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RUMBA

2020 Environmental Report Target period 2017–2019



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1. Summary

1.1. Environmental balance for the target period of 2017 to 2019

Two environmental targets for the past target period

In establishing Resource and Environmental Management within the civil federal administration (RUMBA), the federal government has established its own operational resource and environmental management system. In 2019, the civil administration comprised 19,968 full-time positions in 51 RUMBA units. With its decision of 1 January 2017, the Federal Council assigned RUMBA a permanent role on behalf of the federal administration. At the same time, overriding RUMBA goals for the 2017-2019 target period were defined and aligned with the four-year legislative period. This target period now ends with the finalising of the 2019 report. The following targets were defined by the Federal Council's decree on 25 May 2016

- The environmental impact (EIP) per full-time position¹ will be reduced by -30% compared to 2006 by 2019. Compensation for greenhouse gas emissions will not be credited.
- Absolute greenhouse gas (GHG)² emissions will be reduced by -40% by 2019 compared with 2006. Compensation for GHG can be credited.

The environmental targets of the federal administration down to 2019 were significantly exceeded

Both targets were significantly exceeded on expiry of the target period. Compared to 2006 the environmental impact could be reduced by -35% and absolute GHG emissions by -75% according to the RUMBA methodology. The determining factors in attaining the GHG emission target are reduction of resource consumption and the share of compensation. In 2019 compensation constituted 45 percentage points of GHG reduction, while 30 percentage points could be credited to reduced consumption of resources.

The majority of all targets were attained.

At the end of 2016, the departments and the Federal Chancellery had determined the departmental targets for the period from 2017 to 2019 according to the potential of each department while taking into consideration the overriding targets of the Federal Council and the performance agreement made in compliance with the "New Management Model for the State Administration". Six of the seven departments have attained the targets set, while the FDFA and the Federal Chancellery (FC) did not attain or only partially attained their targets.

¹ The environmental impact of the administrative units will be indicated below in percentage per full-time position and in environmental impact points (EIP).

² GHG emissions are the sum of carbon dioxide and other, differently weighted, greenhouse gas emissions [e.g., methane (CH₄), laughing gas (N₂O)], (cf. chap. 8.1).

Department	Target 1: Reduction of the environmental impact per full-time position by 2019 compared to 2006	Target 1: Situation in 2019	Target 2: Reduction of absolute GHG emissions by 2019 compared to 2006 (including compensation)	Target 2: Situation in 2019
FDFA	-7 %	-6 %	-90 %	-77 %
FDHA	-40 %	-57 %	-50 %	-100 %
FDF	-30 %	-36 %	-25 %	-60 %
FDJP	-42 %	-50 %	-100 %	-100 %
DETEC	-28 %	-28 %	-100 %	-100 %
DDPS ³	-10 %	-12 %	-10 %	-10 %
EAER	-38 %	-38 %	-60 %	-70 %
FC	-53 %	-50 %	-100 %	-100 %

Table 1: Reduction of the environmental impact per full-time position and absolute GHG emissions (including compensation) by 2019 compared to 2006

Adaptation of the methodology from 2016 to 2017 (cf. chapter 4) led in particular to a higher environmental impact (~+50%) from official air travel and had a significant negative influence on the eco-factors of the FDFA, whose mandate and activities involve exchanging official information in all regions of the world. Within the parliamentary interpellation [lp.19.3650](#) (*CO₂ Emissions and Climate Change. How Much Do Civil Servants Fly?*) the Federal Council informed Parliament that as one of the few departments to do so the FDFA had significantly reduced the number of European (-7.5%) and intercontinental (-11.8%) flights between 2016 and 2018.

Improvements attained in almost all environmental sectors

Improvements in resource consumption in almost all environmental sectors could be attained not only since base year 2006, but also during the target period of 2017–2019. Since 2017 only one sector has experienced an increase; this was seen in kilometres flown per full-time position. This statistic remained static between 2018 and 2019. The most significant reduction was seen in the paper category. In comparison to base year 2006 the reductions in resource consumption are even more evident. An increase in comparison with the base year was only seen in the air travel and rail travel categories.

The environmental impact has decreased due to the reduction in resource consumption since the beginning of the new target period in 2017 by -6%. The most significant reduction could be attained in the sectors paper, (-20%), heating ⁴(-11%), and in household refuse (-11%). The environmental impact of air travel has increased since 2017 by +2%. In 2019 energy consumption caused more than half of all the environmental impact (54%), whereby electricity was responsible for 42% and heating for 12% of pollution. According to the adapted RUMBA methodology travel is responsible for 41% of the environmental impact, with air travel alone contributing a share of 32%.

³ Only includes the civil section of the Federal Department of Defence, Civil Protection and Sport (DDPS) at selected locations. The DDPS chose to use 2013 as the reference year because only the BASPO participated in RUMBA from 2006 to 2012.

⁴ Heat consumption is climate adjusted in the RUMBA programme.

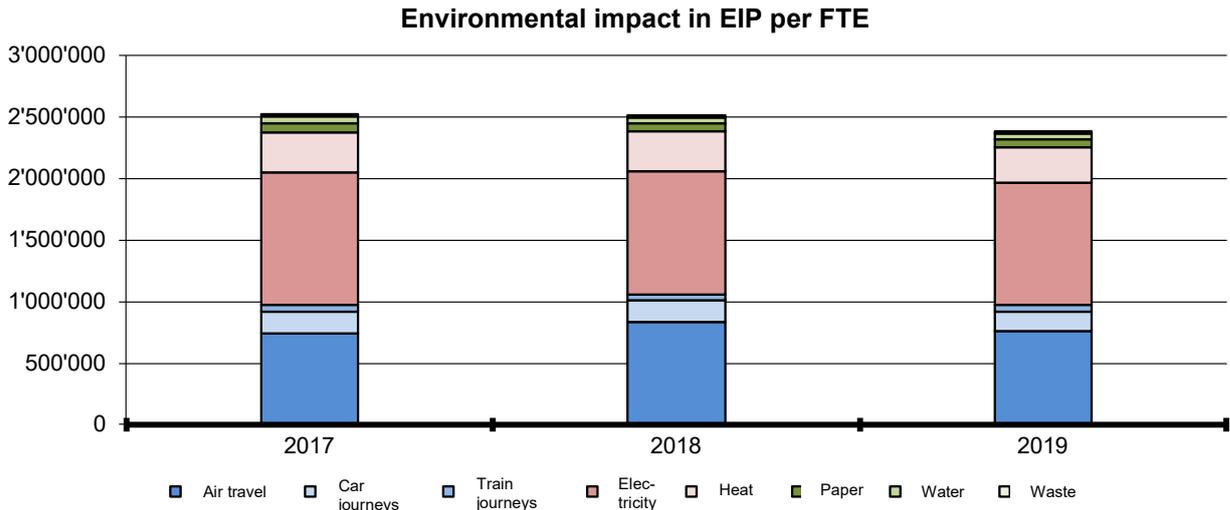


Figure 1: Developments per sector in environmental impact points per full-time position

1.2. Outlook for the new target period

At its meeting on 3 July 2019, in connection with Energy Strategy 20150 the Federal Council decided to reduce the GHG emissions caused by the federal administration. In addition, the Federal Council adopted the “Climate package for the federal administration”. This lays down the main focus for further measures in the air transport, vehicles and buildings sectors. The Federal Council wants the federal administration (excluding the Federal Department of Defence, Civil Protection and Sport [DDPS]⁵) to reduce its domestic GHG emissions by -50% by 2030 in comparison with reference year 2006 by using operational measures. In addition, the remaining greenhouse gas emissions will be completely compensated for through emission reduction certificates by 2030 (will be substituted by international certificates after 2020). Together with the Regional planning and environmental management system of the DDPS (RUMS DDPS), RUMBA functions as the coordinating office for the federal administration. The detailed concept RUMBA 2020+ established by RUMBA, which is aligned in content with the climate package, was approved by the Federal Council on 13 December 2019.

1.3. Air Travel Action Plan

On 13 December 2019 the Federal Council adopted an “Air Travel Action Plan” with the following target: absolute GHG emissions from air travel undertaken on behalf of the federal administration will be lowered by 2030 by -30% in comparison to 2019. Figure 2 indicates the development of absolute GHG emissions from air travel from 2006–2019 as well as the target path of the Air Travel Action Plan from 2019–2030. Between 2006 and 2019 absolute GHG emissions from air travel decreased by -6%

⁵ The DDPS (RUMS DDPS) reduced its greenhouse gas emissions by 2030 compared to 2001 by at least 40 percent.

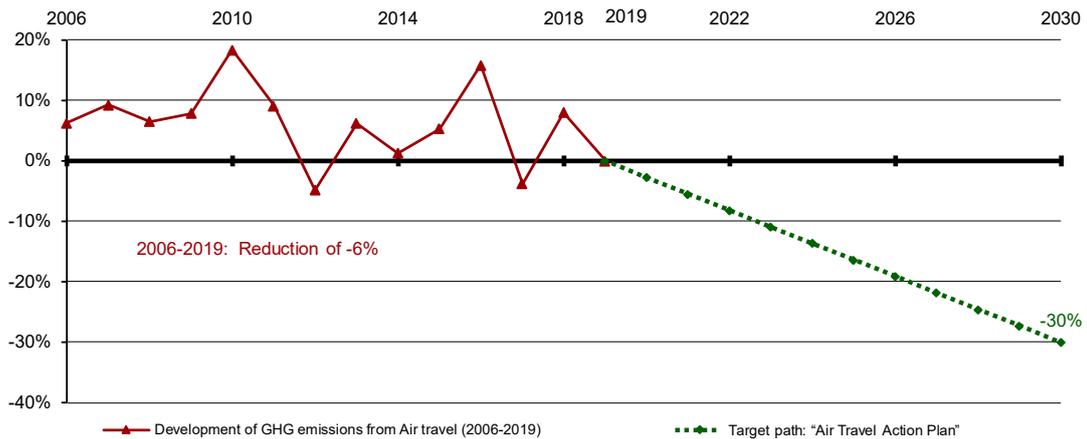


Figure 2: Change in absolute GHG emissions from air travel from 2006-2019 and target path for the "Air Travel Action Plan" of -30% by 2030 compared to 2019

The Air Travel Action Plan is part of the Climate package for the federal administration and will be implemented by all federal units from mid-March 2020. The measures indicated below are contained in the plan:

- **Train instead of plane:** If a journey involves less than six hours travelling time, journeys will be made by train. Together with the Federal Office of Human Resources the Swiss Government Travel Center has established a list of all destinations to which as a rule journeys will have to be made by train.
- **Economy instead of business class:** Flights in business class are only approved if a direct flight lasts nine hours or more or if a flight lasts eleven hours or more with a stopover.
- **Smaller delegations:** The size of delegations at international conferences should be kept as small as possible. This existing guideline has to be systematically implemented by the departments in the federal administration. The existing exceptions will be checked.
- **Telephone and video conferences:** Telephone and video conferences should be used more as an alternative to official trips. Courses for staff will be offered and video conference systems will be adapted technically so State employees are able to participate in video conferences arranged by third parties.

2. Environmental impact – development and results

2.1. Classification of results since 2006

The environmental impact according to the RUMBA methodology in 2019 amounted to approximately 2.4 million environmental impact points per full-time position (without taking CO₂ compensation into account). Thus, pollution lay -35% lower than in base year 2006 (see Figure 3). After the target period ended, RUMBA had thus clearly attained the target adopted by the Federal Council in 2016 of -30%.

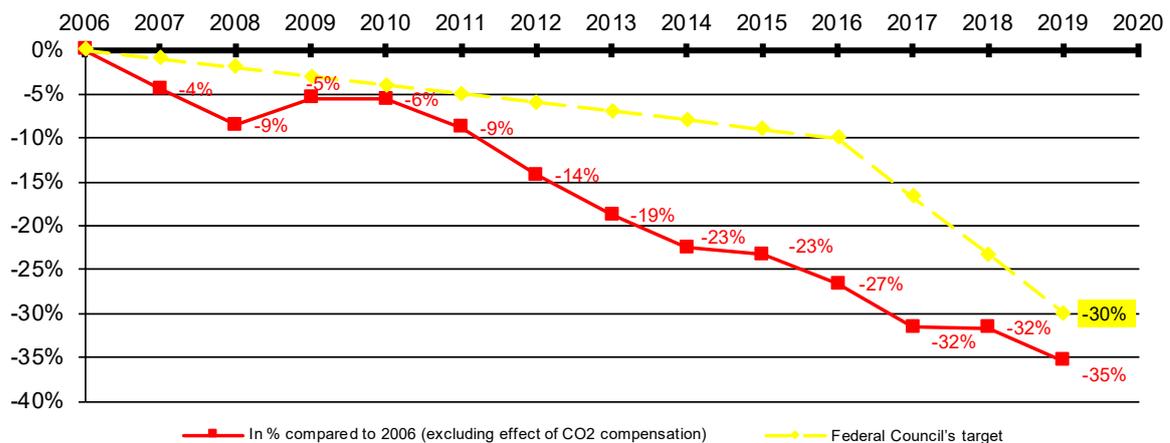


Figure 3: Change in environmental impact compared to the reference year 2006.

The main reasons for the steady reduction of the environmental impact since reference year 2006 are to be found in the categories Electricity, Heat, Paper, and Car journeys. However, in 2017 the calculation methodology was adapted, which means the data for the period from 2017–2019 are no longer comparable with the data for the period from 2006–2016 (cf. chapter 8.2).

- In the Electricity sector efficiency measures and improving the Swiss mixture of electricity are responsible for reducing the environmental impact (cf. chapter 8.2). About 76% of the entire decrease in the environmental impact was attained in the Electricity category.
- A reduction in consumption was also seen in the Heat sector due to increased conversion of plant to burn renewable combustibles instead of fossil types. For example, thermal heat consumption per m² of energy consumption area could be lowered by -35% and the share of heating oil and gas could be lowered from 76% to 52%. About 12% of the entire reduction in the environmental impact was therefore attained in the Heat category.
- In the Paper category consumption was lowered significantly through awareness measures and by changing technical settings on printers; further, the share of recycling paper used was increased from 32% to 68%. About 6% of the entire reduction in the environmental impact was therefore attained in the Paper category.
- Similarly, 6% of the entire reduction in the environmental impact can be credited to a fall in the number of car journeys. Since reference year 2006 the number of kilometres travelled could be reduced by about -43%.

2.2. Classification of results 2017–2019

The environmental impact could be reduced by -6% over the entire target period of 2017–2019. In comparison with the previous year (2018) the environmental impact fell in 2019 by -5% (see Table 2). The greatest changes since 2017 were seen in the Heat and Electricity categories, followed by Air travel and Car journeys:

- the environmental impact could be reduced by -11% in the Heat category (see chap. 2.3.1 Energy). While overall heat consumption between 2017 and 2018 remained almost constant, it could be reduced by -11% in comparison to the previous year. Thermal heat consumption per m² of energy consumption area could be reduced by -8% from 212 MJ per m² to 195 MJ per m². The share of heating oil and gas remained more or less unchanged and lay between 57% (2017) and 52% (2019).
- In comparison to the previous year electricity consumption remained unchanged. The environmental impact could be reduced by -7% over the entire target period. Despite numerous energy efficiency improvements in the buildings and devices sectors within the civil federal administration, there is still sizeable potential for reducing electricity consumption at the working place. In 2018, RUMBA implemented a poster campaign on the topic of “Electricity Economy at the Working Place”. Posters in three official languages were used to illustrate a total of nine measures for saving electricity. This campaign raised awareness for economies among more than 20,000 employees.
- In the year 2019 when a balance was made, the environmental impact in the Air travel category could be reduced again by -9% after a sizeable increase in the previous year. This was due in the main to a decline in kilometres flown of -12% in the “Intercontinental business air travel” category. Nevertheless, kilometres flown rose overall during the target period by +8%. The decisive factors for these fluctuations are the federal administration’s set targets for Switzerland’s cooperation with international organisations operating worldwide, e.g., the UNO. Further, multinational organisations often work in pluriannual cycles where plenary meetings tend to fall in the same years. The defined conference locations and the size of delegations are further factors involved.
- The environmental impact in the Car journeys category has fallen since 2017 by -9% (see chap. 2.3.2 Mobility). This is due to a decline in the kilometres travelled.

In the Paper category the environmental impact declined over the target period by -20% and the environmental impact could also be reduced in the other categories (see Table 2).

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE			Share	in percent	
Electricity	1'071'896	994'911	991'513	42 %	-7 %	-0 %
Air travel	742'787	830'908	760'171	32 %	+2 %	-9 %
Heat	324'673	325'798	289'246	12 %	-11 %	-11 %
Car journeys	178'119	174'707	161'297	7 %	-9 %	-8 %
Paper	76'539	70'836	61'032	3 %	-20 %	-14 %
Train journeys	55'981	53'507	51'701	2 %	-8 %	-3 %
Water	48'237	47'127	46'140	2 %	-4 %	-2 %
Waste	19'800	18'067	17'559	1 %	-11 %	-3 %
TOTAL	2'518'031	2'515'862	2'378'660	100 %	-6 %	-5 %

Table 2: Environmental impact in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019⁶

⁶ Note to Table 2 and following tables: Data in green mean an improvement in the environmental balance, data in red signify a deterioration in the balance. One exception is Train journeys, in which an increase is evaluated as positive and as a consequence the colour code is reversed. If overall travel declines, a decline in Train journeys is also evaluated as positive.

