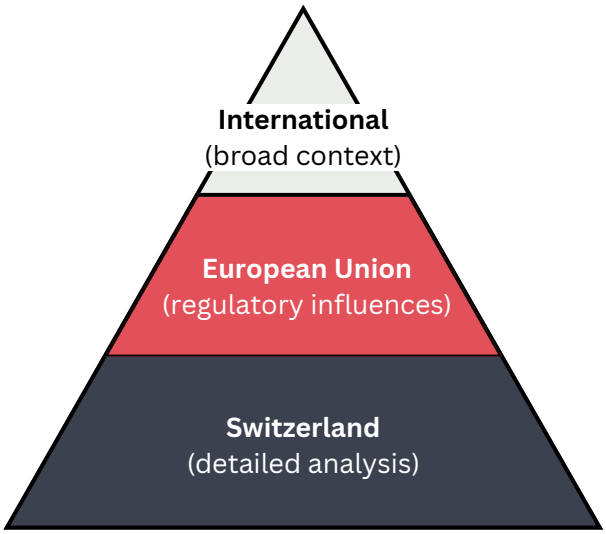

Fig. 1: Whitepaper structure and level of analysis

Switzerland's complex legal system, spanning national, cantonal, and even communal levels, creates challenges for integrating circular practices into legislation. While many regulations govern environmental protection and sustainable construction, they are not always fully aligned. CE principles are increasingly recognized in the sector but remain only partially embedded in legislation, indicating that CE is not yet a priority.

Given Switzerland's strong regulatory and economic interdependence with the European Union (EU), this whitepaper also examines the EU legislative landscape and broader international goals and treaties that shape Swiss policy. The findings are based on literature research and expert discussion with representatives from the Swiss construction industry.

The paper acts as a guide through the key policies and showcases their interrelations at national, EU, and international levels.

Key Facts on Switzerland's Construction Sector

(based on data from the Swiss Federal Office for the Environment – FOEN)

- **50%** of Switzerland's raw material consumption comes from the construction sector.
- **80%** of the country's total waste is generated by construction activities.
- **57 million tonnes** of excavated and quarried materials are produced annually.
- **17 million tonnes** of demolition waste come from buildings, roads, and railway lines.
- The building sector accounts for **24%** of Switzerland's total greenhouse gas (GHG) emissions.
- With annual GHG emissions at **46 megatons CO_2-equivalent**, the building sector contributes approximately **11 megatons CO_2-equivalent**.

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*Policy and regulation names are provided in English, while their abbreviations remain in German.

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Chapter 1

International Drivers for a Circular Construction Industry

International Drivers for a Circular Construction Industry

Introduction

This chapter provides an overview of international policy developments that influence circular construction practices globally. International treaties and agreements play a crucial role in shaping national legislation, as they set common goals, establish binding commitments, and provide reference points for domestic policymaking. This chapter examines how Switzerland has translated these frameworks into national legislation and introduces a timeline highlighting the major legislative milestones at the international, EU, and Swiss levels relevant to circular construction.

As this whitepaper follows a funnel approach, this chapter begins with a broader overview of international policy developments which impact the construction sector. The subsequent chapters then narrow the focus to Swiss and EU legislation, analyzing their interrelations and implications for a SCCI.

For more detailed descriptions of international policies, refer to Appendix III.

Phases of Spillovers: International to National Policies

Switzerland's participation in international environmental governance has both informed and been reflected in the evolution of its national regulatory framework. As a signatory to the **Montreal Protocol** (1987)**,** Switzerland implemented national measures through the **Chemical Risk Reduction Ordinance** (ORRChem) to phase out ozone-depleting substances. This legislation, including provisions on hydrofluorocarbons, ensures adherence to the protocol's goals and contributes to global environmental protection. Switzerland's commitment to the **Paris Agreement** (2017) is reflected in the Swiss **CO2 Act**, which sets ambitious targets to reduce emissions by 50% by 2030 and reach net-zero emissions by 2050. Switzerland actively supports the **Basel Convention Amendment** by implementing national regulations to control the transboundary movement of hazardous waste, including plastic waste, under the **Ordinance on the Transboundary Movement of Waste**. Furthermore, at **COP29**, a climate finance summit held in Baku, Switzerland reaffirmed its commitment to global climate financing by contributing over CHF 700 million per year to international climate funds, which is substantially more than the CHF 50 million pledged at the previous summit, **COP26.**

Switzerland's involvement in the **Rio+20 Conference** (2012) and alignment with the UN **Sustainable Development Goals (SDGs)** have influenced its domestic policies on clean energy, climate action, and sustainable development. For example, Switzerland has integrated SDGs into its national strategies, such as increasing the share of renewable energy under its **Energy Strategy 2050** and reducing its carbon footprint and food waste in line with SDG 12 (Responsible Consumption and Production). Additionally, through its participation in the **Global Alliance on Circular Economy** and the adoption of the **Swiss Green Economy Action Plan**, Switzerland has incorporated CE principles into its national waste management, recycling, and resource efficiency policies.

LEGAL MILESTONES FOR A CIRCULAR CONSTRUCTION INDUSTRY

Swiss Legislation
- Acts & Ordinances
- Standards & Norms
- Regulations & Strategies
- Initiatives & Programs

EU Legislation
- Regulations & Directives
- Strategies & Roadmaps
- Packages & Deals
- Laws

International Legislation
- Treaties & Protocols
- Conferences & Summits
- Global Goals & Initiatives

	International	EU	Switzerland
1972 - 2003	**1972:** Stockholm Conference **1997:** Montreal Protocol **1992:** UN Conference on Environment and Development **1997:** Kyoto Protocol **2000:** Millennium Development Goals	**1989:** Construction Products Directive **2003:** Energy Performance of Building Directive	**1979:** Federal Spatial Planning Act **1983:** Environmental Protection Act **1990:** Technical Ordinance on Waste **1998:** Minergie Standard **2001:** Construction Products Act **2001:** Construction Products Ordinance **2004:** SIA Norm 112/1
2004 -2005			
2006- 2007			**2006:** Minergie(+Eco) Standard
2008 - 2009		**2008:** Waste Framework Directive **2009:** Eco-design Directive **2009:** Renewable Energy Directive	**2008:** Model Regulations of the Cantons I
2010	**2010:** Founding of Ellen MacArthur Foundation	**2010:** Recast Energy Performance of Building Directive	**2010:** SIA Norm 490 Series **2010:** Factsheet SIA Norm 2032
2011		**2011:** Construction Products Regulation **2011:** Roadmap to Resource Efficient Europe	**2011:** Energy Strategy 2050
2012	**2012:** Rio+20 Conference	**2012:** Energy Efficiency Directive **2012:** Construction 2020 Strategy	**2012:** CO_2 Ordinance
2013			**2013:** Green Economy Action Plan **2013:** CO_2 Act **2013:** Swiss Sustainable Building Standard
2014			**2014:** Model Regulations of the Cantons II **2014:** Construction Products Act & Ordinance amended
2015	**2015:** Paris Agreement **2015:** UN Sustainable Development Goals		**2015:** Avoidance & Disposal of Waste **2015-17:** Resource Trialogue
2016			**2016:** Energy Act
2017		**2017:** Energy Labelling Directive	**2017:** Updated SIA Norm 112/1
2018	**2018:** Basel Convention Amendment	**2019: Clean Energy Package** • Renewable Energy Directive • Energy Performance of Buildings Directive • Governance of the Energy Union Regulation • Energy Efficiency Directive	
2019	**2019:** Global Alliance on CE and Resource Efficiency		
2020		**2020:** Construction 2050 Alliance **2020: European Green Deal** • Circular Economy Action Plan • Renovation Wave Strategy • EU Taxonomy for Sustainable Activities • EU Plastics Pact *(ceases in 2023)* • EU Climate Pact • Fit for 55 **2021:** EU Climate Law **2021:** New European Bauhaus Iniative	**2020:** 20.433 Parliamentary Initiative: Strengthening the Swiss CE **2020:** Factsheet SIA 2032
2021	**2021:** Glasgow Climate Pact **2021:** WBCSD Vision 2050		**2021:** Updated SIA Norm 490 Series
2022	**2022:** UN Global Plastics Treaty (still not finalized)		**2022:** Zurich Cantonal legislation
2023	**2023:** COP28 Buildings Breakthrough	**2023:** Transition Pathway for Construction **2023:** Renewable Energy & Energy Efficiency Directives updated	**2023:** Climate and Innovation Act **2023:** Charta for Circular Construction **2023:** Circular Construction Catalyst 33
2024	**2024:** Buildings and Climate Global Forum	**2024:** Ecodesign for Sustainable Products Regulation replaces Eco-design Directive **2024:** Energy Performance in Buildings Directive & Construction Products Regulation amended	**2023:** SIA Norm 430:2023 **2024:** Energy Act amended
2025			

Chapter 2

Swiss Legal Landscape and Policy Development

SWITZERLAND'S LEGAL LANDSCAPE FOR A CIRCULAR CONSTRUCTION INDUSTRY

National Level

Federal Constitution (BV)

- ...
- *Art 73*: Sustainability
- *Art 74:* Environmental Protection
- *Art 75*: Spatial Planning
- ...

Acts (Gesetze)

Environmental Protection Act (USG)

- *Art. 30-32*: Waste management principles
- *Art. 35(j)*: Promotes sustainable material use and reuse in construction and deconstruction
- *Art. 49*: Promotes environmental technology, education & research

Construction Products Act (BauPG)

- *Art. 3.2(c)*: Hygiene, health & environmental protection
- *Art. 3.2(f)*: Energy efficiency & thermal protection
- *Art. 3.2(g)*: Sustainable use of natural resources

CO_2 Act (CO_2Gesetz)

- *Art. 3*: CO_2 reduction target
- *Art. 9*: Technical measures for reducing CO_2 buildings emissions
- *Art. 34*: Reduction of CO_2 emissions from buildings
- *Art. 35*: Promotion of technologies for reducing GHG

Climate & Innovation Act (KIG)

- *Art. 4*: Sector-specific targets
- *Art. 5*: Roadmaps for companies and sectors
- *Art. 6*: Promotion of innovative technologies & processes

Energy Act (EnG)

- Art. 45: Mandates cantonal regulations for energy efficiency & renewable energy in buildings, aligning with MuKEn.

Spatial Planning Act (RPG)

- Addresses the economical use of land and the separation principle

Ordinances (Verordnungen)

Ordinance on the Avoidance and the Disposal of Waste (VVEA)

- *Art. 12*: Recycling obligation according to the state of the art
- *Art. 16*: Information on construction waste disposal
- *Art. 17*: Separation of special construction waste
- *Art. 19*: Recycling and reuse options for construction material

Construction Products Ordinance (BauPV)

- *Ann. 1(3)*: Sets safety, hygiene & environmental standards for buildings
- *Ann. 1(6)*: Energy conservation and thermal protection requirements
- *Ann. 1(7)*: Reusability and recyclability of building materials to conserve natural resources

CO_2 Ordinance

- *Art. 3*: Interim CO_2 reduction target for 2015
- *Art. 16*: Reporting measures for reducing CO_2 buildings emissions
- *Art. 104, 108 & 130*: Global financial assistance for long-term reduction CO_2 buildings emissions
- *Art. 109*: Nationwide communication of the program to reduce CO_2 building emissions

Standards

SIA Norms

- National rules for construction split into technical, contract, and communication standards

* Model Cantonal Provisions (MuKEn)

- Energy standards for new & renovated buildings, incorporating renewable energy & nearly zero-energy building standards

Labels

Minergie (+Eco)

- Construction standard focused on energy efficiency also incorporating health and ecological aspects

Swiss Sustainable Building Standard (SNBS)

- Sustainability goals for Swiss construction focused on ecology, economy, and society

Cantonal level

Cantonal Constitutions (KV)

Zurich

- *Art. 106a*: Conditions & incentives for resource conservation

e.g. Schwyz, Schafhausen, Vaud

- Mandates the protection of natural resources

e.g. St. Gallen, Thurgau, Ticino, Jura, Nidwalden

- General consideration of environmental protection

*MuKEn is developed at the national level, but adopted at the cantonal level

Switzerland’s Legal Landscape for a Circular Construction Industry

Introduction

This section explores Switzerland’s legal landscape that influences the integration of CE principles into the construction sector. It examines the Federal Constitution, key acts and ordinances, and highlights differences in cantonal approaches where relevant. The discussion then turns to non-binding standards, labels, and voluntary initiatives. Previous Swiss policy developments are also presented as important stepping stones that have shaped the policies in place today.

