

# 2022



11

Mobility and  
transport

Neuchâtel 2023

## Swiss civil aviation 2022



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# 1 Aviation infrastructure

## Civil aerodromes: overview 2022

T1

	Foundation Year	Longest runway Metres	Paved runways (concrete/ asphalt) Number	Instrument Flight Rules (IFR) Procedures (yes/no)
<b>Total airports and airfields with paved runways</b>			<b>33</b>	
Total national airports			6	
Zurich	1948	3 700	3	yes
Geneva	1922	3 900	1	yes
Basel-Mulhouse	1946	3 900	2	yes
Total regional airports			11	
Bern-Belp	1929	1 730	1	yes
Lugano-Agno	1947	1 415	1	yes
Sion	1935	2 000	1	yes
St.Gallen-Altenrhein	1926	1 455	1	yes
Birrfeld	1937	718	1	no
Bressaucourt	2011	800	1	no
Écuvillens	1953	800	1	no
Grenchen	1931	1 000	1	yes
La Chaux-de-Fonds- Les Éplatures	1912	1 090	1	yes
Lausanne- La Blécherette	1910	875	1	no
Samedan	1937	1 840	1	no
Total airfields with paved runways			16	

Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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# Civil aerodromes, 2022



<sup>1</sup> including military aerodromes with civilian usage; without mountain landing sites

## 2 Aircraft

### Registered aircraft

**T.2.1**

	1990	2000	2010	2019	2021	2022
<b>Total aircraft</b>	<b>3 653</b>	<b>4 048</b>	<b>3 705</b>	<b>3 211</b>	<b>3 132</b>	<b>3 134</b>
Total aeroplanes	1 952	2 014	1 913	1 730	1 698	1 702
< 2 250 kg MTOM	...	1 572	1 413	1 324	1 296	1 304
2 250–5 700 kg MTOM	...	157	197	146	140	144
> 5 700 kg MTOM	...	285	303	260	262	254
Helicopters	199	254	327	345	348	354
Gliders	1 035	1 024	824	579	540	524
Powered gliders	131	246	251	241	237	238
Airships	1	6	9	8	8	7
Free balloons	335	504	381	308	301	309

MTOM = Maximum Take Off Mass

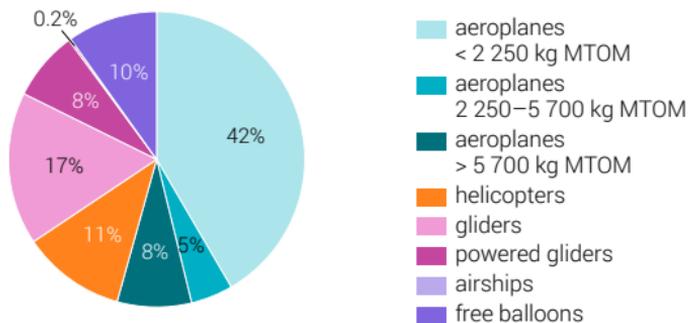
Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## Breakdown of registered aircraft, 2022

G2.1

Total: 3 134 aircraft



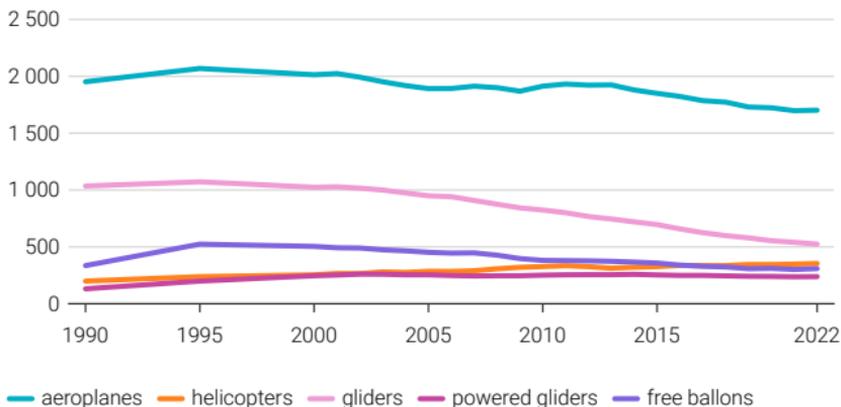
MTOM = Maximum Take Off Mass

Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## Registered aircraft

G2.2



Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## 3 Companies and employment