2.3. Analysis according to thematic sector

Three sectors are considered by RUMBA: Energy (with the categories Electricity and Heat), Mobility (with the categories Air travel, Car journeys, Train journeys) and Environment (with the categories Paper, Water and Waste).

The three categories with the highest environmental impact for the RUMBA programme in 2019 are Electricity (42%), Air travel (32%), and Heat (12%) (see Figure 4).

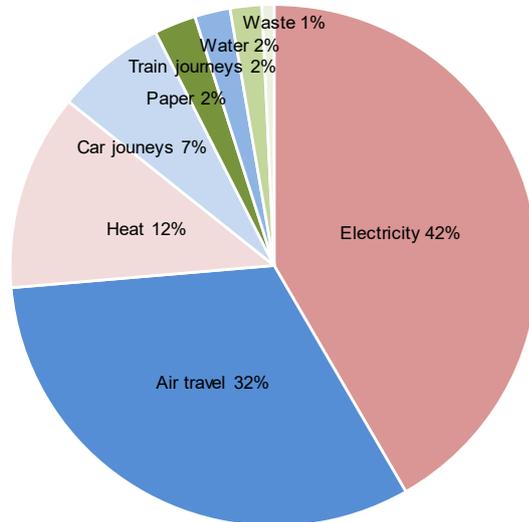


Figure 4: Share of categories in the total environmental impact assessed by RUMBA in 2019

2.3.1. Energy

In 2019, according to the RUMBA methodology, 54% of the environmental impact was caused in the Energy sector (42% Electricity and 12% Heat). The Electricity category remained stable in comparison to the previous year; in comparison to 2017 the environmental impact fell by -7%. In Heat consumption a reduction was recorded of -11% (see Figure 5). With 1.3 million environmental impact points per full-time position in 2019, the RUMBA system attained the lowest value since base year 2006.

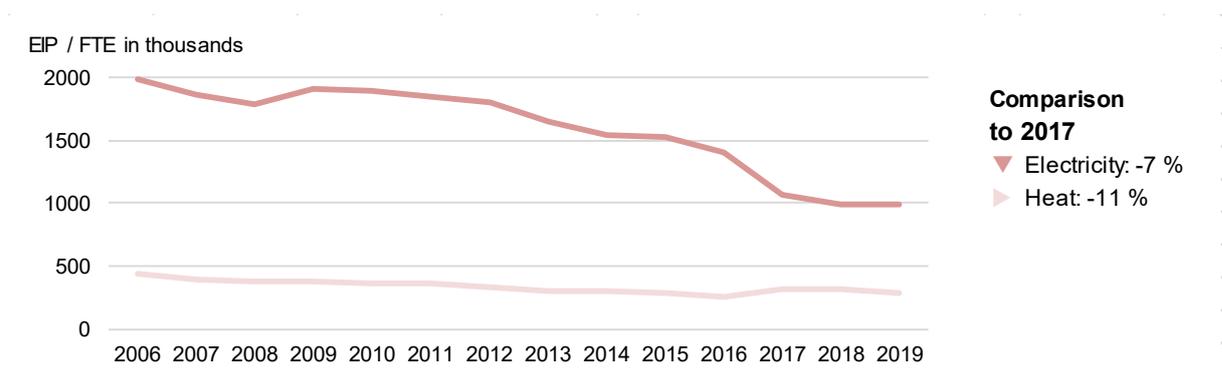


Figure 5: Development of environmental impact in the Energy sector

2.3.2. Mobility

In 2019, within the RUMBA programme, 41% of the environmental impact was caused in the sector Mobility (32% Air travel, 7% Car journeys, 2% Train journeys). Air travel clearly constitutes the greatest share according to the RUMBA methodology (see Figure 6). In total in 2019 about 64 million kilometres flown were flown, the approximate equivalent of 1,600 circumnavigations of the earth. In comparison to the previous year the distances travelled by aeroplane have gone down by -4% with 3,187 passenger-kilometres (pkm) per full-time position. Since 2017 this figure has increased by +8%. The increase in kilometres flown was recorded in particular in the economy class. Because of a simultaneous fall in kilometres flown in the business class, the environmental impact booked has only increased by +2% since 2017. The decline in the categories Car journeys (-9%) and Train journeys (-8%) are mainly due to slightly lower values for the distances travelled per full-time position.

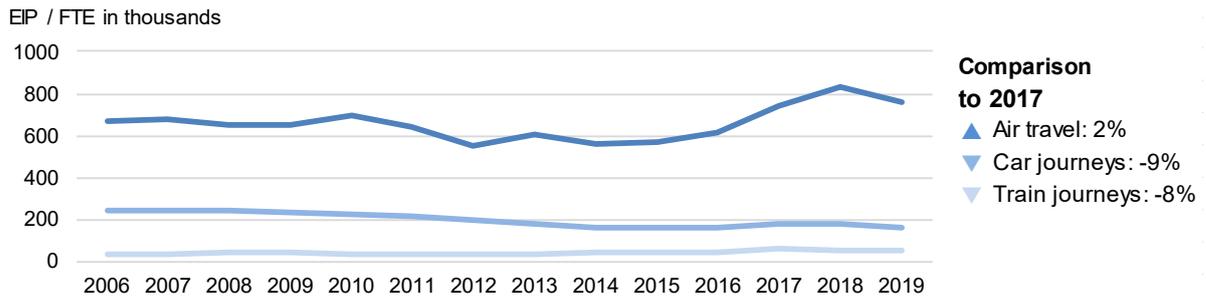


Figure 6: Development of environmental impact in the Mobility sector

2.3.3. Environment

In 2019, within the RUMBA programme, 5% of the environmental impact was caused in the categories Paper, Water and Waste. In the Paper category, between 2017 and 2019 the environmental impact could be reduced by -20% by lowering paper consumption by -19% and raising the share of recycling paper from 65% to 68% (see Figure 7). The decrease in consumption is the result of measures to increase awareness taken within the “Paperless Office” campaign. Environmental impact in the Waste and Water categories fell similarly by -11% and -4%.

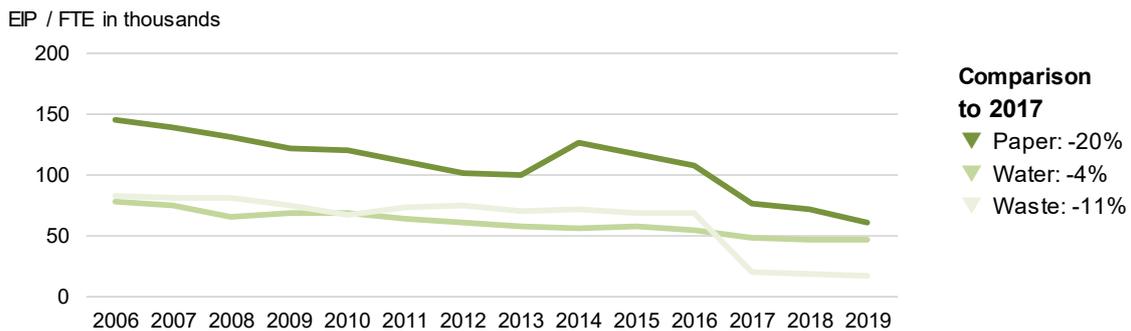


Figure 7: Development of environmental impact in the Environment sector

3. Greenhouse gas emissions – development and results

According to the RUMBA methodology, in 2019 within the civil federal administration GHG emissions amounted to 37,242 tonnes. Without taking GHG compensation into account, this corresponds to a reduction of -30% compared to 2006. In 2019 compensation for GHG amounted to 25,613 tonnes. By crediting this compensation to the target, GHG emissions lay -75% lower than in reference year 2006 (see Figure 8). The RUMBA programme clearly exceeded the target of -40% in comparison to reference year 2006 adopted by the Federal Council at the end of the target period.

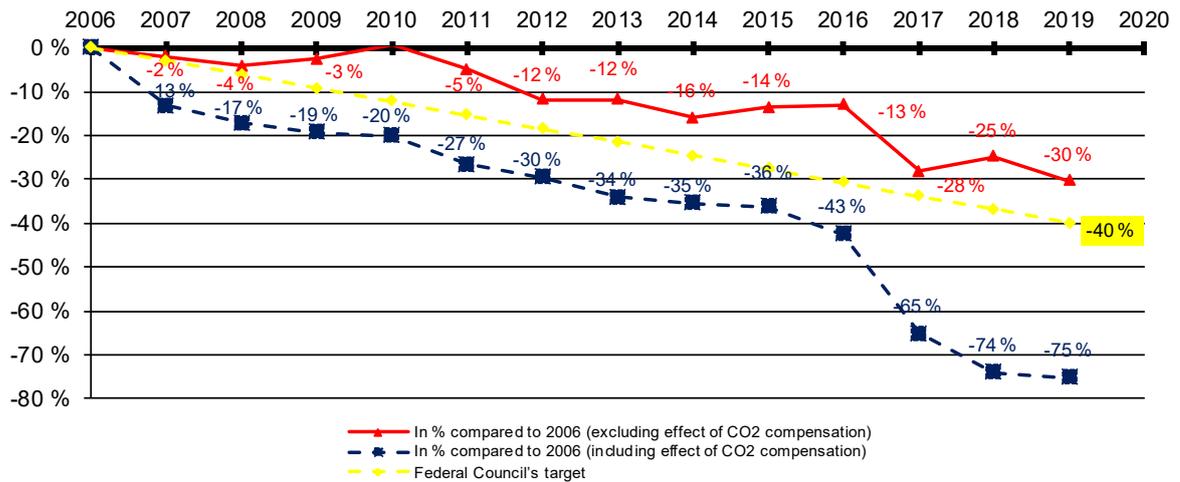


Figure 8: Change in absolute GHG emissions compared to reference year 2006

The marked decline in emissions between 2016 and 2017 is due to updating the emission factors (in particular in the Electricity and Paper categories).

The determining factors in attaining the GHG emission target are reduction of resource consumption and the share of compensation. In 2019 compensation constituted 45 percentage points of GHG reduction, while 30 percentage points could be credited to reduced consumption of resources. The share of GHG emissions compensated for in 2019 was 69%. In principle, a clear increase in the share of compensation for volumes of emissions is observable (see Figure 9).

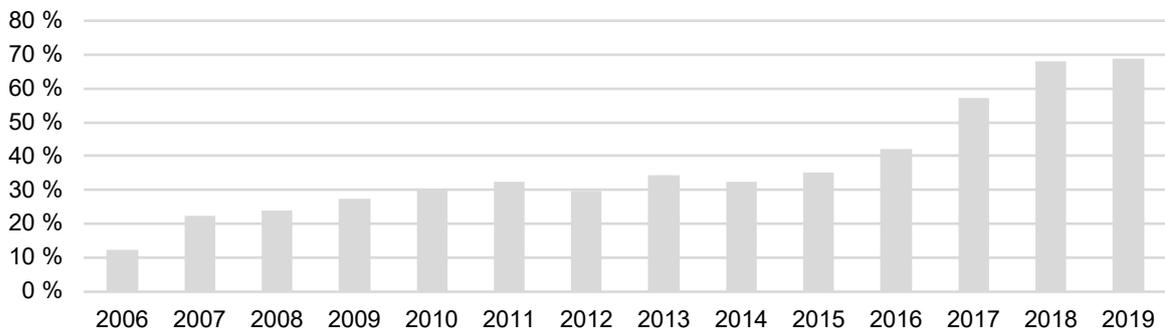


Figure 9: Share of compensated GHG emissions of the civil federal administration

4. Departmental results

In the following an analysis of the results of each department affiliated to the RUMBA programme, including the Federal Chancellery, and further voluntary units, is made in relation to the target period of 2017–2019. Firstly, the results and the development of the environmental impact will be discussed for each and thereafter the results and the development of GHG emissions will also be handled.

4.1. FDFA – Federal Department of Foreign Affairs

4.1.1. Environmental impact

The environmental impact of the FDFA in 2019 amounted to 5.3 million environmental impact points per full-time position and thus lay 2 percentage points lower than the previous year (see Figure 10). Due to the change to the new eco-factors and the associated negative impact on the FDFA's environmental impact (high proportion of air travel), the departmental target for 2017–2019 was set at -7% compared to 2006 (see chap. 8.3). With a reduction of -6% in comparison to the reference year, the FDFA just failed to reach the set departmental target at the end of the target period.

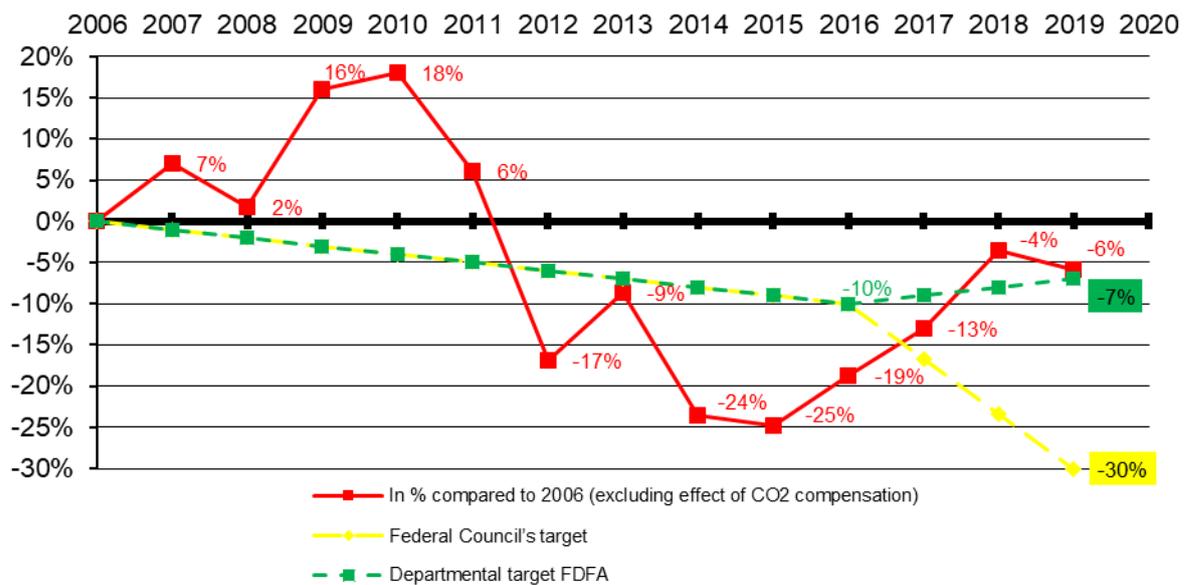


Figure 10: Change in environmental impact of the FDFA compared to reference year 2006

The total environmental impact increased by +8% within the FDFA over the target period of 2017–2019, because in addition to the Paper and Car journeys categories an increase was seen in all categories. In comparison to 2018, the environmental impact in 2019 in the Air travel and Heat categories could again be reduced slightly. However, this reduction could not balance out the increase seen between 2017 and 2018 (see Table 3):

- In Air travel the environmental impact increased by +8% in 2019 in comparison to 2017. In comparison to the previous year (2018) a reduction of -5% was seen. Although the FDFA has reduced the total number of flights taken, the total distance covered has increased by +8%. This is due to the distant locations flown to. The relative reduction in the impact despite the supplementary kilometres flown can be explained by the decline in flights in the emission intensive “Europe Business” and “Intercontinental Business” classes. The FDFA reduced the number of flights by 7.5% between 2016 and 2019 (-594 flights). However, the environmental impact has increased due to the change in the calculation method (cf. Chapter 8.2) and due to flight distances related to the location of international conferences. Official travel in the FDFA vary depending on conference locations, projects, crises and catastrophes.
- In the Electricity category the environmental impact increased by +14% in 2019 in comparison to 2017. In the Heat category the relative environmental impact increased in comparison to 2017 by +13% despite a decrease of -5% in comparison to 2018. The exact reasons for these increases are not known. However, in mid-2018 the FDFA moved back to the Federal Palace North. This change of location could be one reason for the increased energy consumption (heat and electricity).

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE			in percent		
Air travel	3'955'538	4'477'864	4'275'004	80 %	+8 %	-5 %
Electricity	596'169	607'623	682'198	13 %	+14 %	+12 %
Heat	153'513	183'674	174'018	3 %	+13 %	-5 %
Train journeys	62'003	61'084	72'472	1 %	+17 %	+19 %
Paper	76'981	52'536	56'648	1 %	-26 %	+8 %
Water	30'249	31'920	35'816	1 %	+18 %	+12 %
Waste	11'321	12'027	12'904	0 %	+14 %	+7 %
Car journeys	33'309	32'386	12'762	0 %	-62 %	-61 %
TOTAL	4'919'083	5'459'115	5'321'823	100 %	+8 %	-3 %

Table 3: Environmental impact of the FDFA in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.1.2. Greenhouse gas emissions

In 2019, the FDFA's GHG emissions amounted to about 9,200 tonnes and were thus +2% higher than in 2018. Over the target period of 2017–2019 such GHG emissions increased by 8%. The FDFA had set itself the target of compensating in full for GHG emissions from air travel to attain a reduction of -90% by 2019. Such compensation was made and thus a reduction in GHG emissions totalling -77% was attained. At the end of the target period (2019) the FDFA had not attained the departmental targets set, however, the Federal Council's target of -40% was attained clearly by 2019 (see Figure 11). Based on its area of expertise the FDFA depends on frequent international travel. The nature of the FDFA's mandate narrows the potential for reduction of greenhouse gas emissions and points where it influences the environment because the emissions are 77% and/or 80% a result of air transport. The business of foreign affairs, which the FDFA conducts on behalf of Switzerland, requires official trips to all regions of the world. Such trips facilitate political dialogue with other countries or Switzerland's participation at international conferences.

