

THE CLIMATE CITY CUP

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Climathon

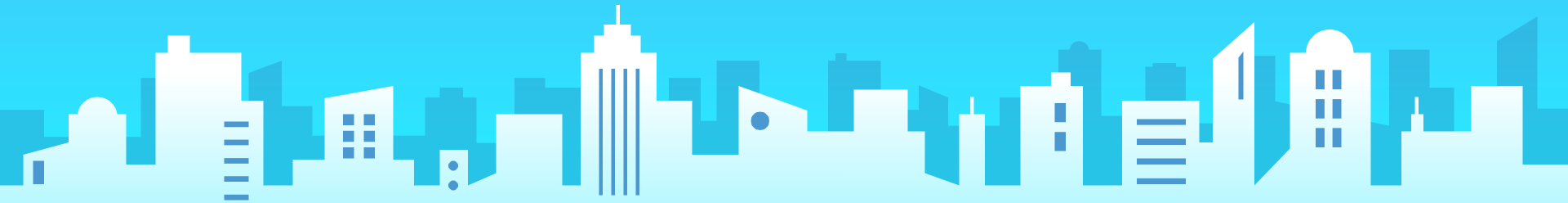
and



FuturICT 2.0

# Climate City Cup

*Let's win together !*



# Climate City Cup

- ✧ **friendly competition** based on **collaboration**
- ✧ **open source** approach
- ✧ fostering **collective intelligence**
- ✧ creating space for **knowledge sharing**
- ✧ building **bridges between** existing **communities** working on SD
- ✧ **empowering citizens**
- ✧ **raising awareness**



# First concept founders

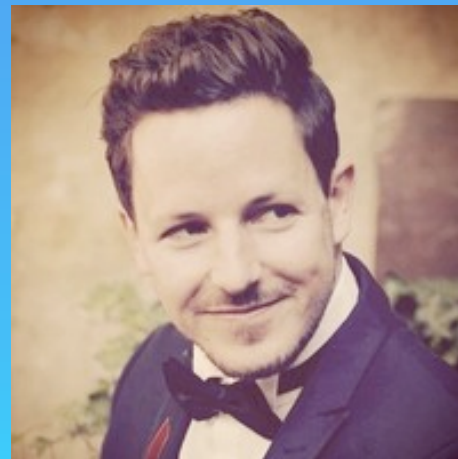


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**ETH** zürich

Department of Humanities, Social and Political Sciences

Computational Social Science



Stefan Klauser



**FuturICT 2.0**

# Who is behind the Climate City Cup?

Task Force committee  
composed of representatives from the following organisations

The logo for ETH zürich, featuring the text "ETH zürich" in a bold, black, sans-serif font.

# What's the problem ?

- ✧ **50% of people** lives **in cities** today (by 2030, 6 out of 10)
- ✧ **cities** of the size of Singapore **arise every few months**
- ✧ **75% of greenhouse gas emissions** come **from cities**
- ✧ **2.5 million deaths** caused by **pollution** (in 2015)
- ✧ **62 million tonnes of waste generated annually** within a country
- ✧ **commuting** creates **traffic congestions and pollutions**