The aim is to provide a holistic overview of the policy landscape, understanding how it has evolved to its current form and how it supports or constrains the adoption of circular practices in construction.

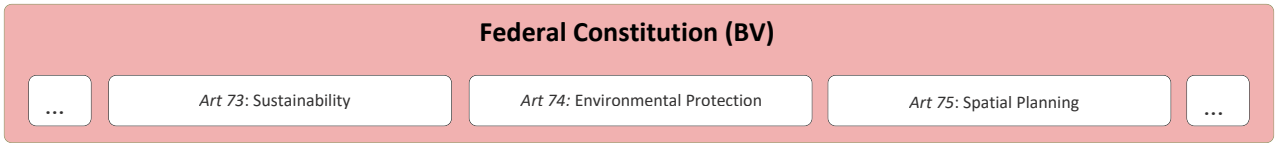
This and the following chapter examine only those legal instruments considered most relevant for a SCCI, as identified by experts. Rather than providing detailed descriptions of each regulation, the focus here lies on their implications. Detailed descriptions of the policies themselves can be found in the appendices.

Federal Constitution

The Federal Constitution (BV) of Switzerland plays a foundational role in shaping the legal framework for a SCCI. As the cornerstone of the Swiss legal system, the BV establishes the fundamental legal order of the Swiss Confederation. It delineates the relationship between the Confederation and the Cantons, outlines the structure and responsibilities of federal authorities, and defines the rights and duties of citizens. All acts, ordinances, and decrees at the federal, cantonal, and municipal levels must align with the BV, ensuring they do not contradict its provisions. For a SCCI, certain articles within the BV assume a pronounced role, laying the groundwork for subsequent regulatory measures (i.e., acts and ordinances) oriented towards CE integration.

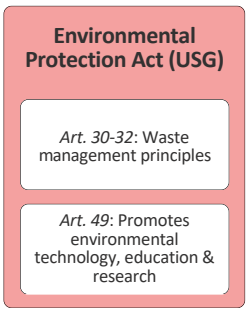
Within the BV, three key policy documents are identified to support the development at the legislative level of acts and ordinances.

- **Article 73** mandates that the Confederation and the Cantons strive for a sustainable balance between the natural environment's ability to regenerate and the demands placed on it by human activity.
- **Article 74** states that it obligates the Confederation to issue regulations for protecting humans and their natural environment from harmful influences and to prevent such influences. This article also enforces the polluter pays principle, with the Cantons responsible for executing the regulation.
- **Article 75** sets the principles of spatial planning and tasks the Cantons with the planning itself. This aims for the purposeful and economical use of land and the orderly settlement of the country, with the Confederation supporting and coordinating the Cantons' efforts.



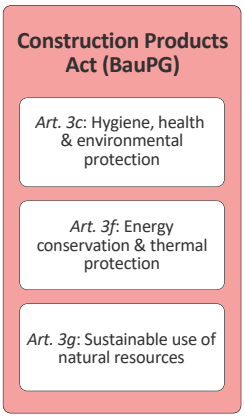
Acts and Ordinances

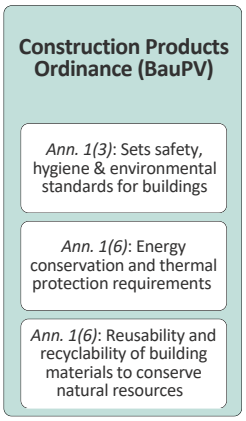
Environmental Protection Act (USG)



The Environmental Protection Act (Umweltschutzgesetz, USG), rooted in Article 74 of the BV, has been instrumental since its inception in 1983. It holds particular significance for a SCCI, emphasizing two critical aspects: (1) the advancement of environmental technology and (2) the establishment of Swiss waste management principles.

- **Articles 30-32** outline essential principles for waste management in Switzerland, advocating for waste minimization and utilization. It grants the Federal Council authority to regulate or prohibit the sale of products designed for short-term or single use and mandates environmentally friendly waste disposal, preferably within Switzerland.
- **Article 49** plays a pivotal role in this context, empowering the Confederation to both support and subsidize educational and research initiatives aimed at environmental improvement. This article is especially crucial for a SCCI, as it allows for up to 50% funding of projects that align with these goals.

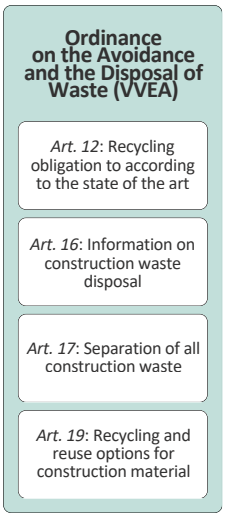




Construction Products Act (BauPG) & Construction Products Ordinance (BauPV)

The Construction Products Act (Bauproduktegesetz, BauPG) and Construction Product Ordinance (Bauprodukteverordnung, BauPV) are among the most important legislations for a SCCI, as they focus explicitly on the construction industry and directly mention circular construction practices. While the BauPG reinstates the core principles of a CE (environmental protection and sustainable resource consumption), the BauPV directly mandates the implementation of circular strategies. It hereby focuses on long lifetimes, closing of material loops through reusing and recycling, and the application of climate-friendly construction materials. All these aspects can reduce the grey energy of buildings. Retaining building structures, i.e., long lifetimes of buildings is hereby one of the strategies with the highest potential for saving impact in terms of CO_2 -equivalents.

Ordinance on the Avoidance and Disposal of Waste (VVEA)



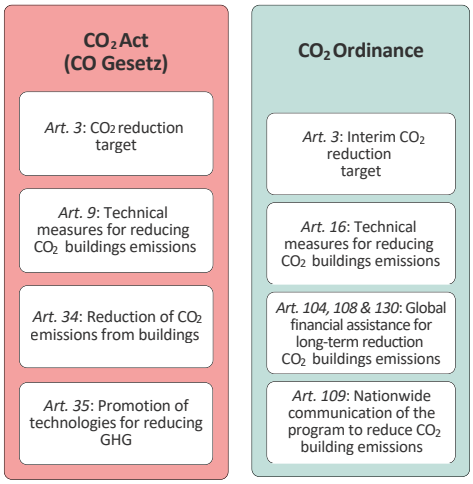
The Federal Council introduced the Ordinance on the Avoidance and Disposal of Waste (Abfallverordnung, VVEA) in 2015, superseding the 1990 Technical Ordinance on Waste and updating the Swiss waste management policy from 1986. While not all aspects of the VVEA contribute directly to a CE, it marks a significant step in implementing the waste management strategies outlined in the USG.

Along with the BauPG and the BauPV, the VVEA is among the only legal documents that directly mandates circular strategies. It is important to note, that the VVEA regulates waste management, meaning that it takes effect at a stage where a building or building components have already become waste. Therefore, it cannot support circularity upstream, by e.g., reducing the demand for construction. So generally, it can reduce the impact of construction but not the amount of construction.

CO2 Act & CO2 Ordinance

The CO2 Act, in force since May 1, 2000 and revised in 2011 to set more ambitious emission reduction targets, serves as the foundation of Switzerland's climate policy. While it does not explicitly address circular strategies, it establishes the legal framework for emission reductions. The CO2 Ordinance complements the Act by detailing concrete measures to achieve these targets across various sectors.

The CO2 Act aims to regulate emissions and detail practical measures, focusing on reducing fossil fuel-based heating emissions (i.e., building operational emissions) without directly mentioning grey emissions. A 2021 revision proposing higher reduction targets and broader measures was rejected by 51.6% of voters. Although the revised Act would not have significantly improved a SCCI regulatory environment, it reflects public resistance to more ambitious climate legislation.

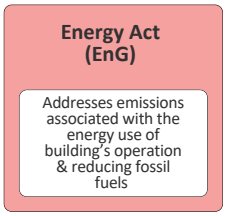


Climate and Innovation Act (KIG)

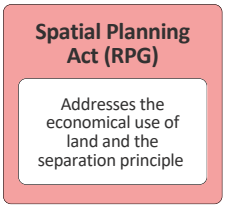
The Climate and Innovation Act (Klima- und Innovationsgesetz, KIG) took effect on January 1, 2025. Its primary objective is to uphold Switzerland's commitments as per the Paris Agreement of 2015, signaling the nation's determination to combat climate change and foster innovation in this context. Switzerland officially ratified the Paris Agreement on October 6, 2017, committing to reduce its emissions by 50% from 1990 levels by 2030. Additional to the CO2 Act, the KIG establishes sector-specific emission reduction targets, as outlined in Articles 4-6.

Conflicts may arise between KIG and USG due to differing resource goals. While USG aims to reduce consumption, KIG might require more resources, such as energy-intensive processes, to ensure materials are reusable, durable, or socially sustainable.

Energy Act (EnG)



The Energy Act (Energiegesetz, EnG) is closely tied to the CO2 Act with regards to the construction industry. While buildings are mentioned in the EnG, the legal text only concerns the emissions associated with the energy use of a building's operation. Although the EnG does not explicitly mention grey energy, its emphasis on energy efficiency implicitly covers it; Article 45 links cantonal regulations (MuKEn), environmental constraints (USG sets grey energy and CO_2 limits based on material type), and innovation (KIG) to meet sustainability targets.



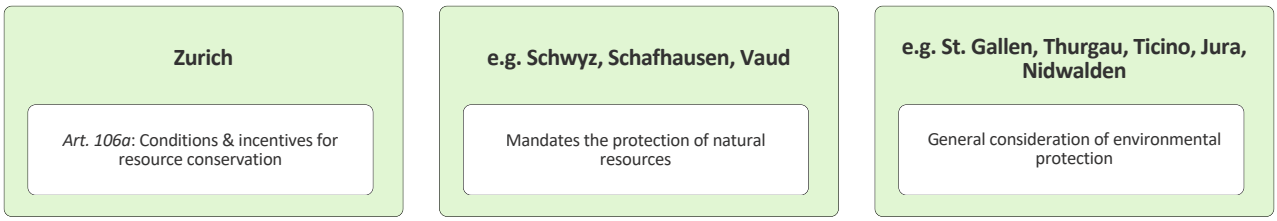
Federal Spatial Planning Act (RPG)

The Federal Spatial Planning Act (Raumplanungsgesetz, RPG) is crucial for the realization of infrastructure projects and their location. Hereby, two principles from the Act are especially important: (1) the economical use of the land and (2) spatial separation.

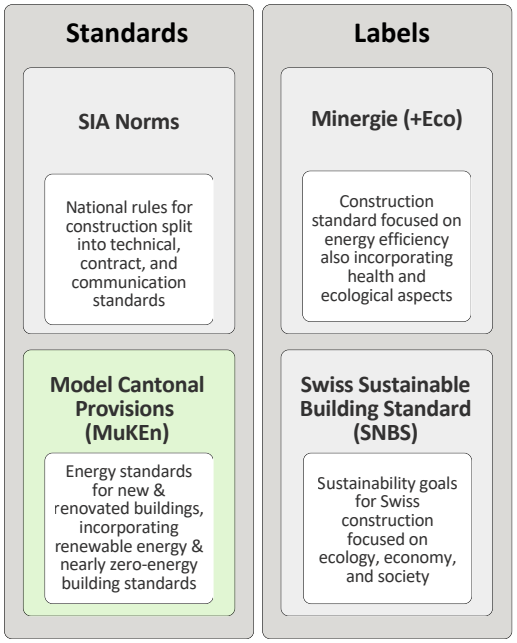
To effectively implement circular strategies that involve building infrastructure, such as construction waste recycling or separation plants, requires a thorough understanding of the RPG due to its complexity. Based on the legal framework and allowed land use, it can be concluded that recycling plants and other facilities related to a CE should be located in building zones. However, because these facilities may produce emissions, they are best suited for industrial or commercial zones on the outskirts of settlements. Therefore, creating small, isolated building zones away from existing settlement areas would violate the core principle of RPG.