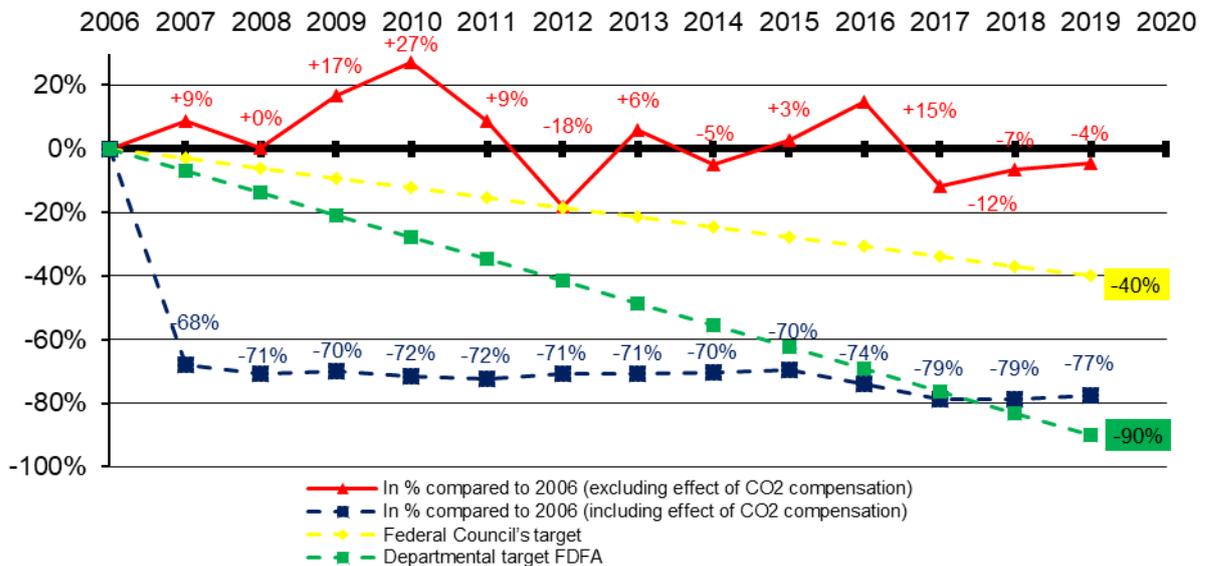


Figure 11: Change in absolute GHG emissions of the FDFA compared to reference year 2006

4.2. FDHA – Federal Department of Home Affairs

4.2.1. Environmental impact

The environmental impact of the FDHA in 2019 amounted to 1.3 million environmental impact points per full-time position. Thus the department lay 4 percentage points lower than in the previous year (see Figure 12). The FDHA's environmental target was to reduce the environmental impact per full-time equivalent (FTE) by 2019 by -40% compared to the reference year 2006. On expiry of the target period (2019) the FDHA had clearly met the environmental target by reducing its environmental impact by -57% in comparison with reference year 2006.

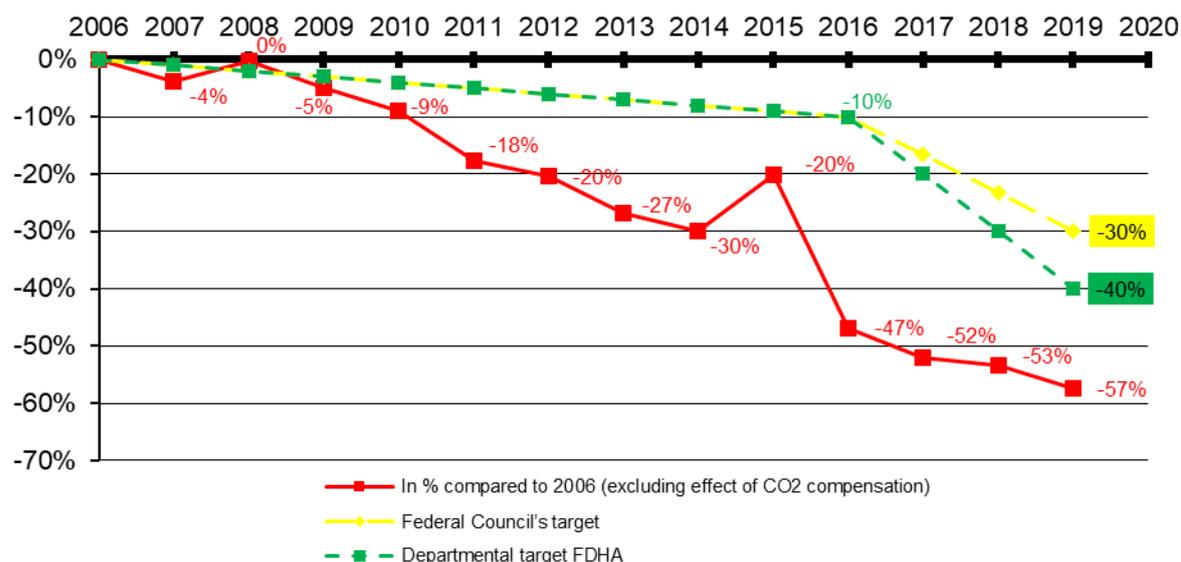


Figure 12: Change in environmental impact of the FDHA compared to reference year 2006

The FDHA's total environmental impact decreased over the target period of 2017–2019 by -11% because a reduction could be attained in all sectors, apart from the Heat sector. Various offices within the FDHA started awareness campaigns in the form of exhibitions and poster campaigns focusing on resource consumption at the workplace - one reason among others for the positive result. The greatest changes were seen in the Electricity, Air travel and Paper categories (see table 4):

- In the Electricity category a decline in the environmental impact of -12% can be seen. The exact reasons for decline are not known. Since 2015 a decline in total consumption has been observed, however, due among other things to energy efficiency measures and replacing older devices with energy efficient ones.
- The relative environmental impact also decreased in the Paper category in comparison to 2017 by -22%. This positive result is due in particular to the "Paperless Office" campaign, which was carried out in 2019 in all the FDHA's departments.
- In the Air travel category a decline was seen in environmental impact of -17%, which was due in particular to a decline in the routes flown in the categories "Intercontinental Business" (-29%), and "Europe Economy" (-20%). This reduction in the routes flown in the FDHA's other departments occurred as a result of normal fluctuation in official affairs. Because the General Secretariat (GS-FDHA) was the presiding department in 2018, significantly more journeys were made by plane. These additional official journeys did not occur in 2019.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE		Share	in percent		
Electricity	700'439	651'203	613'095	47 %	-12 %	-6 %
Air travel	296'969	312'305	246'904	19 %	-17 %	-21 %
Heat	210'124	212'716	213'076	16 %	+1 %	+0 %
Papere	123'994	116'979	96'858	7 %	-22 %	-17 %
Car journeys	57'324	52'677	53'335	4 %	-7 %	+1 %
Train journeys	41'280	41'759	41'337	3 %	+0 %	-1 %
Water	36'043	33'758	35'133	3 %	-3 %	+4 %
Waste	17'585	16'809	15'390	1 %	-12 %	-8 %
TOTAL	1'483'759	1'438'206	1'315'129	100 %	-11 %	-9 %

Table 4: Environmental impact of the FDHA in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.2.2. Greenhouse gas emissions

The FDHA's GHG emissions amounted to about 2,500 tonnes in 2019 and declined over the target period of 2017–2019 by -9%. No reduction could be attained between 2017 and 2018. The FDHA had set itself the target of lowering GHG emissions by -50% compared to 2006, and by attaining a reduction of -100% including compensation for emissions clearly surpassed the departmental target (see Figure 13). Even without taking compensation into consideration, with a reduction of -52% the FDHA had reached the target at the end of the target period (2019).

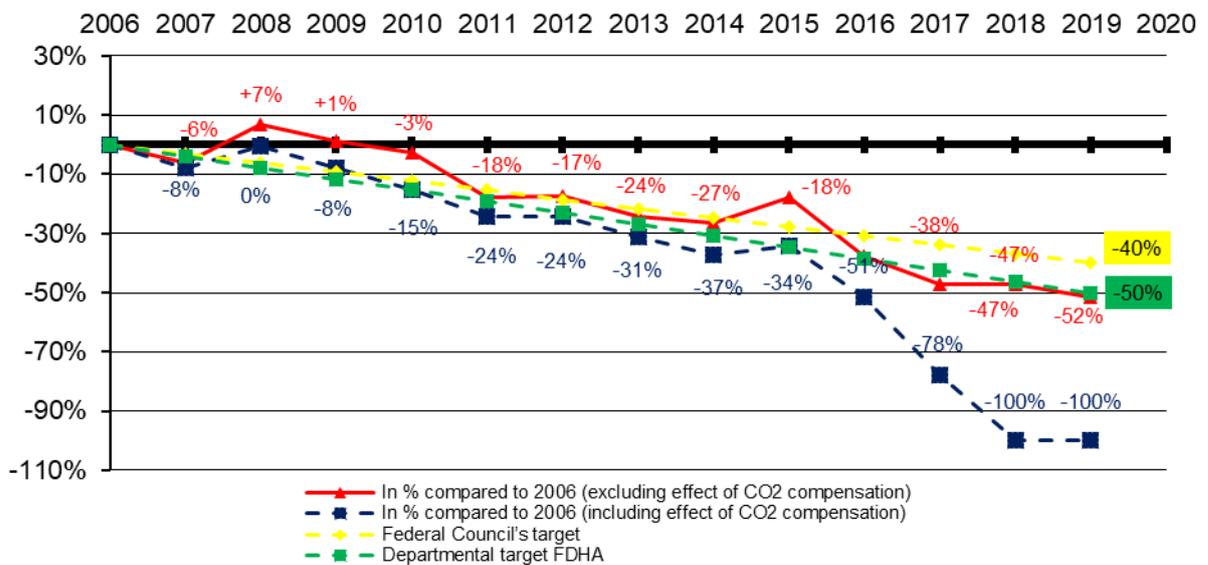


Figure 13: Change in absolute GHG emissions of the FDHA compared to reference year 2006

4.3. FDF – Federal Department of Finance

4.3.1. Environmental impact

The environmental impact of the FDF in 2019 amounted to about 2.2 million environmental impact points per full-time position. Thus the department was 2 percentage points lower than in the previous year (see Figure 14). The FDF's environmental target was to reduce the environmental impact by -30% by 2019 compared to reference year 2006. On expiry of the target period (2019) the FDF had attained the departmental target by reducing its environmental impact by -36% in comparison with the reference year 2006.

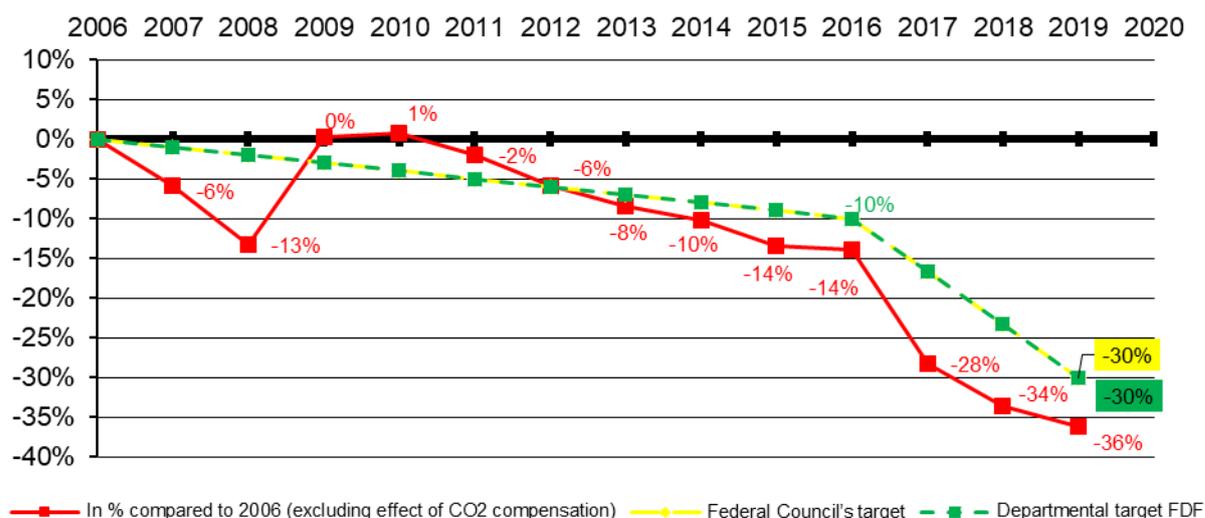


Figure 15: Change in environmental impact of the FDF compared to reference year 2006

The FDF's total environmental impact decreased over the target period of 2017–2019 by -11% because a reduction could be attained in all sectors. The greatest decreases were seen in the Electricity, Paper, and Air travel categories (see table 5):

- in the Electricity category a decline in the environmental impact of -11% could be attained, due in particular to the significantly lower value at the Central Compensation Office (CCO). In this department the electricity consumption for the refurbishment period of a building was estimated conservatively. It has only been possible to read consumption properly since 2018. In the Federal Customs Administration (FCA) and the Federal Office for Construction and Logistics (FOCL) electricity consumption could be reduced by rolling out new laptops and through other energy saving measures.
- In the Air travel category a decrease in the environmental impact of -6% could be attained due to a decline in the kilometres flown in all categories (Air travel Europe Economy / Business, Air travel Intercontinental Economy / Business). In comparison to the previous year the FOCL recorded the greatest decrease in the kilometres flown. The number of kilometres travelled varies greatly in some cases, depending on the locations of construction sites abroad.
- In the Paper category the environmental impact could be lowered by -37% thus continuing the trend of using of less paper in the departments of the FDF. In recent years the FOCL has increasingly changed to a “digital first” strategy and by 2019 had reduced drastically the number of printed publications and miscellaneous printed items it produces.

				Change in 2019 vs.		
	2006	2018	2019	2006	2018	
	in EIP / FTE			in percent		
			Share			
Electricity	2'579'257	1'472'685	1'459'537	67 %	-43 %	-1 %
Air travel	151'676	280'912	243'405	11 %	+60 %	-13 %
Heat	223'427	204'982	194'342	9 %	-13 %	-5 %
Car journeys	158'327	120'054	116'363	5 %	-27 %	-3 %
Train journeys	29'242	56'181	51'413	2 %	+76 %	-8 %
Paper	124'787	58'541	44'290	2 %	-65 %	-24 %
Water	48'313	36'807	35'225	2 %	-27 %	-4 %
Waste	72'487	18'332	19'196	1 %	-74 %	+5 %
TOTAL	3'387'517	2'248'493	2'163'771	100 %	-36 %	-4 %

Table 5: Environmental impact of the FDF in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.3.2. Greenhouse gas emissions

The FDF's GHG emissions amounted to about 5,800 tonnes in 2019 and decreased over the target period of 2017–2019 by -10%. The FDF has set itself the target of reducing GHG emissions by -25% by 2006 in comparison with the situation in 2006. At the end of the target period (2019) the FDF had attained the departmental target with a reduction of -29% excluding compensation. Including compensation, the FDF could reduce emissions in comparison to the reference year by -60%. Thus, at the end of the target period (2019) the Federal Council's target of -40% by 2019 was clearly fulfilled (see figure 15).

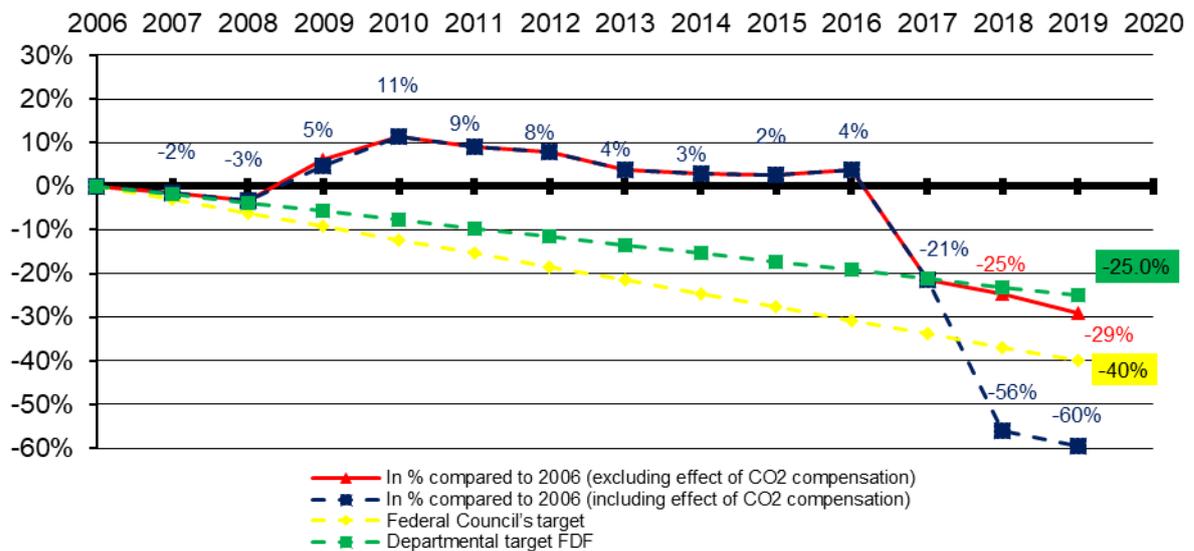


Figure 16: Change in absolute GHG emissions of the FDF compared to reference year 2006

4.4. FDJP – Federal Department of Justice and Police

4.4.1. Environmental impact

The environmental impact of the FDJP in 2019 amounted to about 2 million environmental impact points per full-time position. Thus the department lay 1 percentage point lower than in the previous year (see Figure 17). The FDJP's environmental target was to reduce the environmental impact by -42 % by 2019 compared to reference year 2006. At the end of the target period (2019) the FDJP had attained the departmental target by reducing its environmental impact by -50% in comparison with reference year 2006.

