



FSO News

02 Territory and environment

Neuchâtel, august 2016

Environmental protection expenditure in the business sector

Cleaner technologies on the increase

Between 2003 and 2013, environmental protection expenditure in the business sector fell from CHF 2.5 to 2.3 billion, decreasing by 10% at current prices. Due to the economic growth seen during this period, the burden this represents for enterprises decreased from 0.53% to 0.36% of the gross domestic product (GDP). The share of pollution treatment investments in the total environmental protection investments fell from 45% to 23% whereas that of pollution prevention investments increased from 55% to 77%. This trend suggests an increased interest on the part of enterprises in cleaner technologies and production processes.

Environmental protection expenditure includes investments in the prevention and treatment of pollution as well as internal current expenditure, purchases of services and communal fees. A decline in these costs does not necessarily imply that enterprises are opting out of such measures or that the environment is deteriorating. In contrast, this may be explained by the adoption of cleaner technologies and production processes, by structural changes or by more efficient treatment of the pollution that is generated.

Decline in investments

Between 2003 and 2013, environmental protection expenditure in the business sector fell from CHF 2.51 billion to CHF 2.26 billion at current prices¹ (G 1). Investments fell by 27% from CHF 740 million to CHF 540 million. Current expenditure remained almost

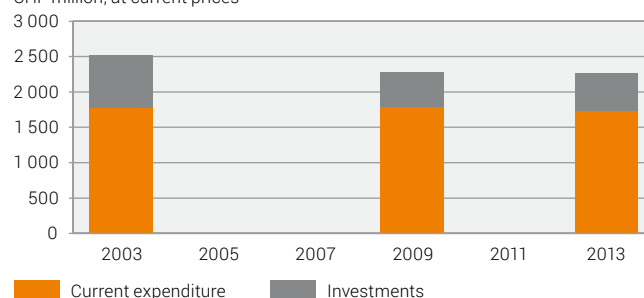
stable, falling only slightly from CHF 1.77 to 1.73 billion. The share of investments in the total environmental protection expenditure fell from 29% to 24% to the benefit of current expenditure.

The results of the pilot survey from 1993, adjusted to make them comparable insofar as possible with those from other years surveyed, indicate investments and current expenditure on environmental protection of CHF 1.2 and 1.3 billion, i.e. shares of 47% and 53% respectively.

Environmental protection expenditure in the business sector¹

G 1

CHF million, at current prices



¹ Enterprises with more than two employees, excluding primary sector, excluding NOGA branches 37, 38 and 39 "Sewerage, waste collection and remediation activities" and 84 "Public administration"