Cantonal Legislation

In Switzerland, all 26 Cantons have their own constitutions, acts, and corresponding ordinances. While the level of legislation varies across the Cantons, Zurich in particular is quite advanced and could set an important precedent for CE in Switzerland. For businesses, this means that regulations differ depending on where they operate, requiring them to understand and comply with the specific legal frameworks of the Cantons in which they are active.



Standards and Labels



For sustainable construction, three SIA norms stand out: These include **SIA 112/1** Agreement Standard for Sustainable Building - building construction (i.e., contract standards), **SIA 490** Sustainability of Structures – assessing the sustainability of buildings; and **Factsheet SIA 2032** Grey Energy of Buildings.

SIA norms are important tools connecting the Confederation and the construction industry. They define state-of-the-art construction practices and enhance planning and investment security by making sustainable construction more transparent. Although not legally binding, SIA norms are widely applied in practice, shaping the industry's approach to lifecycle thinking, energy use, and GHG emissions. The SIA norms further promote circular strategies that can reduce grey emissions. The newly adopted SIA 430:2023, which supersedes SIA 430:1993, calls for a shift in focus from recycling to reuse as the most effective way to reduce construction waste and its associated emissions.

Unlike norms, **Model Cantonal Provisions (Mustervorschriften der Kantone im Energiebereich, MuKEn)** consists of model regulations developed at the national level to guide cantonal building energy laws. While also not binding themselves, these provisions serve as a blueprint for cantons to adopt and implement in their own legislation, which leads to variation across the cantons but plays a key role for circular construction.

Minergie (+Eco) is a voluntary building label that enhance market transparency and are widely recognized by consumers and professionals. They often reference SIA norms and go beyond legal requirements.

The **Swiss Sustainable Building Standard (Standard Nachhaltiges Bauen, SNBS)** similarly builds upon SIA norms, Minergie, and several other directives. While its legislative texts mainly focus on buildings' energy efficiency and recycling practices for construction and demolition waste (CDW), these standards focus also on circular design and the longevity of buildings. These aspects are crucial as they hold an even higher potential in reducing GHG emissions than recycling of CDW. Politically mandating a construction standard, like the SNBS, can bridge the gap in addressing grey energy until it is fully integrated into legislation. Additionally, standards make construction more transparent for consumers as well, by requiring certified buildings to meet the clearly defined SNBS criteria.

Voluntary Industry Initiatives

The **Green Economy Action Plan**, adopted by the Federal Council in 2013, lays out important strategies that can be applied to the construction industry, particularly in the areas of resource efficiency, sustainable infrastructure, and the adoption of CE principles.

The **Charta for Circular Construction (Charta Kreislauforientiertes Bauen),** launched in 2023, aims to reduce the use of non-renewable primary raw materials and significantly lower embodied GHG emissions. Each member of the Charta is expected to develop an action plan to implement CE approaches by 2026. It is favourable for a SCCI to combine top-down (building commissioners, standards, policies, legislations) and bottom-up (construction companies and commissioners) efforts. This allows for supply and demand for circular solutions to be aligned more efficiently.

The **Circular Construction Catalyst 2033 (C33)**, founded in 2023, connects stakeholders from government, industry, and academia, and focuses on driving innovation and knowledge sharing in areas such as market development, measurable circularity, legislation, and best practices. One of its key goals is to establish circular construction as the standard practice.

The **Resource Trialogue (Ressourcen-Trialog)**, created in 2016, includes 11 principles for the future of resource and waste management. Moreover, the developers of Resource Trialogue aim for Switzerland to play a leading role in advancing innovative CE technologies on the global stage. To achieve this, they are seeking funding from the Confederation.

Corporate Strategies

Construction companies are key stakeholders in construction projects. In Switzerland, around 50’000 companies operate in the construction industry. The five largest firm, namely Implenia AG, the Marti Group, Frutiger AG, Walo Betschinger AG, and Halter Bauunternehmung AG, generate a sales volume of over CHF 9 billion annually.[1] Four of these companies mention CE strategies on their website, indicating that the topic is at least on their agendas, even if the full extent of their efforts is not presented there.

First steps toward circularity can be seen in recycling activities. With relatively high rates (70-75%) in the construction industry, the contribution of the major firms to a SCCI is mainly concentrated in areas such as recycling CDW and building renovations. However, broader progress may require adjustments to business models, since reducing overall demand for new construction often conflicts with current industry incentives.

1 Hensley, Terence. “Switzerland’s 5 Largest Construction Companies.” Swisspartners, 7 Nov. 2023, swiss-partner.biz/swiss-companies/switzerlands-5-largest-construction-companies

Important Stepping Stones for Swiss Policy Making

The **Federal Act on Public Procurement (Bundesgesetz über das öffentliche Beschaffungswesen, BöB)** shifts public procurement beyond contracts awarded solely on price towards a "best value for money" approach. It explicitly incorporates environmental and social factors alongside quality, sustainability, and innovation. The BöB also harmonized procurement laws across federal, cantonal, and municipal levels, increasing transparency. These changes are new for Switzerland and could serve as a foundation for further revisions in other legislation. As public procurement also represents a significant share of Switzerland's construction demand, this shift is an important stepping stone for advancing circular construction practices in Switzerland.

In 2017, the EnG was revised to support **Energy Strategy 2050**, and Swiss voters further approved a 2024 referendum passing the **Federal Act on Secure Electricity Supply from Renewable Energies**. This act has so far achieved significant progress in expanding renewable energy infrastructure but also enhancing energy efficiency across sectors. Thus, the EnG has supported a SCCI by linking energy transition goals to the built environment through its requirements for building efficiency, renewable energy integration, and long-term decarbonization targets.

MuKEn, also a result of Energy Strategy 2050, is designed to align energy regulations across the cantons, particularly for buildings. As of 2024, 24 cantons have adopted or fully implemented MuKEn 2014, with some already incorporating even stricter energy efficiency regulations. The MuKEn is highly relevant for achieving a SCCI as the regulations address the operational emissions of buildings. While this scope is important, it neglects the broader impact of emissions from material extraction and production. The MuKEn are expected to be revised in alignment with CE strategies, however, as of now, CE principles are not incorporated into MuKEn.

Under the four priority areas of the **Green Economy Program**, 27 measures were listed to motivate economic actors to take voluntary agreements with the government to help transition to a green economy. The following are some measures that are relevant for a SCCI:

- Measure 1: Resource-efficient Information and Communication Technologies (ICTs)
- Measure 10: Competence center for resource efficiency
- Measure 15: Use of secondary gravel from excavated material
- Measure 16: Requirements for new building materials and construction methods

The Federal Office for the Environment (Bundesamt für Umwelt, BAFU), in collaboration with Swiss Federal Office of Energy (Bundesamt für Energie, BFE) and the Federal Office for Buildings and Logistics (Bundesamt für Bauten und Logistik, BBL), outlined the draft proposal for the **Parliamentary Initiative 20.433 "Strengthening the Swiss CE"** with measures encouraging self-initiated actions from economic actors to promote a CE. This initiative changes the standing of CE in Swiss legislation. The inclusion of grey energy (i.e., considering the whole lifecycle of a building) has a central role in the initiative and can shift the current focus from waste management to avoiding deconstruction and/or selective deconstruction. Another novelty of the initiative is that the Confederation should lead as an example in the transition to a circular construction industry.

Two popular initiatives illustrate how public debate has shaped the discourse on sustainability in Swtizerland, even through both were rejected at the ballot box. The **Popular Initiative "For a sustainable and resource-efficient economy (green economy)" (Eidgenössische Volksinitiative 'Für eine nachhaltige und ressourceneffiziente Wirtschaft (Grüne Wirtschaft)')** brought resource efficiency and circularity into the national debate, while the **Popular Initiative "For the future of Our Nature and Our Landscape" (Eidgenössische Volksinitiative 'Für die Zukunft unserer Natur und Landschaft (Biodiversitätsinitiative)')** broadened discussions on biodiversity and land use. Neither became law, but they have raised awareness and kept sustainability and CE measures on the political agenda.

Chapter 3
EU Regulation and Its Influence on Switzerland

EU Policy Influence on Swiss Regulatory Landscape

Switzerland's environmental policies and regulatory frameworks are deeply influenced by the EU. One of the key agreements is the **Mutual Recognition Agreement (MRA)**, introduced in 2002, which facilitates the mutual recognition of conformity assessments for products, including construction materials, between Switzerland and the EU.

Since 1999, Switzerland has aligned its construction product regulations, specifically the BauPG and BauPV with the EU's **Construction Products Regulation (CPR)**. In 2011, the EU updated its CPR to harmonize the conditions for marketing construction products and eliminate technical trade barriers within the EU and the European Economic Area. In response to this update, in 2014, Switzerland revised its BauPG and BauPV ensuring that Swiss regulations are equivalent and meet EU standards.

Switzerland mirrored the EU **Sustainable Development Strategy (SDS)** and **Resource Efficiency Roadmap** in its own sustainability efforts, particularly in the development of the **Swiss Green Economy Action Plan** (2013). The EU Resource Efficiency Roadmap also pushed for a transition to renewable energy and energy efficiency. Further, the **Swiss Ordinance on the Avoidance and Disposal of Waste** adopted key principles from the EU's Waste Framework Directive.

In March 2022, the European Commission proposed further revisions for the CPR, as announced in the 2019 **European Green Deal**. The European Parliament approved the revisions in April 2024, with the following key changes:

- The regulation mandates that all product information be accessible through a Digital Product Passport.
- To support CE principles, the regulation includes provisions for the reuse and remanufacturing of used construction products.
- The process for publishing standards will become faster and more efficient.