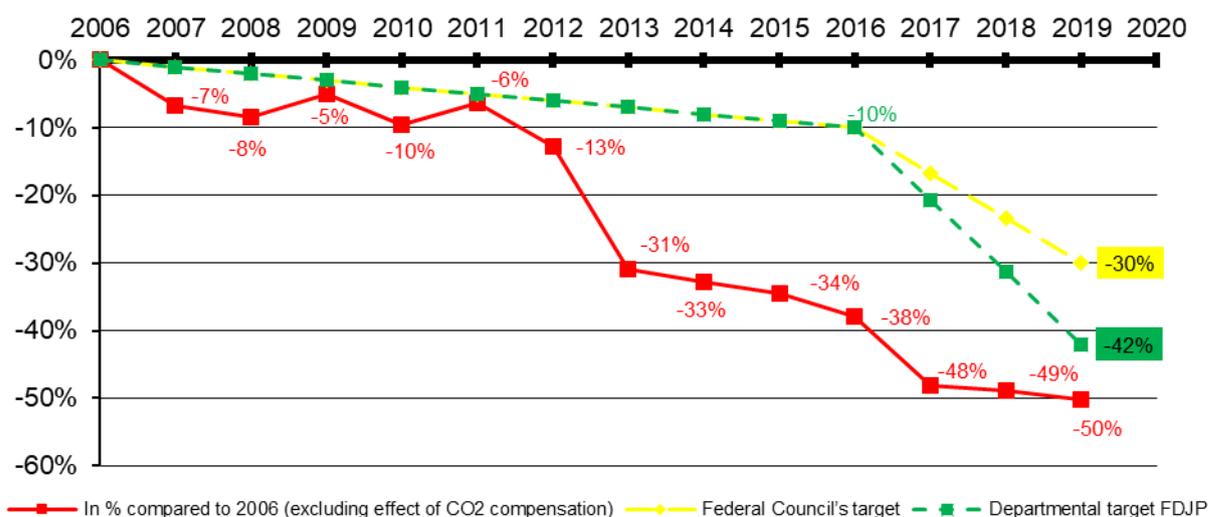


Figure 17: Change in environmental impact of the FDJP compared to reference year 2006

The FDJP's total environmental impact decreased over the target period of 2017–2019 by -4% mainly because of a reduction in the Electricity category. Further major decreases were seen in the Paper and Car journeys categories (see table 6):

- in the Electricity category a reduction has been attained in the environmental impact of -9% since 2017. The reasons for this lie in the replacement of IT hardware with energy efficient technology at the Informatics Service Centre, installation of motion detectors in lighting circuits at the Federal Department of Justice (FDJ), and awareness measures on the topic of electricity use in all FDJP departments. The value remained constant between 2018 and 2019.
- The relative environmental impact decreased in the Paper category by -11%. The main reason for this reduction was the lowering of the use of paper at the State Secretariat for Migration (SEM) compared to the previous year, in particular a reduction in the use of fresh fibre paper. In 2019 the SEM was responsible for about 70% of the environmental impact of the FDJP in the Paper category.
- In the case of Car journeys the environmental impact decreased by +4%. This was due in particular to an outlier in the statistic for kilometres driven in 2018. A reduction could be attained once again in 2019; the value stabilised in comparison to 2017. Thus the trend from 2009–2017 continued in 2019, in that kilometres driven fell continually.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE			in percent		
			Share			
Electricity	2'090'776	921'751	918'454	46 %	-56 %	-0 %
Air travel	630'017	406'773	409'100	20 %	-35 %	+1 %
Heat	442'245	273'445	258'987	13 %	-41 %	-5 %
Car journeys	498'754	275'994	254'141	13 %	-49 %	-8 %
Paper	141'259	93'029	75'130	4 %	-47 %	-19 %
Train journeys	23'650	40'758	39'237	2 %	+66 %	-4 %
Water	96'212	28'533	28'862	1 %	-70 %	+1 %
Waste	86'078	11'399	12'106	1 %	-86 %	+6 %
TOTAL	4'008'990	2'051'682	1'996'017	100 %	-50 %	-3 %

Table 6: Environmental impact of the FDJP in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.4.2. Greenhouse gas emissions

The FDJP's GHG emissions amounted to about 3,600 tonnes in 2019 and declined over the target period of 2017–2019 by -3%. Since 2017, the FDJP had set itself the target of compensating annually in full for all unavoidable GHG emissions and has thus attained the status of a "climate-neutral department". Excluding compensation the reduction amounted to -53%. At the end of the target period the FDJP had attained the departmental target and the Federal Council's target of -40% (see Figures 17).

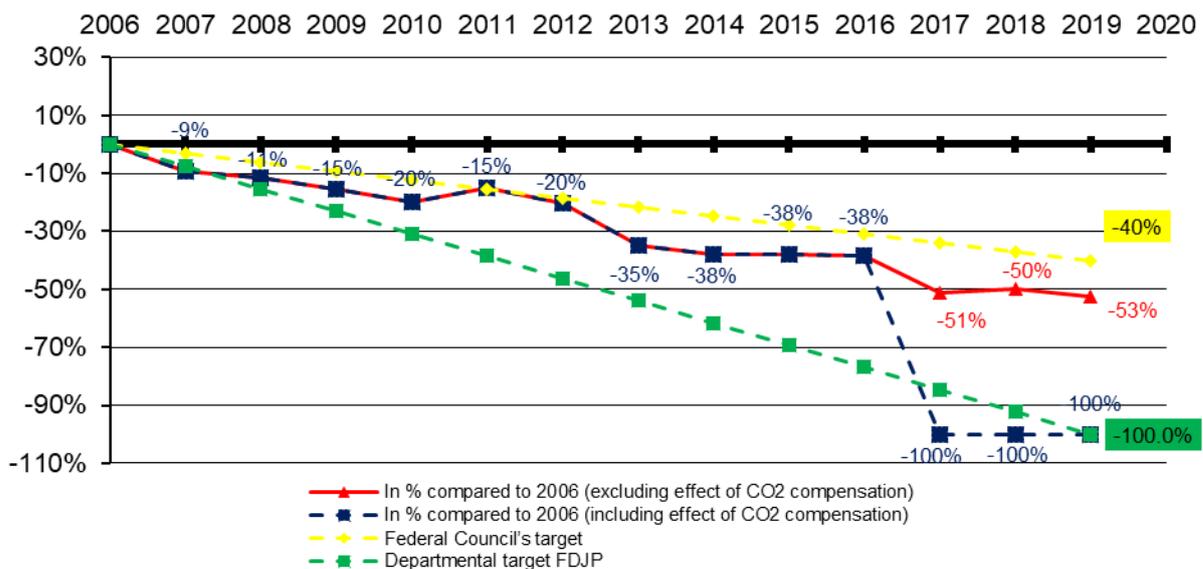


Figure 18: Change in absolute GHG emissions of the FDJP compared to reference year 2006.

4.5. DETEC – Federal Department of the Environment, Transport, Energy and Communication

4.5.1. Environmental impact

The environmental impact of the DETEC in 2019 amounted to about 1.7 million environmental impact points per full-time position and thus lay 11 percentage points lower than in the previous year (see Figure 19). The DETEC's environmental target was to reduce the environmental impact by -28% by 2019 compared to reference year 2006. At the end of the target period (2019) the DETEC attained precisely the environmental target of -28% of its environmental impact in comparison with reference year 2006.

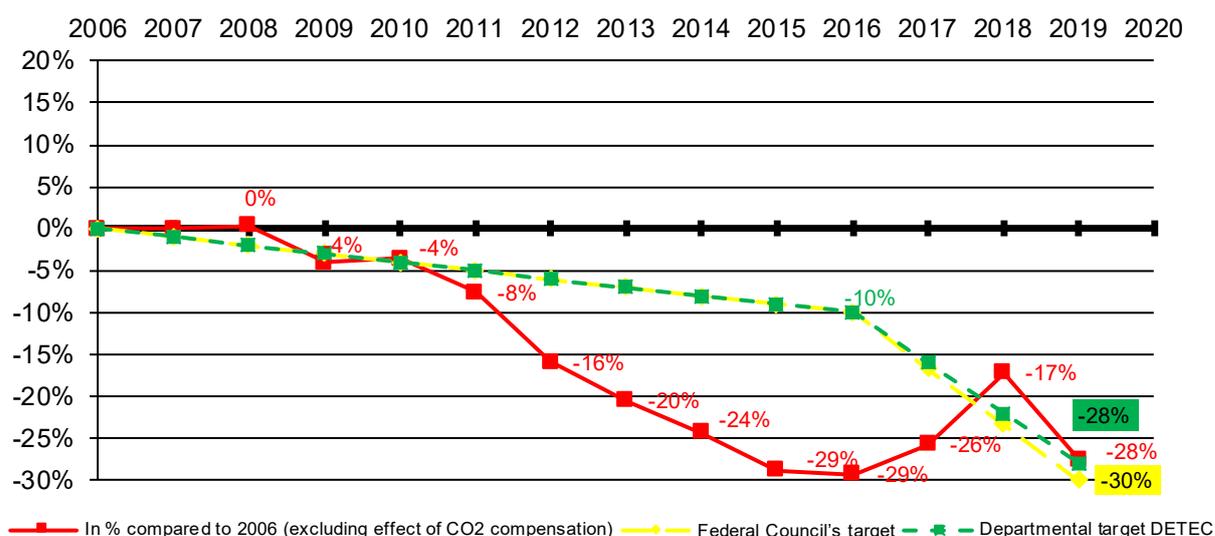


Figure 19: Change in environmental impact of the DETEC compared to reference year 2006

The DETEC's total environmental impact decreased over the target period of 2017–2019 by -2 % because the environmental impact fell in many categories. The greatest changes were seen in Mobility (see Table 7).

- In the case of Car journeys the environmental impact fell by -12%. This reduction in environmental impact is due to a decrease in kilometres driven in all DETEC departments.
- However, the environmental impact in the Air travel category rose by +5%. Between 2018 and 2019 the relative environmental impact fell by -21%. This is mainly due to the fact that in many DETEC departments air travel was reduced again and many more flights were made in the economy class instead of business class and this was noted appropriately in RUMBA. Despite a significant improvement in comparison to the previous year, the environmental impact from Air travel in 2019 was still higher than in reference year 2006. However, this can be explained by the fact that the international tasks and objectives of the department have increased significantly since 2006.
- Because the environmental impact in the Train journeys category has also fallen by -17% since 2017, it is apparent that no transfer either from car journeys and/or air travel to rail travel took place. In general less journeys were undertaken.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE			in percent		
			Share			
Air travel	652'865	862'888	685'798	40 %	+5 %	-21 %
Electricity	441'548	447'325	432'006	25 %	-2 %	-3 %
Car journeys	274'087	268'956	240'816	14 %	-12 %	-10 %
Heat	165'569	167'122	151'720	9 %	-8 %	-9 %
Train journeys	98'263	88'760	82'024	5 %	-17 %	-8 %
Paper	58'139	56'948	59'395	3 %	+2 %	+4 %
Water	33'731	34'508	30'293	2 %	-10 %	-12 %
Waste	21'476	20'345	21'077	1 %	-2 %	+4 %
TOTAL	1'745'678	1'946'852	1'703'130	100 %	-2 %	-13 %

Table 7: Environmental impact of the DETEC in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.5.2. Greenhouse gas emissions

DETEC's GHG emissions amounted to about 3,700 tonnes in 2019 and declined over the target period of 2017–2019 by about 2%. Since 2017, the DETEC had set itself the target of compensating annually in full for all unavoidable GHG emissions and has thus attained the status of a "climate-neutral department". Excluding compensation the reduction amounts to to -23% (see Figure 20). At the end of the target period (2019) the DETEC had attained the departmental target of -100%, and the Federal Council's target of -40%.

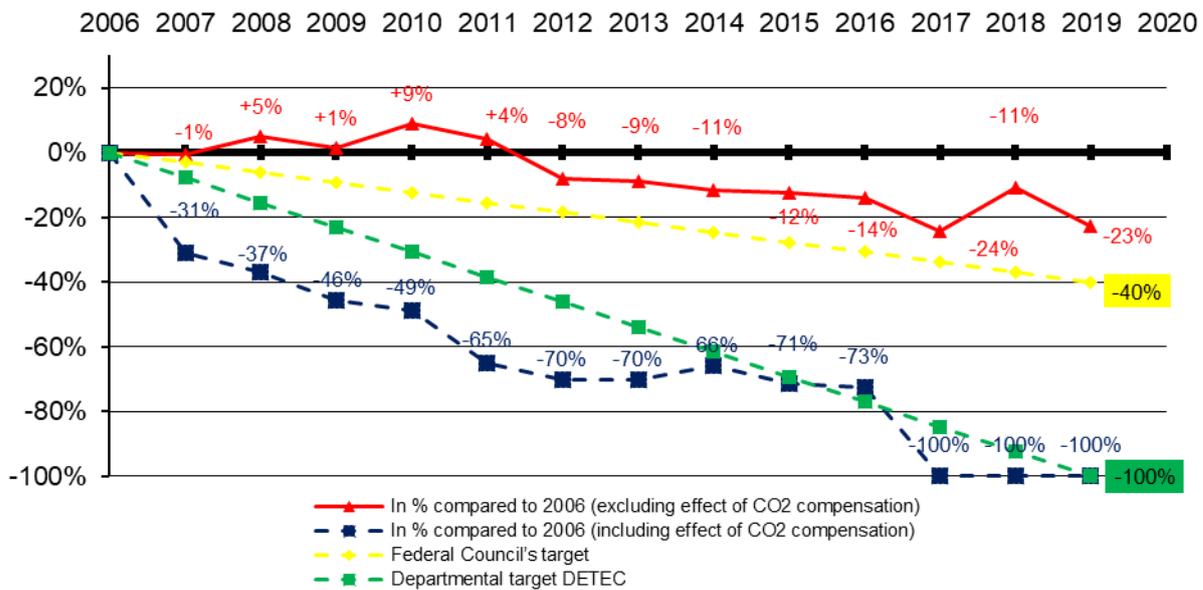


Figure 20: Change in absolute GHG emissions of the DETEC compared to reference year 2006

4.6. DDPS – Federal Department of Defence, Civil Protection and Sport

4.6.1. Environmental impact

The RUMBA programme was implemented from its inception by the Bundesamt für Sport (BASPO) [Federal Office for Sport]. Since 2013, selected sites of the General Secretariat (GS-DDPS), the Federal Office for Civil Protection (FOCP), swisstopo and armasuisse have been involved. As a consequence the reference year is 2013. The DDPS's environmental target was to reduce the environmental impact by 10% by 2019 compared to reference year 2013. The environmental impact of the civil administrative units of the DDPS in 2019 amounted to almost 2 million environmental impact points per full-time position. Thus the department was 4 percentage points lower than in the previous year (see Figure 21). By lowering the environmental impact in the previous statistical year (2019), the DDPS attained the departmental target of -12% of the environmental impact in comparison with reference year 2013.

