

Switzerland has a strong environmental industry. Due to the country's small size and high population density, it has been forced to confront environmental problems long before many other larger countries. Consequently, the environment industries have become a substantial factor in the overall Swiss economy.

Sector profile

Environmental industries in Switzerland

The Swiss industries' strengths are in the fields of wastewater treatment and water purification, waste recovery, recycling and incineration, air pollution control, noise abatement, integrated pollution control processes, soil treatment and sewage sludge disposal, instrumentation/monitoring, environmental safety and impact assessment analysis. The stringent Swiss environmental laws and regulations have been the driving force behind many of the innovative environmental concepts and top-flight technology products that have found their way to world markets.

Small country, big on environment

Switzerland, a small country of approximately 40,000 square kilometres, has approximately 120 manufacturers and 80 engineering consultants directly active in the environment sector. As well, an additional 300 companies, mostly small and medium-sized enterprises (SMEs), supply components to this relatively young and highly specialized industry sector. The Federal

Office for Economic Policy estimates this sector's total annual turnover at 5 to 6 billion Swiss francs, and its workforce at approximately 20,000. The environmental technology division of the Swiss Association of Machinery, Electrical and Metal Industries (SWISSMEM) alone comprises 40 firms, with an annual turnover of

approximately 900 million Swiss francs. Over 50% of this turnover is generated by exports. In Switzerland, 99.6% of all companies are considered to be SMEs, and they employ 75% of the country's total workforce.

Environmental protection measures cost Switzerland — population 7 million — approximately 6 billion Swiss francs annually (1.7% of the GDP). Of this, 35% goes to managing waste, 28% to protecting water resources, and 23% to improving air quality. The funding comes from both public and private sectors; federal, cantonal and municipal governments are closely involved in the decision-making processes. The Swiss government's ecological tax reform proposals are presently under parliamentary review and decisions are expected soon on issues such as an energy tax, a tax on carbon dioxide emissions, and various proposals for an "incentive" tax that would increase the price of fossil fuels. To date, hundreds of Swiss companies have obtained

ISO 14001 environmental standards certification.

The Environmental Protection Law and subsequent updates have reinforced the close co-operation between environmental research institutes and the commercialization of new technologies. Swiss government agencies support pilot and demonstration plants for "green" technologies and can specifically promote projects which contribute significantly to the solution of environmental problems.

Environmental technology research is producing increasingly sophisticated filtration systems, as well as wastewater and exhaust air treatment equipment, in order to reduce industry's emissions. In sectors such as the chemical and metallurgical industries, new integrated production processes are being developed, in collaboration with universities. The Swiss Federal Laboratory for Materials Testing and Research (EMPA) investigates the environmental impact of substances and processes, develops methods of life cycle assessment, and conducts environmental reviews of companies.

Key facts about sub-sectors:

Waste

In Switzerland, 370 kg of mixed municipal waste accumulates, per person, each year. In general, Swiss municipalities use various forms of "bag and tag" systems to collect household waste. In addition, 240 kg, per person, per year, of used material is collected separately through a sophisticated network of drop-off points and recycled, adding up to 610 kg in total. Close to 40% of municipal solid waste is recovered (e.g. glass, polyethylene, paper, tinplate, etc.).

Increasingly, waste-to-energy technologies are being used to incinerate 80% of mixed municipal waste and non-utilizable sewage sludge, while the remaining 20% is land filled. As of 2000, Swiss law prohibits land filling of combustible waste. The legislation identified