

MXGP
OF SWITZERLAND

presented by **ibss**



CO₂-Bilanz
MXGP OF SWITZERLAND

August 2017

Expectations

Racing: Gas mileage: 15l / 100 km, using conventional gasoline

Expectations

Teams' - Tour: One team consists of 12 persons who will travel from Belgium to Switzerland by bus. After the race, the following stop and final destination is in the Netherlands.
Gasoline consumption bus ~ 30l / 100km

Guests' Tour: 30000 spectators will view the event over the entire weekend
25,000 spectators will view both days of the event
5000 spectators will view one day, separately

90% travel by car
10% travel by public transport

50% travel from Switzerland (of which 40% travel by public transport)
40% travel from Germany and Austria (20% each)
10% travel from the rest of Europe

Expected itinerary:

average travel distance from Switzerland: 80 km

average travel distance from Germany*: 550 km

Average travel distance from Austria*: 500 km

* from the middle of the country to Frauenfeld

Rest of the average travel distance: 1000 km

Spectators who travel by public transport will commute (no overnight stays)

The emissions caused by spectators arriving by car are being calculated assuming that they drive a car with a gasoline engine with a consumption of 7 l / 100 km in each vehicle

2.5 guests per vehicle

MXGP OF SWITZERLAND

Catering: On both days, each spectator of the event will be offered 2 meals. 80% of these meals include meat and 20% are genuinely vegetarian

beverages: each guest receives two 0.5 l of PET drinks

1 liter of beverage corresponds to a CO₂ emission of 0.5 kg CO₂ equivalents on average

Accumulated waste per visitor each day: 0.75 kg

CO₂ emissions for the disposal of 1 kg waste: 1.5 kg of CO₂ equivalents

Overnight Stays: Overnight stay in a 4 star -hotel plus breakfast results in a CO₂-equivalent emission of 20 kg

MXGP Racing

Total distance:

1 lap is 1560 m = 1.56 km

	Driven Laps	Distance
Free practice	307	478.92 km
Time training	353	550.68 km
Qualification	457	712.92 km
Warm-Up	294	458.64 km
Race 1	629	981.24 km
Race 2	631	984.36 km
Total	2671	4166.8 km

Emissions:

Gasoline consumption [l]

Free practice	71.84	181.03 kg CO2-eq
Time training	82.60	208.16 kg CO2-eq
Qualification	106.94	269.48 kg CO2-eq
Warm-Up	68.80	173.37 kg CO2-eq
Race 1	147.19	370.91 kg CO2-eq
Race 2	147.65	372.09 kg CO2-eq

Total 625.01 **1575.04 kg CO2-eq**

Anticipated gas mileage under race conditions:

15 l / 100 km

MXGP Team-Tour

18 Teams à 12 persons~ 216 persons altogether

Tour by bus (~30 l / 100 km)

Distance:

Lommel - Gachnang: 675 km

Gachnang - Assen 850 km

Total: 1525 km

Combined (all teams altogether) 27450 km

Gas mileage buses: 8235 l

Emissions:

Distance [km] Emissions [kg CO₂-eq]

Teams **27450** **69174**

Tour Guests

30000 Spectators

Anticipated Route:

Switzerland:	average arrival (distance):	80 km
Germany:	average arrival (distance):*	500 km
Austria:	average arrival (distance):*	500 km
*from the middle of the country to Frauenfeld		
Rest of Europe:	average arrival (distance):	1000 km

Number of Spectators

Switzerland:	15'000
Germany:	6000
Rest of Europe:	3000

Distance:

Gas Mileage:

Rate of Consumption: 7 l/ 100 km

Emissions:

1l gasoline equals to: 2.52 kg CO₂-eq / l

With Car:

Switzerland:	9000
Austria:	6000
Germany:	6000
Rest of Europe:	3000

With Car (round trip):

Switzerland:	576000 km
Austria:	2400000 km
Germany:	2400000 km
Rest of Europe:	2400000 km
Total:	7776000 km

With Car:

Switzerland:	40320 l
Austria:	168000 l
Germany:	168000 l
Rest of Europe:	168000 l
Total:	544320 l

With Car:

Switzerland:	101606.4 kg CO ₂ -eq
Austria:	423360 kg CO ₂ -eq
Germany:	423360 kg CO ₂ -eq
Rest of Europe:	423360 kg CO ₂ -eq
Total:	1371686.4 kg CO₂-eq

By Public

Transport:

Switzerland:	6000
--------------	------

1920000 km

8409 kg CO₂-eq

Total: **1380095 kg CO₂-eq**

equals **35 kg CO₂-eq / person**

Overnight Stays

100% of the foreign and 60% of the Swiss guests stay at a 4-star hotel including breakfast

This equals 32000 overnight stays

	Emissionen:	
Total:	640000 kg CO ₂ -eq	
equals:	16 kg CO ₂ -eq / persons	

Catering:

Food

Amount Meals:	Emissions:
160000	
128000 with meat	218880 kgCO ₂ -eq
32000 without meat	37120 kg CO ₂ -eq
total:	256000 kgCO ₂ -eq
	6.4 kg CO ₂ -eq / person

Beverages:

Amount Beverages:	Emissions:
160000	
PET-production	6160 kg CO ₂ -eq
Beverage Prod.-	40000 kgCO ₂ -eq
Total:	46160 kg CO ₂ -eq
Equals	1.154 kg CO ₂ -eq / person

Food and Beverages combined:	Emissions
	302160 kgCO ₂ -eq
	7.554 kg CO ₂ -eq / person

Amount:

Accumulated Waste	Emissions:
60000 kg	
total:	90000 kgCO ₂ -eq
equals	2.25 kg CO ₂ -eq / Person

Flyers:

Amount: 5000

Emission: 100 kg CO₂-eq

Posters:

Amount: 20 kg CO₂-eq

Category of Emissions	Emissions [kg CO ₂ -eq]	Emission [%]
Tour Teams	69174	2.79
Tour Guests	1380095	55.58
-Car	1371686	
-Public Transport	8409	
Race	1575	0.06
Overnight Stays	640000	25.77
Catering	302160	12.17
Waste	90000	3.62
Flyers	100	0.00
Posters	20	0.00
Total	2483124	100.00

Tour Teams	69174
Tour Guests	1380095
Race	1575
Overnight Stays	640000
Catering	302160
Waste	90000
Flyer	100
Posters	20