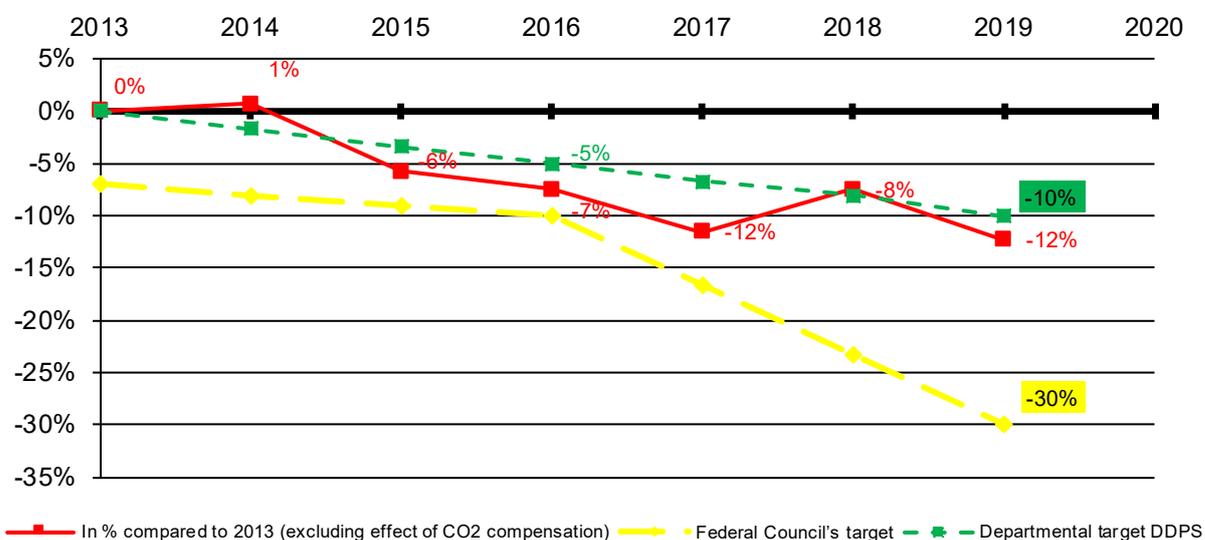


Figure 21: Change in environmental impact of the DDPS compared to reference year 2013

The total environmental impact of the DDPS fell during the target period of 2017–2019 by 3%. While the Air travel category (+23%) had a negative influence on the balance, the environmental impact could be lowered decisively in the categories Heat (-28%) and Car journeys (-17%) (see Table 8).

- The greatest reduction in the environmental impact was recorded in the Heat category (-28%). In all DDPS departments heat consumption was lower in comparison to the previous year, however, the greatly reduced consumption at armasuisse and the FOCP were most influential in achieving the reduction (relocation to the new building at Guisanplatz).
- The relative environmental impact in the Air travel category rose by 23%. This is due in particular to a strong increase in kilometres flown in 2018 because a large delegation had to fly to Singapore. As a consequence between 2017 and 2018 the environmental impact increased by 21%. In comparison with the previous year too, there was once again a slight increase in the number of kilometres flown.
- In the Car journeys category a reduction of 10% is seen in the environmental impact. A reduction in all car journeys by the DDPS departments is the reason for this fall.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE		Share	in percent		
Electricity	649'334	592'333	641'638	33 %	-1 %	+8 %
Air travel	490'594	594'315	604'268	31 %	+23 %	+2 %
Heat	421'867	433'826	304'646	15 %	-28 %	-30 %
Car journeys	324'329	298'168	268'404	14 %	-17 %	-10 %
Paper	48'450	53'785	56'779	3 %	+17 %	+6 %
Train journeys	44'407	44'965	44'056	2 %	-1 %	-2 %
Water	40'811	41'717	35'916	2 %	-12 %	-14 %
Waste	19'020	19'824	15'930	1 %	-16 %	-20 %
TOTAL	2'038'811	2'078'932	1'971'638	100 %	-3 %	-5 %

Table 8: Environmental impact of the DDPS in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.6.2. Greenhouse gas emissions

The DDPS's GHG emissions amounted to about 3,400 tonnes in 2019 and decreased over the target period of 2017–2019 by 2%. Because of the decrease in GHG emissions in statistical year 2019 and the additional compensation made, the DDPS has once again embarked on the path to success. The department attained the set departmental targets at the end of the target period (2019) (see Figure 22).

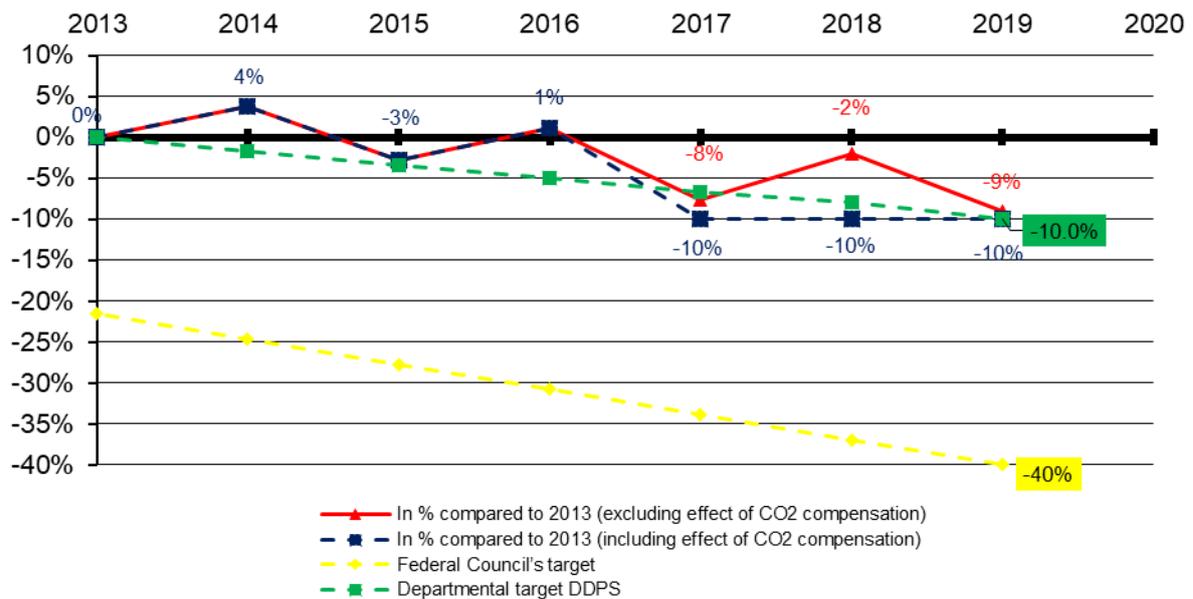


Figure 22: Change in absolute GHG emissions of the DDPS compared to reference year 2013

4.7. EAER – Federal Department of Economic Affairs, Education and Research

4.7.1. Environmental impact

The environmental impact of the EAER in 2019 amounted to 3.7 million environmental impact points per full-time position. It thus lay 6 percentage points lower than in the previous year and -38% lower than in the reference year 2006 (see Figure 23). After the EAER had gone through a four year stagnation phase, the environmental impact was again significantly reduced in the reporting period 2019. This reduction has led to the EAER attaining precisely the departmental target of -38% in comparison with the reference year at the end of the target period.

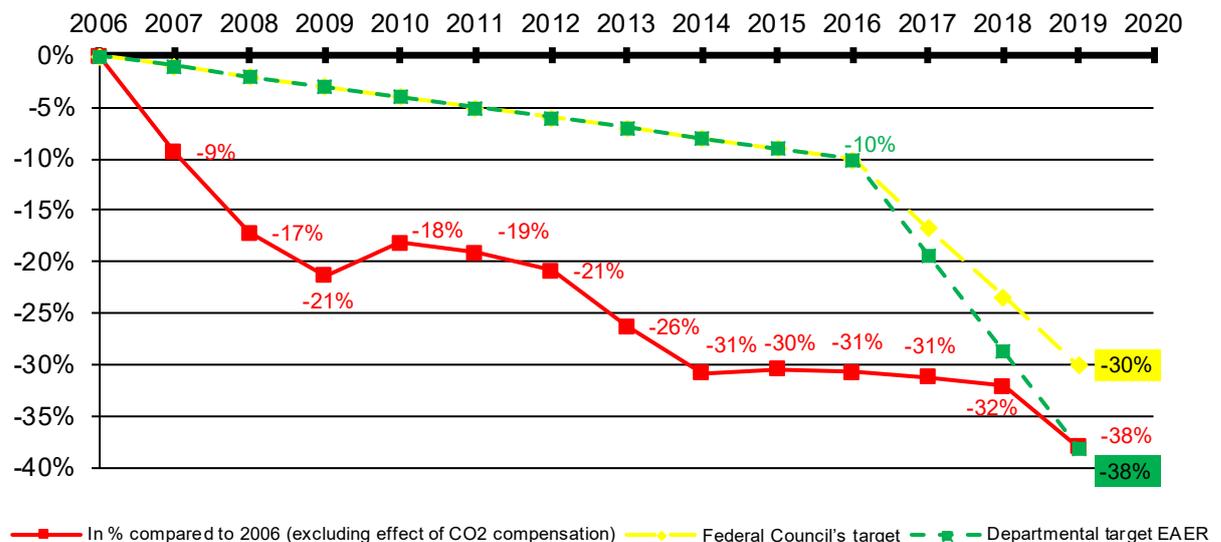


Figure 23: Change in environmental impact of the EAER compared to reference year 2006

The EAER's total environmental impact decreased over the target period of 2017–2019 by -10% because reductions could be attained in all sectors. The greatest reduction was attained in the Heat category with -18% in comparison to 2017. Major reductions could also be attained in the categories Electricity and Air travel (see Table 9)

- Since 2017, in the Energy sector, reductions have been attained in the Heat (-18%) and Electricity (-6%) categories.. These reductions are due in part to Agroscope disposing of a number of buildings in its portfolio at various locations in 2018. As a result of concentrating the workplaces, electricity consumption at the Tänikon site could be reduced by more than -50%. While the environmental impact in the Electricity category stagnated in comparison to the previous year, the impact could be reduced by a further -12% in the Heat category.
- The environmental impact in the Air travel category fell by -9% due to a decrease in the number of kilometres flown in all departments and of long-haul flights in particular. The significant reductions at Agroscope and at the State Secretariat for Economic Affairs (SECO) had the greatest effect. After the relative environmental impact in Air travel had increased between 2017 and 2018 by +14%, this negative development could be stopped again in 2019 with a decrease of -20%.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE		Share	in percent		
Electricity	3'089'869	1'577'194	1'577'416	43 %	-49 %	+0 %
Air travel	780'426	1'116'620	895'709	24 %	+15 %	-20 %
Heat	1'281'881	862'480	756'651	21 %	-41 %	-12 %
Car journeys	290'641	241'570	230'519	6 %	-21 %	-5 %
Water	131'476	124'156	124'143	3 %	-6 %	-0 %
Train journeys	38'579	49'533	47'508	1 %	+23 %	-4 %
Paper	113'569	39'116	34'537	1 %	-70 %	-12 %
Waste	111'292	22'253	22'129	1 %	-80 %	-1 %
TOTAL	5'837'733	4'032'922	3'688'613	100 %	-37 %	-9 %

Table 9: Environmental impact of the EAER in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.7.2. Greenhouse gas emissions

The EAER's GHG emissions amounted to about 8,200 tonnes in 2019 and decreased over the target period of 2017–2019 by about -7%. The EAER has set itself the target of reducing GHG emissions by -60% by 2006 in comparison with the situation in 2006. The current reduction amounts to -35% excluding compensation. Including GHG compensation, however, the EAER was able to reduce its emissions by -70% compared to the reference year, thus meeting the departmental target of -60% at the end of the target period (2019) and the Federal Council's target of -40% by 2019 (see Figure 24).

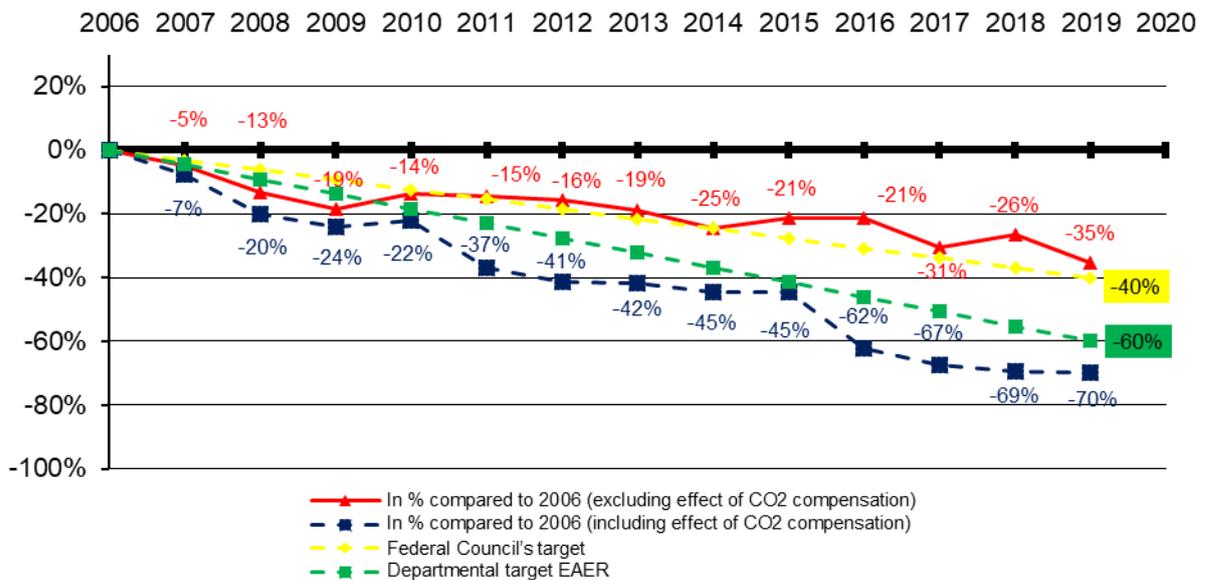


Figure 24: Change in absolute GHG emissions of the EAER compared to reference year 2006

4.8. FC – Federal Chancellery

4.8.1. Environmental impact

The environmental impact of the Federal Chancellery (FC) in 2019 amounted to about 1 million environmental impact points per full-time position. Thus the department was 2 percentage points lower than in the previous year (see Figure 25). Up to the end of the current target period (2019) the FC had set itself the target of reducing the environmental impact by -53% compared to reference year 2006. While the FC had been able to greatly reduce the environmental impact every year until 2010, the reduction curve has flattened out since then. In 2019, the reduction attained at the FC was -50% compared to 2006 and thus the target at the end of the target period (2019) was only just missed. In comparison to the overall target of the federal administration of -30%, the FC is in an exemplary position.

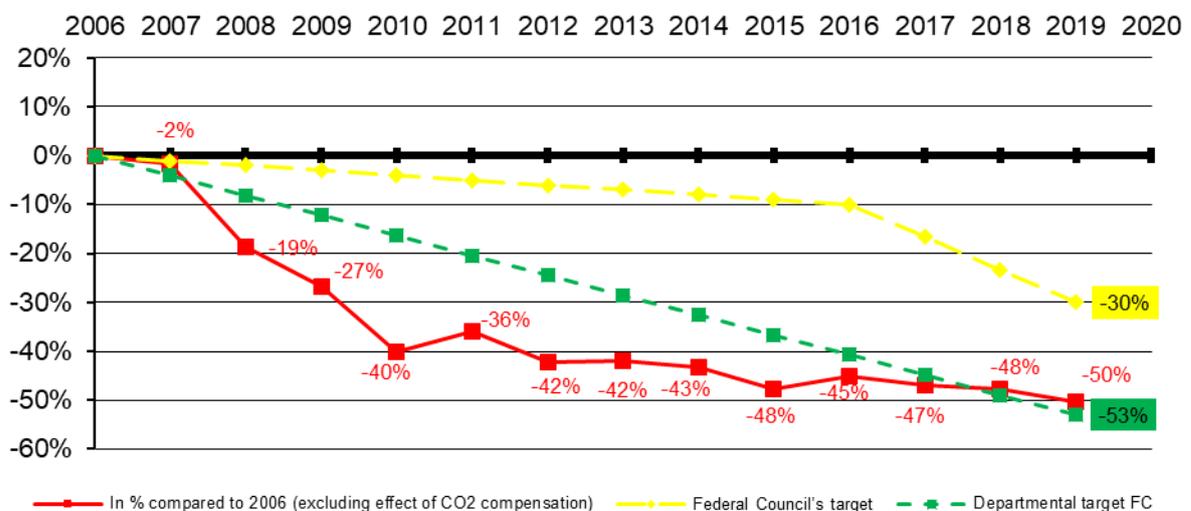


Figure 25: Change in environmental impact of the FC compared to reference year 2006

The FC's total environmental impact decreased by -6% during the target period of 2017–2019. In addition to Air travel and Water, reductions could be attained in all categories. In comparison to 2017 the greatest changes were seen in the categories Electricity (-12%), Paper (-32%), and Air travel (+8%) (see table 10):

- the environmental impact was reduced by -12% in the Electricity category. Encouragingly, similar savings in electricity could be attained at all locations. The exact reasons for this are not known. It is assumed that the reductions were caused by user behaviour and also by favourable climatic factors. The number of annual hours of sunshine has an influence on the use of lighting and therefore on the electricity consumption.
- Environmental impact through use of paper could be reduced by -32% since 2017 and is therefore -75% lower than in reference year 2006. The share of recycling paper could be increased yet further and in 2019 it was 97%. This is due to the consequent substitution of white sandwich and fresh fibre paper with white, 100% recycling paper. In addition, documents longer than 100 pages have only been distributed digitally since 2018. In comparison to 2018, the FC could lower the environmental impact in the Paper category by a further -10%.
- The environmental impact in the Air travel category rose by +8%. While the relative environmental impact of Air travel between 2017 and 2018 had increased by +20%, this could be lowered by a further -11% in comparison to 2018, due to a decrease in long-haul flights in both the economy and the business class.

