University of Applied Sciences and Arts
of Southern Switzerland
SUPSI

2025
Swiss industrial landscape and market insights

Trends and opportunities for governments and public institutions

March 2026

Introduction

Switzerland is emerging as a hub for innovation in solar building materials, hosting one of the highest concentrations of Building-Integrated Photovoltaics (BIPV) manufacturers in Europe.

In line with broader European climate goals, such as the Green Deal, Switzerland is advancing its transition toward climate neutrality by promoting energy efficiency, renewable energy, sustainable design, and innovation in green technologies. Despite globalisation, the Swiss construction sector remains dominated by local firms and shaped by regional building codes and cultural preferences, making it challenging for international companies to fully establish themselves. This plays a role in the solar industry, creating fertile ground for customisation and flexibility beyond standard mass-market options.

BIPV systems, therefore, represent a strategic intersection energy production and building design, combining decentralised electricity production with architectural flexibility. This short report provides an overview of the Swiss BIPV market, including both the supply side, in terms of manufacturing and product offering, and the market demand, highlighting the evolution of the status of the solar and construction sectors. The first part maps BIPV manufacturers and products available in Switzerland and evaluates how they address market needs. The second part contextualises these findings through market indicators, local frameworks and national framework conditions to better frame the Swiss BIPV landscape.

Disclaimer: although the identification of BIPV manufacturers has been validated by partners, research institutes, and industry, we recommend using these estimates with caution and considering them for what they are for this report's scope: a tool to describe and understand the ongoing meta-trends on the Swiss BIPV market. The market data, on the other hand, is an analysis developed by SUPSI and based on databases provided by Pronovo.

About SUPSI

The Innovative Envelope team specializes in energy efficient building envelopes and solar building materials, serving as Switzerland's competence center for BIPV (see www.solarchitecture.ch for more). The team focuses on applied research, developing and testing multifunctional photovoltaic products that generate renewable energy while fulfilling architectural roles such as solar control, thermal protection, and waterproofing.

Key market activities include:

- Complex construction data into actionable intelligence, guiding governments, real estate, and manufacturers toward opportunity, competitiveness, and long-term market advantage.
- Tailored studies and publications, transforming raw data into clear strategic insights that support innovation and effective decision-making in the construction sector.
- Value chains, cost, and business models to reveal opportunities, maximize returns, reduce risk, and benchmark competitiveness.

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Contents

Photo: Amt für Umwelt und Energie. Credits: Yufei He / BUK ETHZ

Highlights


Image: Haus im Garten. Credits: Yufei He / BUK ETHZ

Population growth exceeds building expansion, positioning new construction as a strategic lever for BIPV and net-zero 2050.

78 MW

Installed capacity

of solar-integrated systems in 2024

13

Solar manufacturers

located in Switzerland

7.6%

The annual share of BIPV in the building PV sector in 2024, measured by the number of installations

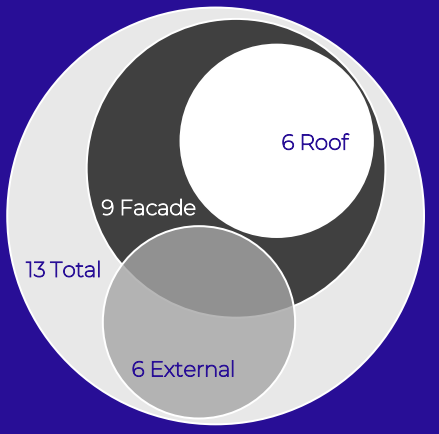
117

BIPV installations

with a tilt angle above 75° were installed in 2024


Image: Bürogebäude Bellerivestrasse. Credits: Yufei He / BUK ETHZ

Swiss solar manufacturers by product offered.



European hubs for solar material production

Unlike traditional photovoltaic module producers or building material manufacturers, solar building material manufacturers must have in-depth knowledge and expertise in both the solar industry and the building sector. The market expects them to build trust by demonstrating the value of their projects, providing adequate guarantees and support, and having a reliable partner or an excellent value proposition, in addition to financial stability [1]. The following chapter shows a classification of 92 solar building material manufacturers that have been identified in Europe, an overview of their geographical distribution, and their production sites.

Based on data from the 92 active companies identified in Europe, Exhibit 1 shows that Italy, Switzerland, the Netherlands, and Germany account for approximately 50% of all BIPV manufacturers in Europe. However, the same graph shows that Switzerland, Estonia, and Lithuania are the European countries with the highest rate of solar building material manufacturers per capita, with approximately 1.4 manufacturers per million inhabitants. Germany and Italy are in 10th and 9th place, respectively, with a rate of 0.11 and 0.22 manufacturers per million inhabitants.

