

SSF Spotlight

Sustainable Real Estate Investments

Insights for Direct Real Estate Investors

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1 Introduction

As the world deals with the realities of climate change, sustainability has been gaining traction across business and political domains. Global frameworks like the UN Sustainable Development Goals (SDGs) and, notably, the Paris Agreement, have raised awareness about the urgency of addressing climate change and sustainability challenges. Governments worldwide, driven by the Paris Agreement, are enacting regulations and policies aimed to curtail carbon emissions and promote sustainable development.

In Switzerland, the Swiss Federal Council has set ambitious targets, aiming to reduce carbon emissions by 50 percent by 2030 compared to 1990 levels, with a long-term aim of achieving net-zero emissions by 2050 (FOEN, 2023). A significant milestone in Switzerland's journey was the approval of the Climate and Innovation Act through the June 2023 referendum, firmly embedding the net-zero 2050 goal into law.

The transition towards a sustainable future requires the active involvement of the finance sector. By integrating climate considerations into decision-making processes, investors, banks and asset managers can play a pivotal role in financing renewable energy projects, supporting green technologies, and driving the overall transition towards a low-carbon economy.

An urgent area for action lies within the real estate sector. In Switzerland, residential and commercial buildings contribute to approximately one quarter of the nation's carbon emissions due to carbon-intensive heating systems and poor energy efficiency within the building stock (FOEN, 2022). Real estate owners and investors are increasingly recognising their potential to contribute to Swiss climate objectives and realise economic benefits through sustainable practices.

Incorporating sustainable practices and measures often contribute to higher rents, lower vacancy rates, and ensure that real estate assets and portfolios remain efficient and economically attractive. Additionally, sustainable practices that incorporate risk analysis can provide risk mitigation advantages and bolster resilience against environmental and market fluctuations. This, in turn, offers investors a more stable and secure investment environment. The interest in transparent and sustainable real estate practices from investors and industry stakeholders combined with increasing regulatory requirements has led to a large offering of sustainable building certificates and labels, benchmarks, and reporting frameworks. Each offer their own unique methodology and areas of focus. As a property owner trying to develop a strategy, or as an investor seeking to make an investment decision based on specific targets and requirements, finding the right tools and frameworks can become a challenging exercise.

This publication serves to provide an overview of sustainable real estate practices for direct real estate investors in Switzerland. It defines sustainable real estate and outlines the main regulations and initiatives in Switzerland and in the EU. Furthermore, an overview of a selection of sustainability-related tools and frameworks is provided, and a suggested process for integrating sustainability factors in a real estate portfolio is outlined. 2

Basis of Sustainable Real Estate Investments and Related Definitions

A fundamental principle in sustainability reporting that acknowledges the interconnectedness between environmental, social, and governance (ESG) factors and businesses is double materiality. This principle underscores the importance of considering both the financial impacts of environmental and social issues on a company, as well as the effects of a company's activities on the environment and society. Acknowledging the dual nature of ESG factors enables organisations to comprehensively address both the internal financial implications and external societal and environmental consequences of ESG factors, which fosters responsible practices and long-term value creation.

2.1. ESG Categories in the Context of **Real Estate**

ESG (Environment, Social, Governance) factors have become an essential component of sustainability and risk assessments of real estate investments and are utilised as a basis for many building certificates, labels, and standards. Examples of common ESG criteria for real estate are outlined in Table 1.

Environmental	Social	Governance
Biodiversity and Habitat	Community Development	Transparent ESG Reporting
Climate Change	Well-being of Tenants	Regulatory Compliance
Energy Consumption	Safety and Health of Tenants	Stakeholder Engagement
Greenhouse Gas Emissions	Tenant Amenities	Anti-Bribery and Anti-Corruption
Indoor Environmental Quality	Human Rights	Cybersecurity
Materials	Inclusion and Diversity	Data Protection, Privacy
Pollution Prevention	Standards, Working Conditions	Laws and Regulations
Resilience to Catastrophe Disaster	Partnerships	ESG-Clauses in Leases
Renewable Energy	Stakeholder Relations	Tenant Engagement Frameworks
Sustainable Procurement	Location and Infrastructure	Board diversity and Independence
Waste Management	Affordable housing	Remuneration policy
Water Consumption		
Land Contamination		

Table 1: Common ESG Criteria Applicable to Sustainable Real Estate Source: CFA Institute (2022); Principles for Responsible Investment (2022)

2.2. The Role of Sustainable Real Estate in Advancing the SDGs

The Swiss Federal Council has committed to the Sustainable climate-related impacts, and to conserve, promote and restore Development Goals (SDGs)¹ and has outlined priorities to be biodiversity, among others. achieved in its 2030 Sustainable Development Strategy, includ-Beyond these two measures outlined in the Swiss Sustainable ing a 2021-2023 Action Plan comprising 22 measures. Two of Development Strategy, the SDGs can be applied to real estate in these measures relate to the real estate sector with emphasis many other fields. The most relevant SDGs for the building on a social and environmental level. Measure 10 focuses on sector are shown in Table 2, accompanied by real-estate related strengthening social cohesion in neighbourhoods and agglomexamples. erations by improving quality of life and ensuring that cities can function in the future.

SDG	SDG Title	Real Estate-Related Examples
1	No Poverty	 Providing affordable housing Supporting social housing programs
3	Good Health & Well-Being	 Designing buildings with natural light, air circulation, green spaces
5 10	Gender Equality Reduced Inequalities	 Providing buildings that are safe, affordable, and accessible for marginalised groups Supporting social housing programs
6	Clean Water & Sanitation	 Implementing sustainable water management practices (water recycling) and installing water-efficient fixtures
7	Affordable and Clean Energy	 Installing renewable energy systems in buildings
9	Industry, Innovation, and Infrastructure	 Promoting the adoption of new technologies, smart homes and smart cities
11	Sustainable Cities and Communities	 Promoting sustainable urban development, affordable and secure housing, and promoting green spaces
12	Responsible Consumption and Production	 Promoting sustainable building materials, recycling, and reducing waste in construction and building operations
13	Climate Action	 Reducing carbon emissions through retrofitting measures and supporting energy-efficient design

Table 2: Sustainable Development Goals (SDGs) with Real Estate-Related Examples Source: UN SDGs (2023); UBS (2022)

The Agenda for Sustainable Development was adopted in 2015 by the member countries of the UN as an action plan with people, the planet. prosperity, peace and partnership at its core to end poverty, protect the planet, and to ensure the well-being of all people by 2030. The agenda includes 17 SDGs with 169 defined targets.

Measure 21 relates to sustainable public real estate management with the aim to promote circular economy, reduce greenhouse gas emissions and energy consumption, manage

Sustainable Real Estate: Carbon Emissions Definitions

In the context of reducing carbon emissions effectively throughout a building's lifecycle, it becomes important to consider the entire value chain. However, benchmarks and sustainable building certificates focus on carbon emissions at different phases, making comparisons challenging. To clarify the terminology surrounding carbon emissions, the following definitions are provided.