				Change in 2019 vs.		
	2017	2018	2019	2017	2018	
	in EIP / FTE		Share	in percent		
Electricity	467'003	415'093	411'501	39 %	-12 %	-1 %
Heat	265'446	275'529	263'242	26 %	-1 %	-4 %
Air travel	203'518	244'854	219'109	23 %	+8 %	-11 %
Paper	59'619	45'217	40'626	4 %	-32 %	-10 %
Water	32'191	36'808	34'173	3 %	+6 %	-7 %
Waste	19'919	19'598	18'699	2 %	-6 %	-5 %
Train journeys	17'001	15'799	14'970	1 %	-12 %	-5 %
Car journeys	8'873	4'735	3'154	0 %	-64 %	-33 %
TOTAL	1'073'571	1'057'633	1'005'473	100 %	-6 %	-5 %

Table 10: Environmental impact of the FC in environmental impact points per full-time position in the years 2017–2019; in descending order according to the share of the respective category in the total impact in 2019

4.8.2. Greenhouse gas emissions

The FC's GHG emissions amounted to about 184 tonnes in 2019 and decreased over the target period of 2017–2019 by about -3%. In comparison to reference year 2006 GHG emissions could be reduced by -48% excluding the effect of GHG compensation. The FC compensated for 100% of emissions and thus met the target set at the end of the target period (2019) of attaining climate neutrality. The Federal Council's target of -40% by 2019 was clearly met by the the FC (see table 25).

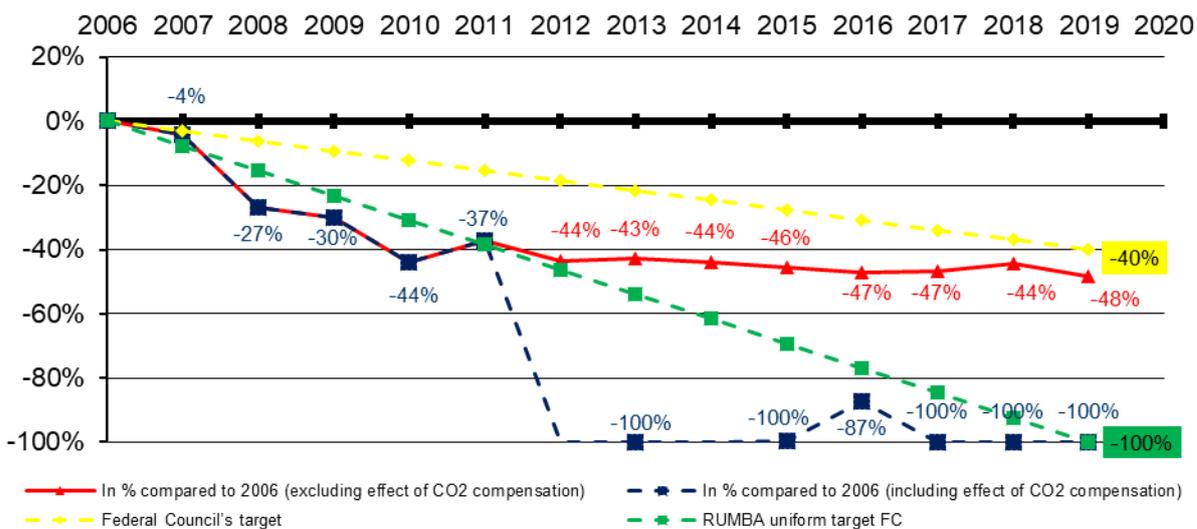


Figure 26: Change in absolute GHG emissions of the FC compared to reference year 2006.

4.9. Further RUMBA units

Further RUMBA units will be presented below which have voluntarily engaged in the RUMBA programme and thus gather their own environmental statistics. The focus here is on a brief analysis of resource consumption over the target period of 2017–2019.

4.9.1. Office of the Attorney General (OAG)

	2017	2018
Air travel	-35 %	-36 %
Car journeys	+13938 %	+0 %
Train journeys	-35 %	-32 %
Electricity	-42 %	-27 %
Heat	-30 %	-34 %
Paper	-63 %	-53 %
Water	-32 %	-28 %
Waste	+1 %	-10 %

Mobility

Compared to 2017 the amount of air travel and of train journeys has decreased significantly. The reduction in Air travel by nearly 900 km per full-time position was due in particular to a decrease in long-haul flights in the business class (-41 %). The kilometres travelled by car per full-time position were exceptionally low in 2017. The values for 2018 and 2019 correspond with the long standing average.

Energy

In the energy sector decreases were seen in electricity and heat consumption over the target period.

Environment

Paper consumption fell compared to 2017 by -63%. Water consumption could also be reduced by -32%. A slight increase of +1% was seen in the Waste category.

The total **environmental impact** decreased over the target period of 2017–2019 by -36%, and in comparison to reference year 2006 by -62%.

4.9.2. Parliamentary Services (PS)

	2017	2018
Air travel	-14 %	-26 %
Car journeys	-73 %	-54 %
Train journeys	+14 %	+6 %
Electricity	-0 %	-1 %
Heat	+9 %	+9 %
Paper	-12 %	-12 %
Water	-48 %	-7 %
Waste	-62 %	-62 %

Mobility

Air travel and Car journeys decreased significantly over the target period of 2017–2019, however Train journeys increased slightly. The reduction in Air travel by nearly 250 km per full-time position was due in particular to a decrease in long-haul flights in the business class (-23 %).

Energy

While heat consumption rose over the target period, no change was seen in use of electricity.

Environment

In comparison to 2017, there was a significant reduction in the amount of waste. Lower values were recorded in 2019 than in 2017 for paper and water consumption.

The total **environmental impact** decreased over the target period of 2017–2019 by -12%, and in comparison to reference year 2006 by -32%.

5. What is RUMBA?

In 2019, the Resource and Environmental Management programme of the civil federal administration (German: RUMBA) touched on 19,968 full-time positions in 51 administrative units (see table 11). By means of the RUMBA programme the environmental activities in the civil federal administration were coordinated and efforts made to continuously reduce the environmental impact and GHG emissions. Costs can also be lowered through efficient, economic use of resources, achieved by implementing concrete measures and conducting successful awareness campaigns for staff. In 2016 the Federal Council set the target of reducing the environmental impact according to the RUMBA methodology in the civil federal administration by -30% by 2019 compared to 2006. As a secondary target, absolute GHG emissions were to be reduced by -40% by 2019 compared to 2006 according to the RUMBA methodology. At the end of 2016, the departments and the Federal Chancellery determined the departmental targets for the period from 2017 to 2019 according to the potential of each department taking into consideration the overriding targets of the Federal Council and the performance agreement made in compliance with the “New Management Model for the State Administration”.

To check the achievement of the targets set by the Federal Council as well as the departmental targets, the Federal Council commissioned the RUMBA office to compile “internal federal environmental reports” in 2018 and 2019 to be submitted to the Conference of the General Secretaries and to the departments. This year’s report is a “public environmental report” with information on the entire RUMBA target period of 2017–2019.

6. State environmental management

State environmental management is not just limited to the administrative units covered by RUMBA but also includes other significant sectors. The current report refers to environmental management by RUMBA in the years 2017–2019.

6.1. RUMBA in the civil federal administration

RUMBA coordinates the environmental activities of the civil federal administration, achieves cost saving increases in efficiency, reduces the environmental impact and GHG emissions according to the RUMBA methodology, and raises awareness among staff for the environment. Despite the successes since the management system was first implemented, there is still further potential for reducing resource consumption and the environmental impact, in particular in the Heat, Electricity, and Mobility sectors.

6.2. RUMS VBS

The targets and priorities of the Regional planning and environmental management system of the DDPS (RUMS DDPS) are focused on the environmental impact of the military sector, the military infrastructure, and the natural areas and resources used by the military and by members of the forces. The RUMS DDPS and the RUMBA programme overlap in five civil administrative units (GS-VBS, Armasuisse, FOCP, DDPS and swisstopo).

6.3. ERCE

The Exemplary Role of the Confederation in Energy programme (ERCE)⁷ strives to increase energy efficiency by +25% by 2020 compared to reference year 2006. In addition to the civil federal administration and the DDPS, actors in this programme are the state-owned enterprises SBB, Swiss Post, Swisscom, Skyguide and SIG (Services Industriels de Genève), SUVA (Swiss National Accident Insurance Fund), Genève Aéroport, and the ETH Domain.

⁷ <https://www.vorbild-energie-klima.admin.ch/vbe/en/home.html> (15.06.2020)

7. Outlook for the new target period

On 3 July 2019, in connection with Energy Strategy 2050, the Federal Council decided to reduce even further GHG emissions caused by the federal administration. In addition, the Federal Council adopted the "Climate package for the federal administration". This lays down the main focus for further measures in the air transport, vehicles and buildings sectors. The Federal Council intends to reduce the federal administration's domestic GHG emissions by -50% by 2030 compared with the starting point in 2006. Together with the Regional planning and environmental management system of the DDPS (RUMS DDPS), RUMBA functions as the coordinating agency for the federal administration. The detailed concept RUMBA 2020+ established by RUMBA, which aligned in content with the climate package, was also approved by the Federal Council on 13 December 2019. In this concept increased focus is placed on measures that will make it possible to attain the defined target for the next target period of 2020–2023 of lowering GHG emissions by 2023 by -9% compared to 2020. The figure below (see Figure 27) shows the RUMBA target paths for the periods of 2006–2019 and 2020–2023 (2020+), the target path of the climate package (2006–2030) and the effectively attained emission reductions in comparison to starting year 2006 (including and excluding compensation).

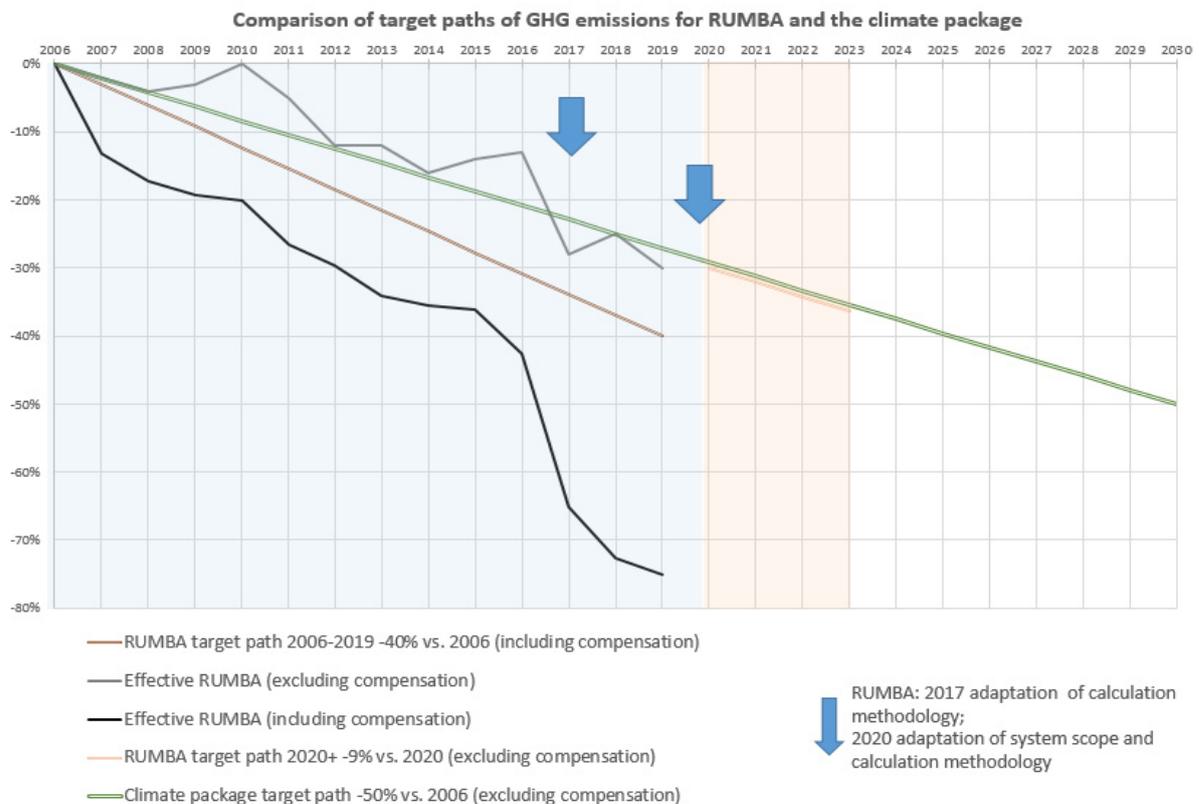


Figure 27: Comparison of RUMBA target curves and the climate package

RUMBA 2020+ also involves a change in the scope of the system:

- As of 1 January 2020 RUMBA fundamentally incorporates all units of the central federal administration of the departments of the FDFA, FDHA, FDF, FDJP, DETEC, EAER, the FC, and the Federal Council. Units in the decentralised federal administration may voluntarily join the RUMBA programme as affiliated RUMBA units. As before the external network of the FDFA and parts of the FCA are excepted from the RUMBA programme.
- RUMS DDPS includes all units of the DDPS. The overlapping mentioned in the foregoing of RUMBA and RUMS DDPS with respect to the five administrative units (GS-VBS, Armasuisse, FOCP, DDPS and swisstopo) is thus eliminated.

8. Appendix

8.1. Calculation of greenhouse gas emissions

To calculate GHG emissions more than just carbon dioxide (CO₂) needs to be taken into account, but rather all gases in the Kyoto⁸ Protocol with an impact on the greenhouse effect. Such gases include methane (CH₄), laughing gas (N₂O), volatile hydrocarbons (NMVOC) and chlorofluorocarbons (CFCs). Because individual gases have different degrees of impact on the greenhouse effect, and in particular very different dwell times in the atmosphere, the volumes of each cannot simply be added together. Values are converted to establish the global warming potential, which is a measurement of a gas's long-term impact on the climate compared to that of CO₂. To establish this comparison with CO₂ an observation period for the future impact has to be selected. This time period is 100 years in accordance with the Swiss greenhouse gas inventory. While the global warming potential of CO₂ is 1 by definition, the value for methane over an observation period of 100 years is 25 and that for laughing gas 298⁹. According to this method the emission of 1 kg of methane is counted as equivalent to 25 kg CO₂, the emission of 1 kg of laughing gas is equivalent to 298 kg of CO₂. Thus the volume of different greenhouse gases can finally be presented as the sum of corresponding CO₂ emissions. In the RUMBA programme these results are expressed as CO₂ eq (CO₂ equivalents).

Method for air transport: While the CO₂ equivalent method functions well for greenhouse gas emissions, it fails for climate impacts from aviation that go beyond CO₂ emissions. The reasons for this are that the relevant additional climate impacts in aviation do not come from directly emitted Kyoto greenhouse gases, the effects are very short lived (hours, days), and do not add up over time. When considering the direct climate impacts of aviation, it can be assumed that cloud influence in particular has a similarly high influence. However, the uncertainties about the impacts are great and have also not diminished in the research because new effects are constantly being discovered that work in both directions (warming up and cooling down).

To keep the method used to present data termed "greenhouse gas emissions" consistent in the RUMBA programme, RUMBA uses the effective CO₂ emissions when declaring GHG emissions from aviation fuel consumption. The additional impact of air transport on the climate is taken into account with an emission weighting factor. The factor 2 was implemented in the RUMBA programme in target period 2017-2019. The current scientific principles have been compiled by the Swiss Academy of Sciences (publication June 2020)¹⁰.

⁸ <https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/international-climate-policy--the-kyoto-protocol.html>

⁹ https://www.bafu.admin.ch/dam/bafu/de/dokumente/klima/fachinfo-daten/vom_menschen_verursachtetreibhausgase.pdf.download.pdf/vom_menschen_verursachtetreibhausgase.pdf (15.06.2020)

¹⁰ Neu U (2020) The impact of emissions from aviation on the climate. Swiss Academies Communications 15 (9). doi.org/10.5281/zenodo.3935410 German: <https://www.bazl.admin.ch/bazl/de/home/politik/umwelt/luftfahrt-und-klimaerwaermung.html> Dokument «Auswirkungen der Flugverkehrsemissionen auf das Klima»

8.2. Adaptation of the methodology from 2016 to 2017

The eco-factors (basis for calculation of the environmental impact of the civil federal administration), the primary energy factors and the emission factors were all adjusted to conform with the current state of science for 2017. For a start the source used for this was the data from the KBOB recommendations “Ökobilanzdaten im Baubereich 2009/1:2016”¹¹ [Ecological balance in the building sector 2009/1:2016], which is based on the “Ecoinvent 2.2”¹² data base. Firstly, this reflected changes seen in recent years in the field of technical developments (e.g., fuel consumption, vehicle emissions and production processes). Secondly, methods for ecological scarcity were updated to the 2013¹³ situation. The method involves considering a broad spectrum of environmental impacts (soil, air, water, noise, etc.) and consolidates results as one key figure. The result is expressed in environmental impact points (EIP). Central to the method are the eco-factors, which reflect the environmental impact of an emitted pollutant or the resource depletion in EIP units per quantity unit. The eco-factor of a substance is derived from the legislation or from the corresponding political targets. The more the actual emissions (resource consumption) exceed the set environmental protection targets, the higher the eco-factor expressed in EIPs. This means an increase in the eco-factors for greenhouse gases, because, for example, reaching the 2 degree target set by COP21 of Paris (2015) by 2050 becomes even more difficult. Updating the eco-factors since 2017 has meant that all activities based on fossil fuels or combustibles (e.g., transport by cars and planes, heating with oil or gas) have a greater environmental impact. Fossil emissions caused abroad by imported electricity are not included according to the definition (domestic).