Exhibit 1: Manufacturers by country

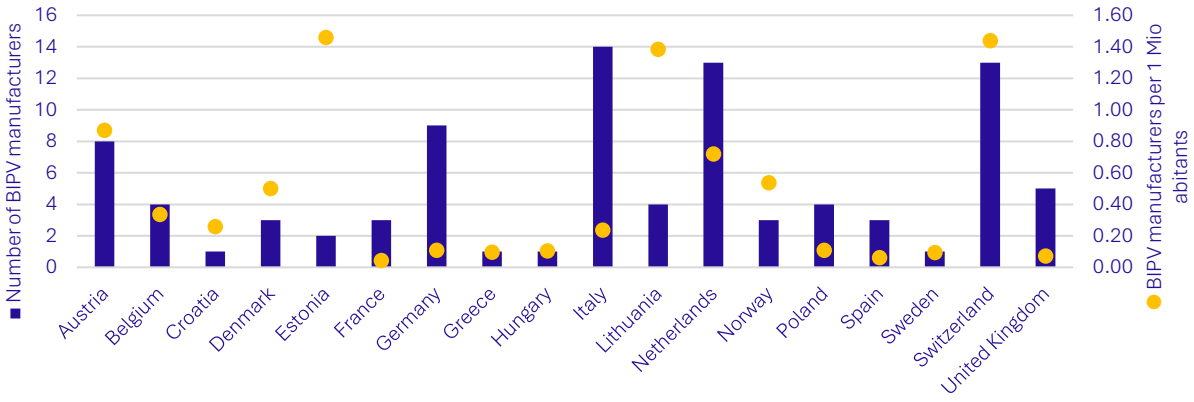
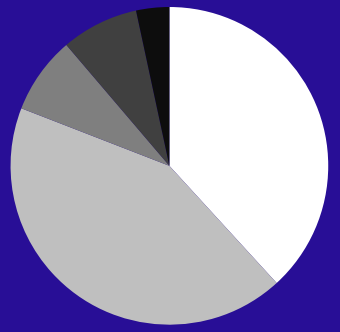


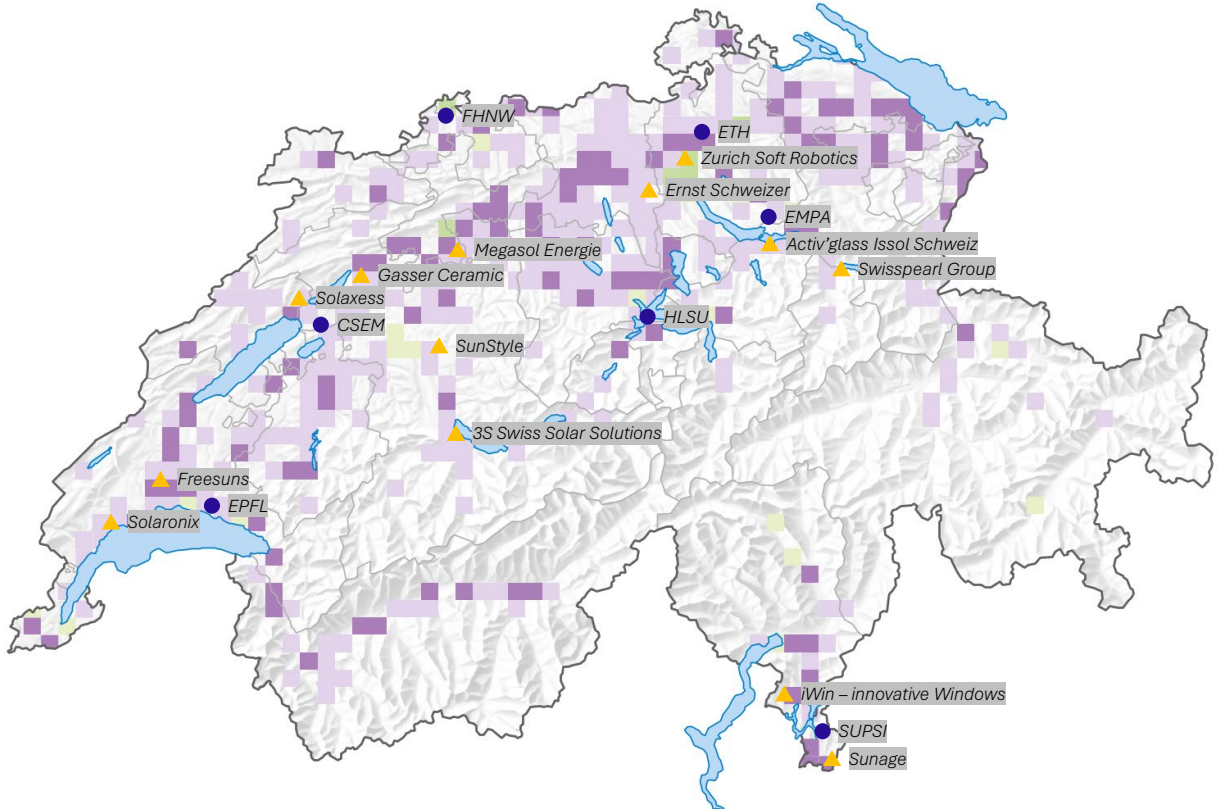
Exhibit 2: Manufacturers by typology



- **End product – assembly**: BIPV module assembled with a standard component for buildings (38%)
- **End product – lamination**: BIPV module (42%)
- **Semifinished – glass processing**: aesthetic processing of the glass (e.g. digital printing, aesthetic films) (8%)
- **Semifinished – cells manufacturing**: manufacturing of cells for BIPV products (e.g. c-Si, thin film, a-Si) (8%)
- **BIPV Original Equipment Manufacturers (OEM)**: support for the design of BIPV modules (4%)

Swiss hubs for solar material production

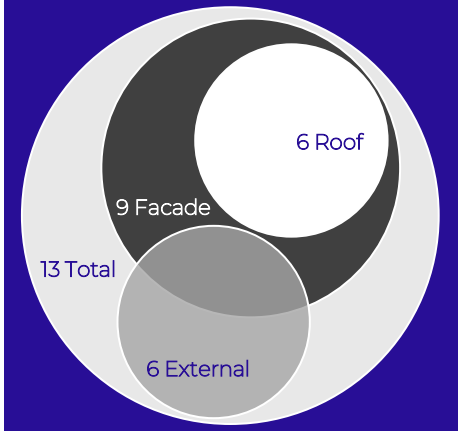
Exhibit 2: Swiss industrial and academic hubs for solar material production.