Emission Scopes

The Greenhouse Gas Protocol² defines and categorises direct and indirect greenhouse gas (GHG) emissions into three scopes to draw organisational boundaries and to allow GHG accounting and reporting. The emissions have been defined based on the source and controlling party of the emissions. These classifications are widely accepted on a global level as an international accounting framework to understand, quantify and manage GHG emissions.

Direct GHG Emissions are generated from sources that are owned or directly controlled by an entity (e.g. building owner).

Indirect GHG Emissions are generated as a result of the activities of an entity (e.g. building owner) but that are activated at sources that are owned or controlled by another entity.

Scope 1 Emissions are direct GHG emissions generated within a property's boundaries from sources owned or directly controlled by the building owner. This includes, among others, emissions from the on-site combustion of fossil fuels for heating, cooling, or electricity.

Scope 2 Emissions are indirect GHG emissions generated from energy production such as electricity, heating and cooling, at a location external to where the energy is being consumed. For example, scope 2 emissions are allocated to a building for which electricity has been purchased or acquired from a grid that generates emissions at a power plant or district heating facility at an off-site location.

Scope 3 Emissions are GHG emissions not included in scopes 1 and 2 and contribute to a significant portion of GHG emissions over a building's lifecycle. In the context of real estate, scope 3 emissions are indirect GHG emissions that occur along the value chain of a building and encompass embodied carbon emissions and emissions generated by tenants which control their own energy contracts. Examples of Scope 3 emissions from upstream activities include material extraction and production and purchased goods and services related to a property while Scope 3 emissions from downstream activities include activities such as waste disposal, and emissions from water and wastewater treatment.^{3,4}

Operational Emissions refer to emissions resulting from daily activities and processes that are required to operate and maintain a building. This can include emissions generated from energy used for space heating, cooling, ventilation, lighting, appliances, and other equipment. Operational emissions can therefore include both scope 1 and scope 2 emissions.

Embodied Carbon can be allocated across Scope 1, Scope 2, and Scope 3. It encompasses carbon emissions generated by the materials and construction process throughout the life cycle of a building and includes processes from the manufacturing, transportation, installation, maintenance, and the disposal of construction materials used in buildings. It includes emissions that occur on-site during the construction of a building, but excludes carbon emitted from the use of energy during operations.

- 2 The GHG Protocol is an internationally accepted framework that provides standardized guidelines for measuring and managing greenhouse gas (GHG) emissions across private and public sector operations, value chains, and mitigation efforts on a global scale.
- 3 The data collection process, tracking, measurement and calculation of Scope 3 emissions is a complex task due to the wide range of activities encompassed within these emissions and the reliability on stakeholders within the value chain to obtain data.
- 4 A study on Greenhouse Gas Emissions in the building sector provides guidance on attributing emission factors to emission scopes (<u>Intep, 2022</u>).

3 Regulatory Development in Sustainable Real Estate

Switzerland's vision and objectives for sustainable development is captured in the 2030 Sustainable Development Strategy and framework, which entered into force in 2017. The strategy is driven by the UN's 17 internationally acknowledged SDGs, which are closely aligned with the goals of the Paris Agreement. Both the 2030 Agenda for Sustainable Development and the Paris Agreement are used to set targets for Switzerland, and to promote domestic and foreign policy directions for federal policy⁵.

A selection of laws, regulations and an outlook related to the real estate sector are listed below, while supplementary standards and sustainable building certifications are outlined in the following chapter.

3.1. Swiss Regulatory Developments Relevant for Sustainable Real Estate

Climate and Innovation Act

On June 18, 2023, the Swiss electorate voted in favour of the Federal Act on Climate Protection Targets, Innovation, and Strengthening Energy Security, commonly referred to as the '<u>Climate and Innovation Act</u>' which is expected to come into effect in January 2025.

Serving as an indirect counterproposal to the 'Glacier Initiative', the main objective of the act is to help Switzerland achieve climate neutrality by 2050, mainly by expediting the transition from fossil fuels to renewable energies. For the Swiss building sector, the act foresees greenhouse gas emissions reductions by at least 82% compared to 1990 levels by 2040 and by 100% by 2050.

The Act entails three primary goals including: 1) the reduction of greenhouse gas emissions and the utilisation of negative emission technologies, 2) the adaptation to and protection

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See the Swiss Federal Council's 2030 Sustainable Development Strategy (2021).

against the impacts of climate change, and 3) the aligning of financial flows with low-emission and climate-resilient development.

As part of the provisions to support the implementation, building owners will receive financial assistance over the next decade to replace oil, gas, or electric heating systems, with an emphasis on wood heating and heat pumps. Additionally, it encourages the expansion of district heating networks and the improvement of building insulation, utilizing existing subsidy programs at the cantonal level.

Further, the Act establishes a requirement for all companies to achieve net-zero emissions by 2050, encompassing both direct and indirect emissions. While the Act does not mandate the development of roadmaps to reach this target, companies and sectors have the option to do so. Additionally, companies can benefit from financial assistance from the federal government until 2030 for the implementation of novel, climate-friendly technologies and processes that contribute to the achievement of the targets.

Code of Obligations and Ordinance on Climate Disclosures

According to the new provisions of the Code of Obligations (CO), public interest companies (for example, publicly traded companies and large financial institutions) must publish a report on non-financial matters each year if they have at least 500 full-time positions (annual average) and exceed a balance sheet total of CHF 20 million or sales revenues of CHF 40 million in two successive financial years and together for all Swiss or foreign companies controlled by them. The report on non-financial matters needs to cover environmental matters, in particular CO2 goals, social issues, employee-related issues, respect for human rights, and the fight against corruption.

The Federal Council adopted the Ordinance on Climate Disclosures (the "Ordinance"), which requires companies, in the scope of the new provisions of the CO, to include additional climate-related information in their non-financial reporting as part of their reporting on environmental matters. According to the Ordinance, climate issues need to be considered under a double materiality perspective. Furthermore, reporting will be assumed to be compliant with the climate reporting obligations of the CO if it is based on the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD). Any company that holds real estate assets and meets the criteria set out in the CO and the Ordinance will be required to disclose information on those real estate assets, including physical and transition risks related to climate change. The Ordinance will enter into force on January 1, 2024, and non-financial reports will need to be aligned with its specifications from 2025

An amendment to raise the rate to CHF 210 was rejected with 51.6% of the

German abbreviation: Mustervorschriften der Kantone im Energiebereich

votes in a referendum in June of 2021. Under certain conditions, operators of

large greenhouse gas-intensive installations can be exempted from the levy.

for the 2024 financial year reporting. Further information on TCFD disclosure can be found in the SSF publication "<u>TCFD Dis</u>closure – Guidance and Best Practice in the Swiss Context".

