



Variablen variables
Tatsächlich actual

CO2e metrics
Trees + Euros

Transport CO2e Emissions Calculation

Variablen

2010-2019

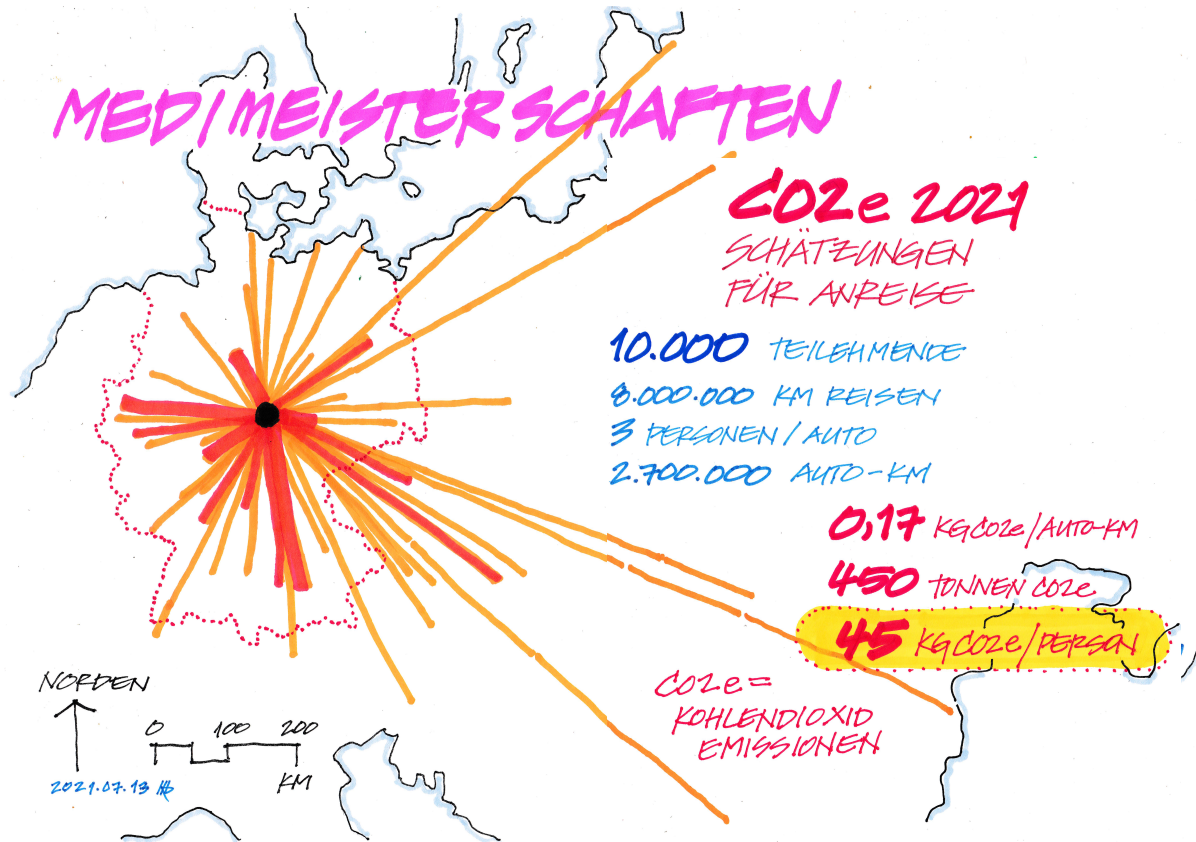
2021

Gesamt

Calculations

Variables

EN





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 Tatsächlich actual

CO2e metrics
 Trees + Euros

Transport CO2e Emissions Calculation

Variablen

2010-2019

2021

Gesamt

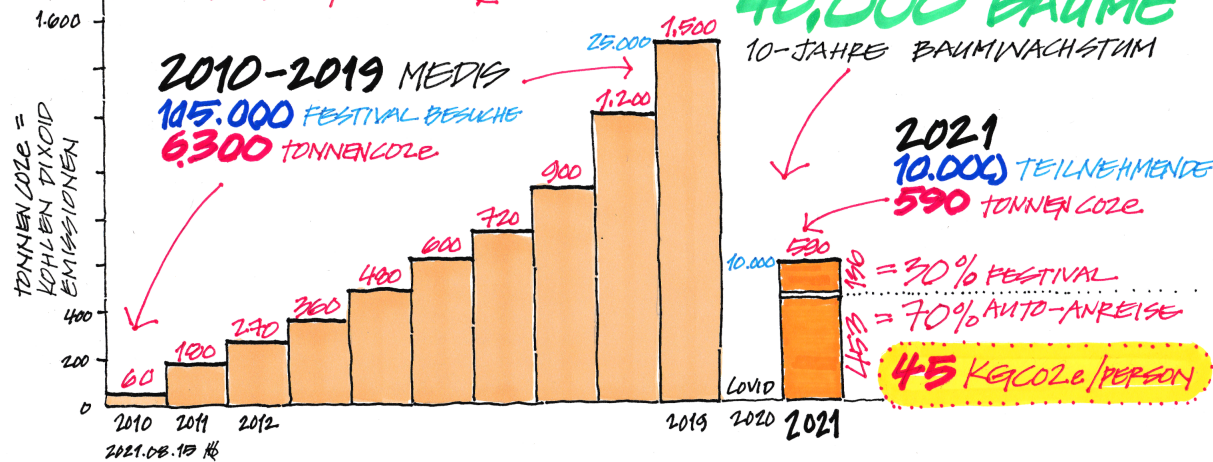
Calculations

Variables

EN

MEDIMEISTERSCHAFTEN

CO2e =
 CO2 EMISSIONEN
 SCHÄTZUNG





	Variablen variables		CO2e metrics
	Tatsächlich actual		Trees + Euros

Transport CO2e Emissions Calculation

Variablen	2010-2019	2021	Gesamt	Calculations
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Variables	EN
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CO2 Emissionen Schatzen

Participants - All 2010-2021	104,500	10,000	114,500	Person
Durchschnittlich Entfernung - person	800	800	800	km/person
Entfernung - person	83,600,000	8,000,000	91,600,000	km
Fahrgemeinschaften	3.0	3.0	3.0	person/auto
Entfernung - auto	27,866,667	2,666,667	30,533,333	km
CO2e Emissionen Durchschnittlich - auto	0.17	0.17	0.17	kg CO2e/km
CO2e Emissionen Zwischensumme - auto	4,737,333	453,333	5,190,667	kg CO2e
CO2e Emissionen Zwischensumme - operations 30% +	1,421,200	136,000	1,557,200	kg CO2e
CO2e Emissionen Gestamt	6,158,533	589,333	6,747,867	kg CO2e

CO2 Emissions Estimate

Participants - All 2010-2021
Average distance - person
Distance - people
Carpooling
Distance - autos
CO2e emissions average - auto
CO2e emissions subtotal - auto
CO2e emissions subtotal - operations 30% +
CO2e emissions total



	Variablen variables		CO2e metrics
	Tatsächlich actual		Trees + Euros

Transport CO2e Emissions Calculation

Variablen	2010-2019	2021	Gesamt	Calculations
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Variables	EN
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Kompensation Alle CO2e - 2010-2021

Offset All CO2e - 2010-2021

CO2e Emissionen - Alle CO2e	6,270	589	6,859	Tonne CO2e