Change of industrial and commercial areas, in km^2: ■ ≤-0.21; ■ -0.20 – -0.06; ■ -0.05 – 0.05; ■ 0.06 – 0.20; ■ ≥0.21. Source FSO 2021

Swiss hubs for solar material production: ▲ BIPV industry; ● Academia. Source SUPSI 2025

Exhibit 3: Manufacturers by product offered.



Switzerland hosts 13 BIPV manufacturers (Exhibit 2). The geographical distribution of these companies largely mirrors the country's industrial clusters, which have expanded over the past 40 years. Exhibit 3 shows the number of Swiss manufacturers by the technological system included in their portfolios, such as roofing, façade, or external BIPV solutions.

Swiss hubs for solar material production

A high level of expertise is required from manufacturers to ensure reliability and minimize risks throughout the solar construction process. This includes a deep understanding of product performance, testing, certification, and innovation, as well as the ability to manage costs and risks, thereby earning trust from stakeholders. In this sense, a long track record in the sector can strengthen both technical skills and brand reputation. However, even young or relatively new manufacturers have brought in seasoned professionals from the research and construction sectors to secure the necessary level of expertise.
According to the selection criteria, a solar building material manufacturer has its headquarters in a European country and carries out at least part of its production activities in Europe.

Swiss solar building material manufacturers

Sunage	www.sunage.ch
3S Swiss Solar Solutions	www.3s-solar.swiss
Megasol Energie	www.megasol.ch
Swisspearl	www.swisspearl.com
Freesuns	www.freesuns.com
SunStyle (as Akuo Energy)	www.sunstyle.com
Solaxess	www.solaxess.ch
Zurich Soft Robotics (Solskin)	www.solskin.swiss
Gasser Ceramic	www.gasserceramic.ch
Solaronix	www.solaronix.com
iWin-innovative Windows	www.iwin.ch
Ernst Schweizer AG	www.ernstschweizer.ch
ACTIV'GLASS Issol Schweiz AG	www.activ-glass.com

Photo: Haus Brunner Bapst. Credits: Yufei He / BUK ETHZ

Photo: Solaris. Credits: Yufei He / BUK ETHZ

20 years of BIPV in Switzerland

Introduction

Switzerland emerges as one of the most promising markets for the development of solar architectures. In the country, each photovoltaic system, integrated, attached, or detached, can be subsidised by the federal government and, in some cases, by cantons and municipalities. This regulatory framework supported the creation and development of a dynamic national BIPV market. The following chapters present an accurate analysis of the Swiss solar market, with a specific focus on solar-integrated installations (BIPV), based on data from Pronovo, which provides a reliable overview of the country's market.

Data collection method

Only solar installations that applied for subsidies from Pronovo [2] have been included within this analysis, which represent the majority of the installations. To be recognised by Pronovo and eligible for subsidies by the federal government, a BIPV installation in Switzerland must comply with the following definition: it is a photovoltaic system that performs a dual function, producing electricity while simultaneously fulfilling one or more building envelope functions, such as weather protection, thermal insulation, or fall protection. Pronovo is the accredited certification body responsible for registering guarantees of origin and implementing the Confederation's incentive programmes for renewable energies.
It collects data and records all approved photovoltaic installations that are eligible for remuneration. The database includes installations categorised by installed capacity (kWp), tilt angle (>75°), and financial contribution (CHF), with records dating back to 2006.

The data indicates all approved photovoltaic installations eligible for federal incentives. System owners can request contributions even several years after installation is complete; data for recent years is subject to revision and may be updated over time. For installed systems, the indicated power corresponds to the installed power; for projects not yet in operation, the estimated power is used.

The BIPV applications recognised are multiple and are aligned with the definition of BIPV in Switzerland: Discontinuous roof, Continuous roof, Atrium/Skylight, Curtain wall, Rainscreen, Double Skin Facade, Window, Masonry Wall, Parapet, Balustrade, Canopy, Solar Shading

The data used for the analysis refer to installations registered in the Pronovo incentive programme as of 1 January 2025. For privacy reasons, data for groups with fewer than four registrations are not published to avoid deductions attributable to individual projects. However, the reported total values include all data from the installations.

Photo: Solarfaltdach ARA Bassersdorf. Credits: Yufei He / BUK ETHZ

Overview of the Swiss construction sector

The number of buildings in Switzerland continues to grow (Exhibit 4). From 2009 to 2024, the number of dwellings in Switzerland increased from 1’623’016 to 1’800’133. However, construction activity has been slowing down in recent years, particularly in the residential sector. Demand for housing remains high, partly due to increasing immigration. Switzerland’s population growth rate exceeds that of new building construction almost every year [3, 4]. The need for new buildings represents an opportunity for solar architecture, which in this socio-political context can play a key role in achieving the Energy Strategy 2050, according to which Switzerland will have to reduce greenhouse gas emissions to zero (net zero emissions) [5].