### Swiss aviation companies

T3.1

	1990	2000	2010	2019	2021	2022
<b>Total companies</b>	<b>340</b>	<b>420</b>	<b>322</b>	<b>252</b>	<b>249</b>	<b>258</b>
Companies with scheduled traffic	4	5	9	5	5	5
Other companies with commercial traffic	120	172	81	38	35	36
Maintenance companies	83	94	90	80	81	81
Flying schools	133	149	142	129	128	136

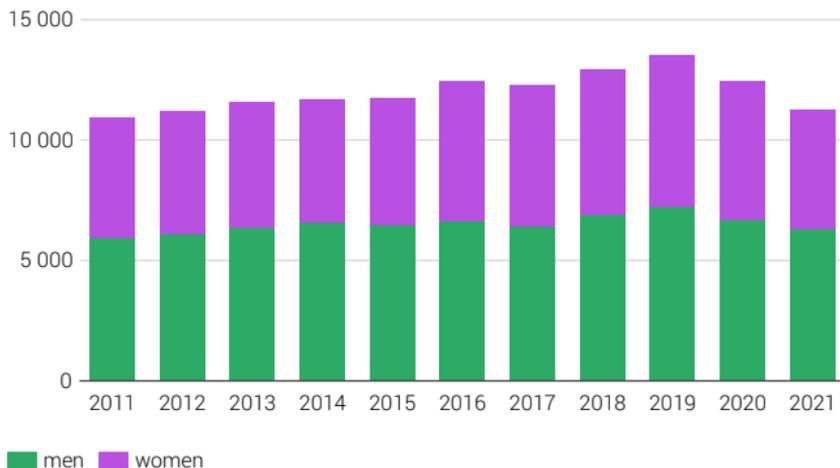
Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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### Jobs in aviation by gender

G3.1

#### Number of jobs



Source: FSO – Structural business statistics (STATENT)

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## Flight personnel

Licence holders

**T3.2**

	1990	2000	2010	2019	2021	2022
Private pilots	8 179	6 792	5 581	4 422	4 363	4 423
Commercial pilots	1 526	1 421	952	1 096	1 086	1 076
Airline transport pilots	886	2 223	2 266	2 508	2 406	2 439
Multi-Crew pilots	0	0	46	22	11	15
Helicopter pilots <sup>1</sup>	779	1 036	1 168	1 072	1 126	1 167
Glider pilots	3 188	3 145	2 617	1 761	2 218	2 323
Free balloon pilots	360	449	340	211	195	200
Validations <sup>2</sup>	443	420	8	7	5	4
Flight engineers	217	14	2	0	0	0
Radio navigators	89	30	10	3	1	0

<sup>1</sup> including Air Transport Pilot Licence ATPL (H)

<sup>2</sup> recognition of foreign licences (Validation)

Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## 4 Aircraft movements

### Aircraft movements: scheduled and charter traffic

Takeoffs and landings

T4.1

	1990	2000	2010	2019	2021	2022
<b>Total airports</b>	<b>335 777</b>	<b>537 813</b>	<b>416 111</b>	<b>469 667</b>	<b>191 219</b>	<b>356 363r</b>
Total national airports	312 712	509 584	404 921	465 030	190 114	354 327
Zurich	172 471	291 044	227 815	243 115	96 253	179 556
Geneva	91 481	118 950	123 173	145 527	57 711	116 994
Basel-Mulhouse <sup>1</sup>	48 760	99 590	53 933	76 388	36 150	57 777
Total regional airports	23 065	28 229	11 190	4 637	1 105	2 036r
Bern-Belp	6 677	12 489	3 486	326	239	514
Lugano-Agno	16 304	12 017	5 479	2 107	65	61
Sion	84	530	92	129	182	367
St.Gallen-Altenrhein	0	3 193	2 133	2 075	619	1 094r

<sup>1</sup> Swiss and French traffic

r rectified

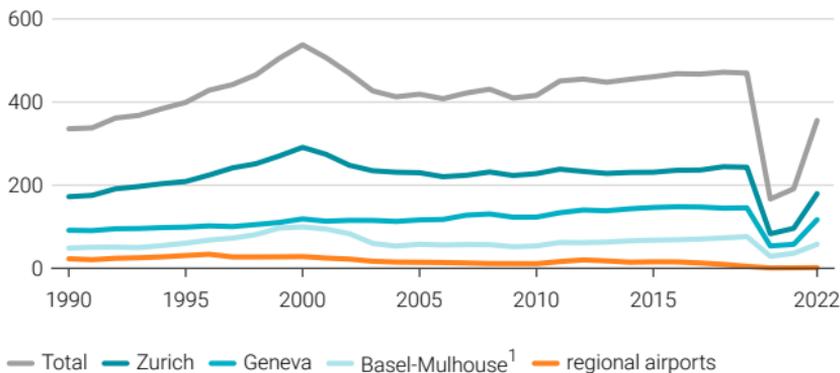
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Aircraft movements: scheduled and charter traffic