CO2e Kompensation Stuckpreis	11	11	11	Euro/Tonne CO2e
Kompensation -- Alle CO2e	68,970	6,483	75,453	Euro
Donation per 2021 participant - Alle CO2e	7.5	7.5	7.5	Euro/Person
CO2e Kompensation Investierung - Baume	6	6	6	Trees/Tonne CO2e
Baume -- Alle CO2e	37,620	3,536	41,156	Baume
Baume per 2021 participant - Alle CO2e	4.1	4.1	4.1	Baume/Person

CO2 Emissions - All CO2e
CO2e Offset unit price
Offset - all CO2e
Donation per 2021 participant - All CO2e
CO2e Offset investment - trees
Trees - all CO2e
Trees per 2021 participant - All CO2e

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Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

Variablen variables	CO2e metrics
Tatsächlich actual	Trees + Euros

Variablen	Berechnung	Calculations
	km	Person

Schatzen 2: Tatsächlich daten - 2021 Ursprunge

Objectives:

More precise quantities based on 2021 ticket sales-to-date

Auto - person

Schatzen reisen

Ursprunge

München	444	672	298,368	person-km
Heidelberg	325	444	144,300	person-km
Erlangen	257	423	108,711	person-km
Gießen	192	417	80,064	person-km
Mainz	273	368	100,464	person-km
Düsseldorf	342	356	121,752	person-km
Göttingen	87	352	30,624	person-km
Köln	356	342	121,752	person-km
Münster	315	332	104,580	person-km
Jena	112	328	36,736	person-km
Ulm	447	327	146,169	person-km
Bonn	350	317	110,950	person-km
Berlin Charité	293	309	90,537	person-km
Würzburg	260	307	79,820	person-km
Marburg	215	305	65,575	person-km
Frankfurt	249	293	72,957	person-km
Wien	750	280	210,000	person-km
Mannheim	322	264	85,008	person-km
Aachen	422	261	110,142	person-km
Hamburg UKE	342	248	84,816	person-km
Hannover MHH	185	247	45,695	person-km
Regensburg	375	242	90,750	person-km
Tübingen	436	207	90,252	person-km
Bochum	295	203	59,885	person-km
Kiel	424	197	83,528	person-km
Leipzig	177	196	34,692	person-km
Freiburg	390	195	76,050	person-km
Rostock	505	186	93,930	person-km
Lübeck	390	180	70,200	person-km
Homburg	391	175	68,425	person-km
Essen	313	156	48,828	person-km
Hannover TiHo	183	152	27,816	person-km