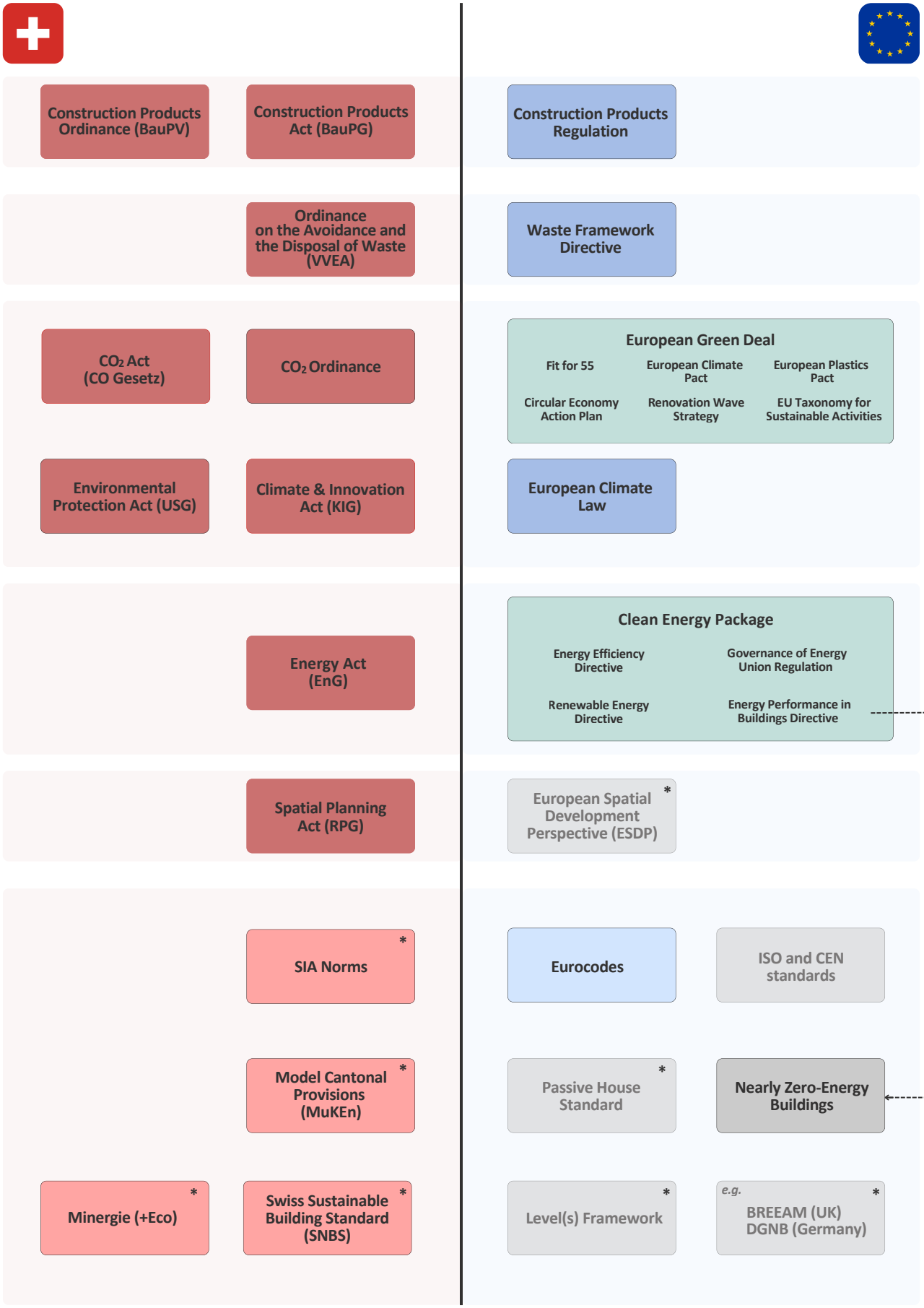
In turn, the Swiss government plans to begin revising its own legislation. The alignment between the CPR and BauPG is critical for maintaining the MRA. However, there is a risk that the MRA will not be updated following the EU CPR revisions, which could disrupt market access for Swiss construction products. A study is underway to evaluate risks, quantify economic impacts, and explore alternatives to preserve market access.[2]

Since the end of 2024, discussions focus on the potential consequences of the MRA's removal (or loss thereof), including the difficulty in importing construction products into Switzerland, the current status of the Swiss revision process, the EU Digital Product Passport, and the potential impacts of EU eco-design regulations on Swiss construction businesses.[3] These developments could have a significant impact on circular construction, as it highly relies on the efficient reuse of resources, and any disruption to the free movement of recyclable and reusable construction products and materials could hinder the adoption of sustainable construction practices in Switzerland.

2 "Revision Bauproduktegesetzgebung 2024." HANDELSchweiz, 4 Dec. 2023, handel-schweiz.com/branchen-update/revision-bauproduktegesetzgebung-2024/.

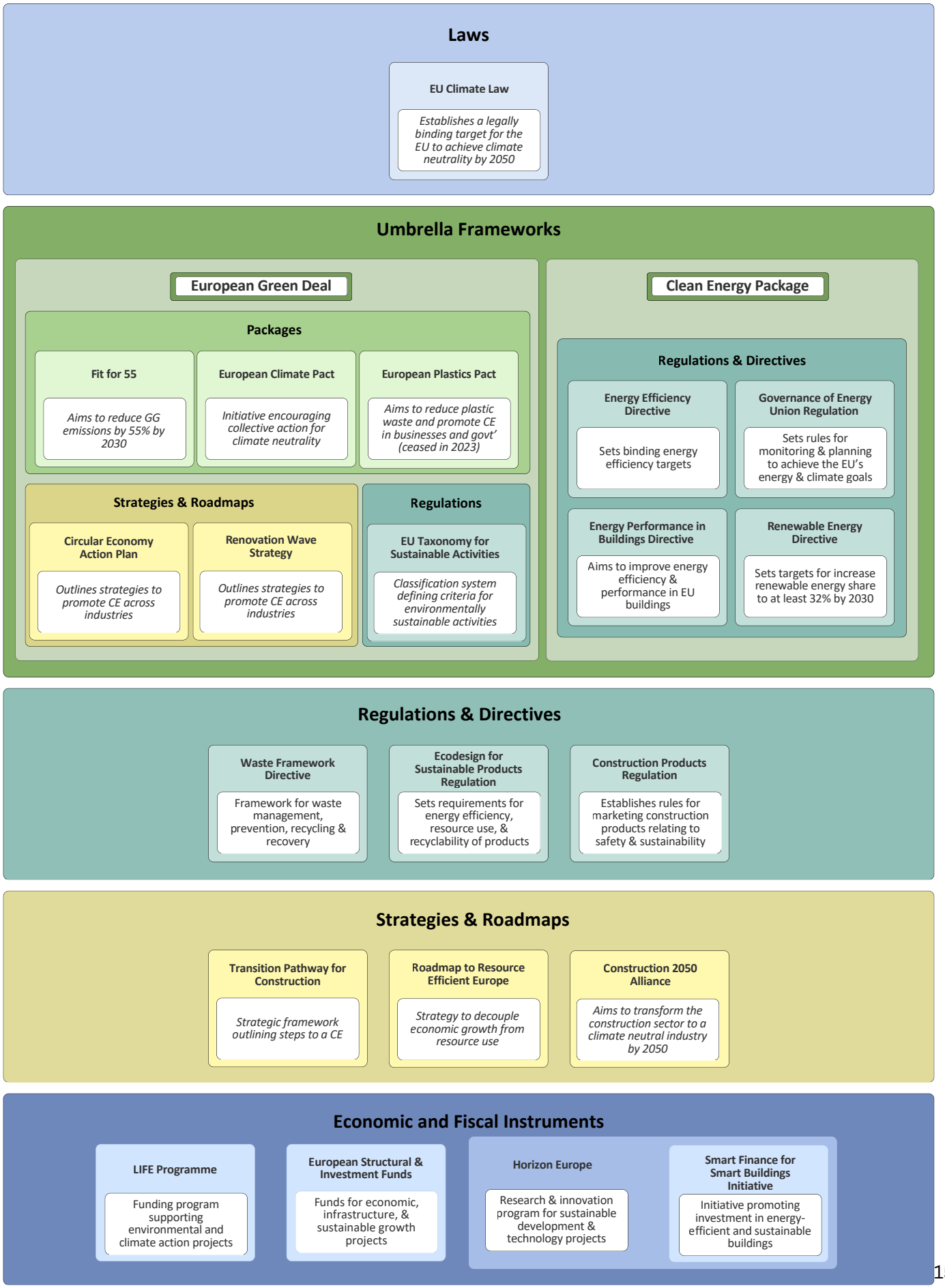
3 Revision Bauproduktegesetzgebung und Europäische Kontext." HANDELSchweiz, 4 Dec. 2023, handel-schweiz.com/veranstaltung/mitgliederinformation-nr-4/.

SWISS VS EU LEGAL LANDSCAPE FOR A CIRCULAR CONSTRUCTION INDUSTRY



Items marked with (*) are non-binding.
Note: Focuses on EU-level only; national regulations not covered. Grey elements will not be mentioned further in this paper.

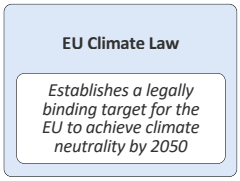
THE EU'S LEGAL LANDSCAPE FOR A CIRCULAR CONSTRUCTION INDUSTRY



The EU's Legal Landscape for a Circular Construction Industry

Legislative and Regulatory Instruments

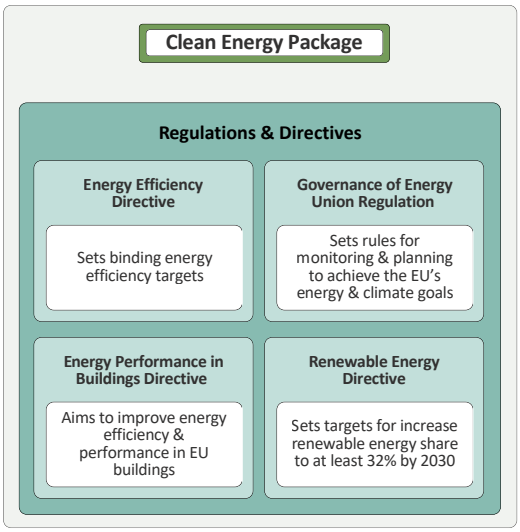
The **European Climate Law (Regulation (EU) 2021/1119)** aims to establish a legal framework for achieving climate neutrality in the EU by 2050. In addition to emissions reduction, the law emphasizes the need for not only sector-specific roadmaps to climate neutrality, but also a coordinated approach across various sectors.



The **Clean Energy Package** includes:

The **Energy Performance in Buildings Directive (EU) 2023/2413** outlines clear measures for new buildings and renovations, requiring buildings to meet nearly zero-energy standards.

The **Energy Efficiency Directive (EU) 2023/1791** sets annual energy savings obligations, particularly in sectors such as buildings and transport, focusing on measures like renovations, upgrades to heating and cooling systems, and adoption of efficient energy management practices.



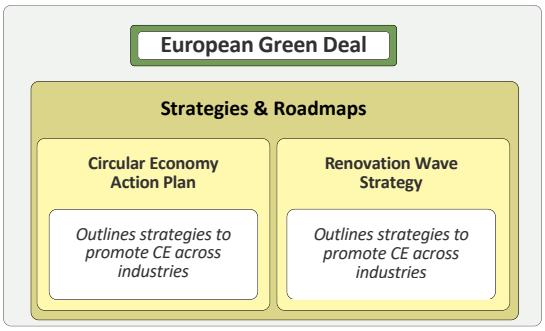
The **Waste Framework Directive (Directive 2008/98/EC)** marked a pivotal shift towards transforming waste into raw materials and promoted reuse across EU member states. This directive establishes measures aimed at safeguarding the environment and public health by minimizing waste generation and its negative impacts, enhancing resource-use efficiency, and reducing overall resource impacts.

The **Ecodesign for Sustainable Products Regulation (ESPR, Directive 2024/1781)** focuses on reducing negative environmental impacts of products by setting mandatory ecological requirements for energy-using and energy-related products sold in the EU. The text also addresses the cement industry, highlighting its high energy use and carbon intensity, and urges the Commission to set eco-design requirements for cement by 2030 (but not earlier than 2028).

The **Construction Products Regulation (CPR, Regulation (EU) 305/2011)** governs the sale and marketing of construction products within the EU. In 2022, the Commission published a proposal revising the CPR to incorporate CE principles, boost green public procurement of construction products, and ensure that all construction products disclose their carbon footprints for transparency and accountability. The proposal was finally approved by the Parliament in 2024 and will be established from 2026 onwards.

Agreement and Incentive-Based Instruments & Strategies and Roadmaps

The **European Green Deal** is under the EU Climate Law and sets the roadmap for a climate-neutral Europe by 2050.

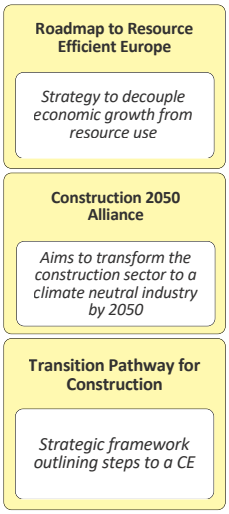


The European Green Deal includes:

The **Circular Economy Action Plan (CEAP)** focuses on reducing waste, extending product lifespans, and enhancing resource efficiency across all sectors. The plan outlines priority sectors including construction, where CE practices can have the most impact.