Here is an example in fact which highlights the changes: the eco-factor for “Aeroplane, Europe, Economy” was increased from 202 to 299 EIP/pkm, an increase of almost +50%. In 2016, if a distance of 1,000 pkm was flown (about the distance from Zurich to Warsaw), this corresponded to an environmental impact of about 202,000 EIPs. From 2017, as a consequence, calculating 1,000 pkm with an aeroplane in the economy class would lead to 299,000 EIPs, 97,308 EIPs more than before the methodology was adapted.

In contrast the eco-factor for electricity improved, because the consumer mix in Switzerland changed and current electricity production has less impact on the environment. The commonly applied, but non-verifiable, electricity mix in Switzerland was updated from 42 to 32 EIPs per mega-joule (MJ) of primary energy. This means a reduction of almost one quarter.

To illustrate what this means: A two-person household in a detached house consumes 3,550 kWh of electricity per year¹⁴. This corresponds to roughly 39,000 MJ of primary energy and up to 2016 would have led to an environmental impact of 1,638,000 EIPs. After the methodology was adapted this amount of electricity caused an impact of 1,248,000 EIPs, 390,000 EIPs less.

¹¹ https://www.kbob.admin.ch/kbob/de/home/publikationen/nachhaltiges-bauen/oekobilanzdaten_baubereich.html (15.06.2020)

¹² <https://www.ecoinvent.org/> (15.06.2020)

¹³ <https://www.bafu.admin.ch/bafu/de/home/themen/wirtschaft-konsum/publikationen-studien/publikationen/oekofaktoren-2015-knappheit.html> (15.06.2020)

¹⁴ Nipkow, Jürg 2013: Der typische Haushalt-Stromverbrauch. Schweizerische Agentur für Energieeffizienz S.A.F.E., Zurich.

8.3. RUMBA key environmental figures

The key environmental figures for all RUMBA units are shown in the tables on the next two pages. All figures are from 2019. The purpose of the tables is to list the raw data and the calculation for each RUMBA unit.

RUMBA units are subdivided into administrative units, which mainly work for the administration, and into special units, which are marked with a dot. Based on their activities, special units have a higher environmental impact than typical RUMBA units.

In the tables below RUMBA units are shown according to department in alphabetical order. The change compared to reference year 2006 is shown for all key figures; environmental impact is given as a percentage, the trend for other figures is indicated by an arrow.

The arrows indicate the following changes in key figures:

- ↓ = reduction of more than -30%
- ↘ = reduction between -5% and -30%
- ↔ = minimal change (change between -5% and +5%)
- ↗ = increase between +5% and +30%
- ↑ = increase by more than +30%

The key figures are explained at departmental level in this report. On the basis of the differing tasks and framework conditions cross-comparison of federal offices is only possible to a limited extent. The administrative units listed represent about 19,970 full-time positions in the federal administration (monthly average 2019).

In the Paper category, in calculating the share of new fibre, 70% of fresh fibre sandwich paper is evaluated as fresh fibre paper.

Because a rise in the number of rail journeys is a positive factor, the colour coding in this category is reversed.

Department	RUMBA Unit	Spec. Unit	Environmental Impact in 1,000 EIP / FTE				CO ₂ equivalent in kg / FTE				Area m ² / FTE				Heat MJ / m ²				Heat MJ / FTE				Electricity MJ / FTE				
			Excl. CO ₂ comp.		Incl. CO ₂ comp.		2006		% vs. 2006		2006		% vs. 2006		2006		% vs. 2006		2006		% vs. 2006		2006		% vs. 2006		
			% vs. 2006		% vs. 2006																						
FDFA			5'322	-5.9%	2'788	-30.7%	6'050	8'466	-28.5%	28	36	-22%	189	231	-18.5%	5	8	-36.5%	21'287	31'394	-32.2%	5	15	-66.7%	21'287	31'394	-32.2%
FDHA	FOPH	●	872	-79.3%	602	-85.7%	588	3074	-80.9%	43	64	-32.4%	56	230	-75.4%	2	15	-83.4%	10'968	72'474	-84.9%	2	15	-83.4%	10'968	72'474	-84.9%
	FOC	●	2'175	-60.8%	1'659	-69.9%	1'122	4'187	-73.2%	102	126	-19.7%	95	252	-62.4%	10	32	-69.8%	45'774	70'743	-35.3%	10	32	-69.8%	45'774	70'743	-35.3%
	SFA	●	2'280	-66.7%	1'814	-73.5%	1'012	5'607	-81.9%	191	270	-29.2%	61	205	-70.4%	12	55	-79.0%	57'038	116'234	-50.9%	12	55	-79.0%	57'038	116'234	-50.9%
	FSO		1'464	-22.4%	961	-49.1%	1'093	1'312	-16.7%	39	45	-14.8%	215	168	28.3%	8	8	9.4%	18'246	29'625	-38.4%	8	8	9.4%	18'246	29'625	-38.4%
	BLV		1'489	-49.7%	909	-69.3%	1'260	3'495	-63.9%	28	45	-37.1%	184	408	-55.0%	5	18	-71.7%	14'397	25'817	-44.2%	5	18	-71.7%	14'397	25'817	-44.2%
	FSIO		1'089	-41.8%	806	-56.9%	616	1'122	-45.1%	30	38	-21.2%	164	287	-42.6%	5	11	-54.8%	19'539	27'518	-29.0%	5	11	-54.8%	19'539	27'518	-29.0%
	FOGE (vs. 2011)		1'428	-11.5%	699	-56.7%	1'586	1'895	-16.3%	43	60	-28.9%	246	254	-3.3%	4	10	-58.3%	9'099	12'427	-26.8%	4	10	-58.3%	9'099	12'427	-26.8%
	GS-FDHA		1'538	-57.6%	1'067	-70.6%	1'023	2'181	-53.1%	52	63	-16.5%	85	138	-38.3%	4	9	-48.5%	25'628	59'747	-57.1%	4	9	-48.5%	25'628	59'747	-57.1%
	MeteoSwiss	●	831	-68.5%	474	-79.4%	777	2'443	-68.2%	26	48	-45.5%	201	336	-40.1%	5	16	-67.4%	17'338	47'023	-63.1%	5	16	-67.4%	17'338	47'023	-63.1%
FDHA total		1'315	-57.5%	897	-70.5%	909	2'377	-61.8%	48	62	-22.8%	129	238	-46.0%	6	15	-58.3%	20'944	48'284	-56.6%	6	15	-58.3%	20'944	48'284	-56.6%	
FDF	BBL	●	2'828	-51.5%	2'828	-51.5%	1'973	4'294	-54.1%	93	142	-34.5%	147	215	-31.4%	14	31	-55.1%	49'568	101'886	-51.3%	14	31	-55.1%	49'568	101'886	-51.3%
	FOITT	●	4'150	-28.9%	3'492	-40.2%	1'430	2'355	-39.3%	32	30	6.0%	184	133	38.2%	6	4	46.4%	115'360	132'464	-12.9%	6	4	46.4%	115'360	132'464	-12.9%
	SFAO		1'020	-24.2%	1'020	-24.2%	751	1'146	-34.5%	33	34	-5.3%	161	244	-33.8%	5	8	-37.3%	12'041	14'869	-19.0%	5	8	-37.3%	12'041	14'869	-19.0%
	FFA		1'019	-61.4%	1'019	-61.4%	623	2'334	-73.3%	37	51	-26.4%	155	212	-26.7%	6	11	-46.1%	18'107	30'808	-41.2%	6	11	-46.1%	18'107	30'808	-41.2%
	EPA		717	-60.7%	717	-60.7%	425	1'011	-58.0%	67	108	-38.0%	104	132	-21.4%	7	14	-51.3%	11'480	29'641	-61.3%	7	14	-51.3%	11'480	29'641	-61.3%
	FTA		1'112	-38.6%	1'112	-38.6%	822	1'290	-36.3%	37	44	-15.5%	139	165	-15.8%	5	7	-28.8%	11'093	22'044	-49.7%	5	7	-28.8%	11'093	22'044	-49.7%
	GS-FDF / FITSU / SIF		2'653	42.2%	2'653	42.2%	2'654	1'356	95.7%	35	53	-33.9%	151	179	-15.5%	5	10	-44.1%	19'146	27'188	-29.6%	5	10	-44.1%	19'146	27'188	-29.6%
	FCA (OZD)		1'107	-37.7%	705	-60.3%	873	1'347	-35.2%	35	35	1.0%	180	263	-31.5%	6	9	-30.8%	8'321	23'893	-65.2%	6	9	-30.8%	8'321	23'893	-65.2%
	Swissmint	●	7'803	-30.8%	7'803	-30.8%	3'631	9'915	-63.4%	205	244	-15.9%	196	447	-56.3%	40	109	-63.2%	189'100	144'885	30.5%	40	109	-63.2%	189'100	144'885	30.5%
	CCO		955	-60.0%	955	-60.0%	376	1'144	-67.1%	22	39	-43.8%	91	125	-27.5%	2	5	-59.2%	21'420	45'571	-53.0%	2	5	-59.2%	21'420	45'571	-53.0%
FDF total		2'164	-36.1%	1'941	-42.7%	1'125	1'950	-42.3%	40	53	-24.4%	152	190	-20.2%	6	10	-39.7%	45'593	62'320	-26.8%	6	10	-39.7%	45'593	62'320	-26.8%	
FDJP	FOJ		1'812	-36.3%	1'286	-54.8%	1'144	1'696	-32.6%	56	51	9.5%	183	226	-19.1%	10	12	-11.4%	29'663	50'686	-41.5%	10	12	-11.4%	29'663	50'686	-41.5%
	Fedpol		1'680	-52.7%	1'067	-70.0%	1'331	3'788	-64.9%	59	38	57.6%	78	345	-77.2%	5	13	-64.1%	20'042	26'415	-24.1%	5	13	-64.1%	20'042	26'415	-24.1%
	GS-FDJP		1'048	-68.3%	765	-76.9%	617	2'698	-77.1%	88	50	74.5%	93	216	-57.0%	8	11	-24.9%	19'397	49'609	-60.9%	8	11	-24.9%	19'397	49'609	-60.9%
	ISC FDJP	●	3'071	-52.1%	2'506	-60.9%	1'227	3'413	-64.0%	30	52	-41.7%	128	330	-61.4%	4	17	-77.5%	84'535	129'737	-34.8%	4	17	-77.5%	84'535	129'737	-34.8%
	SEM		2'071	-16.6%	1'179	-52.5%	1'939	2'817	-31.2%	40	44	-8.3%	277	314	-11.6%	11	14	-19.0%	13'918	18'990	-26.7%	11	14	-19.0%	13'918	18'990	-26.7%
FDJP total		1'996	-50.2%	1'326	-66.9%	1'457	3'498	-58.4%	50	49	2.9%	149	313	-52.5%	7	15	-51.2%	28'659	50'373	-43.1%	7	15	-51.2%	28'659	50'373	-43.1%	
DETEC	ARE		635	-62.0%	496	-68.7%	302	1'059	-71.5%	34	35	-4.0%	31	135	-76.6%	1	5	-77.5%	11'779	23'627	-50.1%	1	5	-77.5%	11'779	23'627	-50.1%
	FEDRO (vs. 2011)		1'378	-30.4%	988	-49.2%	847	1'462	-42.0%	20	22	-7.5%	143	125	14.4%	3	3	5.8%	15'914	19'361	-17.8%	3	3	5.8%	15'914	19'361	-17.8%
	FOEN		1'857	-26.7%	953	-62.4%	1'965	2'998	-34.5%	38	44	-13.9%	264	257	2.7%	10	11	-11.5%	11'371	19'523	-41.8%	10	11	-11.5%	11'371	19'523	-41.8%
	OFCOM		1'607	-40.2%	1'008	-62.5%	1'302	2'501	-47.9%	37	35	5.3%	66	180	-63.5%	2	6	-61.6%	13'440	22'914	-41.3%	2	6	-61.6%	13'440	22'914	-41.3%
	FOT		1'030	-16.1%	704	-42.6%	712	783	-9.1%	24	35	-29.9%	112	61	84.3%	3	2	29.1%	12'798	16'864	-24.1%	3	2	29.1%	12'798	16'864	-24.1%
	FOCA		3'587	0.9%	1'882	-47.1%	3'708	4'350	-14.8%	21	26	-20.0%	143	130	10.7%	3	3	-11.5%	15'914	23'901	-33.4%	3	3	-11.5%	15'914	23'901	-33.4%
	SFOE		1'296	-9.3%	757	-39.4%	1'172	1'361	-13.9%	23	31	-26.7%	100	82	22.7%	2	3	-10.1%	9'802	12'776	-23.3%	2	3	-10.1%	9'802	12'776	-23.3%
	GS-DETEC		1'115	-70.3%	776	-79.3%	738	3'948	-81.3%	42	51	-17.4%	167	409	-59.1%	7	21	-66.2%	14'691	34'442	-57.3%	7	21	-66.2%	14'691	34'442	-57.3%
	DETEC total		1'703	-27.5%	1'015	-56.4%	1'497	2'329	-35.7%	28	34	-16.4%	158	188	-15.9%	4	6	-29.7%	13'490	20'688	-34.8%	4	6	-29.7%	13'490	20'688	-34.8%
DDPS	armasuisse (vs. 2013)	●	2'696	2.4%	2'696	2.4%	2'671	3'289	-18.8%	53	38	38.7%	118	324	-63.4%	6	12	-49.3%	15'805	13'810	14.4%	6	12	-49.3%	15'805	13'810	14.4%
	FOCP (vs. 2013)		1'105	-26.8%	1'105	-26.8%	741	1'161	-36.2%	75	48	56.7%	91	222	-59.1%	7	11	-35.9%	13'579	15'563	-12.7%	7	11	-35.9%	13'579	15'563	-12.7%
	BASPO		1'510	-25.1%	1'510	-25.1%	1'211	1'889	-35.9%	27	34	-20.7%	447	523	-14.5%	12	18	-32.2%	17'171	20'852	-17.7%	12	18	-32.2%	17'171	20'852	-17.7%
	GS-DDPS (vs. 2013)		1'019	-19.1%	1'019	-19.1%	765	1'165	-34.4%	57	51	11.7%	141	150	-6.2%	8	8	4.8%	12'909	12'736	1.4%	8	8	4.8%	12'909	12'736	1.4%
	swisstopo (vs. 2013)		2'063	-33.8%	2'063	-33.8%	872	1'735	-49.7%	42	42	0.9%	234	120	94.6%	10	5	96.3%	42'949	59'240	-27.5%	10	5	96.3%	42'949	59'240	-27.5%
DDPS total (vs. 2013)		1'972	-12.3%	1'964	-12.6%	1'635	2'125	-23.0%	48	40	20.6%	176	261	-33.6%	8	11	-20.0%	20'021	23'778	-15.8%	8	11	-20.0%	20'021	23'778	-15.8%	
EAER	Agroscope	●	6'319	-39.7%	5'931	-43.4%	4'036	9'031	-55.3%	101	135	-25.3%	513	678	-24.3%	52	92	-43.5%	115'566	149'005	-22.4%	52	92	-43.5%	115'566	149'005	-22.4%
	FOAG		1'497	-24.6%	910	-54.2%	1'277	2'009																			