Transport CO2e Emissions Calculation



Variables	EN	Anmerkungen
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Estimate 2: Actual data - 2021 Origins

Objectives:

More precise quantities based on 2021 ticket sales-to-date

Auto - person

Estimated trips

Origins

MediMeisterschaften 2021

Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

Variablen variables	CO2e metrics
Tatsächlich actual	Trees + Euros

Variablen	Berechnung		Calculations	
	km	Person		
Innsbruck	611	150	91,650	person-km
Greifswald	561	146	81,906	person-km
Wien SFU	747	142	106,074	person-km
Halle	134	128	17,152	person-km
Dresden	276	124	34,224	person-km
Keine Uni	42	117	4,914	person-km
Witten	290	111	32,190	person-km
Magdeburg	176	106	18,656	person-km
Graz	765	104	79,560	person-km
Brandenburg	271	87	23,577	person-km
Berlin FU	304	82	24,928	person-km
Riga	1519	78	118,482	person-km
Varna	2014	78	157,092	person-km
Nürnberg	276	63	17,388	person-km
Salzburg	250	58	14,500	person-km
Prag	418	45	18,810	person-km
Oldenburg	346	44	15,224	person-km
Krems DPU	673	40	26,920	person-km
Krems KLU	673	38	25,574	person-km
Cluj	1406	36	50,616	person-km
Stettin	479	35	16,765	person-km
Hamburg AMS	329	33	10,857	person-km
Breslau	536	33	17,688	person-km
Augsburg	419	27	11,313	person-km
Budapest	943	24	22,632	person-km
Pécs	1154	23	26,542	person-km
Groningen	118	23	2,714	person-km
Vilnius	1309	23	30,107	person-km
Kassel	113	19	2,147	person-km
Basel	565	18	10,170	person-km
Linz	603	10	6,030	person-km
Bratislava	746	8	5,968	person-km
Hamburg MSH	328	8	2,624	person-km
Sofia	1701	5	8,505	person-km
Maastricht	451	5	2,255	person-km
Wien Vet	742	3	2,226	person-km
FAU Erlangen/Nürnberg	280	1	280	person-km
Ljubljana	852	1	852	person-km
Košice	1043	1	1,043	person-km

Transport CO2e Emissions Calculation



Variables	EN	Anmerkungen
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Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

	Variablen variables		CO2e metrics
	Tatsächlich actual		Trees + Euros

Variablen	Berechnung		Calculations	
	km	Person		
AU Erlangen-Nürnberg	280	1	280	person-km
TU Dresden	274	1	274	person-km
Gesamt Person		11,360		person
Zwischensumme entfernung			4,134,085	km
Hin-und ruckfahrt			2	
Zwischensumme entfernung			8,268,170	person-km
			11,360	person
Durchschnittlich entfernung - person			728	km/person
Fahrgemeinschaften 2021			3.0	person/auto
Gesamt entfernung- auto			2,756,057	auto-km
CO2 Emissionen				
2021 Durchschnittlich auto			0.17	kg CO2e/km
2021 Schätzen - Gesamt emissionen			468,530	kg CO2e
Gesamt Auto-person Emissionen			469	Tonne CO2e
			11,360	Person
Durchschnittlich CO2e auto-person			0.0412	Tonne CO2e/ Person

Transport CO2e Emissions Calculation



Variables	EN	Anmerkungen
Total persons		
Subtotal distance		
Round trip		
Subtotal distance - person		
Average distance - person		
Carpooling - 2021		
Total distance -auto		
CO2 emissions		
2021 Average auto		0.14 to 0.17 = GDR range @
		2021.07.06 - https://www.atmosfair.de/
2021 Total emissions		
Total Auto-person emissions		
Average CO2e auto-person		

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Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

Variablen variables	CO2e metrics
Tatsächlich actual	Trees + Euros

Variablen	Berechnung	Person	Calculations
	km		

Schatzen 3: Gesamt Veranstaltung - 2021

Objectives:
Total auto + operations transport

Auto - person

Schatzen reisen

Ursprunge

Schatzen	400	10,000	4,000,000	person-km
Gesamt Person		10,000		person
Zwischensumme entfernung			4,000,000	km
Hin-und ruckfahrt			2	
Zwischensumme entfernung			8,000,000	person-km
Durchschnittlich entfernung - person			800	km/person
Fahrgemeinschaften 2021			3.0	person/auto
Gesamt entfernung - auto			2,666,667	auto-km

