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Let's Make Smart Zero Emission Buildings

Smart Green Buildings

Nearly one-third of the greenhouse gas emissions are attributable to America's 130 million homes and commercial buildings, including energy used for construction, heating, cooling, installed appliances and lighting homes and businesses. The Energy Earthshots have been launched by the U.S. Department of Energy to address the housing deficit, high energy burdens and energy-inefficient homes.

Let's accelerate the green transition by collaborating. Sweden contributes with strengths in industrialized building methods, new materials and a focus on energy efficiency, which help reduce operational and embodied carbon in buildings.





Sweden – A Small Country with Mighty Ambitions

One common misperception regarding reducing emissions and investing in more sustainable solutions is that it will harm economic growth. Sweden has shown the opposite. As one of the world's first countries to introduce a carbon tax (in 1991), The economy grew by 78% between 1991 and 2018 while reducing emissions by 26%. Sweden consistently places among the top three most innovative countries in the world, in addition to being a leader in sustainability. With a Strategic Innovation Program, Sweden is now driving towards climate-neutral cities. The goal is to be the first fossil-free OECD country in 2045, supported by strengths in industrialized building methods, new materials, and energy efficiency to lower operational and embodied carbon related to buildings.

Revolutionizing Construction – Mastery of Modular Housing

In industrialized building methods, automation and energy-efficient design, Sweden leads the way with expertise in industrialized wooden modular buildings. Skanska and IKEA have together developed BoKlok, a residential housing concept providing sustainable home ownership for many people at a lower cost.

Material with the Lowest Footprint Possible

The steel industry is entering a new era, with carbon-free steel production by H2 Green Steel, SSAB, and Green Iron. Another carbon-intensive industry is the cement production, where impressive decarbonization efforts are led by companies such as Thomas Betong, Skanska, and Swerock. Newcomers Cemvion and Paebbl introduce carbon-negative raw materials, complementing Sweden's well-managed, wood supply chain – including sustainable forest practices and advanced wood processing technologies.

Energy Efficiency in Buildings and Healthy Indoor Climate for Everyone

Sweden's focus on energy-efficient solutions dates back to the 1973 oil crisis, emphasizing insulation and a systemic approach, resulting in benefits such as a quiet indoor environment and good air quality. In HVAC, Alfa Laval, NIBE, Swegon, Lindab, Camfil and Climate Machine offer cutting-edge products and solutions in indoor climate. Bemsig and Innovative Living complement the sector with digital solutions for smart control systems. Sweden also has a range of suppliers of heat pumps and related solutions, including NIBE, Thermia, Rototec, Quantum, MuoviTech and Aira.

Climate-Neutral Cities

Sweden is forging climate-neutral cities via innovative climate contracts, developed by Viable Cities, which is a Swedish Strategic Innovation Program. Smart green buildings play a crucial role in reducing operational and embodied carbon. City transformation is also linked to waste management, transportation, and more. Notably, less than 1% of Swedish household waste goes to landfills. Stockholm Exergi, a district heating company, develops carbon capture solutions with bioenergy carbon storage and biofuels included in district heating, resulting in a 90% carbon capture rate. Sweden also has companies that can help cities track their carbon footprint. For instance, ClimateView provides advanced solutions for city-level carbon data monitoring.