The **Renovation Wave Strategy** has three focus areas: (1) tackling energy poverty and worst-performing buildings to improve living standards and reduce energy costs for vulnerable populations, (2) decarbonizing heating and cooling systems, and (3) renovating public buildings and social infrastructure, such as schools and hospitals, to improve energy efficiency and climate resilience.

The strategy includes funding mechanisms, technical assistance, and the establishment of “one-stop shops” to boost the renovation process for building owners. It also promotes the **New European Bauhaus** initiative, which integrates design and sustainability in renovation projects, aiming to combine aesthetic appeal with green innovation.



The **Roadmap to Resource Efficient Europe** focuses on resource-heavy sectors including construction and suggests several measures, such as implementing eco-design, promoting sustainable product standards, and shifting taxation from labor to resource use and pollution. The roadmap also encourages investment in green innovation, improved product design, recycling, and resource recovery to support both economic growth and environmental sustainability.

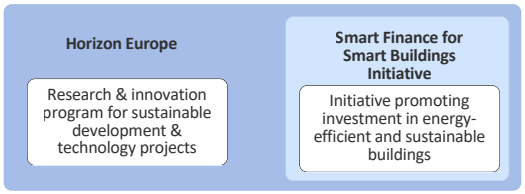
The **Construction 2050 Alliance** is a collaborative initiative uniting over 50 European organizations from the construction sector and related fields.

The **Transition Pathway for Construction** provides a roadmap outlining decarbonization, circular economy practices, and digital transformation for the construction industrial ecosystem. It addresses sectoral challenges like skill development, sustainability, and digitalisation.

Economic and Fiscal Instruments

Horizon Europe is the EU’s funding program for research and innovation, with a funding amount of €93.5 billion from 2021-2027. It focuses on 5 mission areas including:

- the Mission on Adaptation to Climate Change
- and the Climate Neutral and Smart Cities Mission



The **Smart Finance for Smart Buildings Initiative (SF4SB)** is a joint initiative by the Commission and the European Investment Bank (EIB). It promotes the renovation of existing buildings and the construction of new ones to meet high energy efficiency standards by facilitating better access to financing and integrating energy efficiency into investment strategies.

LIFE Programme 2021-2027 is an EU funding program which supports a circular construction industry by funding demonstration and governance projects, which serve as a catalyst for broader adoption of innovative technical and policy solutions.

Upcoming EU Legal Requirements:

Key Directives and Regulations Impacting the Next 1-3 Years

The **Corporate Sustainability Reporting Directive (CSRD)**, which entered into force in 2023, was applied by the first set of companies in the 2024 financial year, with reports due in 2025. This directive enhances transparency and comparability across industries, driving accountability in circular practices. For construction companies, this means disclosing how they minimize waste, optimize resource use, and integrate recyclable materials throughout the lifecycle of their projects.

The **Corporate Sustainability Due Diligence Directive (CSDDD)**, adopted in 2024, mandates that large companies, including those outside the EU with significant operations within it, actively identify, prevent, and mitigate adverse impacts on human rights and the environment throughout their value chains. This directive requires companies to conduct thorough due diligence to address potential and actual risks, ensuring responsible corporate behavior. Additionally, it compels large firms to develop transition plans aligned with the Paris Agreement's 2050 climate neutrality goals. Member States will have until July 2025 to transpose the directive into their national laws.

The **Right-to-Repair (R2R) Directive**, adopted in May 2024 and coming into effect in 2026, will legally require manufacturers to provide repair options for products that can be economically and technically repaired, thereby extending their lifespan and reducing waste. This directive is part of the EU's broader strategy to promote sustainability and CE principles by encouraging the repair and reuse of products rather than their disposal.

The **Carbon Border Adjustment Mechanism (CBAM)** is an EU policy designed to prevent "carbon leakage", which occurs when companies move production to non-EU countries with less strict emissions regulations. The CBAM is currently in a transitional phase from 2023 to 2025 and will be fully applicable from 2026 onwards. During this transitional phase, importers of selected carbon-intensive goods, including cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen, must report the embedded emissions of these products. From 2026 onward, importers will incur financial obligations, ensuring that imports align with the EU's carbon standards.

The **EU Emissions Trading System (ETS)**, launched in 2005, is the EU's primary tool for reducing GHG emissions by allowing companies to trade and sell surplus allowances of CO_2 emissions, incentivizing companies to reduce emissions. In 2023, the ETS2 was developed as an extension to ETS by including fuel combustion in buildings and road transport to drive emissions reductions across these high-impact sectors. The ETS2 will be fully operational in 2027, and this extension will serve as a critical step in embedding circular and resource-efficient practices in the construction sector.
Along with the ETS2, the Social Climate Fund (SCF) is also introduced providing financial support to vulnerable households, businesses, and transport users who might be disproportionately affected by the transition to a low-carbon economy. The SCF will be funded through revenue generated by the carbon allowances auctioned under the ETS2.

On a global level, the **Building Breakthrough** was launched in December 2023 at COP28 (the 28th United Nations Framework on Climate Change for the Conference of the Parties), pushing for near-zero emissions and resilient buildings by 2030. 27 countries have pledged their commitment to the Building Breakthrough. The development will be monitored by annual assessments of the global sector progress, the first of which took place in March 2024 at the Buildings and Climate Global Forum. The Forum, with over 1,400 attendants, concluded with the adoption of the **Declaration de Chaillot** signed by over 70 countries. The Declaration calls for international cooperation and outlines specific goals, such as implementing mandatory building codes, fostering public procurement policies that prioritize low-carbon materials, and creating financial incentives for sustainable construction.

Appendices

Appendix I

Detailed Swiss Legislations

Acts and Ordinances

Construction Products Act (BauPG)

As the USG seeks to reduce resource consumption, the BauPG plays a key role in defining the materials and processes required to bring products to market. The BauPG, launched in 2014, regulates the standards and requirements for construction products and buildings.

Article 3, paragraph 2 outlines seven essential characteristics that buildings must fulfil over their lifespan with normal maintenance. The requirement closely linked to CE principles are:

- **Article 3.2(c)**: Hygiene, health, and environmental protection.
- **Article 3.2(f)**: Energy efficiency and thermal protection.
- **Article 3.2(g)**: Sustainable use of natural resources.

Construction Products Ordinance (BauPV)

The BauPV, introduced in 2013, specifies how the characteristics defined in the BauPG should be implemented in practice. It states that buildings must be designed, constructed and demolished in a way that natural resources are used in a sustainable manner. Relevant sections of the BauPV include:

- **Annex 1(3)**, relating to Article 3.2(c) of the BauPG, states that the building must be designed and constructed to ensure it does not harm the hygiene, health, or safety of occupants and workers throughout its lifecycle, and should minimize environmental and climate impacts.
- **Annex 1(6)**, relating to Article 3.2(f) of the BauPG, requires buildings and their systems for heating, cooling, lighting, and ventilation must be designed and constructed to minimize energy consumption during use, considering the needs of the users and the local climate. Additionally, the building must be energy-efficient and consume as little energy as possible during its construction and demolition.
- **Annex 1(7)**, relating to Article 3.2(g) of the BauPG, mandates buildings to be designed, constructed, and demolished ensuring the sustainable use of natural resources. This includes enabling the reuse and recyclability of the building materials and components after demolition and using environmentally friendly raw and recycled materials in construction.

Ordinance on the Avoidance and Disposal of Waste (VVEA)

Relevant articles in the VVEA include:

- **Article 12** mandates that waste must be recycled or recovered for energy if it causes less environmental harm than other disposal methods or producing new products and acquiring alternative fuels. Recovery processes must adhere to the state-of-the-art standards.
- **Article 16**, for construction work, requires builders when applying for a building permit to provide information on the type, quantity, and disposal plans for waste if more than 200 m^3 of construction waste is expected, or if the waste contains hazardous substances like PCBs, PAHs, lead, or asbestos. Additionally, the builder must prove to the relevant authority upon project completion that the waste was disposed of in accordance with the approved plan.
- **Article 17**, similarly, requires special waste to be separated and disposed of separately from other waste in construction work.
- **Article 19** outlines the recovery of excavated material. Unpolluted material must be reused as construction material, raw material for construction, refilling extraction sites, or for landscaping. Material that meets specific criteria (Annex 3, number 2) can be used in hydraulic or bituminous construction materials, cement production, or for certain landfills. Material that does not meet these criteria cannot be recovered, except in cases like landfills or site remediation where treatment is done on-site.

CO2 Act

Relevant articles include:

- **Article 3**, which states emission reduction targets of 20% by 2020 and annual targets of 1.5% reduction until 2024 (as compared with 1990 levels). Further, 75% of the emissions reduction should occur domestically in Switzerland.
- **Article 9**, which requires cantons to

significantly reduce CO_2 emissions from buildings heated with fossil fuels, in accordance with targets defined in Article 3. This involves setting and enforcing building standards for both new and existing structures, reflecting the latest technological advancements. Additionally, the cantons must submit annual progress reports to the Confederation.

- **Article 34**, which addresses the allocation of revenue from the CO2 tax, earmarking about CHF 450 million (one-third of the funds) for long-term CO_2 emission reduction in buildings, specifically targeting energy efficiency measures outlined in the Energy Act. A portion of these funds, up to CHF 30 million, will also support geothermal energy projects for heating.
- **Article 35**, which focuses on environmental technology funding, allocating CHF 25 million from the CO2 tax revenue to the Confederation's Technology Fund. This fund supports companies engaged in developing and marketing technologies that reduce GHG emissions, promote the use of renewable energies, or efficiently manage natural resources.

CO2 Ordinance

Relevant articles include:

- **Article 3** sets sectoral interim targets for 2015: the building sector must reduce emissions to no more than 78% of 1990 levels, the traffic sector to 100%, and the industry sector to 93%. If any sector fails to meet these targets, the Federal Department of the Environment, Transport, Energy and Communications (Eidgenössische Departement für Umwelt, Verkehr, Energie und Kommunikation, UVEK) will consult with relevant parties and request additional measures from the Federal Council.

- **Article 16** requires cantons to regularly report to the Federal Office of the Environment (BAFU) on measures to reduce carbon emissions from buildings, including details on the effectiveness of these measures and the progress of emissions reductions. They must also provide supporting documents upon request.
- **Articles 104, 108, and 130** outline the framework for carbon emissions reduction in Switzerland, including eligibility for global financial assistance for the cantons (Article 104), payment structures for implementing measures (Article 108), and the division of responsibilities for implementation between authorities like the BAFU and the BFE (Article 130).
- **Article 109** states that the BFE is responsible for nationwide communication of the carbon emissions reduction program for buildings and ensuring uniform communication across cantons. The cantons must also publicize the program and emphasize that part of the funding comes from the proceeds of the CO2 levy.

Relating to Article 3, the building sector achieved its interim target, with emissions at 74% of 1990 levels. The industry sector not only met but surpassed its target, with emissions at 83% of 1990 levels. In contrast, the transport sector failed to meet its target, with emissions at 104% of 1990 levels.[4]

Climate and Innovation Act (KIG)

The KIG was successfully approved with a significant 59.1% yes-share in the popular vote held on June 18, 2023. Relevant articles are:

- **Article 4** mandates an 82% reduction in GHG emissions by the year 2040 for the building sector, with the goal of achieving a 100% reduction by 2050.
- **Article 5** imposes a requirement on all Swiss companies to achieve net-zero emissions by the year 2050. This means that companies must account for both direct and indirect emissions in their efforts to eliminate their overall carbon footprint. To achieve these standards, companies and sectors can draw up roadmaps. The Confederation provides companies that develop relevant roadmaps by 2029 with resources, standards, and expert advice.
- **Article 6** outlines the Confederation's financial support to companies until 2030 for implementing innovative technologies and processes that contribute to the execution of their respective roadmaps, or the specific measures as outlined in Article 5.