According to the General Classification of Economic Activities – NOGA 2008

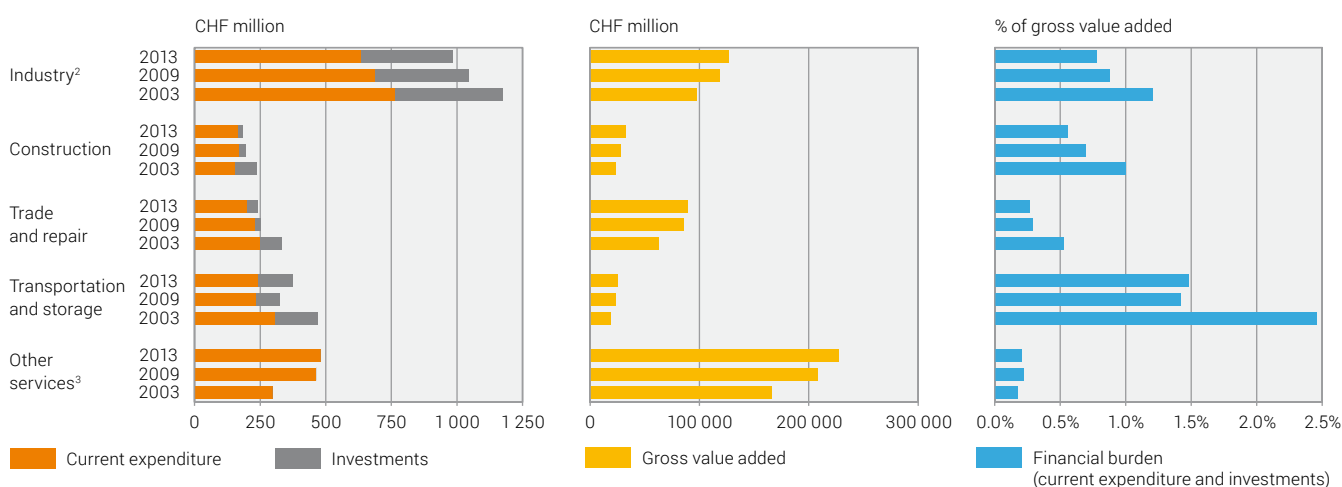
Source: FSO – UWSA

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¹ The amounts and changes are always specified here at current prices.

Environmental protection expenditure and financial burden in the business sector¹, by business line

G 2



¹ Enterprises with more than two employees

² Excluding NOGA branches 37, 38 and 39 "Sewerage, waste collection and remediation activities"

³ NOGA branches 55 to 96, excluding branch 84 "Public administration". Only the purchases of services and communal fees have been collected

According to the General Classification of Economic Activities – NOGA 2008

Source: FSO – UWSA

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Expenditure varies from one sector of activity to the next

Environmental protection expenditure varies considerably from one sector of activity to the next because of its respective economic weighting, the legislation in force and the level of the environmental protection effort which is necessary given the potential environmental impact of the activities carried out.

Between 2003 and 2013, environmental protection expenditure in the industrial sector fell by 16% from CHF 1.18 billion to CHF 990 million (G2) and from 47% to 44% of the total expenditure on environmental protection in the business sector. At the same time, the gross value added in the industrial sector increased from CHF 100 billion to CHF 130 billion. The financial burden represented by environmental protection for this sector of activity consequently fell from 1.2% to 0.8% of its gross value added.

Environmental protection expenditure also fell in trade and repair activities (–27%), construction (–23%) and transportation and storage (–20%). However, this expenditure increased in the other services² (+61%). The shares represented by expenditure from these sectors of activity in the total environmental protection expenditure by enterprises decreased except for that of other services which increased from 12% to 21%. The financial burden fell in all of the sectors examined with the exception of that of other services. Here the burden remained stable at around 0.2% of its gross value added.

² Group together the following activities: accommodation and food service activities; information and communication; financial and insurance; real estate; professional, scientific and technical activities; administrative and support service activities; education; health care; social work; other service activities (NOGA industries 55 to 96, excluding 84).

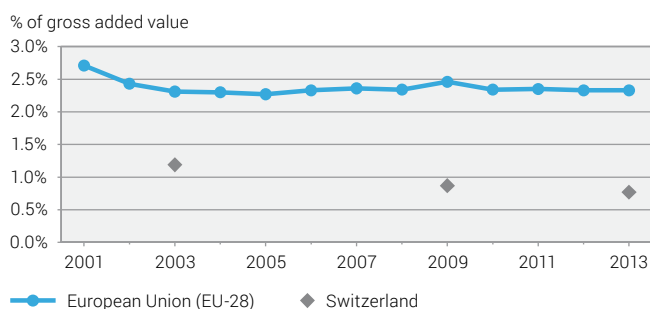
In 2013, construction dedicated 25% fewer resources to environmental protection (CHF 180 million) than trade and repair activities (CHF 240 million), while generating almost three times less gross value added. Thus, to the construction industry, environmental protection represented a financial burden of 0.6% of its gross value added, compared with 0.3% in trade and repair activities.

Swiss industry is not disadvantaged

Between 2003 and 2013, the financial burden represented by environmental protection expenditure in the industrial sector was 2.3% on average in the European Union (EU-28) (G3). That of Swiss industry has thus changed favourably: in 2013 it was three times lower than that of European industry while in 2003 it was two times lower.