G4.1

### Thousand takeoffs and landings



<sup>1</sup> Swiss and French traffic

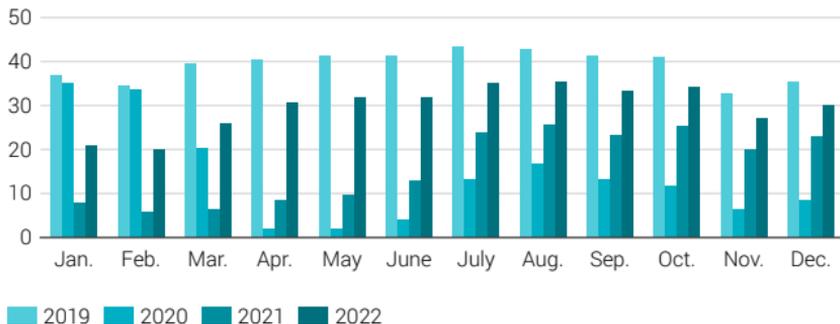
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Aircraft movements by month, 2019–2022: scheduled and charter traffic

G4.2

### Thousand takeoffs and landings



Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Total aircraft movements in civil aviation, 2022

Takeoffs and landings, including general aviation

**T4.2**

	Commercial flights		Non commercial flights	Total
	Aeroplane <sup>2</sup>	Helicopter		
<b>Total airports and airfields</b>	<b>435 556r</b>	<b>123 214</b>	<b>785 627r</b>	<b>1 344 397</b>
Total national airports	407 708	5 726	50 059	463 493
Zurich	201 906	455	14 228	216 589
Geneva	144 365	2 563	16 239	163 167
Basel-Mulhouse <sup>1</sup>	61 437	2 708	19 592	83 737
Total regional airports	23 241r	26 578	304 424r	354 243
Bern-Belp	3 878	4 576	43 618	52 072
Lugano-Agno	2 291	495	16 514	19 300
Sion	6 302	11 277	27 728	45 307
St.Gallen-Altenrhein	4 628r	54	22 404r	27 086
Birrfield	726	2 779	52 881	56 386
Bressaucourt	10	6	6 236	6 252
Écuvillens	0	0	22 725	22 725
Grenchen	105	134	58 591	58 830
La Chaux-de-Fonds- Les Éplatures	1 362	204	7 405	8 971
Lausanne- La Blécherette	887	1 778	36 823	39 488
Samedan	3 052	5 275	9 499	17 826
Total airfields	4 607	90 910	431 144	526 661

<sup>1</sup> Swiss and French traffic

<sup>2</sup> powered planes (without powered glider)

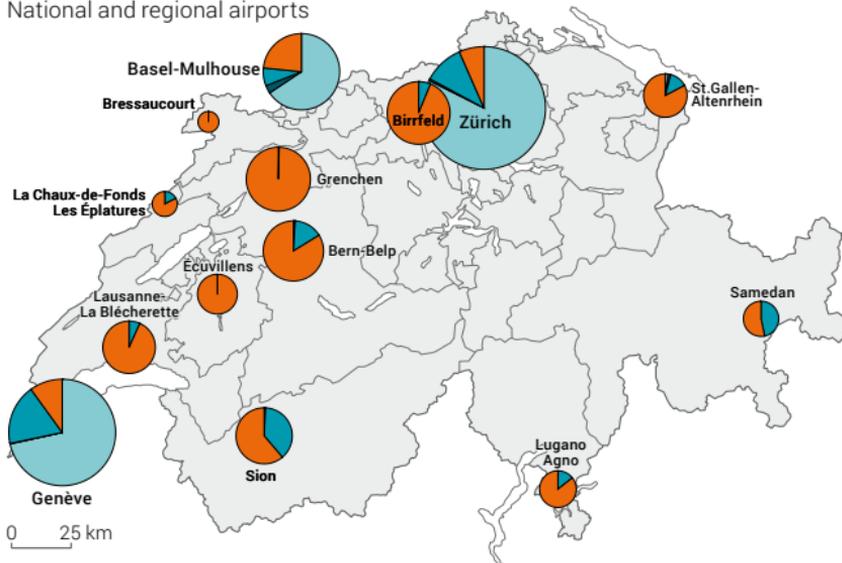
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Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