Exhibit 4: Swiss construction market

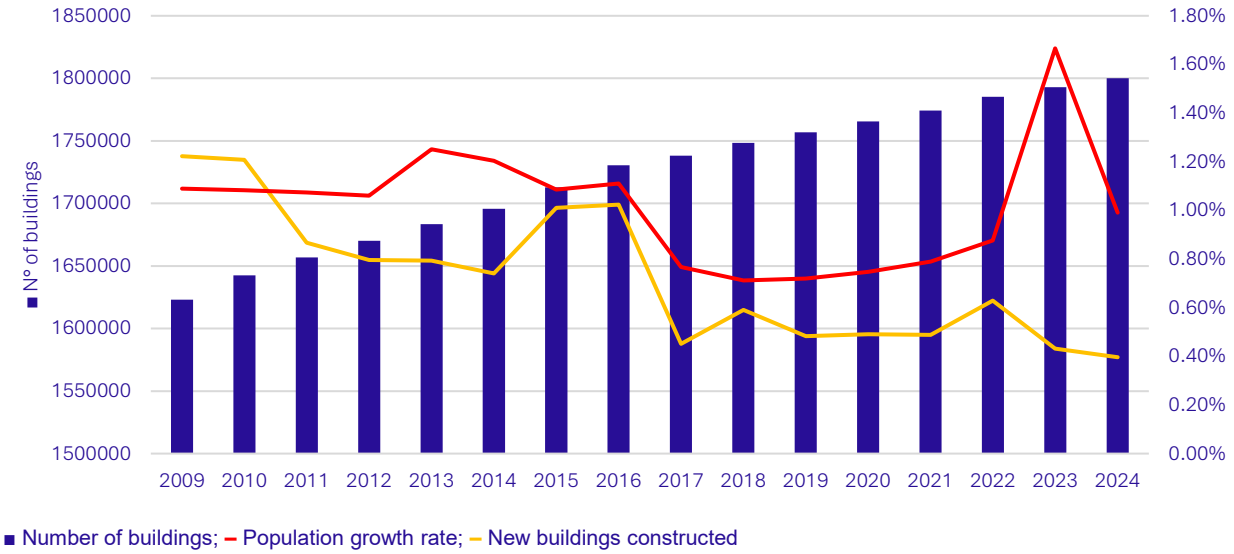


Photo: Mobiliar Bern. Credits: Yufei He / BUK ETHZ

Solar-integrated & attached market growth

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The annual share of BIPV in the building PV sector reached about 7.6% in 2024 - measured by number of installations

Photo: MFH Zwirnerstrasse. Credits: Yufei He / BUK ETHZ

Exhibit 5: Annual installed capacity of solar-integrated systems

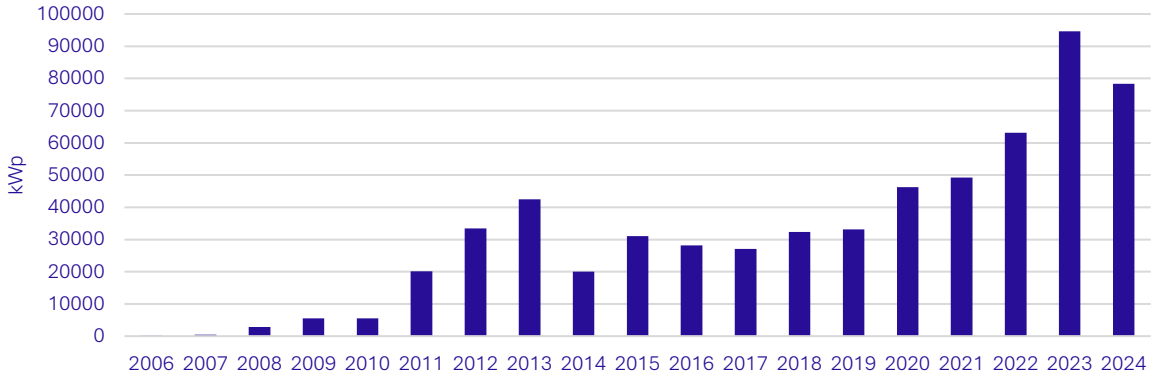
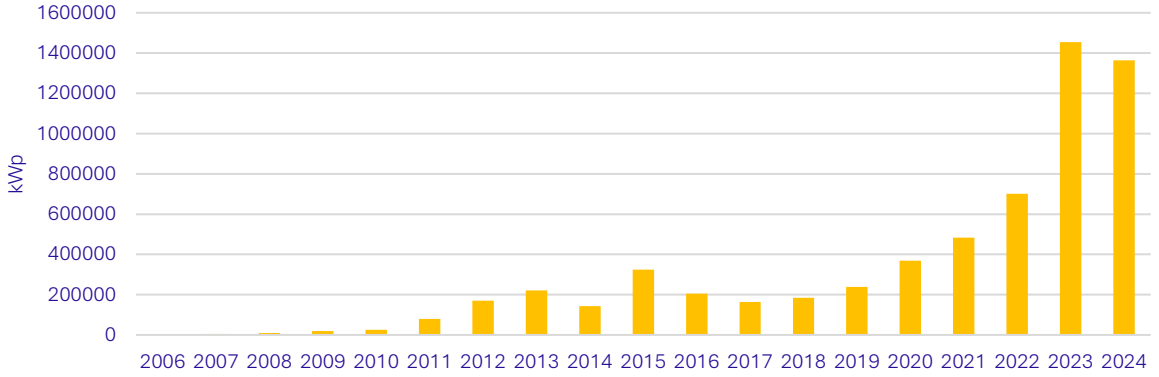