Carbon Tax (CO2 levy)

The Carbon Tax is a mandatory tax that has been levied since 2008 in Switzerland to incentivise the use of carbon-neutral or low carbon energy sources. For the real estate sector, the tax aims to promote the replacement of oil heating systems with low-carbon energy sources such as heat pumps. The current tax of CHF 120 per ton of CO2 emissions is collected by the Swiss Federal Office for the Environment (FOEN) and is charged on fossil fuels such as heating oil and natural gas⁶. One third of the levy, to a maximum of CHF 450 million, is invested in the buildings program to promote CO2-effective measures such as energy-efficient renovations or renewable energies while approximately two thirds of the revenue is redistributed annually to the population and the economy.

Joint Model Cantonal Provisions in the Energy Sector (MuKEn⁷)

In Switzerland, each Canton is responsible for its own energy policy, as defined in the Federal Constitution (Article 89, Paragraph 4 BV). The <u>MuKEn</u> was introduced by the Conference of Energy Specialists (<u>EnDK</u>) and serves as a foundation for the strategy and policy of each Canton, to harmonise energy law provisions on individual and definable sub-areas and to serve as a basis for energy policy in the building sector. The framework aims to increase the energy efficiency of buildings, and to reduce energy consumption and CO₂ emissions of buildings.

The MuKEn consists of a 'basic module' with 18 subcategories, and 10 facultative modules to allow appropriate cantonal-specific adjustments, where required. To ensure harmonisation, the provisions of the basic module should be adopted in detail by all cantons (Art. 45 EnG). The "Cantonal Energy Performance Certificate for Buildings (GEAK)" (described in the following chapter) has been incorporated in the basic module and partial GEAK obligations have been defined. The facultative modules cannot be adapted in any form and contain more extensive regulations should the cantons wish to set additional priorities.

Environmental Indicators for Real Estate Funds by AMAS

The Asset Management Association Switzerland (AMAS) is a professional association representing the interests of asset management firms in Switzerland and sets its own standards, guidelines, and best practices for its member firms. It serves as a platform for collaboration, knowledge sharing, and advocacy within the asset management industry.

AMAS has implemented self-regulation on sustainability for all real estate funds under Swiss law, irrespective of a fund's sustainability declaration. The objective is to enhance transparency for investors by disclosing relevant environmental factors such as coverage ratio, energy mix, energy consumption, energy intensity, GHG emissions, and GHG intensity, aiming to improve comparability among real estate funds.

These environmental indicators came into effect on July 1, 2022, allowing for an 18-month implementation period. While they are not part of the minimum standard recognised by FINMA for real estate funds, they are binding for AMAS members and must be included in annual and semi-annual reports, where applicable.

Further information concerning the environmental indicators for real estate funds is found in AMAS's <u>Circular 04/2022</u> while the indicators are set out in a separate section of the <u>specialist</u> information factsheet on the key figures of real estate.

The AMAS environmental indicators for real estate funds were also adopted by <u>the conference of investment foundations</u> <u>executives</u> (KGAST).

Future Developments in Swiss Real Estate Regulation and Standards

The Federal Council supports continued developments for the future. The following milestones are foreseen, as outlined in the 2021-2023 Action Plan from the Swiss Federal Council:

- KBOB⁸ recommendations for calculating the life cycle costs or total cost of ownership of real estate by the end of 2023
- Adaptation of the KBOB recommendation "Life cycle assessment data in the construction sector" to the European calculation methods by the end of 2023
- Revision of the Swiss Sustainable Building Standard (SNBS) for building construction, Version 3.0, by the end of 2024
- Revision of the Swiss Sustainable Building Standard (SNBS) for infrastructure with the development of quantitatively measurable indicators, by the end of 2024
- Development of a basis for sustainability assessment of real estate portfolios (no deadline provided)

In the Federal Council's publication from December 2022 on "Areas for action for a leading sustainable financial centre, 2022-2025", Switzerland reinforces its position as a leading location for sustainable finance. In the area of real estate, actions include:

- Further development of the National Register of Buildings and Dwellings (RBD), a nationally standardised database on the carbon emissions, climate compatibility and energy efficiency of buildings
- Development of a framework for disclosures on biodiversity risks and impacts, led by the Taskforce on
 Nature-related Financial Disclosures (TNFD), alongside
 NGOs and Swiss companies
- The improvement in the range of high-quality, meaningful, and standardised data to assess the climate compatibility of Swiss real estate and mortgage portfolios by DETEC⁹, in close collaboration with FDHA¹⁰

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⁸ German abbreviation: Koordinationskonferenz der Bau- und Liegenschaftsorgane der öffentlichen Bauherren

⁹ Federal Department of the Environment, Transport, Energy and Communications

¹⁰ Federal Department of Home Affairs

3.2. European Union Regulatory Developments Relevant for Sustainable Real Estate

It is beneficial for Swiss real estate asset owners and investors to understand EU regulations applicable to real estate assets to assess potential risks and opportunities and to ensure compliance when investing or buying in EU real estate markets. The EU has various initiatives¹¹ and policies in place, as well as labels, sustainable building certifications, benchmarks, and voluntary ESG reporting frameworks, many of which are utilised in Switzerland as well. Figure I displays a range of policies and initiatives related to the European Green Deal that are relevant to the real estate sector and is followed by a brief description of the most relevant policies and initiatives.

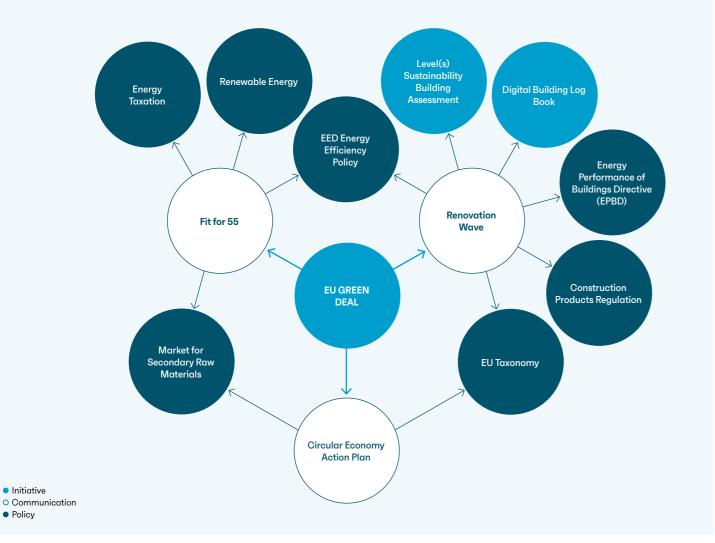


Figure 1: EU Policies and Initiatives Related to Real Estate Source: adapted from <u>Construction Products Europe¹²</u>

- EU Member countries such as France, the Netherlands, Germany, and the UK (non-EU) may also implement country-specific initiatives that are applicable to the real estate sector such as France's Tertiary Decree and High Environmental Quality (HEQ) certification.
- 12 Note: Selection is not exhaustive

European Green Deal

The European Green Deal is a set of policy initiatives launched by the EU in 2019 to make Europe the first climate-neutral continent by reaching net-zero emissions by 2050. It lays the groundwork for policies and initiatives to achieve climate and energy objectives. In the context of real estate, the EU Green deal aims to increase the use of renewable energy sources, improve energy efficiency in buildings, shift towards a circular and resource-efficient economy, and protect and restore biodiversity and ecosystems.