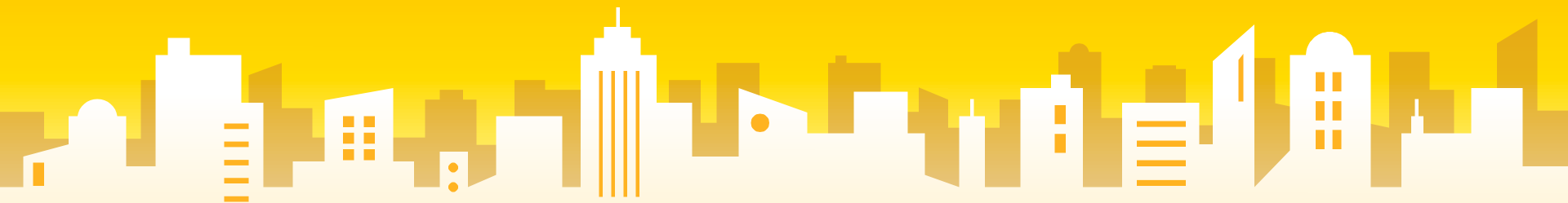
# 5 disciplines of the Climate City Cup

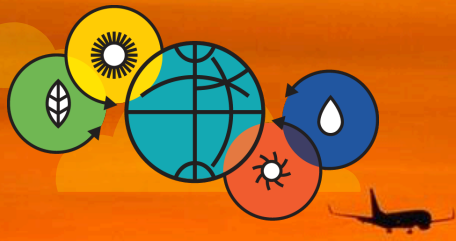


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- ✧ **Air quality** and measurements of pollutions (emissions)
- ✧ Increase of **flight compensations**
- ✧ **Mobility** and reporting on commuting practices (biking, public transportation...)
- ✧ **Circular economy** and reporting food waste assessment
- ✧ **Energy consumption** (focusing on electricity on the households' level)





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## Discipline 1:

# Emissions and measuring air quality



# How to measure air pollution?

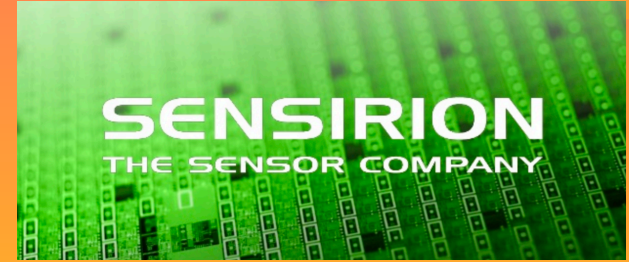
## Possible indicators

- ✧ *carbon monoxide*
- ✧ ***PM2.5***
- ✧ *PM10*
- ✧ *Nitrogen dioxide*
- ✧ *ground Ozone (O<sub>3</sub>)*
- ✧ *sulphur dioxide*





# Discipline of emissions - partners



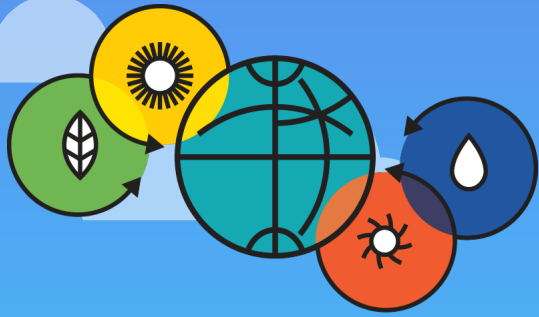
# Discipline of emissions - workshop



Connect Bluetooth Serial Settings

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169,,,,,30.25,40.29,101757.843750,169,169,1
170,,,,,30.26,40.24,101762.218750,163,163,1
171,,,,,30.27,40.33,101763.078125,163,163,1
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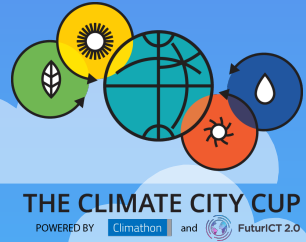
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Discipline 2:

**Mobility & commute**



# Mobility & commute



- ✧ **Individuals report on** how they did their **daily commuting**
- ✧ Two ways of submitting data: through **Strava API, directly connected to Mapunity** and through a **simple form** on Mapunity (daily reminder).
- ✧ Metrics: share of person/km with sustainable modes of transport, daily data.
- ✧ List of modes: **car, motorcycle, plane, helicopter, motorboat, public transportation, (e-)bike, walking / running, (e-)scooter, rowing, riding, ride-sharing, work from home.**



# Mobility & commute



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## Entry Survey

Who is your employer

Employer Postcode  
1018NC

Residence Postcode  
1018NC

Email  
sethya@mapunity.in

On which days do you work at Zuidas?

Monday	<input type="checkbox"/>
Tuesday	<input type="checkbox"/>
Wednesday	<input type="checkbox"/>
Thursday	<input type="checkbox"/>
Friday	<input type="checkbox"/>
Saturday	<input type="checkbox"/>
Sunday	<input type="checkbox"/>

Which type of transport do you use?