Exhibit 6: Annual installed capacity of solar-attached systems



Solar-integrated & attached market growth

Exhibit 7: Annual number of installed solar-integrated systems

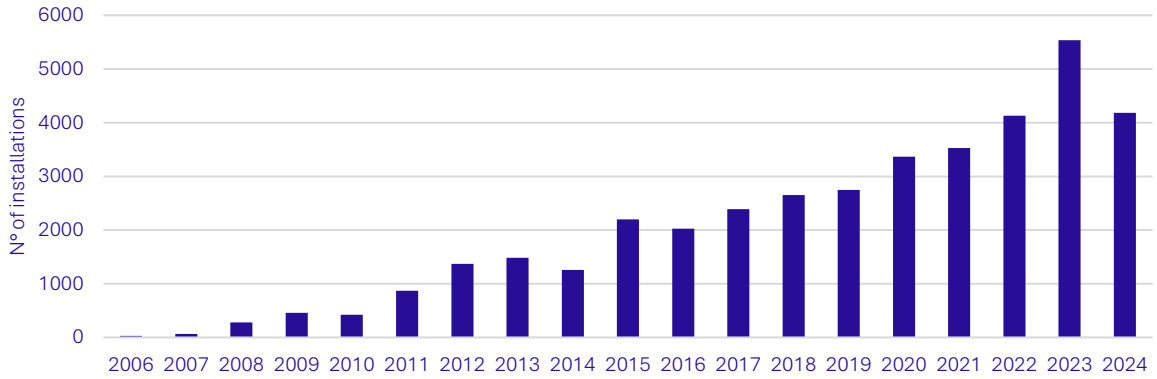
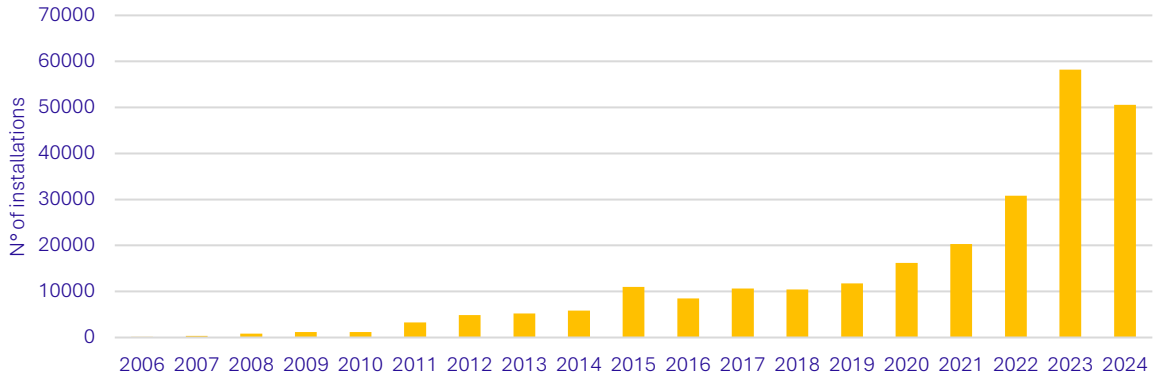


Exhibit 8: Annual number of installed solar-attached systems



Solar-integrated systems with a tilt angle > 75° have been considered as façade solar-integrated systems. A total of 74, 138, and 117 BIPV installations with a tilt angle greater than 75° were commissioned in 2022, 2023, and 2024, respectively. The average installed capacity of these systems is approximately 37 kWp, reflecting their typical application to vertical or near-vertical building-envelope surfaces.


Photo: MFH [illegible]enstrasse. Credits: Yufei He / ETHZ

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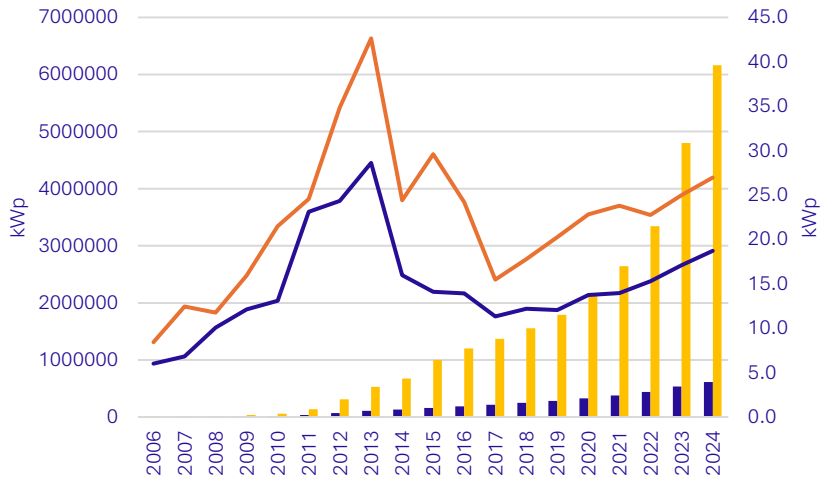
A total of 117 BIPV installations with a tilt angle above 75° were installed in 2024