<u>The Renovation Wave</u>, <u>Fit for 55</u>, and the <u>Circular Economy</u> <u>Action Plan (CEAP)</u> are integral parts of the European Green Deal:

- The Renovation Wave focuses specifically on the building sector and aims to optimise the energy efficiency of buildings and extend their life expectancy and puts a strong focus on ensuring the availability of financing measures.
- Fit for 55 is a set of proposals to revise and update EU legislation with the primary objective to reduce GHG emissions by at least 55% by 2030 compared to 1990 levels.
- The Circular Economy Action Plan (CEAP) includes a set of policy measures to promote circularity across various sectors.

EU Taxonomy Regulation (EU 2020/852)

The <u>EU Taxonomy</u> is a framework that entered into force in 2020 as part of the efforts of the European Green Deal, which defines and classifies sustainable economic activities in the EU. For real estate, three main economic activities fall within the scope of the EU Taxonomy Regulation including the acquisition and ownership of buildings, the construction of new buildings and the renovation of existing buildings. For the activities to be classified as sustainable, they must make a substantial contribution to at least one of six environmental objectives¹³ as defined in the taxonomy, do no significant harm to the others, and meet minimum social safeguards.

Starting from January 2023, reporting disclosures of the EU Taxonomy are mandatory for large companies (> 500 employees) and small and medium sized, public-interest companies (European Parliament & Council of the European Union, 2022).

Energy Performance of Buildings Directive (EPBD)

The <u>EPBD</u> was introduced in 2002 to meet the energy and environmental goals of the EU by establishing the groundwork for increasing the rate of building renovations, and to improve the energy efficiency of the existing building stock. It was revised in 2010 and again in 2018 (<u>amending directive of</u> <u>2018</u>) and includes measures such as the establishment of long-term renovation strategies and minimum energy performance requirements for new buildings.

The EPBD is currently under revision. The European Parliament adopted its position on the EPBD in 2023 and will negotiate a final decision on the shape of the bill in "trilogue" discussions with the European Council and European Commission by the end of 2023. A central element of the Directive is to increase the rate of renovations of energy-inefficient buildings through introduction of Minimum Energy Performance Standards (MEPS) for existing buildings, with non-residential buildings to reach class D by 2030, and residential buildings to reach class D by 2031¹⁴.

¹³ Climate change mitigation and adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems, and the transition to a sustainable food system.

¹⁴ The rating scale ranges from energy classes between A (highest energy performance class) and G (lowest energy performance class).

4 Labels, Benchmarking and Monitoring Tools

In Switzerland, a wide variety of resources are available to companies, real estate funds and owners to measure, benchmark, quantify and/or disclose the level of sustainability of real estate in terms of ESG factors such as sustainability building certificates, labels, benchmarking and monitoring tools. Each tool serves a specific purpose and is utilised based on the desired outcome, yet the overall goal of these tools is to promote sustainability, encourage best practices, and foster transparency and accountability in the built environment. Table 3 provides an overview and comparison of a selection of sustainable building certificates, as well as benchmarking and monitoring tools that are relevant for Switzerland¹⁵, and is followed by a short description of each tool.

The difference between these types of tools are as follows:

- Sustainable building certificates and labels are closely related and are often used interchangeably. A sustainable building certificate is a formal recognition awarded to a building that meets a pre-defined set of sustainability criteria. A label indicates the certification level achieved by a building, often represented by a grade or rating.
- Benchmarking and monitoring tools encompass software applications or other methodologies used to measure and compare the energy and environmental performance of buildings or building components. These tools enable building owners and portfolio managers to track their progress towards sustainability goals and identify areas for improvement.

The choice of which tool to use depends on the specific objectives and requirements of the stakeholders involved. On the one hand, sustainable building certificates and labels provide formal recognition and help communicate the overall sustainability of a building, which enhances marketability and competitiveness of a building by attracting more potential tenants, clients and investors. On the other hand, benchmarking and monitoring tools offer continuous monitoring and perfor-

mance assessment to drive ongoing improvements. Ultimately, a combination of these tools may be preferred to provide a comprehensive understanding of a building's sustainability profile and to meet the varying needs of stakeholders.

Building Certifications and Labels in Switzerland

Four labels in Switzerland including GEAK, Minergie, SNBS and 2000 Watt Areal have aligned to follow the Swiss energy and climate policy and sustainable development strategy. In the future, only one organisation will be responsible for certification, quality assurance, communication, and further training, and the former 2000-Watt-Areal will become the Minergie-Areal and the SNBS-Areal.

GEAK (Swiss Cantonal Energy Certificate for Buildings)

GEAK assesses the energy class of the building envelope, building technology, and direct CO2 emissions based on an A-G classification for the GEAK building certifications GEAK, GEAK Plus and GEAK New Construction. A GEAK certification is only applicable for buildings older than three years. In certain Swiss cantons, GEAK is mandatory for changes of ownership or for the receipt of subsidies. GEAK Plus is supplemented by an extensive consulting report which outlines options for energy efficient modernisation of a building, investment and maintenance cost estimations, operating cost savings, and the calculation of subsidies, among others. GEAK New Construction was designed for new building construction and specifies target values for energy efficiency based on planning values.

Minergie

Minergie focuses on comfort, efficiency, and value retention of buildings. Minergie buildings are known for their high-quality building envelope and their low energy, systematic air renewal and ventilation systems. Minergie includes three types of labels: Minergie, Minergie -P and Minergie -A. All of them can be combined with the additional products ECO, MQS Construction, MQS Operation and Performance. The three labels are similar, but Minergie-P buildings require renewable energy sources to meet a portion of their energy requirements, and Minergie-A must also be constructed using environmentally friendly materials and techniques. ECO incorporates the need for sustainable materials and techniques during the construction process, and promotes the use of local and recycled materials, sustainable building practices, and social aspects such as health factors.