	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tuesday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wednesday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thursday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Yes, I agree with privacy terms and user terms

SAVE

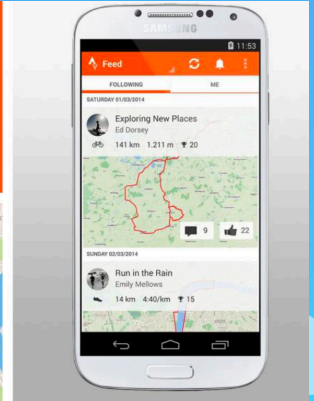
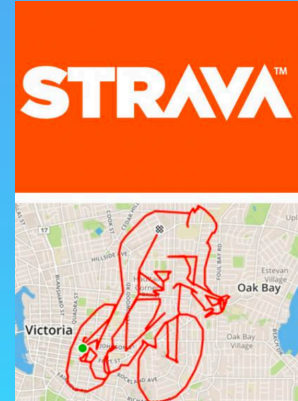
## Manual Tracking

Monday 06 AM - 10 AM (10, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monday 15 PM - 19 PM (10, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tuesday 06 AM - 10 AM (11, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tuesday 15 PM - 19 PM (11, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wednesday 06 AM - 10 AM (12, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wednesday 15 PM - 19 PM (12, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thursday 06 AM - 10 AM (13, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thursday 15 PM - 19 PM (13, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friday 06 AM - 10 AM (14, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friday 15 PM - 19 PM (14, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saturday 06 AM - 10 AM (15, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Saturday 15 PM - 19 PM (15, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunday 06 AM - 10 AM (16, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunday 15 PM - 19 PM (16, Jun 2019)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DONE!



<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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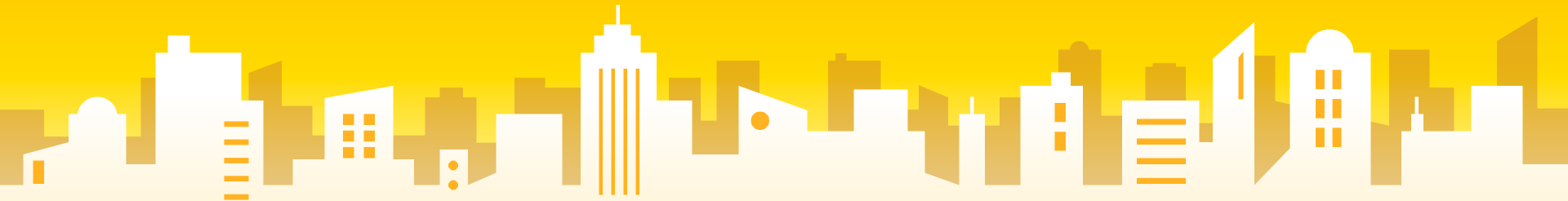


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Discipline 3:

Flight CO<sub>2</sub> compensation





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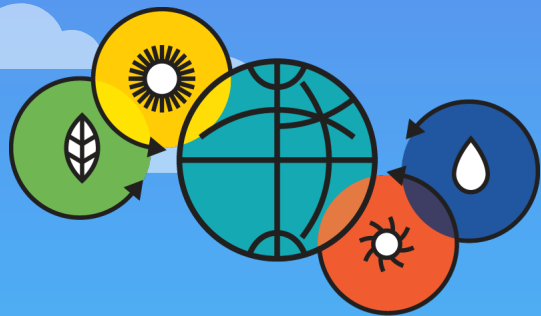
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# Flight CO<sub>2</sub> compensation