Solar-integrated & attached market growth

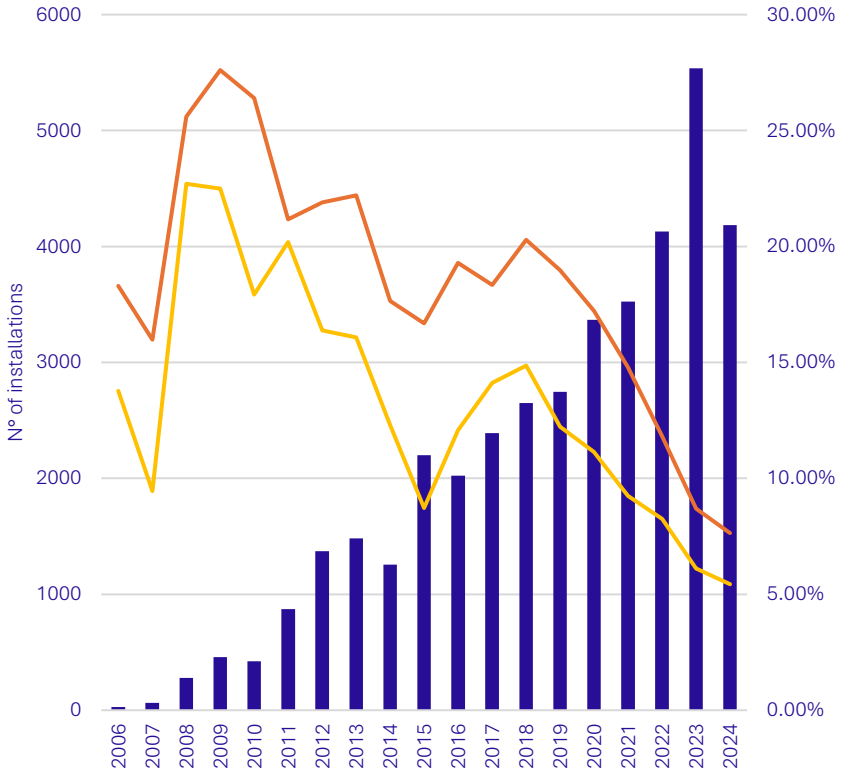
Solar-integrated systems are generally smaller than solar-attached systems. In general, since 2015, the average capacity of photovoltaic systems installed in Switzerland has decreased. This trend may indicate greater use of building envelope surfaces, particularly in the residential sector, where photovoltaic systems are typically smaller. The annual share of solar-integrated systems in the building photovoltaic sector (integrated + attached) reached about 5.4% and 7.6% in 2024, measured by installed capacity and the number of installations, respectively. Since 2018, this share has been declining, likely due to reductions in federal incentives.

Exhibit 9: Average size of solar-integrated and attached systems



Cumulative installed capacity of integrated (■) and attached (■) systems; Average capacity for integrated (–) and attached (–) systems

Exhibit 10: Annual market share of solar-integrated systems in the building photovoltaic sector (integrated + attached)



■ N° of installed integrated systems; Annual market share of integrated systems in the building photovoltaic sector (integrated + attached) measured by number of installations (–) and installed capacity (–)

Swiss solar-integrated system support scheme

Exhibit 11: One-time investment contribution for solar-integrated systems

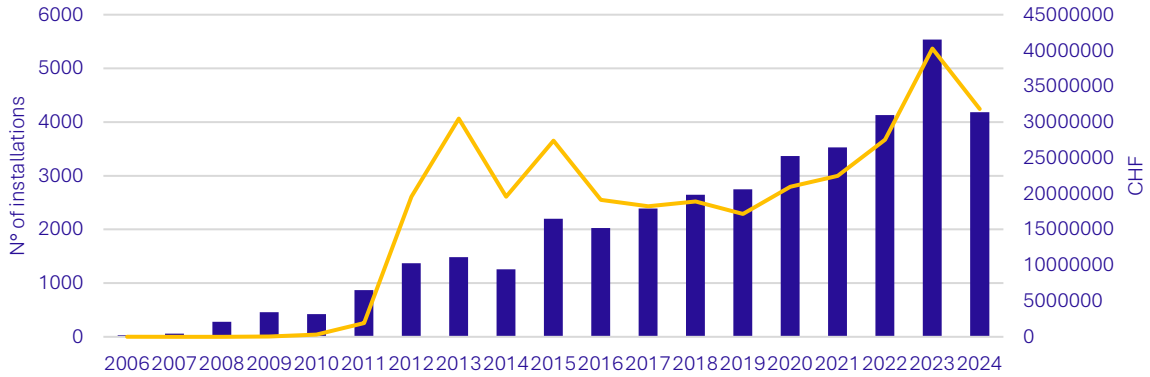
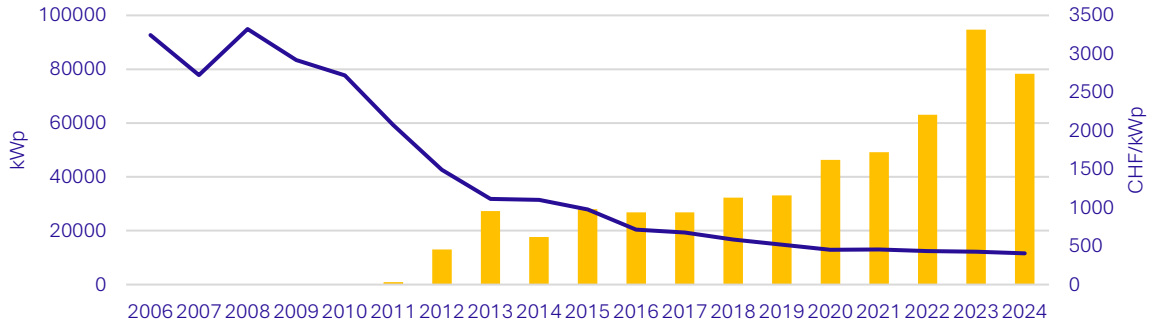


Exhibit 12: One-time investment contribution for solar-integrated systems per power installed



■ N° of installed integrated systems; ■ Installed capacity of integrated systems; – Contribution; – Contribution per capacity

Since 2018, new photovoltaic installations in Switzerland have been promoted exclusively through a single remuneration system (one-time investment contribution). The amount of the contribution varies according to the size of the installation. The previous feed-in remuneration system remains applicable only to systems notified before 2012, and with a capacity of 100 kWp or more [6, 7]. In Exhibits 11 and 12, only the one-time investment contribution has been collected.

From 2022, a specific bonus has also been introduced for systems installed at an altitude above 1500m a.s.l, and with an inclination of more than 75°. The latter is specific to vertical systems designed to maximise electricity production during the winter period.