		Year of Establishment	Legal Form / Owner	Geographical Areas of Usage	Validity	Self-Evaluation Process	3rd Party validation	Application to new buildings	Application to existing buildings	Annual Recertification required	Scope 1 Emissions	Scope 2 Emissions	Scope 3 Emissions	Materialization / Embodied Carbon	Forward Looking Emissions	Energy Efficiency	Water Conservation / Efficiency	Comfort / Indoor Climate	Biodiversity	Mobility	Social Aspects	Governance Aspects	Fees charged	Rating description
Swiss Sustainable Building Certifications and Labels																								
	GEAK		Association,					Y	Y	Ν	Y	Υ	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	
	GEAK Plus	2009	Govern-	СН	max. 10 years	N	Y	Y	Y	Ν	Y	Υ	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	A (excellent) to G (least
	GEAK New Construction	(GEAK)	ment-backed initiative	OIT	max. 10 years			Y	N	N	Y	Y	N	N	N	Y	Ν	N	N	N	N	Y	Y	efficient)
	Minergie	1998						Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	
	Minergie -P	2003	Association	СН	3 years provisional,	N	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	Certification issued if
	Minergie -A	2011	, 63001011011	UII	then unlimited		'	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	conditions are met
	Minergie Eco	-						Y	Y	Ν	Y	Y	Y	Y	Ν	Y	Y	Y	Ν	Ν	Y	Y	Y	
	SNBS 2.1 Structural Construction	2013	Network, NGO	СН	unlimited	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Grading system 1-6
	International Susta	ainable Bu	uilding Certificat	ions and L	abels																			
	BREEAM (Existing Building, New Construction)	1990/ 2022	Profit-for-pur- pose organiza- tion, PLC	Int.	1 year	Y	Y	Y	Y	Y	Y	Y	(Y)	(Y)	(Y)	Y	Y	Y	(Y)	(Y)	Y	Y	Y	1-5 star rating
	LEED	1994	N(Y)O	Int.	3 years (v4.1)	Y	Y	Y	Y	N	Y	Y	(Y)	(Y)	(Y)	Y	Y	Y	(Y)	(Y)	Y	Y	Y	Points system (max. 100) & status (certified, silver, gold, platinum)
	SGNI/DGNB New Construction and Renovation	2010	Association, NPO	Int.	unlimited (cer- tification year to be listed)	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Status: Platinum, Gold, Silver
	SGNI/DGNB Buildings in Use	2015			3 years	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Status: Platinum, Gold, Silver, Bronze
	Benchmarks and M	/lonitoring	g Tools																					
	GRESB	2009	Foundation, NPO	Int.	1 year	Y	Y	Y	Y	Y	Y	Y	Y	Y	(Y)	Y	Y	Y	Y	Y	Y	Y	Y	5-star scorecard rating with a max scoring of 100
	SSREI	2020	PLC	CH	1 year	Y	Y	N	Y	Y	Y	(Y)	(Y)	(Y)	N	Y	(Y)	Y	Y	Y	Y	N	Y	Sustainability Score (Scale from 0.00 to 3.00)
	REIDA CO ₂ Report/-Bench- mark	2011	Association, NPO	СН	1 year	Y	Y	Y	Y	Y	Y	Y	Y	N	N	(Y)	Ν	Ν	Ν	N	N	N	Y	No Rating, assessment & comparison only
	SGNI/DGNB ESG Verification	2022	Association, NPO	Int.	unlimited (cer- tification year to be listed)	Ν	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Criteria either fulfilled or not fulfilled
	CRREM	2018	Funding from Laudes Foundation	Int.	(-)	Y	-	Y	Y	(-)	Y	Y	(Y)	Y	Y	Y	N	N	N	N	N	N	N	No rating
	ECORE	2019	Consultancy Company, in cooperation with industry associations and initiatives	mainly EU	1 year	N	Y	Y	Y	Υ	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Scoring from zero to 100%
	REMMS	2022	Association, NPO	CH, LI	1 year	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	(Y)	Y	Y	Y	Y	Y	(Y)	Grading between 1.0-5.0
	PACTA Real Estate Model	2018	Government commissioned (FOEN) to Wüest Partner	СН	(-)	Y	N	Y	Y	(-)	Y	N	N	N	Y	Y	N	N	N	N	N	N	N	No rating

	Year of Establishment	Legal Form / Owner	Geographical Areas of Usage	Validity	Self-Evaluation Process	3rd Party validation	Application to new buildings	Application to existing buildings	Annual Recertification required	Scope 1 Emissions	Scope 2 Emissions	Scope 3 Emissions	Materialization / Embodied Carbon	Forward Looking Emissions	Energy Efficiency	Water Conservation / Efficiency	Comfort / Indoor Climate	Biodiversity	Mobility	Social Aspects	Governance Aspects	Fees charged	Rating description
Swiss Sustainable E	Building (Certifications and	d Labels																				
GEAK		A					Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	
GEAK Plus	2009	Association, Govern-	011		NI	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Ν	Ν	Ν	Ν	Y	Y	A (excellent) to G (least
 GEAK New Construction	(GEAK)	ment-backed initiative	СН	max. 10 years	N	ř.	Y	Ν	N	Y	Y	Ν	Ν	N	Y	N	N	N	N	N	Y	Y	efficient)
Minergie	1998						Y	Y	Ν	Υ	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Υ	
Minergie -P	2003			3 years		v	Y	Y	Ν	Υ	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	Certification issued if
Minergie -A	2011	Association	CH	provisional, then unlimited	Ν	Y	Y	Y	Ν	Y	Y	Ν	Ν	Ν	Y	Ν	Y	Ν	Ν	Ν	Y	Y	conditions are met
Minergie Eco	-						Y	Y	Ν	Y	Y	Y	Y	Ν	Y	Y	Y	Ν	Ν	Y	Y	Y	
SNBS 2.1 Structural Construction	2013	Network, NGO	CH	unlimited	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Grading system 1-6
International Susta	inable Bu	uilding Certificat	ions and L	abels																			
BREEAM (Existing Building, New Construction)	1990/ 2022	Profit-for-pur- pose organiza- tion, PLC	Int.	1 year	Y	Y	Y	Y	Y	Y	Y	(Y)	(Y)	(Y)	Y	Y	Y	(Y)	(Y)	Y	Y	Y	1-5 star rating
LEED	1994	N(Y)O	Int.	3 years (v4.1)	Y	Y	Y	Y	N	Y	Y	(Y)	(Y)	(Y)	Y	Y	Y	(Y)	(Y)	Y	Y	Y	Points system (max. 100) & status (certified, silver, gold, platinum)
SGNI/DGNB New Construction and Renovation	2010	Association, NPO	Int.	unlimited (cer- tification year to be listed)	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Status: Platinum, Gold, Silver
SGNI/DGNB Buildings in Use	2015			3 years	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Status: Platinum, Gold, Silver, Bronze
Benchmarks and M	lonitoring	y Tools																					
GRESB	2009	Foundation, NPO	Int.	1 year	Y	Y	Y	Y	Y	Y	Y	Y	Y	(Y)	Y	Y	Y	Y	Y	Y	Y	Y	5-star scorecard rating with a max scoring of 100
 SSREI	2020	PLC	СН	1 year						Y									Y	Y	N		Sustainability Score (Scale from 0.00 to 3.00)
REIDA CO ₂ Report/-Bench- mark	2011	Association, NPO	СН	1 year	Y	Y	Y	Y	Y	Y	Y	Y	N	N	(Y)	N	N	N	N	N	N	Y	No Rating, assessment & comparison only
SGNI/DGNB ESG Verification	2022	Association, NPO	Int.	unlimited (cer- tification year to be listed)	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Criteria either fulfilled or not fulfilled
CRREM	2018	Funding from Laudes Foundation	Int.	(-)	Y	-	Y	Y	(-)	Y	Y	(Y)	Y	Y	Y	N	N	N	N	N	N	N	No rating
ECORE	2019	Consultancy Company, in cooperation with industry associations and initiatives	mainly EU	1 year	Ν	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Ν	Scoring from zero to 100%
REMMS	2022	Association, NPO	CH, LI	1 year	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	(Y)	Y	Y	Y	Y	Y	(Y)	Grading between 1.0-5.0
PACTA Real Estate Model	2018	Government commissioned (FOEN) to Wüest Partner	CH	(-)	Y	N	Y	Y	(-)	Y	N	N	N	Y	Y	N	N	N	N	N	N	N	No rating