Department	RUMBA Unit	Spec. Unit	Water m ³ / FTE		Paper kg / FTE		Of which new fibre %		Air travel Pkm / FTE		Domestic travel Share car		Staff FTE		Remarks										
			2006	% vs. 2006	2006	% vs. 2006	2006	% vs. 2006	2006	% vs. 2006	2006	% vs. 2006	2006	% vs. 2006											
FDFA			9	8	13.0%	30	73	-59.0%	26%	57%	-54.0%	19771	16779	17.8%	3%	4%	-11.5%	1'523	1'139	33.7%	↑	Official travel Foreign projects			
FDHA	FOPH	●	10	7	45.9%	24	36	-32.7%	11%	94%	-87.9%	1073	2111	-49.1%	25%	18%	44.6%	↑	539	519	3.8%	↔	Electricity: Laboratories (equipment and air conditioning)		
	FOC	●	11	16	-33.5%	39	575	-93.3%	56%	95%	-41.2%	924	551	67.8%	↑	13%	35%	-63.8%	↓	298	194	53.6%	↑	Areas and energy: National Library, archives, exhibitions	
	SFA	●	8	20	-59.6%	9	53	-82.4%	22%	92%	-76.5%	289	752	-61.6%	↓	2%	3%	-39.1%	↓	91	52	77.3%	↑	Heat and electricity: Federal Archive	
	FSO		8	9	-16.9%	71	79	-10.9%	86%	60%	42.6%	↑	854	497	71.8%	↓	6%	9%	-32.0%	↓	760	650	17.0%	↑	
	BLV		6	11	-43.8%	18	35	-48.8%	9%	72%	-87.0%	↓	3044	3712	-18.0%	↔	18%	60%	-70.6%	↓	225	121	85.9%	↑	2013 mover from EAER to FDHA
	FSIO		9	9	0.0%	59	149	-60.6%	3%	92%	-97.1%	↓	607	639	-5.0%	↔	2%	4%	-42.6%	↓	293	259	13.2%	↑	Introduced RUMBA in 2013
	FOGE (vs. 2011)		8	10	-17.6%	35	103	-66.2%	4%	77%	-94.2%	↓	2310	1322	74.7%	↑	0%	0%	0.0%	↔	20	14	40.7%	↑	
	GS-FDHA		10	10	6.5%	53	285	-81.2%	8%	33%	-76.3%	↓	1553	1346	15.4%	↑	1%	3%	-48.2%	↓	100	64	56.2%	↑	
MeteoSwiss	●	11	17	-34.2%	4	53	-92.5%	3%	58%	-94.6%	↓	1245	1464	-15.0%	↓	28%	49%	-42.6%	↓	447	321	39.0%	↑	Meteorological services, incl. data centre	
FDHA total		9	11	-14.9%	39	120	-67.5%	51%	80%	-36.1%	↓	1136	1255	-9.5%	↓	16%	26%	-40.0%	↓	2'773	2'194	26.4%	↑		
FDJ	BBL	●	11	14	-22.8%	16	37	-56.9%	32%	87%	-62.8%	↓	951	1072	-11.2%	↓	55%	69%	-19.4%	↓	516	460	12.1%	↑	Staff: exd. cleaning staff and facility management
	FOITT	●	7	8	-10.0%	3	24	-89.1%	5%	79%	-94.1%	↓	500	196	154.4%	↑	37%	6%	490.8%	↑	1'383	1'024	35.2%	↑	Electricity consumption: Data centre
	SFAO		7	8	-9.1%	30	55	-45.4%	5%	74%	-92.9%	↓	1500	1452	3.3%	↔	1%	4%	-71.0%	↓	108	89	20.6%	↑	
	FFA		12	12	-1.4%	41	119	-65.6%	29%	98%	-70.2%	↓	479	3173	-84.9%	↓	0%	16%	-100.0%	↓	178	189	-6.3%	↓	
	EPA		9	13	-34.3%	26	114	-76.9%	35%	27%	29.2%	↑	85	49	73.7%	↑	2%	7%	-76.7%	↓	139	97	43.1%	↑	
	FTA		9	8	7.7%	23	86	-72.7%	6%	60%	-90.0%	↓	404	420	-3.9%	↔	31%	45%	-30.1%	↓	1'105	994	11.1%	↑	Car journeys: Field services for VAT control
	GS-FDJ / FITSU / SIF		10	10	-2.2%	29	69	-58.1%	66%	94%	-29.6%	↓	5275	1055	400.1%	↑	0%	50%	-99.9%	↓	284	101	182.4%	↑	
	FCA (OZD)		8	10	-26.8%	19	64	-70.9%	32%	59%	-45.6%	↓	1468	1497	-1.9%	↔	2%	8%	-75.4%	↓	598	513	16.5%	↑	
	Swissmint	●	40	87	-54.3%	19	33	-43.4%	48%	64%	-25.7%	↓	1071	300	257.1%	↑	27%	40%	-31.2%	↓	20	19	4.6%	↔	Minting of coins
CCO		12	19	-38.0%	73	106	-31.5%	17%	35%	-51.1%	↓	73	254	-71.3%	↓	2%	0%	0.0%	↔	839	548	53.1%	↑		
FDJ total		9	11	-18.9%	26	65	-60.8%	21%	59%	-65.2%	↓	841	681	23.5%	↑	21%	36%	-42.2%	↓	5'169	4'215	22.6%	↑		
FDJP	FOJ		16	13	21.3%	40	87	-53.4%	74%	84%	-11.9%	↓	1138	1325	-14.1%	↓	3%	0%	1469.9%	↑	257	221	16.7%	↑	
	Fedpol		4	9	-54.5%	12	64	-82.0%	12%	93%	-87.4%	↓	1855	3305	-43.9%	↓	43%	84%	-48.5%	↓	910	888	2.5%	↔	Car journeys: investigations throughout Switzerland
	GS-FDJP		8	17	-52.2%	31	67	-54.1%	14%	53%	-73.2%	↓	463	3580	-87.1%	↓	1%	0%	0.0%	↔	126	129	-2.0%	↔	
	ISC FdJP	●	6	7	-12.4%	7	20	-64.3%	5%	49%	-89.6%	↓	661	36	1736.8%	↑	8%	42%	-79.8%	↓	367	145	153.7%	↑	Electricity consumption: Data centre
	SEM		9	30	-71.1%	85	92	-8.1%	24%	74%	-67.5%	↓	2907	3032	-4.1%	↔	52%	45%	16.2%	↑	799	621	28.7%	↑	
FDJP total		7	22	-66.6%	39	70	-44.8%	27%	80%	-66.1%	↓	1872	2806	-33.3%	↓	44%	74%	-40.2%	↓	2'460	2'163	13.7%	↑		
DETEC	ARE		5	9	-44.3%	20	82	-75.4%	9%	47%	-79.9%	↓	604	967	-37.5%	↓	0%	0%	0.0%	↔	79	63	24.2%	↑	
	FEDRO (vs. 2011)		9	9	0.6%	37	56	-33.5%	40%	73%	-45.7%	↓	315	738	-57.3%	↓	69%	65%	7.3%	↑	637	509	25.1%	↑	
	FOEN		8	9	-5.3%	20	47	-57.3%	36%	32%	11.6%	↑	3216	3608	-10.9%	↓	23%	33%	-30.5%	↓	539	468	15.1%	↑	Air travel: international tasks
	OFCOM		7	9	-22.7%	26	65	-60.7%	16%	48%	-66.6%	↓	3011	2951	2.0%	↔	46%	67%	-31.6%	↓	270	269	0.4%	↔	
	FOT		6	5	11.6%	17	54	-69.1%	11%	82%	-86.1%	↓	1138	780	45.9%	↑	4%	6%	-28.8%	↓	299	253	18.2%	↑	
	FOCA		9	9	-7.6%	44	59	-24.2%	32%	84%	-62.1%	↓	7933	8086	-1.9%	↔	23%	35%	-34.5%	↓	314	239	31.3%	↑	
	SFOE		7	1	354.2%	25	83	-70.0%	29%	48%	-39.4%	↓	2804	1952	43.6%	↑	6%	18%	-66.3%	↓	249	137	82.3%	↑	
	GS-DETEC		10	8	21.4%	41	195	-78.7%	41%	83%	-51.2%	↓	462	5055	-90.9%	↓	42%	69%	-39.4%	↓	92	125	-25.9%	↓	
	DETEC total		8	8	-1.3%	29	66	-56.1%	32%	64%	-50.2%	↓	2568	2883	-10.9%	↓	36%	46%	-22.7%	↓	2'478	2062	20.2%	↑	
DDPS	armasuisse (vs. 2013)	●	5	11	-48.2%	21	28	-25.3%	11%	72%	-85.2%	↓	4892	3706	32.0%	↑	51%	64%	-20.6%	↓	826	613	34.7%	↑	Since 2014
	FOCP (vs. 2013)		3	7	-54.2%	22	39	-41.8%	72%	72%	-0.5%	↔	737	416	77.3%	↑	26%	62%	-58.6%	↓	150	161	-6.6%	↓	Since 2014
	BASPO		19	27	-29.8%	30	59	-50.0%	23%	93%	-74.9%	↓	487	129	278.3%	↑	63%	69%	-9.7%	↓	448	313	43.0%	↑	Water consumption partly because of indoor pool
	GS-DDPS (vs. 2013)		10	11	-2.3%	16	55	-70.7%	24%	67%	-64.1%	↓	822	1680	-51.1%	↓	9%	21%	-55.6%	↓	308	235	31.1%	↑	Since 2014
	swisstopo (vs. 2013)		7	7	2.2%	50	23	113.9%	63%	58%	8.2%	↑	704	805	-12.5%	↓	44%	39%	10.6%	↑	345	347	-0.4%	↔	Since 2014
DDPS total (vs. 2013)		9	11	-19.5%	27	35	-22.3%	35%	70%	-50.5%	↓	2342	1881	24.5%	↑	47%	60%	-21.6%	↓	2'077	1'759	18.1%	↑		
EAER	Agroscope	●	73	118	-38.4%	9	28	-66.1%	11%	72%	-84.1%	↓	1394	1191	17.1%	↑	64%	78%	-18.3%	↓	1'016	930	9.3%	↑	
	FOAG		8	9	-13.0%	25	115	-78.5%	17%	33%	-47.6%	↓	2565	2330	10.1%	↑	26%	54%	-51.2%	↓	243	226	7.3%	↑	Car journeys: Field reps. For agriculture Checks
	FONES		12	8	46.2%	35	70	-49.4%	28%	54%	-48.1%	↓	502	594	-15.4%	↓	7%	22%	-69.6%	↓	33	35	-4.5%	↔	
	BWO		4	3	28.9%	103	94	9.3%	10%	37%	-72.2%	↓	0	313	-100.0%	↓	1%	18%	-93.1%	↓	35	53	-33.7%	↓	
	GS-EAER		11	6	65.2%	19	81	-76.2%	10%	46%	-79.0%	↓	2818	7327	-61.5%	↓	60%	36%	64.8%	↑	82	73	11.9%	↑	
	ISCece	●	9	5	77.2%	12	25	-50.1%	35%	60%	-41.6%	↓	117	111	5.2%	↑	69%	8%	736.1%	↑	115	48	140.5%	↑	Electricity consumption: Data centre
	SERI / PUE / CTI		11	7	53.5%	25	71	-64.0%	37%	69%	-46.3%	↓	4100	3055	34.2%	↑	11%	10%	10.8%	↑	316	273	15.9%	↑	Newly est. from SBF (FDHA) and BBT (EAER) in 2013
	SECO / SAS		6	7	-10.4%	24	84	-71.3%	8%	44%	-82.8%	↓	6962	8957	-22.3%	↓	7%	13%	-41.2%	↓	813	555	46.6%	↑	Air travel: international tasks
ZIVI		11	5	140.4%	61	86	-29.2%	28%	38%	-26.9%	↓	0	0	0.0%	↔	21%	6%	241.2%	↑	130	49	164.9%	↑		
EAER total		32	53	-40.4%	21	61	-65.2%	17%	51%	-66.2%	↓	3327	3560	-6.6%	↓	45%	52%	-15.0%	↓	2'784	2'242	24.2%	↑		
OAG		7	21	-64.8%	15	83	-82.0%	58%	98%	-40.4%	↓	1668	6291	-73.5%	↓	22%	38%	-43.0%	↓	243	141	72.1%	↑		
FC		9	9	0.5%	35	88	-59.8%	4%	51%	-92.7%	↓	774	378	104.9%	↑	3%	4%	-36.2%	↓	223	200	11.6%	↑		
Parliament	PS		7																						

8.4. Full-time equivalents

The table below shows the situation with respect to full-time equivalents. This figure is the average of the monthly averages and not the position on a certain day. In addition to staff, the figures include job learners and university trainees. External staff and trainees are also included in the key figures for RUMBA units and departments also include because they consume resources and cause environmental pollution too. No data is available for offices not included in the RUMBA programme and are therefore are not listed. However, this methodology to determine the number of full-time equivalents differs from the state model, which is used for example in the budget and in state accounts.

GREEN marks those administrative units which participate in the RUMBA programme (RUMBA units).

YELLOW designates those administrative units that participate in RUMS (Planning and Environmental Management System) in the DDPS, but do not implement the RUMBA programme. All other administrative units are outwith the central federal administration.

NO COLOUR: Such units are not included in the RUMBA programme.

Administrative units		Number of FTE
FDFA	Federal Department of Foreign Affairs	1,523
	Locations at Bern (RUMBA unit)	1,523
	Locations outside Bern and diplomatic and consular agencies abroad	Not available

FDHA	Federal Department of Home Affairs	2,773
FOPH	Federal Office of Public Health	539
FOC	Federal Office of Culture	298
NL	Swiss National Library	
SFA	Swiss Federal Archives	91
FSO	Federal Statistical Office	760
BLV (excl. IVI)	Federal Food Safety and Veterinary Office	225
FSIO	Federal Social Insurance Office	293
FOGE	Federal Office for Gender Equality	20
GS-FDHA	General Secretariat	100
MeteoSwiss	Federal Office of Meteorology and Climatology	477

FDFA	Federal Department of Finance	5,169
BBL	BA für Bauten und Logistik	516
FOITT	Federal Office of Information Technology, Systems and Telecommunication	1,383
SFAO	Swiss Federal Audit Office	108
FFA	Federal Finance Administration	178
EPA	Eidg. Personalamt	139
FTA	Federal Tax Administration	1,105
FCA	Federal Customs Administration (RUMBA programme only in SFCA)	598
GS-FDF / FITSU	General Secretariat / FITSU	284
SIF	State Secretariat for International Finance	

Administrative units		Number of FTE
DETEC	Federal Department of Environment, Transport, Energy and Communication	2,478
ARE	Federal Office for Spatial Development	79
FEDRO	Federal Roads Office	637
FOEN	Federal Office for the Environment	539
OFCOM	Federal Office of Communications	270
FOT	Federal Office of Transport	299
FOCA	Federal Office of Civil Administration	314
SFOE	Swiss Federal Office of Energy	249
GS-DETEC	General Secretariat	92

DDPS	Federal Department of Defence, Civil Protection and Sport	2,077
armasuisse	armasuisse	826
FOCP	Federal Office for Civil Protection	150
BASPO	Bundesamt für Sport	448
GS DDPS	General Secretariat including Attorney General	308
swisstopo	Federal Office of Topography	345
FIS	Federal Intelligence Service	Not available
Defence	Defence Group	Not available

EAER	Federal Department of Economic Affairs, Education and Research	2,784
Agroscope	Agricultural research institutes and Swiss National Stud Farm	1,016
FOAG	Federal Office for Agriculture	243
FONES	Federal Office for National Economic Supply	35

Swissmint	Swissmint	20
CCO	Central Compensation Office	839

FDJP Federal Department of Justice and Police 2,460		
FOJ	Federal Office of Justice	257
Fedpol	Federal Office of Police	910
GS-FDJP	General Secretariat	126
ISC FDJP	Information Service Center FDJP	367
SEM	State Secretariat for Migration	799

BWO	BA für Wohnungswesen	35
GS-EAER	General Secretariat	82
ISCeco	Information Service Center	115
Innosuisse	Swiss Innovation Agency (formerly CTI)	316
PUE	Preisüberwachung	
SERI	State Secretariat for Education, Research, and Innovation	813
SECO	State Secretariat for Economic Affairs	
SAS	Swiss Accreditation Service	Not available
ZIVI	Vollzugsstelle für den Zivildienst	130
ETH Domain	ETH Domain	Not available

FC Federal Chancellery 223		
FC	Federal Chancellery	223
FDPIC	Federal Data Protection and Information Commissioner	

Others 482		
OAG	Office of the Attorney General	243
PS	Parliamentary Services	239

Table 11: Full-time equivalents in the RUMBA programme

8.5. Further information

Literature

The website www.rumba.admin.ch contains all the environmental reports of the civil federal administration, the environmental reports of RUMBA units up to 2016 and additional information about the RUMBA programme.

For further information please contact

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8.8. Abbreviations

FOCP	Federal Office for Civil Protection
FOEN	Federal Office for the Environment
OFCOM	Federal Office of Communications
BASPO	Bundesamt für Sport
BBL	Bundesamt für Bauten und Logistik
FC	Federal Chancellery
CH ₄	methane
CO ₂	carbon dioxide
COP21	United Nations Framework Convention on Climate Change, 21 st Conference of the Parties
SDC	Swiss Agency for Development and Cooperation
FDFA	Federal Department of Foreign Affairs
FDHA	Federal Department of Home Affairs
FDF	Federal Department of Finance
FDJP	Federal Department of Justice and Police
FCA	Federal Customs Administration
ETH	Federal Institutes of Technology
CFCs	chlorofluorocarbons
FTE	full-time equivalents
GS-FDHA	General secretariat of the FDHA
GS-DDPS	General secretariat of the DDPS
CGS	Conference of General Secretaries
ISC FDJP	Information Service Center of the FDJP
IT	information technology
KBOB	Koordinationskonferenz der Bau- und Liegenschaftsorgane der öffentlichen Bauherren
kg	kilogramme
km	kilometre
kWh	kilowatt-hour
m ²	square metre
Mill.	million(s)
MJ	megajoule
N ₂ O	Laughing gas
NSMM (NFB)	New State Management Model
NMVOC	Non-methane volatile organic compounds
NO _x	nitrogen oxides

Pkm	passenger-kilometre
RUMBA	Resource and environmental management of the civil federal administration
RUMS DDPS	Planning and environmental management system of the DDPS
SBB	Swiss Federal Railways
SECO	State Secretariat for Economic Affairs
SEM	State Secretariat for Migration
SIG	Services Industriels de Genève
SSD	solid-state drive
SUVA	Swiss National Accident Insurance Fund
t	tonne
GHG	greenhouse gas
EIP	environmental impact points
DETEC	Federal Department of the Environment, Transport, Energy and Communication
ERCE	Exemplary Role of the Confederation in Energy
DDPS	Federal Department of Defence, Civil Protection and Sport
EAER	Federal Department of Economic Affairs, Education and Research
CCO	Central Compensation Office