Energy Act (EnG)

Relevant article:

- **Article 45** establishes the cantons'

4 Swissinfo.ch. "Mixed Report Card for Swiss CO2 Emissions." SWI Swissinfo.Ch, www.swissinfo.ch, 28 Jan. 2024, www.swissinfo.ch/eng/sci-tech/greenhouse-gases_mixed-report-card-for-swiss-co2-emissions/43110658.

responsibilities in promoting energy efficiency and the use of renewable energy in buildings, aligning with Minergie, MuKEn, or a comparable building standards.

Federal Spatial Planning Act (RPG)

The 2 principles of the RPG are:

1. **Economical Use of Land**: Aim for compact, concentrated, and orderly settlement development.
2. **Spatial Separation**: Establish distinct building zones and non-building areas, with exceptions mainly for agricultural practice and bio-energy production.

Cantonal Legislation

In the constitutions of the Swiss cantons, climate and environmental protection had strongly varying significance. Some cantons' constitutions do not mention climate and environmental protection at all (e.g., Lucerne, Obwalden, Zug, Appenzell Innerrhoden, Valais). Most of the cantons mention environmental protection quite generally (e.g., St. Gallen, Thurgau, Ticino, Jura, Nidwalden) and few cantons mandate the protection of natural resources (e.g., Schwyz, Schaffhausen, Vaud). Zurich is the only canton that directly mentions CE in its constitution. The change to Zurich's constitution was put to a popular vote and received approval from 89.3% of voters.

Norms and Standards

Norms

In Switzerland, norms developed by the Swiss Society of Engineers and Architects (SIA) are generally applied in construction and planning. These SIA-norms are national rules of construction and are divided into three types: technical standards, contract standards, and communication standards. All norms are regularly updated.

- **SIA Norm 112/1** was launched in 2004 and last updated in 2017. This norm aims to involve planners as early as possible in the development and decision-making of projects to ensure an optimally sustainable feasibility and successful realization of the set goals. European standards for sustainability supplement SIA 112/1 regarding the assessment methodology of building sustainability. This standard does not include technical rules of construction. As a communication norm, it forms the basis for agreeing on objectives and deriving performance expectations of sustainable construction.
- **SIA 490 Norm Series**, initially launched in 2010 and last updated in 2021, is part of a broader set of European standards, outlining guidelines and requirements for assessing all types of buildings based on their environmental, social, and economic quality throughout their entire lifecycles. The sustainability assessment evaluates how much the buildings contribute to sustainable construction and development. This includes new buildings as well as existing buildings, their remaining lifespan and disposal phase.
- **Factsheet SIA 2032**, also introduced in 2010, focuses on assessing the environmental impacts of building construction, recognizing the importance of grey energy. It defines the "creation" phase of a building, which is used in accordance with the information sheet on the SIA Energy Efficiency Path (SIA 2040). The term "creation" hereby includes all material and energy flows. Furthermore, these flows are considered from the procurement of raw materials, production of building materials, installation and replacement measures on the construction site, to the eventual demolition of the building and disposal. While the factsheet does not cover building operation, it covers the full lifecycle and includes a visual representation to effectively communicate the concept of building lifecycle assessment.
- **SIA Norm 430:2023** presents a standard for the handling of construction waste, emphasizing resource conservation and CE. The aspect of waste avoidance must already be considered in the planning phase and anchored in tenders and contracts – a vital step for the sustainable use of building materials. The new standard requires reusable building materials and components to be analyzed at an early stage to reduce the volume of waste. The client must now also provide information on the type, quality and quantity of waste in the planning application and demonstrate compliance with the disposal concept at the end of the project, all in line with VVEA guidelines.

SIA norms are important tools connecting the Confederation and the construction industry. They define the state-of-the-art practice. The presented norms above can provide planning and investment security, because they increase the transparency of sustainable construction practices. Clearly defining the life cycle perspective on buildings is essential as it mandates the inclusion of grey energy and thereby a more complete way of

assessing GHG emissions. The SIA norms further promote circular strategies that can reduce grey emissions. The newly adopted SIA norm supersedes SIA 430:1993 and calls for a shift in focus from recycling to reuse as the most effective way to reduce construction waste and its associated emissions.

Standards

Two Swiss construction standards stand out with regards to promoting a more circular construction industry. Namely, the Minergie (+Eco) standard and the Swiss Sustainable Building Standard (SNBS). The Minergie standard was founded in 1998 and primarily focuses on energy-efficient construction. In 2006, the standard was with the +Eco addition, incorporating health and ecological aspects. Specifically, construction ecology refers to long building lifespans, flexible usage, deconstructability, usage of recycled construction materials, certified products, and minimizing the grey energy of all construction materials used.

The SNBS, developed in 2013 by the Swiss Network for Sustainable Building (Netzwerk Nachhaltiges Bauen Schweiz, NNBS), sets sustainability goals for properties based on the Federal Council's strategy for sustainable development. It focuses on three pillars of sustainable construction: ecology, economy, and society, considering the building and its location in relation to its surroundings throughout the property's lifecycle, including planning, construction, and operation. The standard's indicators promote a circular construction industry by encouraging the reuse of construction materials, maintaining a register of all materials used on-site, documenting emissions (including grey emissions), implementing waste separation systems, and recycling.

Important Stepping Stones for Swiss Policy Making

Federal Act on Public Procurement (BöB)

The BöB underwent a major revision in 2021, introducing shifts that could influence future laws in the private construction sector.

Energy Strategy 2050

Energy Strategy 2050, introduced in 2011, is a national initiative aimed at transforming the country's energy system to be more sustainable, secure, and efficient. The strategy focuses on reducing energy consumption, increasing the share of renewable energy sources, and phasing out nuclear energy by 2050. This initiative aligns with broader international and EU environmental goals, including reducing greenhouse gas emissions and transition to a low-carbon economy.

Green Economy Program

In 2010, the Federal Council defined six areas to act on for the Green Economy and assigned corresponding tasks to promote sustainability across all sectors. Then in 2013, the UVEK updated the progress on these six action areas and provided a detailed report, which included 27 existing and new measures organized into the four priority areas: (1) consumption and production, (2) wastes and raw materials, (3) cross-cutting instruments, (4) targets, monitoring, information and reporting. The relevant measures include:

- **Measure 1: Resource-efficient ICTs** – Utilize ICTs to reduce resource use across sectors, improving energy and resource efficiency through procurement and research initiatives.
- **Measure 10: Competence center for resource efficiency** – Establishes a competence center to support industries, including construction, in adopting resource-efficient practices.
- **Measure 15: Use of secondary gravel from excavated material** – Beyond regulating the use of secondary gravel itself, this measure also aims to develop regulations that promote the use of secondary gravel and decentralized storage. As Switzerland also faces a space shortage as gravel pits are being filled faster than they are being excavated, this measure will also help alleviate this issue.
- **Measure 16: Requirements for new building materials and construction methods** – These requirements are intended to ensure sustainable use and management of construction materials throughout their lifecycle, promoting environmentally friendly construction practices and prioritizing high recycling rates when structures are dismantled.

The Swiss Green Economy Action Plan was also a formalization and expansion of the principles and measures laid out in this framework.

Model Cantonal Provisions (MuKEn)

In Switzerland, the cantons collaborate on energy policies through the Conference of Cantonal Energy Directors (EnDK), which brings together energy officials from each canton. This group, alongside the Conference of Energy Specialists

(EnFK), works on technical issues and develops unified energy guidelines. The MuKEn 2008 introduced energy standards aimed at improving energy efficiency in buildings, focusing on insulation and heating system improvements. However, the MuKEn 2014 significantly raised the bar by including stricter regulations for new and renovated buildings, integrating renewable energy use, and introducing nearly zero-energy building standards. Additionally, the EnDK introduced the Cantonal Energy Certificate for Buildings (GEAK), a tool for evaluating energy performance and providing advice nationwide.

As of 2024, 2 cantons (Aargau and Solothurn) are still in the post-parliamentary phase, meaning the regulations have already been approved by their parliaments and are in the process of being implemented. [5]MuKEn 2008 remains in effect in those cantons that have not yet fully transitioned to the 2014 provisions.

Parliamentary Initiative 20.433 "Strengthening the Swiss CE" [6]

Submitted in 2020 by the Swiss National Council's Environment, Spatial Planning, and Energy Committee (Kommissionen für Umwelt, Raumplanung und Energie der Eidgenössischen Räte, UREK), the Parliamentary Initiative 20.433 "Strengthening the Swiss CE" was launched. Its main objective is to support Switzerland's CE by establishing the legislative framework required to lessen its negative effects on the environment, conserve resources, and encourage sustainable patterns of production and consumption. This decision came after several parliamentary initiatives were submitted concerning waste reuse, recycling, resource conservation, and CE. These initiatives were withdrawn to pave the way for the parliamentary initiative 20.433. The measures concerning a SCCI include:

- **Embedding resource conservation and circular economy principles**: Establishing legal frameworks to embed resource conservation and circular economy practices, focusing on reuse, recycling, and reducing environmental impact, both domestically and abroad.
- **Preparing products for reuse**: Expanding the definition of "disposal" in the USG to include preparation for reuse, such as testing, cleaning, and repairing – encouraging longer product lifespans by promoting circular business models and reducing reliance on waste incineration.
- **Designing resource-efficient products and packaging**: Reducing a product and packaging's environmental impact through eco-design, using fewer materials and promoting cleaner material cycles.
- **Promoting resource-efficient construction**: Allowing the Federal Council to set requirements for resource-efficient construction, promoting the use of recycled materials and minimizing the environmental impact of buildings throughout their life cycle by setting limits on grey energy in construction.
- **Recovering and recycling resources**: Strengthening efforts to recover valuable materials from waste (e.g. metals such as zinc, copper and lead) and promote recycling, ensuring that resources are efficiently reused rather than disposed of.
- **Leading by example through federal initiatives and public procurement**: The federal government should lead by example in resource-saving and circular construction requirements during the planning, operation, and dismantling of its buildings and other public procurements, encouraging other sectors to follow suit.

This initiative would change various Swiss acts, including:

- **Value-Added Tax Act (Mehrwertsteuergesetz, MWSTG) (Art. 23, Para. 2, No. 12)**: A minority proposes exempting recycled construction materials and used building components from MWSTG, hoping this would incentivize the use of recycled materials over conventional ones.
- **EnG (Art. 45, Para. 3, Letter e)**: The focus on grey energy in building materials aligns with CE goals. The federal government mandates that cantons set limits on grey energy for new and renovated buildings, promoting low-grey-energy materials and construction methods, ultimately reducing energy consumption throughout a building's lifecycle.
- **USG**:
  - **Art. 7 para. 6bis**: "Disposal" now includes "preparation for reuse," extending disposal

5 "Umsetzung MuKEn 2014." Conference of Cantonal Energy Directors (EnDK), 14 Aug. 2024, https://www.endk.ch/de/ablage/grundhaltung-der-endk/Stand%20Umsetzung%20MuKEn%202014%20CH-Karten_20240814.pdf/view.

6 On March 15, 2024, both the National Council (126 in favour, 65 against) and the Council of States (43 unanimous) voted on the initiative.

financing to cover related activities like inspection and repair.

- **Art. 10h para. 1, 2, 3 and 4**: The amendment makes resource conservation a key mandate for authorities to guide CE practices, allows the federal government to support collaboration platforms with financial assistance, requires the Federal Council to report on progress in resource efficiency and consumption, and mandates regular reviews to ensure laws do not obstruct resource conservation initiatives.
- **Art. 30a**: The Federal Council can ban or impose fees on single-use products, considering environmental impact and industry measures, with minority proposals calling for stronger obligations.
- **Art. 30d**: The amendment prioritizes material recycling over energy recovery when technically feasible and economically viable, with specific waste types and a recycling cascade outlined for mandatory material recovery.
- **Art. 35j**: The Federal Council can set requirements for resource-efficient and circular construction, promoting eco-friendly materials, recycling, and reuse, with federal enforcement and exemplary practices in government buildings.