CO2 Emissionen

2021 Durchschnittlich auto

2021 Durchschnittlich auto			0.17	kg CO2e/km
2021 Schatzen - Gesamt emissionen			453,333	kg CO2e
Gesamt Auto-person Emissionen			453	Tonne CO2e
Durchschnittlich CO2e auto-person			0.0453	Tonne CO2e/ Person

Operations Transport

Allowance

Assume 30% more than Auto-person

Assume 30% more than Auto-person			30%	
Gesamt Operations Transport Emissionen			136	Tonne CO2e

Gesamt Veranstaltung Emissionen

			589	Tonne CO2e
			10,000	Person

Transport CO2e Emissions Calculation



Variables	EN
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Anmerkungen

Estimate 3: total event - 2021

Objectives:
Total auto + operations transport

Auto - person

Estimated trips

Origins

Estimate all auto origins

Total persons
Subtotal distance

Round trip
Subtotal distance - person

Average distance - person

Carpooling - 2021
Total distance -auto

CO2 emissions

2021 Average auto

2021 Average auto	
2021 Total emissions	

Total Auto-person emissions

Average CO2e auto-person

Operations Transport

Allowance

Assume 30% more than Auto-person

Assume 30% more than Auto-person	
Total Operations Transport Emissions	

Total Event Transport Emissions

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0.14 to 0.17 = GDR range @
2021.07.06 - <https://www.atmosfair.de/>

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Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

Variablen variables	CO2e metrics
Tatsächlich actual	Trees + Euros

Variablen	Berechnung	Person	Calculations
	km		
Durchschnittlich Emissionen			0.0589 Tonne CO2e/ Person
CO2 Kompensation 2021 Stückpreis			11 Euro/Tonne CO2e
		589	Tonne CO2e
Gesamt Kompensation		6,483	Euro
		10,000	Person
Donation per 2021 participant - 2021 CO2e		0.6	Euro/ Person
Durchschnittlich baume per tonne		6	baume/tCO2e
Baume		3,536	Baume

Transport CO2e Emissions Calculation



Variables	EN
Average emissions	
CO2 Offset 2021 unit price	
Total Offset cost	
Donation per 2021 participant - 2021 CO2e	
Average trees per tonne	
Trees	

Anmerkungen

assumes volume discount to from individual market rate = 23 Euro = GDR rate @ 2021.07.06 - <https://www.atmosfair.de/>

Note: 2021.06.14 - the current market price is low since there is a surplus of credits available to purchase. "Carbon offset prices are expected to increase tenfold by 2030." (GreenBiz.com)

MediMeisterschaften 2021

Transport CO2e Emissionen Berechnung

2021.08.16 - a0v9 - Version 9 FINAL

Variables	variables	CO2e metrics
Tatsächlich	actual	Trees + Euros

Variablen	Berechnung	Calculations
	km	Person

Schatzen 4: Historisch Kompensation

Objectives:

Could we offset all CO2e ever created by the event?

CO2 Transport Historisch

Historisch (Nein 2020 Veranstaltung)	Tonne CO2e/ Person	Person	Tonne CO2e
2010	0.0600	1,000	60
2011	0.0600	3,000	180
2012	0.0600	4,500	270
2013	0.0600	6,000	360
2014	0.0600	8,000	480
2015	0.0600	10,000	600
2016	0.0600	12,000	720
2017	0.0600	15,000	900
2018	0.0600	20,000	1,200
2019	0.0600	25,000	1,500
Gesamt Person		104,500	
Zwischensumme CO2e			6,270

CO2 Compensation

2021 Stückpreis

			11	Euro/Tonne CO2e
			6,270	Tonne CO2e
Gesamt Kompensation			68,970	Euro
			10,000	Person
Donation per 2021 participant - Historisch 2010-2019			6.9	Euro/ Person
Donation per 2021 participant - 2021 CO2e			0.6	Euro/ Person
Durchschnittlich baume per tonne			6	baume/tCO2e
Baume			37,620	Baume

Transport CO2e Emissions Calculation



Variables	EN
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Anmerkungen

Estimate 4: Historical Offset

Objectives:

Could we offset all CO2e ever created by the event?

CO2 Transport History

History (no 2020 event)

2019	
2018	
2017	
2016	
2015	
2014	
2013	
2012	
2011	
2010	
Total persons	
	Subtotal CO2e

CO2 Offset

2021 unit price

Total Offset cost
Donation per 2021 participant - Historical 2010-2019
Donation per 2021 participant - 2021 CO2e
Average trees per tonne
Trees

assumes volume discount to from individual market rate = 23 Euro = GDR rate @ 2021.07.06 - <https://www.atmosfair.de/>

Note: 2021.06.14 - the current market price is low since there is a surplus of credits available to purchase. "Carbon offset prices are expected to increase tenfold by 2030." (GreenBiz.com)