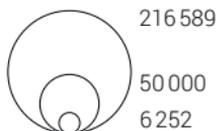
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## Aircraft movements in civil aviation, 2022

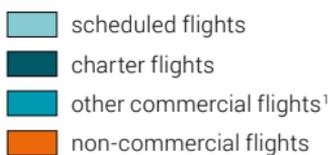
### National and regional airports



### Number of takeoffs and landings



### Type of traffic



<sup>1</sup> excluding commercial pleasure flights

## 5 Passengers

### Air passengers: scheduled and charter traffic

Passengers<sup>1</sup> arriving and departing

**T5.1**

	1990	2000	2010
<b>Total airports</b>	<b>19 944 463</b>	<b>34 426 801</b>	<b>39 009 046</b>
Zurich	12 278 088	22 450 494	22 854 358
Geneva	5 488 703	7 677 763	11 748 972
Basel-Mulhouse <sup>2</sup>	1 776 784	3 699 194	4 087 931
Bern-Belp	88 584	205 314	85 981
Lugano-Agno	310 240	286 507	159 497
Sion	2 064	8 760	3 912
St.Gallen-Altenrhein	0	98 769	68 395
	2019	2021	2022
<b>Total airports</b>	<b>58 561 919</b>	<b>19 667 667</b>	<b>43 595 838r</b>
Zurich	31 478 748	10 189 371	22 512 400
Geneva	17 826 513	5 830 770	13 958 454
Basel-Mulhouse <sup>2</sup>	9 068 206	3 610 270	7 034 591
Bern-Belp	22 233	11 236	35 230
Lugano-Agno	56 201	647	588
Sion	2 381	903	4 180
St.Gallen-Altenrhein	107 637	24 470	50 395r

<sup>1</sup> local and transfer passengers

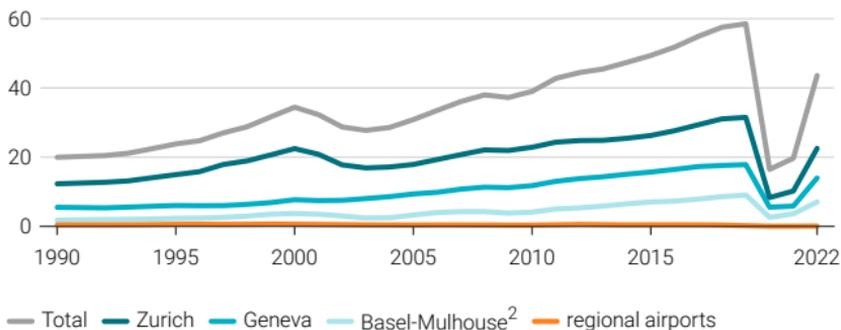
<sup>2</sup> Swiss and French traffic

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## Air passengers: scheduled and charter traffic

G5.1

### Million passengers<sup>1</sup> arriving and departing



<sup>1</sup> local and transfer passengers

<sup>2</sup> Swiss and French traffic

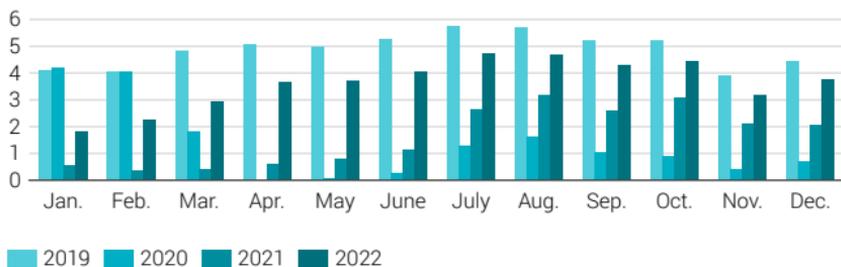
Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Air passengers by month, 2019–2022: scheduled and charter traffic

G5.2

### Million passengers<sup>1</sup> arriving and departing



<sup>1</sup> local and transfer passengers

Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Air passengers by continent of final destination, 2022

Departing local passengers in scheduled and charter traffic

**T5.2**

	Europe	Africa	Asia	Oceania
<b>Total airports</b>	<b>15 142 432</b>	<b>770 832</b>	<b>1 262 433</b>	<b>70 207</b>
Zurich	5 968 614	309 540	834 462	61 014
Geneva	5 738 890	364 897	407 463	9 193
Basel-Mulhouse <sup>1</sup>	3 401 950	96 388	20 508	0
Bern-Belp	17 744	0	0	0
Lugano-Agno	298	0	0	0
Sion	2 107	0	0	0
St.Gallen-Altenrhein	12 829	7	0	0