Environmental protection expenditure by Swiss and European industry

G 3



Sources: FSO – UWSA; Eurostat

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Cleaner technologies are gaining ground

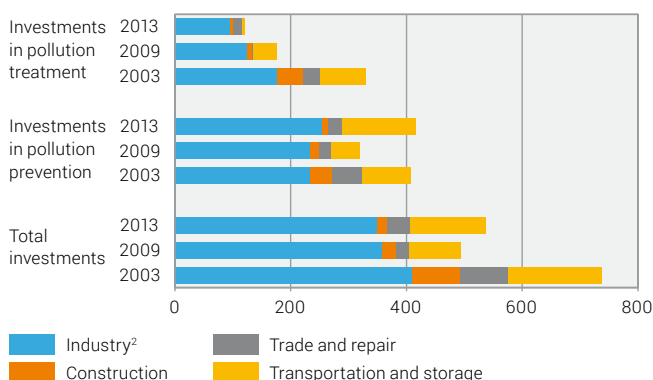
Between 2003 and 2013, investments in environmental protection decreased by 27%, falling from CHF 740 million to CHF 540 million (G4). Investments in pollution treatment decreased by 63%, from CHF 330 million to CHF 120 million. After declining between 2003 and 2009, investments in pollution prevention then increased, reaching CHF 420 million in 2013, a level comparable to that seen in 2003. Over this period, the share of investments intended for pollution treatment thus fell from 45% to 23% whereas that of investments in pollution prevention increased from 55% to 77%. This trend suggests an increased interest on the part of enterprises in cleaner technologies and production processes, which make it possible to reduce or even to prevent the generation of pollution instead of treating it once it is generated.

According to the pilot survey from 1993, investments in pollution treatment and prevention represented 66% and 34% of the total.

Business sector's environmental protection investments¹, by type and business line

G 4

CHF million, at current prices

¹ Enterprises with more than two employees² Excluding NOGA branches 37, 38 and 39 "Sewerage, waste collection and remediation activities"

According to the General Classification of Economic Activities – NOGA 2008

Source: FSO – UWSA

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In the industry, investments in pollution treatment fell by 46% from CHF 180 to 100 million, whereas investments in pollution prevention increased by 9% from CHF 230 to 250 million.

The share of investments in pollution treatment in the industry fell from 43% to 27% in favour of investments in pollution prevention. An even more pronounced trend was seen in transportation and storage activities where the share of investments in prevention increased from 52% to 96% of the total. Investments in pollution treatment decreased by 94% whereas investments in prevention increased by 51%.

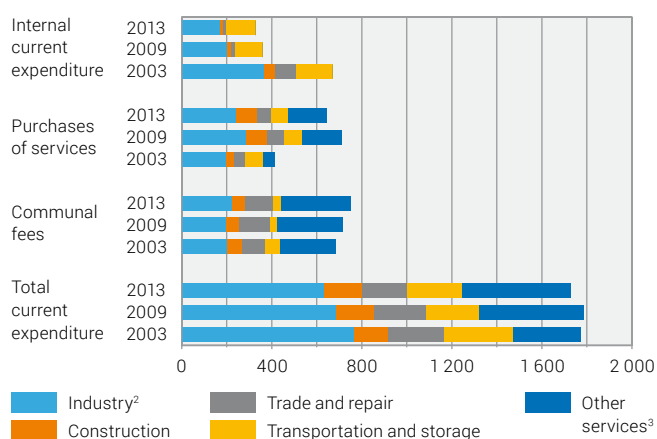
Outsourcing of environmental protection

Between 2003 and 2013, current expenditure on environmental protection which includes internal current expenditure, purchases of third-party services and communal fees for wastewater and waste management remained almost stable (G5). Communal fees increased by 10% from CHF 690 million to CHF 750 million. Internal current expenditure decreased by 51% from CHF 670 million to CHF 330 million, whereas purchases of third-party services increased by 55%, from CHF 420 million to CHF 640 million. The shares of communal fees and purchases of services in the total current expenditure on environmental protection by enterprises thus rose from 39% to 44% and 23% to 37%, whereas that of internal current expenditure fell from 38% to 19%. This change shows a trend towards outsourcing certain environmental protection activities. This is particularly the case in waste management where internal current expenditure fell from 38% to 17% and purchases of services increased from 27% to 44% of the total current expenditure.