In 2024, the one-time investment contribution was about 32 Mio CHF, which corresponds to a specific contribution per installed power of about 406 CHF/kWp.

Solar-integrated regional overview

A strategic assessment of the BIPV framework should begin with an analysis of the construction market to identify the types of buildings most suitable for system integration. Exhibit 13 shows that the largest number of buildings is concentrated in the cantons of Zurich and Bern [8]; the Canton of Zurich also has the highest gross monthly salary levels, which are relevant factors for investment capacity and potential demand [9]. Exhibit 14 shows the average number of inhabitants per building, with the highest values in the cantons of Geneva, Zug and Basel-Stadt [10]. This indicator enables identification of contexts characterised by a greater presence of multi-family buildings or large offices, which may represent priority targets for larger-scale BIPV solutions. Conversely, cantons such as Glarus and Graubünden exhibit a prevalence of smaller buildings, suggesting opportunities primarily in the single-family residential segment.

Exhibit 13: Number of buildings and gross monthly wage by canton

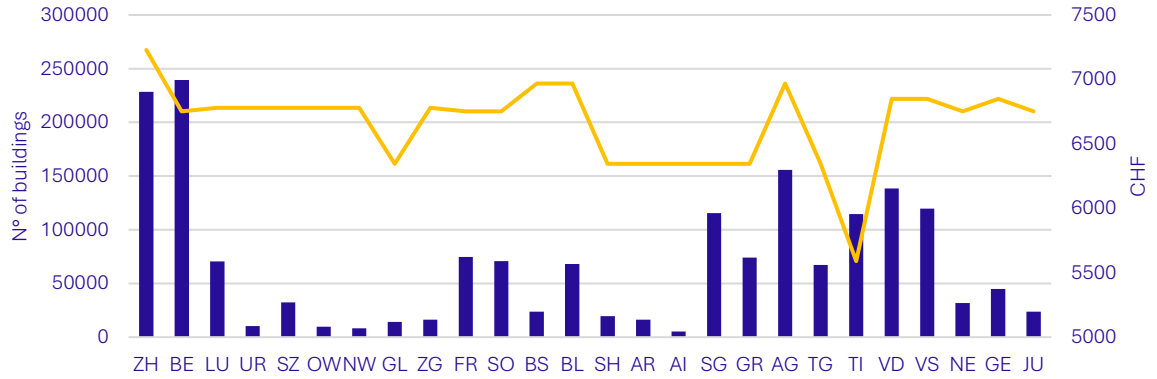
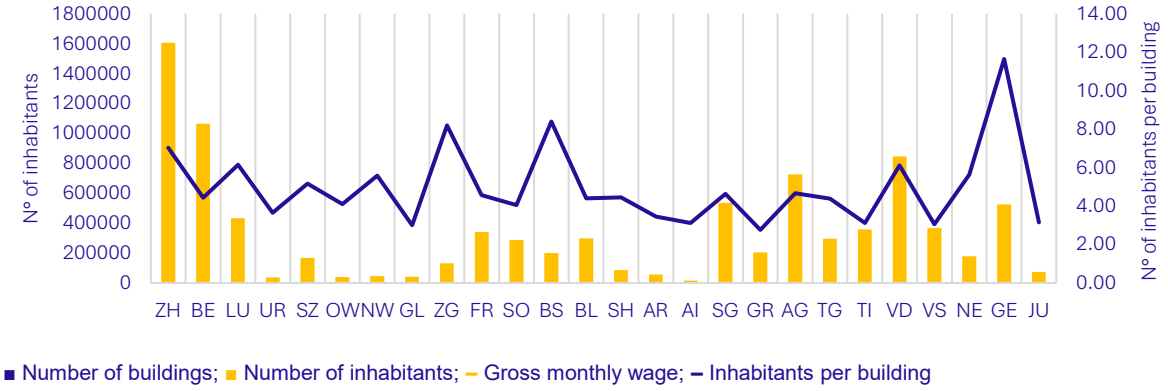


Exhibit 14: Number of inhabitants and inhabitants per building by canton



Solar-integrated regional overview

Exhibit 15: Annual installed capacity, and annual market share of solar-integrated systems in the building photovoltaic sector (integrated + attached) by cantons (2024)