	North America	Central America	South America	Total all continents
<b>Total airports</b>	<b>1 055 701</b>	<b>137 892</b>	<b>213 087</b>	<b>18 652 584</b>
Zurich	749 249	106 278	158 690	8 187 847
Geneva	302 972	31 614	54 397	6 909 426
Basel-Mulhouse <sup>1</sup>	3 480	0	0	3 522 326
Bern-Belp	0	0	0	17 744
Lugano-Agno	0	0	0	298
Sion	0	0	0	2 107
St.Gallen-Altenrhein	0	0	0	12 836

<sup>1</sup> Swiss and French traffic

Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Air passengers by final destination, 2022

Departing local passengers from Swiss airports  
in scheduled and charter traffic

G5.3

Total 18 652 584 passengers



Source: FSO, FOCA – Aviation, scheduled and charter traffic (AVIA\_LC)

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## Transport performance by airport

Incoming and outgoing scheduled and charter traffic

**T5.3**

	Scheduled traffic: Passenger-km performed, in millions			Charter traffic: Passenger-km performed, in millions		
	2019	2021	2022	2019	2021	2022
<b>Total</b>	<b>111 475</b>	<b>32 311</b>	<b>78 977r</b>	<b>940</b>	<b>437</b>	<b>745r</b>
Zurich	79 743	20 970	53 475r	379	127	237
Geneva	22 316	7 259	17 778	125	7	41
Basel-Mulhouse <sup>1</sup>	9 335	4 059	7 668	420	292	433
Bern-Belp	7	4	44	15	10	8
Lugano-Agno	5	0	0	0	0	0
Sion	1	0	0	1	0	3
St.Gallen-Altenrhein	68	19	13	0	0	23r

<sup>1</sup> Swiss and French traffic

r rectified

Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## Transport performance and seat load factor by continent

Incoming and outgoing scheduled and charter traffic

**T5.4**

	Passenger-km performed, in millions			Seat load factor		
	2019	2021	2022	2019	2021	2022
<b>Total</b>	<b>112 415</b>	<b>32 748</b>	<b>79 723r</b>	<b>81%</b>	<b>59%</b>	<b>78%</b>
Europe	45 231	18 772	36 874r	81%	69%	79%
Africa	6 185	2 054	4 877	77%	58%	77%
Asia	32 648	4 653	16 876	78%	37%	75%
Oceania <sup>1</sup>	0	0	0	*	*	*
North America	23 215	5 123	17 428	83%	55%	78%
Central America	1 877	788	1 400	89%	73%	86%
South America	3 259	1 358	2 267	89%	63%	95%

<sup>1</sup> In 2019, 2021 and in 2022 no direct flights from/to Switzerland

\* not indicated because data was not applicable

r rectified

Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## 6 Energy consumption and emissions

### Fuel consumption and main greenhouse gas and pollutant emissions from civil aviation

Including general aviation

T 6.1

	2000	2010	2019	2021	2022
<b>Fuel consumption, in million tonnes</b>					
filled up in Switzerland	1.54	1.39	1.85	0.76	1.35
consumed in the Swiss airspace	0.51	0.58	0.62	0.27	0.49
<b>Greenhouse gas emissions, in million tonnes<sup>2</sup></b>					
Carbon dioxide (CO <sub>2</sub> ) <sup>1</sup>	4.85	4.38	5.81	2.38	4.25
<b>Pollutant emissions, in tonnes<sup>2</sup></b>					
Nitrogen oxides (NO <sub>x</sub> )	18 470	17 635	28 368	13 551	23 777
of which impacting the climate <sup>3</sup>	...	...	...	9 997	17 521
Sulphur dioxide (SO <sub>2</sub> )	1 540	1 386	1 847	756	1 353
Volatile organic compounds (VOC)	905	734	810	288	443
<b>Particulate emissions<sup>2</sup></b>					
Particulate matter (PM), in tonnes	...	...	44	36	57
Soot particles impacting the climate <sup>3</sup> , number	...	...	...	5,1*10 <sup>23</sup>	8,1*10 <sup>23</sup>

<sup>1</sup> fossil CO<sub>2</sub>, i. e. without CO<sub>2</sub> emissions from climate-neutral fuels

<sup>2</sup> International and domestic flights. The calculation is based on the fuel quantity actually filled up in Switzerland (sales principle).