Table 3: Comparison of Sustainable Real Estate Labels, Benchmarks and Monitoring tools¹⁶ Source: Based on information provided by company representatives, websites, and company documentation Note: PLC = Private Limited Company, LLC = limited liability company, NPO = Non-profit organisation, Int. = International, CH = Switzerland, LI = Lichtenstein, EU = European Union, Y = Yes, (Y) = Partially fulfilled, N = No, (-) = Not Applicable.

16 While diligent efforts were undertaken to compile a comprehensive and reliable list of offerings, it is not exhaustive due to the substantial number of offerings and continual introduction of new products; The accuracy of the information presented in the table may vary due to ongoing product adjustments; The interpretation of declaring partial or complete fulfilment of the criteria is subject to interpretation

¹⁵ These tools or frameworks may have overlapping functions or could be classified in more than one category. They are classified based on their primary function

SNBS 2.1 (Swiss Sustainable Building Standard) for Building Construction

<u>SNBS</u> is a certification standard that aims to promote sustainable building practices in Switzerland and was developed based on existing instruments and tools (e.g. SIA 112/I, objectives of the 2000-watt society). SNBS incorporates the three dimensions of sustainable construction (society, economy, environment) equally and takes the life cycle of a property into account in a phase-appropriate manner. The SNBS is regularly updated to reflect changes in best practices and evolving sustainability standards. Social aspects include planning and target groups, utilisation and room design, well-being, and health. Self-evaluation is free of charge through free downloads and access to the online platform.

International Building Certifications & Labels

BREEAM (Building Research Establishment Environmental Assessment Method)

<u>BREEAM</u> is an internationally recognised building certification system that originates from the United Kingdom. BREEAM provides an overall performance rating for two products. BREEAM Existing Buildings assesses the environmental, social, and economic sustainability of existing buildings during the operational phase while BREEAM New Construction assesses new buildings or major refurbishments during the design and construction stages.

LEED (Leadership in Energy and Environmental Design)

LEED was developed in the United States by the U.S. Green Building Council (USGBC) and has grown to become a globally recognised building certification system. LEED offers a framework for designing, constructing, operating, and maintaining environmentally responsible and resource-efficient buildings, neighbourhoods, and communities and concentrates on promoting sustainable practices in the built environment by emphasising key areas such as energy efficiency, water conservation, sustainable site development, materials selection, and indoor environmental quality.

DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen) for Buildings

DGNB is a global benchmark for sustainability, which promotes the sustainability of real estate and the built environment along the entire life cycle of the planning, construction, and operational phases. The Swiss Sustainable Building Council (SGNI) certifies buildings according to the DGNB-System for buildings (new construction and renovation, interiors, buildings in use and districts) with adaptations to Swiss regulations. DGNB for New Construction focuses on buildings up to three years following their completion and accounts for diverse criteria in the areas of ecology, economy, sociocultural and functional aspects, technology, processes, and the site. DGNB for Renovation is intended for buildings that have undergone renovation with a focus on ecological, economic aspects and user comfort while the DGNB for Existing Buildings allows for certification of the existing building stock with a reduced number of criteria and evaluation using actual consumption data. Recertification is possible on an annual basis, otherwise it is required every 3 years.

Benchmarking and Monitoring Tools

GRESB (Global Real Estate Sustainability Benchmark)

<u>GRESB</u> is a comprehensive global ESG benchmark that collects, validates, scores, and independently benchmarks ESG data for individual properties and portfolios on an annual basis. A focus is placed on carbon emissions, energy consumption and social responsibility to help investors and asset owners measure and manage their sustainability risks and opportunities. The GRESB Real Estate Benchmark considers management and performance factors and is used for existing buildings whereas the GRESB development benchmark focuses on management and development factors for use in new developments and infrastructure projects.

SSREI (Swiss Sustainable Real Estate Index)

SSREI is a valuation tool for the sustainability assessment of existing Swiss properties. Structured according to the Swiss Sustainable Building Standard (SNBS Building Construction), SSREI maps the sustainability profile of a building using 36 indicators in the areas of economy, environment, and society (EES). The evaluation then results in a final sustainability score per property or an overall portfolio. Further, SSREI assessments can lead to an improvement in the GRESB rating.

REIDA (Real Estate Investment Data Association) CO2 Benchmark

The <u>REIDA</u> CO₂ benchmark allows asset owners and portfolio managers to compare the real energy data of their buildings and portfolios with those of their peers and the industry. The benchmark key figures include CO₂ emissions, energy consumption and shares of renewable energy for the submitted real estate portfolios.

CRREM (Carbon Risk Real Estate Monitor)

<u>CRREM</u> is a tool that allows investors and real estate owners to assess the exposition of their assets to stranding risks based on energy and emission data and the analysis of regulatory requirements and provides science-based carbon reduction pathways to manage carbon mitigation strategies. CRREM offers reduction targets per square meter for different property types worldwide until 2050, and provides energy reduction targets and pathways.

ECORE (ESG Circle of Real Estate)

ECORE is a European scoring standard to make sustainability in real estate portfolios transparent, measurable, and comparable by incorporating various ESG indicators. ECORE combines regulations, laws, ordinances and ESG criteria that is continuously adapted to EU taxonomy requirements. Funds, investors, portfolio holders and project developers can determine the ESG status of their properties across all asset classes and compare them on individually selected levels. The scoring model consists of the three clusters governance, consumption and emissions, and asset check, which are further broken down into relevant criteria. Due to the dovetailing of the real estate and financial sectors, ECORE can also be used by banks to evaluate loans for real estate.