After the submission of the Parliamentary Initiative 20.433, six additional postulates were introduced to address sustainable waste management in Switzerland. These postulates focused on different aspects of CE and resource conservation, including the strengthening of recycling efforts, improving efficiency in waste processing facilities, and enhancing the recovery of valuable materials.

Popular Initiative "For a sustainable and resource-efficient economy (green economy)"

Launched in 2016 and voted on in 2018, this Popular Initiative, aimed to push Switzerland towards a more sustainable and CE by promoting resource efficiency and reducing environmental impacts across sectors. Although the initiative was rejected by Swiss voters, it sparked public debate on the green-economy transition, raised awareness of the need for stronger environmental and sustainability measures, and influenced the integration of those principles into Swiss legislation and the Green Economy Action Plan.

Popular Initiative "For the future of Our Nature and Our Landscape"

The popular initiative "For the future of our nature and our landscape" (Eidgenössische Volksinitiative 'Für die Zukunft unserer Natur und Landschaft (Biodiversitätsinitiative)') was launched in 2018 by environmental groups and organizations, aiming to strengthen the protection of Switzerland's natural heritage. This initiative sought to address the growing concerns over the degradation of nature and landscapes caused by urban sprawl, industrialization, and overexploitation of natural resources. It called for stronger measures to ensure that Switzerland's natural environments, including forests, open spaces, and biodiversity, are preserved for future generations. The initiative was put to a nationwide vote on September 22, 2024. While it received considerable support, it was ultimately rejected by Swiss voters with 63.04% of the vote against.

Industry Initiatives and Corporate Strategies

Green Economy Action Plan

The Green Economy Action Plan introduced by Switzerland in 2013 outlines a series of steps to promote sustainable development across various sectors, including construction. Key steps related to construction include the encouragement of energy-efficient building practices, the use of renewable materials, and the promotion of green building technologies that reduce environmental impact. Moreover, the action plan supports recycling, reuse of materials, and energy-efficient retrofitting in existing buildings, which are vital elements for creating a circular construction industry.

Charta for Circular Construction

The transformation of the construction industry is not solely driven by construction companies, but also by those commissioning the projects. In June 2023, twelve major public and private builders signed the Charta for Circular Construction. These organizations aim to reduce the use of non-renewable primary raw materials down to 50% of the total mass by 2030 and significantly lowering embodied GHG emissions. Each partner is expected to develop an action plan to implement CE approaches by 2026. These actions include prioritizing refurbishment over new construction, adopting long-term building strategies, minimizing

material usage, promoting reuse, making informed material choices, and reducing waste.

Circular Construction Catalyst 33 (C33)

The C33, founded at the beginning of 2023, is another Swiss initiative aimed at promoting a CE in the construction industry. It serves as a neutral platform for information exchange, collaboration, and the coordination of activities related to circular building practices. One of its key goals is to establish circular construction as the standard practice by 2033, supporting the reduction of waste and GHG emissions across the sector.

Resource Trialogue

Between 2015 and 2017, important players from politics, government, business, and society came together and built the Resource Trialogue. The framework of the Resource Trialogue includes 11 principles for the future of resource and waste management. The principles understand the insistence of the industry to act independently and voluntarily, as well as having an unregulated market for waste management. Still, it acknowledges the need for waste reduction, CE, producer and consumer responsibility, and transparency. Moreover, the developers of Resource Trialogue aim for Switzerland to play a leading role in advancing innovative CE technologies on the global stage. To achieve this, they are seeking funding from the Confederation. Initiatives like Resource Trialogue are vital for advancing a SCCI, as strong partnerships are key to integrating a CE within the complex system of policies and stakeholders. This initiative underscores the industry's need for political focus on innovation and financial support, rather than top-down regulation.

Appendix II

Detailed EU Legislations

Legislative and Regulatory Instruments

The European Climate Law (Regulation (EU) 2021/1119)

Entered into force in 2021, the European Climate Law aims to establish a legal framework for achieving climate neutrality in the EU by 2050. It sets a binding target for a net reduction in greenhouse gas emissions of at least 55% by 2030 compared to 1990 levels, and it includes provisions for setting climate targets for 2040. The law also mandates that the European Commission report regularly on the progress made towards these goals and outlines a mechanism for assessing the adaptation to climate change.

In addition to emissions reduction, the law emphasizes the need for not only sector-specific roadmaps to climate neutrality, but also a coordinated approach across various sectors. It establishes an independent European Scientific Advisory Board on Climate Change to provide scientific insights and guidance on EU climate actions, while driving the adoption of sustainable practices, such as those critical to a circular construction industry.

Clean Energy Package (CEP)

The CEP, adopted in 2019, is a set of legislative proposals aimed to accelerate the EU's energy transition to cleaner energy and decarbonize its energy landscape. The CEP was proposed by the European Commission in November 2016 and overhauled the EU's energy policy framework to enhance sustainability goals. The package consists of the eight legislations, the following are relevant to circular construction:

- **Governance of the Energy Union Regulation (EU) 2018/1999** requires each Member State to develop an integrated National Energy and Climate Plan (NECP) for 2021 to 2030, with a long-term outlook towards 2050, outlining how they will achieve their targets for the 5 dimensions of the Energy Union: (1) security, solidarity and trust, (2) a fully integrated internal energy market, (3) energy efficiency, (4) climate action and decarbonization, (5) research, innovation and competitiveness.
- **Energy Performance in Buildings Directive (EU) 2024/1275**, a revision of Directive 2018/844, came into effect in May 2024 across all Member States. This updated directive aims to significantly enhance energy efficiency in buildings and decarbonize building stocks. It further outlines clear measures for new buildings and renovations, requiring buildings to meet nearly zero-energy standards. Additionally, it mandates improvements in heating, cooling, and air-conditioning systems to reduce emissions and lower energy consumption.
- **Renewable Energy Directive (EU) 2023/2413,** adopted in October 2023, is a revision of the Directive that was originally introduced in 2009. The revision significantly raises renewable energy targets across the EU and sets a binding target for renewable energy to make up 42.5% of the EU's energy mix by 2030, and details provisions for the fast integration of renewable energy projects across various sectors.
- **Energy Efficiency Directive (EU) 2023/1791,** an update to Directive 2018/2002, strengthens the EU's commitment to the 'energy efficiency first' principle as a fundamental pillar of sustainability goals for the EU and sets energy savings obligations and increase energy efficiency. This revision introduces stricter energy savings targets, requiring Member States to reduce primary and final energy consumption more ambitiously. It also sets annual energy savings obligations, particularly in sectors such as buildings and transport, focusing on measures like renovations, upgrades to heating and cooling systems, and adoption of efficient energy management practices.

Waste Framework Directive (Directive 2008/98/EC)

The Waste Framework Directive marked a pivotal shift towards transforming waste into raw materials and promoted reuse across EU member states. This directive establishes measures aimed at safeguarding the environment and public health by minimizing waste generation and its negative impacts, enhancing resource use efficiency, and

reducing overall resource impacts. All EU member states are required to implement measures to meet the targets:

- by 2020, they must ensure that at least 50% by weight of household waste materials, including paper, metal, plastic, and glass, are prepared for reuse or recycled.
- by 2020, for non-hazardous construction and demolition waste, the target is a minimum of 70% by weight.
- and by 2025, the targets for municipal waste recycling must reach at least 55%, 60%, and 65% by 2025, 2030, and 2035, respectively.

Since the initial launch in 2008, the directive has undergone several amendments to enhance transparency and accountability (in 2014), to increase recycling and reuse targets (in 2018), and its latest amendment in 2023 to address textile waste. In the 2023 directive, some articles relevant to circular construction include:

- **Article 9: Prevention of waste** – Promotes the design and production of resource-efficient, durable, and repairable products, emphasizes the prevention of waste from critical raw materials, encourages systems for the reuse and repair of various items, and aims to reduce waste generation in industrial processes and construction activities.
- **Article 11: Preparing for re-use and recycling** – Member States are required to implement measures that promote selective demolition to safely manage hazardous substances and enable the reuse and high-quality recycling of materials, while also establishing sorting systems for construction and demolition waste, including wood, mineral fractions, metals, glass, plastics, and plaster. By 2020, they must ensure that at least 70% by weight of non-hazardous construction and demolition waste (excluding naturally occurring materials classified under category 17 05 04) is prepared for reuse, recycled, or recovered.

The Directive has been reformed again in March 2024 with additional measures managing food and textile waste reduction.

Ecodesign for Sustainable Products Regulation (ESPR, Directive 2024/1781)

The Ecodesign Directive, established in 2009, focuses to reduce negative environmental impacts of products by setting mandatory ecological requirements for energy-using and energy-related products sold in the EU. Over time, the Directive has evolved to cover over 40 product groups, which are responsible for a significant portion of the EU's GHG emissions, including products used in construction such as windows and insulation materials. The aim is to reduce the energy consumption and enforce other environmental considerations during the design stage of the products. The Directive lists specific measures for each product group and introduces new standards for various energy-related products.

Construction Products Regulation (CPR, Regulation (EU) 305/2011)

Replacing the Construction Products Directive from 1989, the CPR governs the sale and marketing of construction products within the EU. Its primary aim is to ensure that consumers, public authorities, and professionals have access to reliable information about the performance of these products. The CPR requires for manufacturers to provide a Declaration of Performance (DoP) for each product they sell. This document outlines the product's key characteristics and demonstrates how it complies with harmonized standards. Additionally, products that meet these European standards must bear the 'CE' marking, a symbol that signifies the product's conformity with the CPR. The regulation also includes Harmonized Technical Specifications, which serve as the benchmarks for assessing and verifying the performance of construction products.

Agreement and Incentive-Based Instruments

European Green Deal

Under the EU Climate Law, Europe will become climate-neutral by 2050, and the European Green Deal sets the roadmap for this ambitious transformation. Approved in 2020, the plan outlines multiple initiatives, including promoting circular economy, clean energy, enhancing biodiversity, and improving transportation systems. It encourages sustainable building practices in circular construction, focusing on reducing waste, conserving resources, and minimizing environmental impact.

European Climate Pact

Launched as part of the European Green Deal, the European Climate Pact aims to unite citizens, businesses, and local governments in a collective effort to create a more sustainable Europe. This voluntary initiative fosters participation in reducing emissions and adopting climate-resilient practices,

helping to achieve the overarching goal of climate neutrality by 2050.

European Plastics Pact

The European Plastics Pact is a collaborative initiative created in 2020, also under the European Green Deal, aimed at tackling the challenges posed by plastic waste and promoting a CE for plastics within the EU. This pact focuses on bringing together companies and governments to reduce plastic pollution, increase recycling rates, and promote sustainable production and consumption of plastic materials.

However, on September 15th, 2023, the European Plastic Pact announced it would cease operations. As a voluntary agreement without binding enforcement mechanisms, the pact's impact was inherently limited. Not only did the pact fail due to its voluntary nature, but also due to lack of innovation and economic pressure during COVID-19 recovery times. This outcome highlights the limitations of voluntary agreements, showing that soft regulations alone are insufficient for achieving the EU's environmental goals.

Fit for 55 Package

The Fit for 55 Package is an initiative within the European Green Deal designed to reduce the EU's GHG emissions by 55% by 2030, compared to 1990 levels. It includes policies such as reforming the ETS, introducing the CBAM, setting stricter emissions targets for vehicles, and promoting renewable energy and energy efficiency.