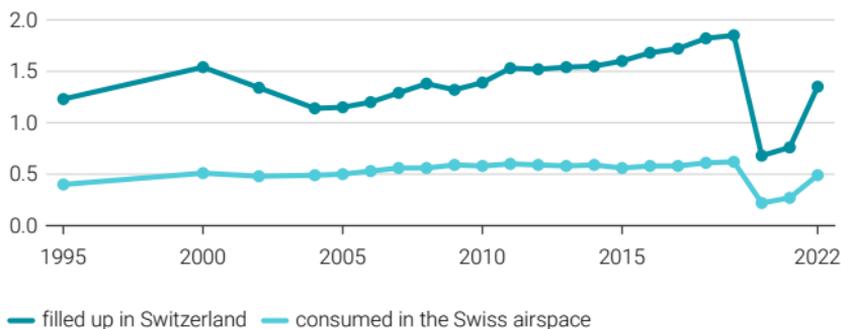
<sup>3</sup> emissions from a flight altitude higher than 8000 m above sea level

## Fuel consumption of civil aviation

Including general aviation

G6.1

Million tonnes



Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

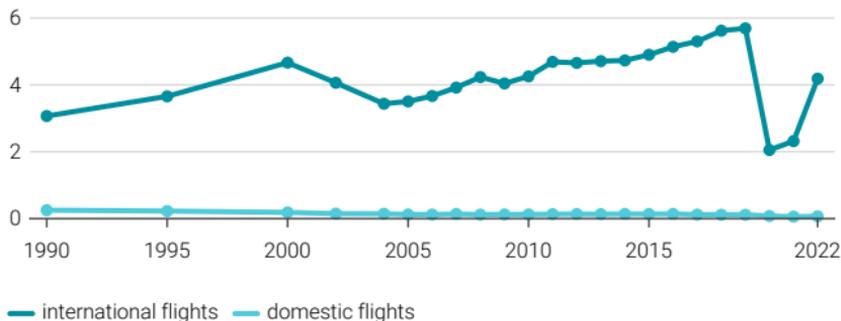
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## CO<sub>2</sub> emissions of civil aviation

Including general aviation

G6.2

Million tonnes



Source: FSO, FOCA – Civil aviation statistics (AVIA\_ZL)

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## 7 Accidents

### Accidents and serious incidents<sup>1</sup> of Swiss registered aircraft

At home and abroad

T7.1

	2000	2010	2019	2021	2022
<b>Total</b>	<b>80</b>	<b>45</b>	<b>56</b>	<b>58</b>	<b>28</b>

<sup>1</sup> Serious incidents are events that have nearly resulted in an aviation accident such as the unintentional convergence of two aircraft with a high risk of collision (Airprox).

Source: STSB – Aviation accident statistics

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### Fatalities in Swiss registered aircraft

At home and abroad

T7.2

	2000	2010	2019	2021	2022
<b>Total</b>	<b>51</b>	<b>8</b>	<b>5</b>	<b>8</b>	<b>3</b>
Total aeroplanes	36	5	4	8	1
< 2 250 kg MTOM	4	5	4	8	1
2 250–5 700 kg MTOM	1	0	0	0	0
> 5 700 kg MTOM	31	0	0	0	0
Helicopters	12	0	1	0	1
Powered gliders and gliders	3	3	0	0	1
Free balloons and airships	0	0	0	0	0

MTOM = Maximum Take Off Mass

Source: STSB – Aviation accident statistics

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## Severely injured persons<sup>1</sup> by Swiss registered aircraft

At home and abroad

T7.3

	2000	2010	2019	2021	2022
<b>Total</b>	<b>23</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>4</b>
Total aeroplanes	18	3	2	3	1
< 2 250 kg MTOM	5	1	2	3	1
2 250–5 700 kg MTOM	0	2	0	0	0
> 5 700 kg MTOM	13	0	0	0	0
Helicopters	3	4	2	0	3
Powered gliders and gliders	2	0	1	0	0
Free balloons and airships	0	0	0	0	0

<sup>1</sup> Severely injured persons whose treatment requires a hospital stay of more than 48 hours.  
MTOM = Maximum Take Off Mass

Source: STSB – Aviation accident statistics

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The information in this publication contributes to the measurement of sustainable development goal (SDG) **no. 9 “Industry, innovation and infrastructure”** of the UN’s 2030 Agenda. In Switzerland, the MONET 2030 indicator system is used to track the implementation of these goals.



## The MONET 2030 indicator system

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