REMMS (Real Estate Meta Rating and Monitoring on Sustainability)

<u>REMMS</u> assesses real estate projects, properties of all uses and portfolios, in alignment with recommendations by AMAS, ASIP, FINMA, KGAST and SBA, among others, to make benchmark comparisons. Large owners and financiers are charged a cost price and private individuals and small institutional investors can use the services free of charge. REMMS is operational and the technical integrations into different management- banking-systems as well as are expected to be ready for use in June 2023.

SGNI (Swiss Sustainable Building Council)

<u>SGNI</u> completes ESG Verification for real estate asset owners and evaluates the conformity of buildings and portfolios to EU taxonomy. The verification can be carried out either independently from or in parallel to the DGNB certification. This ESG verification serves to promote transparency and minimise risk, particularly in the buying and selling process.

PACTA (Paris Agreement Capital Transition Assessment) Real Estate Model

The <u>PACTA Real Estate Model</u> is a free, open-source methodology and tool that assesses the alignment of investment portfolios with climate scenarios aligned with the goals of the Paris Agreement for various climate-relevant sectors. The tool helps investors to identify and manage climate-related risks and opportunities in their portfolios. For applicability to Switzerland, the Federal Office of the Environment commissioned Wüest Partner to develop the PACTA real estate model to evaluate the carbon emissions trajectories of individual buildings and real estate portfolios in Switzerland and to estimate the impact of different climate scenarios. It is available unlicensed upon request.

5

A Four-Stage Approach to Integrate Sustainability Factors in Direct Real Estate Investments

Integrating sustainability practices into real estate investments can help to mitigate the risks associated with environmental, social and governance factors, enhance financial returns through energy efficiency and marketability, fulfil social responsibility by fostering healthier, more attractive living spaces, and align with stakeholder expectations.

Developing a sustainability strategy requires thoughtful consideration of numerous factors, from meeting regulatory requirements and stakeholder expectations to satisfying societal demands and achieving net-zero emissions. As highlighted in Section 4, there are a wide range of tools and products on the market that can be used to support the implementation of a sustainability strategy.

This section provides guidance to direct real estate investors and portfolio holders in integrating sustainability practices across a real estate portfolio.

Sustainability practices are best integrated into a real estate portfolio by establishing a comprehensive real estate strategy and action plan with clearly defined objectives, processes, and methodologies. Short-, medium- and long-term goals should be defined, implemented and their achievement subsequently measured, monitored, and reported over time. Figure 2 illustrates a four-stage approach for integrating sustainability factors into real estate investments.

5.1 Strategy Development and Portfolio Assessment

- Define a sustainability strategy based on overarching objectives, which can be used to prioritise actions and to systematically incorporate sustainable practices and goals into the operations
 - Set clearly defined and measurable long-term objectives, for example in 5-year increments, that serve as the foundation of the sustainability strategy
 - Use broad frameworks such as the Paris Agreement, SDGs and targets of the Swiss Federal Council (e.g., in defining milestones for emissions reductions and social impact)

Challenges

Conflict of interest between ESG and financial objectives

 Sustainable infrastructure and practices often entail high initial investments, potentially influencing short-term financial returns

Data Collection Process

- The data-gathering process (e.g. energy usage) may require extensive resources
- A lack of consumption data and resources, especially for smaller-sized companies, makes it difficult to estimate and mitigate carbon emissions



Figure 2: Four-stage Approach for Integrating Sustainability Factors into Real Estate Investments

Assess the current state of the real estate portfolio regarding its ESG aspects

- Gain an overview of data available for each building and contact stakeholders to gather further relevant information, e.g. environmental (energy efficiency, water consumption), social (tenant well-being, community impact), governance (regulation compliance, stakeholder engagement)
- Know the characteristics of your properties (year of construction and relevant refurbishment years, building parameters) for use in life cycle planning

Guidance

- Plan accordingly over the long-term to attain a healthy balance between returns and ESG-measures
- Implement sustainability measures in a phased manner
- Shift from a net rent to a gross rent model and activate hidden rent potential from non-optimised service charges (e.g. lower heating and hot water costs provide potential for rent increases)
- Make use of existing subsidies
- Use tools, standard programs and affordable consultancy services that are available in Switzerland for data collection, emissions and energy measurement, monitoring and the auditing of buildings and portfolios

5.2 Action Plan and Implementation

- Define a concrete action plan across the portfolio based on the defined strategy and portfolio assessment.
 - Ensure the action plan is realistic by considering financial implications, resources required for implementation, risk aspects, regulatory requirements and stakeholder demands, and prioritise measures that are time- and resource sensitive
 - Each goal of the action plan should be SMART (Specific, Measurable, Achievable, Relevant, Timebound) to ensure progress and to maintain focus
 - Determine meaningful indicators to monitor the progress of the action plan towards the objectives of the strategy
- Assess the extent to which sustainability labels, benchmarking, and external monitoring and reporting tools, as described in Chapter 4, can support the strategy and be implemented into the action plan
- Implement the action plan
 - Engage with stakeholders, including tenants and property managers during the planning and implementation phase to support social compatibility

Guidance

Trade-off between new and existing buildings

Challenges

- Fiduciary duties require real estate managers and investors to maximise returns, which often leads to the replacement of existing buildings
- Negative externalities associated with building replacements (e.g. resource depletion, GHG-emissions) are generally not considered
- Apply a thorough NPV analysis and compare the corresponding environmental and social impacts of refurbishments versus new construction to help determine the most viable option
- New buildings can incorporate renewable energy sources and sustainable building materials, which contributes to low operational GHG emissions and high energy efficiency; however, generate GHG emissions and waste through the demolishing and construction process
- Retrofitting measures can improve the energy efficiency and comfort of buildings while minimising resource depletion and GHG emissions through the preservation of existing structures and materials

- Misalignment of many reporting tools
- Reporting tools are not one-stop solutions that account for all input parameters required to achieve mid- and longterm objectives
- Various key indicators cannot be transferred between ESG verification tools and frameworks due to their individual calculation basis, resulting in poor alignment of metrics
- Choose frameworks and labels which best align to their strategy
- Make pragmatic changes to tools' recommendations while adhering to the defined objectives (e.g. budget aligned with available resources of the asset owner)

5.3 Monitoring

 Monitor each building based on the defined indicators and selected tools, as well as on a portfolio level to ensure the strategic objectives and action plan goals are being achieved

Challenges

Portfolio Coverage

 Ensuring complete assessment and monitoring coverage of all buildings in a real estate portfolio

Data Consistency and Accuracy

 Ensuring that the data gathered from various buildings is consistent, accurate, and up to date