Strategies and Roadmaps

Circular Economy Action Plan (CEAP)

The CEAP is a comprehensive strategy by the EU aimed at promoting sustainable growth through CE principles, supporting the EU's goal to become climate-neutral by 2050. Adopted in March 2020 as part of the European Green Deal, CEAP focuses on reducing waste, extending product lifespans, and enhancing resource efficiency across all sectors. It includes specific targets and legislative initiatives designed to transform how products are designed, produced, used, and recycled in the EU.

The plan outlines priority sectors, such as electronics, plastics, construction, and textiles, where CE practices can have the most impact. For example, it promotes measures for sustainable product design, with an emphasis on recyclability, repairability, and reduced environmental footprint. The CEAP also supports the right-to-repair initiative, encouraging consumers to repair instead of replacing products, and aims to address packaging waste through new regulatory standards.

Renovation Wave Strategy

The Renovation Wave Strategy, launched by the Commission in 2020, is a key part of the European Green Deal, aiming to increase the energy efficiency of buildings, reduce GHG emissions, and address energy poverty across Europe.

Roadmap to a Resource Efficient Europe

The Roadmap to a Resource Efficient Europe, introduced in 2011, outlines a comprehensive plan to transition the EU towards a sustainable, low-carbon, and resource-efficient economy by 2050. The plan aims to achieve efficient management across all key resources—including water, energy, and raw materials—by encouraging sustainable production, consumption, and waste management practices. Key focus areas include resource-heavy sectors like food, construction, and mobility, which together account for a large share of the EU's environmental footprint.

Construction 2050 Alliance

The Construction 2050 Alliance is a collaborative initiative uniting over 50 European organizations from the construction sector and related fields to shape the future of construction. Evolved from the Construction 2020 Strategy, the Alliance works to address issues like decarbonization, resource efficiency, digital transformation, and workforce development, all of which are essential for a resilient and sustainable construction ecosystem.

Transition Pathway for Construction

The Transition Pathway for Construction, published in March 2023, provides a roadmap outlining decarbonization, CE practices, and digital transformation for the construction industrial ecosystem and addresses sector challenges. The pathway was developed collaboratively through the High-Level Construction Forum (HLCF), with input from industry stakeholders, EU institutions, and national governments.

Economic and Fiscal Instruments

European Structural and Investment (ESI) Funds

The ESI Funds supported various infrastructure projects and other social programs in Member States. The ESI Funds are composed of five main

funds: the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime, Fisheries and Aquaculture Fund (EMFAF).
Sustainability and circularity are integral to the fund's objectives. From 2014 to 2020, the ESI Funds invested a sum of €731 billion. By 2021, the ESI Funds had funded renewable energy infrastructure and increased energy production capacity by over 3,600 megawatt hours annually and simultaneously reduced public buildings' primary energy consumption by 2.6 terawatt hours per year.

Horizon Europe

Horizon Europe is the EU's funding program for research and innovation, with a funding amount of €93.5 billion from 2021-2027. It focuses on achieving the UN's SDGs, supporting a CE and other climate goals. Horizon Europe was proposed by the Commission in 2018 to supersede Horizon 2020, which ran from 2014 with a budget of €80 billion supporting three goals: (1) Excellent Science, (2) Industrial Leadership and (3) Societal Challenges. The new elements of Horizon Europe set up in 2020 focus on five mission areas; the following are relevant to circular construction:

- The **Mission on Adaptation to Climate Change** targets to make at least 150 European regions climate resilient by 2030.
- The **Climate Neutral and Smart Cities Mission** is set to make 100 cities climate neutral and smart by 2030. Over 350 European cities applied expressing interest for the mission and currently, 112 cities are participating through innovation and development of Climate City Contracts to achieve neutrality. The Climate City Contracts are reviewed and approved by the European Investment Bank (EIB) and the Joint Research Centre (JRC), and in October 2023, the first 10 cities were given an EU Mission Label. In March 2024, 23 more cities have received the EU Mission Label.

Through both missions, Horizon Europe is essential in the years for supporting the transition to a CE in the construction sector.

Smart Finance for Smart Buildings Initiative (SF4SB)

Launched in 2016 under Horizon 2020, the SF24B supports investments in energy efficiency and renewable energy projects within the EU. The initiative also provides technical assistance through programs like ELENA (European Local Energy Assistance) to help implement these projects.

LIFE Programme 2021-2027

LIFE is an EU funding program focused entirely on supporting a climate-neutral, efficient, clean and circular economy. The program was set up in 1992 and currently has a budget of €5.43 billion for the period 2021-2027 and has financed over 5,000 projects. LIFE funds programs within four sub-programs: (1) nature and biodiversity, (2) circular economy and quality of life, (3) climate change mitigation and adaption, and (4) clean energy transition. LIFE helps scale sustainable practices and promotes circularity across various industries.

Important Steppingstones for EU Policy Making

The EU **Sustainable Development Strategy (SDS)**, launched in 2001 and updated in 2006, integrated economic growth with environmental and social goals. It promoted sustainable production, resource efficiency, and policy coherence, influencing instruments like the ETS and renewable energy directives.
In 2011, the Roadmap to a Resource Efficient Europe set the stage for decoupling growth from resource use and led to the Circular Economy Action Plan. This was further supported by the 2014 initiative "Towards a Circular Economy: A Zero Waste Program for Europe", which called for a transition to circular practices.
The 2015 **"Closing the Loop: Commission delivers on Circular Economy Action Plan"** focusing on reducing landfill waste and enhancing recycling processes. That same year, the Agenda 2030 for Sustainable Development and its SDGs reinforced sustainable production and consumption globally.
These efforts culminated in the 2015 Circular Economy Action Plan and the 2018 Circular Economy Package, which included the Waste Framework Directive and binding recycling targets.

Appendix III

International Legislations

Treaties and Protocols

Paris Agreement

The Paris Agreement, adopted in 2015 and succeeding the Kyoto Protocol, is a legally binding international treaty under the United Nations Framework Convention on Climate Change (UNFCCC). Its goal is to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. The agreement commits countries to set nationally determined contributions to reduce GHG emissions and to strengthen these commitments over time. It also focuses on climate adaptation, financial support for developing countries, and the transparency of efforts to combat climate change. Switzerland ratified the Paris Agreement in 2017, committing to reduce its GHG emissions by 50% from 1990 levels by 2030 and achieve net-zero emissions by 2050.

Basel Convention Amendment

The Basel Convention Amendment refers to the 2019 decision to amend the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The amendment, which came into effect in January 2021, aims to regulate and reduce the export of contaminated plastics from developed to developing countries. It places stricter controls on the movement of plastic waste, ensuring that it is properly managed and recycled. This amendment is part of global efforts to address plastic pollution and promote environmentally sound waste management practices.

UN Global Plastics Treaty

The UN Global Plastics Treaty is a proposed international agreement aimed at addressing the global plastic pollution crisis. It was first discussed in 2022 during the United Nations Environment Assembly (UNEA-5.2). The treaty seeks to establish a legally binding framework to reduce plastic production, promote recycling, and prevent plastic waste from entering the environment. By the end of 2024, significant progress was made during the fourth session of the Intergovernmental Negotiating Committee (INC-4) in Ottawa, where over 170 countries advanced discussions on the treaty. However, the fifth session (INC-5) in November 2024 failed to finalize the treaty due to disagreements, particularly from oil-producing nations, over limits on plastic production. These nations argued that such limits could harm their economies. Despite these challenges, over 100 countries and numerous organizations continue to support the treaty, with final negotiations expected in 2025.

Conferences and Summits

Stockholm Conference

The Stockholm Conference (1972), also known as the United Nations Conference on the Human Environment, was the first major international meeting on environmental issues. It led to the Stockholm Declaration, outlining principles for environmental protection and sustainable development. The conference also resulted in the creation of the United Nations Environment Programme (UNEP), marking the beginning of global environmental cooperation and policy development.

Montreal Protocol

The Montreal Protocol (1987) is an international treaty aimed at protecting the ozone layer by phasing out the production of ozone-depleting substances (ODS). It is widely regarded as one of the most successful environmental agreements, as it has led to a significant reduction in the use of harmful chemicals. The protocol has been ratified by nearly every country, helping to accelerate the recovery of the ozone layer.

Rio+20 Conference

The Rio+20 Conference, officially known as the United Nations Conference on Sustainable Development, took place in 2012 in Rio de Janeiro, Brazil. It marked the 20th anniversary of the original 1992 Earth Summit. The conference focused on renewing global commitment to sustainable development and addressing emerging challenges. It produced the "Future We Want" document, which emphasized green economies, poverty eradication, and sustainable development goals. It also led to the launch of the SDGs.

Glasgow Climate Pact

The Glasgow Climate Pact, adopted at the COP26 in 2021, is a major international agreement focused on accelerating global efforts to tackle climate change. The pact includes commitments from countries to enhance their climate targets and reduce emissions more rapidly. Notable outcomes include a call for stronger 2030 climate action, a pledge to phase out coal and fossil fuel subsidies, and a commitment to raising climate finance for developing nations. The pact also reinforces the goal of limiting global warming to 1.5°C above pre-industrial levels and emphasizes the importance of adaptation and loss and damage financing.

WBCSD Vision 2050

The WBCSD Vision 2050 is a roadmap developed by the World Business Council for Sustainable Development (WBCSD), which outlines how businesses can contribute to creating a sustainable world by the year 2050. The vision emphasizes the need for businesses to align their strategies with SDGs and proposes a shift toward a CE, responsible consumption, and innovative solutions for sustainable business practices, urging companies to adopt long-term, system-wide changes to ensure a prosperous and inclusive future.

Buildings and Climate Global Forum

The Buildings and Climate Global Forum is an international platform focused on addressing the role of the built environment in climate change mitigation and adaptation. At the most recent forum, held in 2023, key discussions centered around accelerating the decarbonization of the building sector, emphasizing the need for more ambitious building standards, energy-efficient retrofitting, and the integration of renewable energy sources in both new and existing buildings.

Global Goals and Initiatives

Ellen MacArthur Foundation

The Ellen MacArthur Foundation is a leading organization dedicated to promoting the transition to a CE. Established in 2010, the foundation works with businesses, governments, and academia to create a restorative economic system that minimizes waste and maximizes resource efficiency. Through research, collaboration, and initiatives like the Circular Economy 100 and the Circular Economy Action Agenda, the foundation has played a pivotal role in shaping global understanding and implementation of CE principles.

UN Sustainable Development Goals (SDGs)

The SDGs, adopted in 2015, are a universal call to action aimed at ending poverty, protecting the planet, and ensuring prosperity for all by 2030. The 17 goals, which cover areas such as climate action, clean energy, gender equality, and sustainable cities, provide a blueprint for global development.

Global Alliance on Circular Economy and Resource Efficiency

The Global Alliance on CE and Resource Efficiency is an international initiative that promotes the transition to a circular economy and the sustainable use of resources. Launched in 2017 under the leadership of the EU, the alliance brings together governments, businesses, and civil society organizations to foster resource efficiency, reduce waste, and encourage the circular use of materials.

COP28 Buildings Breakthrough

The COP28 Buildings Breakthrough initiative, launched at the 2023 UN Climate Change Conference (COP28), focuses on accelerating the decarbonization of the built environment. It aims to bring together governments, businesses, and organizations to commit to reducing carbon emissions from buildings, which account for a significant portion of global GHG emissions. It sets specific targets for retrofitting existing buildings, promoting the use of low-carbon materials, and ensuring that new buildings are designed with net-zero emissions in mind.

At the COP28 in Dubai, President Alain Berset presented Switzerland's goals, emphasizing that the global stocktake of the Paris Agreement represents a critical moment to assess progress in limiting global warming to 1.5 degrees Celsius. Berset highlighted the urgency of action, noting that Switzerland is committed to closing gaps in carbon emissions reductions, adaptation efforts, and climate financing. Switzerland also called for the phase-out of oil and gas by 2050 and coal by 2040, while contributing CHF 135 million to various climate funds to support adaptation efforts, particularly in the most vulnerable countries.