Business sector's environmental protection current expenditure¹, by type and business line

G 5

CHF million, at current prices

¹ Enterprises with more than two employees² Excluding NOGA branches 37, 38 and 39 "Sewerage, waste collection and remediation activities"³ NOGA branches 55 to 96, excluding branch 84 "Public administration". Only the purchases of services and communal fees have been collected

According to the General Classification of Economic Activities – NOGA 2008

Source: FSO – UWSA

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7 out of 10 Swiss francs spent on waste and wastewater management

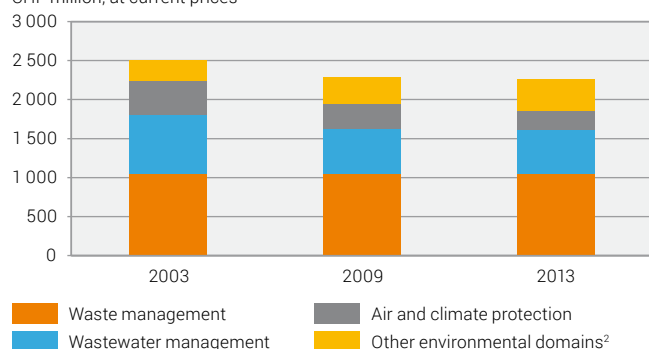
Between 2003 and 2013, expenditure on air and climate protection decreased by 43%, falling from CHF 430 million to CHF 250 million (G6). Expenditure on wastewater management also decreased by 26%, falling from CHF 760 million to CHF 570 million. Waste management expenditure remained almost stable at CHF 1.04 billion. In contrast, expenditure in other environmental domains increased by 50% from CHF 270 million

to CHF 400 million. Noise control, protection of the soil, ground-water, landscape and biodiversity have thus become increasingly important. Their share in total expenditure increased from 11% to 18%, while that of air and climate protection decreased from 17% to 11%. Considered as a whole, wastewater and waste management accounted for 71% of total expenditure in 2013, a share comparable to that seen in 2003 (72%).

In 1993, 60% of environmental protection expenditure was dedicated to wastewater and waste management, 32% to air and climate protection and 8% to other environmental domains.

Environmental protection expenditure in the business sector¹, by environmental domain G 6

CHF million, at current prices



¹ Enterprises with more than two employees, excluding primary sector, excluding NOGA branches 37, 38 and 39 "Sewerage, waste collection and remediation activities" and 84 "Public administration"

² Noise control, protection of biodiversity, landscape, soils and groundwater, research and development, other activities

According to the General Classification of Economic Activities – NOGA 2008

Source: FSO – UWSA

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Large enterprises take on more than 50% of expenditure

Between 2003 and 2013, environmental protection expenditure by enterprises with 250 employees or more decreased by around 4%, from CHF 1.34 to CHF 1.29 billion. However, its share in total expenditure increased from 54% to 57%. Environmental protection expenditure by enterprises with 50 to 249 employees decreased by 31%, from CHF 600 to CHF 410 million. At the same time, its share in the total expenditure decreased from 24% to 18%. Finally, expenditure by enterprises with 3 to 49 employees remained almost stable as did its share in the total expenditure which increased only slightly from 23% to 25%.

Methodological note

Environmental protection expenditure measures the financial effort made to prevent, reduce or eliminate pollution and any other degradation of the environment (Eurostat/OECD). Expenditure that has a favourable impact on the environment but a primary aim other than environmental protection is excluded.

The results presented here concern enterprises with more than two employees that are active in the secondary and tertiary sectors (excluding NOGA industries 37 to 39 which provide wastewater, waste management and remediation services and excluding NOGA 84 which covers public administration). They are taken from two identical surveys for the years 2013 and 2009, from a similar survey for 2003 and a pilot survey for 1993.

For 2003, the results were adjusted to make them comparable with those from 2009 and 2013. Firstly, investments and internal current expenditure from NOGA branches 55 to 82 were eliminated because these variables were not surveyed in these industries during the last two surveys. Secondly, communal fees and purchases of services from NOGA industries 85 to 96 which were not surveyed in 2003 were estimated for this year from the 2009 and 2013 data. These adjustments represented CHF –102 and +152 million respectively.

For 1993, the results were adjusted to make them comparable insofar as possible with those from the three other surveys. Environmental protection expenditure by enterprises with 3 to 19 employees who were not interviewed in 1993 were estimated from the data taken from 2009 and 2013. This addition increased the total expenditure by 13% which rose from CHF 2.2 billion to CHF 2.5 billion.

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