5.4. Communication

- Complete regular reporting on the sustainability-related data of the entire real estate portfolio to ensure transparency towards stakeholders, including investors and tenants
- Include progress on targets in the annual reporting
 - Use the reporting as a road map to inform stakeholders of past and current progress, and where the portfolio stands in relation to the strategically defined goals and targets
 - Use indicators and visualisations for easier interpretability
- Increase credibility through **regular external auditing**

Challenges

Information Asymmetry

- Information asymmetry leads to the increased adoption of ESG-verification tools such as labels and benchmarks
 - Positive: associated with increased transparency, credibility and trust among stakeholders
 - Negative: can lead to high costs, resulting in a conflict between investor demand for certificates/labels and the owner's strategy

- **Build reliable and timely data history** over the entire life cycle of each building and for the portfolio

Guidance

- Use standardised tools and automated processes across all buildings in the portfolio
- Incorporate automated data capturing and corresponding monitoring tools to reduce manual work and to minimise errors

In developing and implementing a sustainability strategy, it is crucial to leverage insights from fellow market participants, as well as stakeholders such as property managers or tenants. Engaging these parties not only fosters a sense of inclusivity but also provides valuable perspectives that can significantly enhance strategy formulation and implementation. The active participation of these stakeholders contributes to more robust and pragmatic sustainability measures, fostering a cooperative environment that accelerates the move towards sustainability.

Guidance

- Use certificates, labels and benchmarks to support sustainability practices
- Transparently communicate monitored progress using key indicators to effectively illustrate the achievement of midand long-term objectives to stakeholders

Net-Zero Considerations

The approval of the Climate and Innovation Act underscores Switzerland's commitment to achieving net-zero emissions by 2050. This ambitious goal not only requires strong governmental support for the implementation of common standards, substantial financial resources, and increased action from investors and asset owners, but also necessitates additional specialists, skilled labour, energy grid expansion, and sufficient and affordable building materials.

According to the Swiss National Science Foundation, Switzerland's current annual building renovation rate of 1 percent would need to double to achieve the goals of the Energy Strategy 2050 for buildings¹⁷. Further, to achieve a true net-zero approach in real estate portfolios, owners must consider the entire building's life cycle, including embodied emissions and circular economy measures. A selection of emissions reductions and milestones required in the building and energy sector to achieve net-zero by 2050 are highlighted in Figure 3.

- Net Zero Emissions (NZE) by 2050 Scenario
- A No new sales of fossil fuel boilers

B All new buildings are zero-carbon-ready Retrofit rates

- of 2.5% in advanced economies 100% of sales for lighting are LEDs © Most appliances and cooling systems sold are best in class 3.0 Overall net-zero emissions electricity in advanced economies (energy sector) D 50% of existing buildings retrofitted to zero car-2.5 bon-ready levels (E) 50% of heating demand met by heat pumps 2.0 (F) More than 85% of buildings are zero-carbon ready Natural gas use reduced by 98% Almost 70% of electricity generation globally from solar PV and wind (energy sector) 1.5 1.0 0.5 Gt CO₂ Direct **B** NZE 2025 2020 2030 2035 2040 2045 2050 Figure 3: Milestones Required to Achieve Net-Zero Emissions (NZE) in the building sector
 - Source : IEA World Energy Outlook (2022).
 - See SNSF (2019). 17

Active initiatives are underway to achieve net-zero objectives within the real estate sector; nonetheless, the industry still faces unresolved challenges that impede substantial progress. This includes the establishment of a consistent definition of net-zero across the real estate industry. Such a definition should determine a standard on how both embodied emissions and operational emissions be measured, reported, and verified. Further, it should incorporate circular economy and 'cradle to cradle' principles into planning processes to actively repurpose and extend the life of buildings, and drive technology (e.g. Smart home technology, smart metering) to facilitate the transition to net-zero emissions and to establish best practices. Real estate owners should, however, not be discouraged if critical elements, such as the measurement of embodied emissions, are unclear. Nor should they be dissuaded by limited financial or human resources. It's important to begin by utilising currently available building information and resources to tailor a strategy, devise a concrete action plan and ultimately begin implementing measures to reduce carbon emissions. Once targets have been set, corresponding measures can be refined over time by incorporating relevant factors, tools, and standards as they become available. Where financial constraints prevent progress, investors can explore sustainability-related financing options including incentives and grants.

As a starting point, various sources that provide support with net-zero target setting and corresponding measures can be consulted¹⁸:

- targets: Corporate Net-Zero Standard, SBTi Buildings¹⁹
- Embodied Carbon Emissions Assessments: DIN EN 15978-1:2021-09, DIN EN 15804:2022-03
- Framework; BREEAM Net Zero Carbon
- PRI Technical Guide: TCFD for Real Assets Investors
- World Green Building Council: Bringing Embodied Carbon Upfront report
- Technical Guidance for the Financial Industry
- Carbon Leadership Forum: Embodied Carbon in Construction Calculator (EC3)

18 Note: Selection is not exhaustive

SBTi published draft guidance v1.5 on setting science-based targets in the 19 real estate sector: "Buildings sector science based target setting guidance"

- Science Based Targets initiative (SBTi) helps organisations set science-based emissions reduction - Industry Frameworks: WBSCD: The Building System Carbon Framework, BBP Net Zero Carbon Pathway

- GRESB, PCAF, CRREM: <u>Accounting and Reporting of GHG Emissions from Real Estate Operations</u>:

6. Conclusion

This publication offers a comprehensive introduction to sustainable real estate investments, serving as a resource for investors seeking an understanding of the key standards and regulations applicable to direct real estate investments in Switzerland and the EU. While numerous sustainability-related certifications, labels, and frameworks exist in the market, real estate investors can utilise section 4 to gain an overview of a selection of these tools for their portfolio's sustainability strategy based on the specific focuses of each tool. Additionally, for investors and companies seeking guidance on implementing a sustainability strategy, a four-stage approach, including challenges and guidance, outlines fundamental elements that can be incorporated to formulate effective strategies.

Swiss real estate investors can contribute to achieving Swiss climate goals if they take proactive measures and move forward decisively. Due to the continuous and rapid advancements occurring in the market, it is essential to actively engage in discussions with a range of industry participants to stay informed of the current trends and market offerings. Although the transition to a sustainable real estate sector may appear costly, the benefits can outweigh the expenses and ultimately have a positive impact on society, the environment and the valuation of the real estate portfolio..

Imprint

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The mission of Swiss Sustainable Finance (SSF) is to strengthen Switzerland's position as a leading voice and actor in sustainable finance, thereby contributing to a sustainable and prosperous economy. The association, founded in 2014, has representative offices in Zurich, Geneva and Lugano. Currently, SSF unites over 240 members and network partners from financial service providers, investors, universities and business schools, public-sector entities and other interested organisations.

Zürcher Hochschule



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