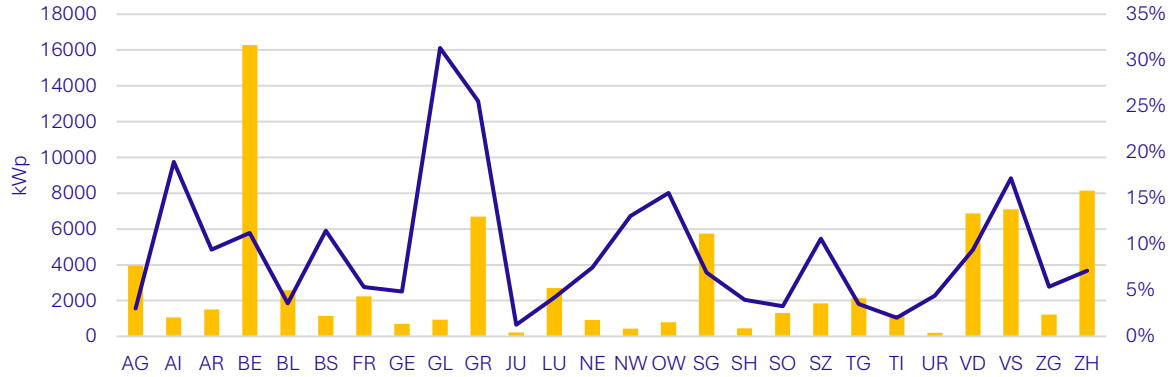
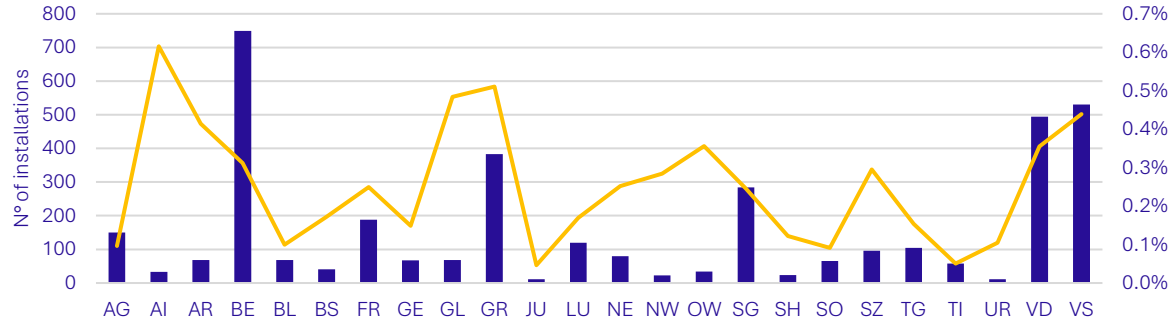


Exhibit 16: Annual number, and annual market share of solar-integrated systems in the building market by cantons (2024)



■ Installed capacity of integrated systems; ■ N° of installed integrated systems; Annual market share of integrated systems in the building photovoltaic sector (–) and in the cumulative residential building market (–) measured by n° of installations

Photo: Solares Direktgewinnhaus. Credits: Yufei He / BUK ETHZ

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In 2024, solar-integrated systems accounted for 30% of the building PV market in canton Glarus

Conclusions

Although the BIPV market remains a niche in Europe, Switzerland ranks among the most advanced countries in both product offerings and the number of BIPV installations. This result is supported by a consolidated ecosystem involving manufacturers, research institutes, industry professionals, architects, investors, and institutions that have recognised the strategic potential to achieve the objectives of Energy Strategy 2050, which requires Switzerland to reduce greenhouse gas emissions to zero.

The national manufacturing sector includes 13 BIPV manufacturers, confirming the existence of a specialised supply chain, albeit a small one. From 2009 to 2024, the number of dwellings in Switzerland increased from 1’623’016 to 1’800’133. The need for new buildings presents an opportunity for solar architecture, which, in this socio-political context, can play a key role in achieving the energy strategy.

The annual installed capacity of solar-attached systems is about 1’363 MWh in 2024 and 78 MWh for solar-integrated systems. The annual share of solar-integrated systems in the building photovoltaic sector (integrated + attached) reached about 5.4% and 7.6% in 2024, measured by installed capacity and the number of installations, respectively. Since 2018, this share has been declining, likely due to reductions in federal incentives. Solar-integrated systems with a tilt angle > 75° have been considered as façade solar-integrated systems. A total of 74, 138, and 117 BIPV installations with a tilt angle greater than 75° were commissioned in 2022, 2023, and 2024, respectively.

In 2024, the one-time investment contribution was about 32 million CHF, which corresponds to a specific contribution per installed power of about 406 CHF/kWp.

The potential of BIPV varies significantly between cantons depending on building structure and socio-economic conditions, making a differentiated regional approach necessary. For example, in the canton of Bern, the annual share of integrated systems in the cumulative residential market is around 0.3%, while it reaches 11% in the building photovoltaic sector alone. In Ticino, the figures are lower (0.1% and 2%), confirming the existence of heterogeneous territorial dynamics.

Photo: Zwei Häuser In Chigny. Credits: Yufei He / BUK ETHZ

Reference

[1] P. Corti, P. Bonomo, F. Frontini, P. Macé, E. Bosch. Building Integrated Photovoltaics 2020: A practical handbook for solar buildings' stakeholders. 2004 (link)
[2] https://pronovo.ch/it/
[3] https://www.bfs.admin.ch/bfs/en.assetdetail.32329486.html
[4] https://www.bfs.admin.ch/bfs/en/home/statistics/population.assetdetail.36073673.html
[5] https://www.bfe.admin.ch/bfe/en/home/policy/energy-strategy-2050/what-is-the-energy-strategy-2050.html
[6] https://pronovo.ch/de/foerderung/photovoltaik/
[7] https://pronovo.ch/de/foerderung/evs/
[8] https://www.bfs.admin.ch/bfs/de.assetdetail.32329486.html
[9] https://www.bfs.admin.ch/bfs/it/home/statistiche/lavoro-reddito/salari-reddito-lavoro-costo-lavoro/struttura-salari/grandi-regioni.assetdetail.30226099.html
[10] https://www.bfs.admin.ch/bfs/it/home/statistiche/popolazione.assetdetail.36073798.html

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This report provides an overview of mega-trends in the Swiss BIPV (Building-Integrated Photovoltaics) market and is intended for informational purposes only. While we have made every effort to ensure the accuracy of the data and information presented, we do not guarantee that it is exhaustive or without error. The information contained in this report should not be used for business plans, commercial strategies, or other financials or operational decision-making without a previous validation. Any data or information from this report must be properly attributed to the source. We assume no responsibility or liability for the use of the data for commercial or business purposes.

Photo: Unterwerk Stenna (top); MFH Nordtorweg (bottom). Credits: Yufei He / BUK ETHZ

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