- MyClimate -



M10											
	A	B	C	D	E	F	G	H	I	J	K
1	ID	Date	From	To	Roundtrip	Passengers	Flight Class	Price in EUR	kg CO2	Client City	Client Country
2	1161672	2018-05-15	TPE, Taipei [Chiang Kai	HGH, Hangzhou [Ji	TRUE	1	economy	7.8	327.259309	Hong Kong	HK
3	1161671	2018-05-15	SIN, Singapore [Char	HKG, Hong Kong [C	TRUE	1	economy	24.32	1020.4567	Hong Kong	HK
4	1161670	2018-05-15	ZRH, Zurich [Zl_rich	HGH, Hangzhou [Ji	TRUE	1	business	156.88	6582.23825	Hong Kong	HK
5	1161669	2018-05-15	TLV, Tel Aviv [Ben G	HGH, Hangzhou [Ji	TRUE	1	business	135.9	5702.01729	Hong Kong	HK
6	1161668	2018-05-15	SZX, Zhenzhen (Sher	HGH, Hangzhou [Ji	TRUE	1	economy	11.32	474.820075	Hong Kong	HK
7	1161667	2018-05-15	PER, Perth, Western	HGH, Hangzhou [Ji	TRUE	1	business	118.57	4975.00165	Hong Kong	HK
8	1161666	2018-05-15	JNB, Johannesburg [	HGH, Hangzhou [Ji	TRUE	2	business	417.56	17519.8044	Hong Kong	HK
9	1161665	2018-05-15	HKG, Hong Kong [Ch	HGH, Hangzhou [Ji	TRUE	3	business	44.67	1874.20411	Hong Kong	HK
10	1161663	2018-05-15	HKG, Hong Kong [Ch	HGH, Hangzhou [Ji	TRUE	1	economy	11.34	475.988345	Hong Kong	HK
11	1161662	2018-05-15	BJS, Beijing [Metrop	HGH, Hangzhou [Ji	TRUE	4	economy	47.32	1985.51932	Hong Kong	HK
12	1161722	2018-05-15	BSL, Basel [Basel/Mu	JMK, Mikonos, Gre	TRUE	2	economy	35.24	1478.54152	Zl_rich	CH



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### Discipline 4:

## Energy consumption





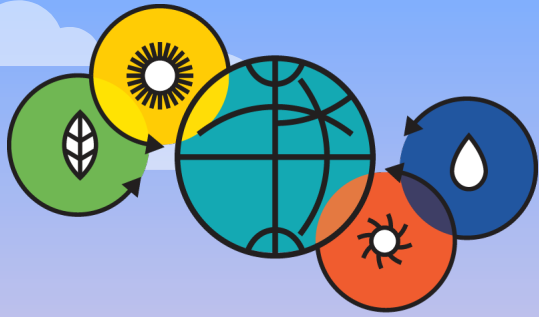
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# Energy consumption

- ✧ aiming at real-time on **energy consumption on a city level**
- ✧ **enhance the 2000 watts strategy**
- ✧ a lot of **controversy around smart-meters** and data
- ✧ **online form** to fill individually ?





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## Discipline 5:

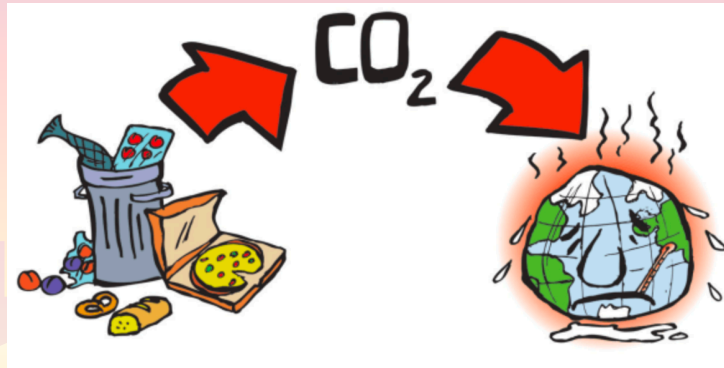
# Circularity and food waste management





# Food waste



- ✧ **reduce** or/and **measure** food waste ?
- ✧ a lot about prevention not much about assessment
- ✧ **how to measure the “re-use of food”**
- ✧ data from **local food waste communities**
- ✧ **households vs hospitality industry → self organisation**



# Food waste initiatives



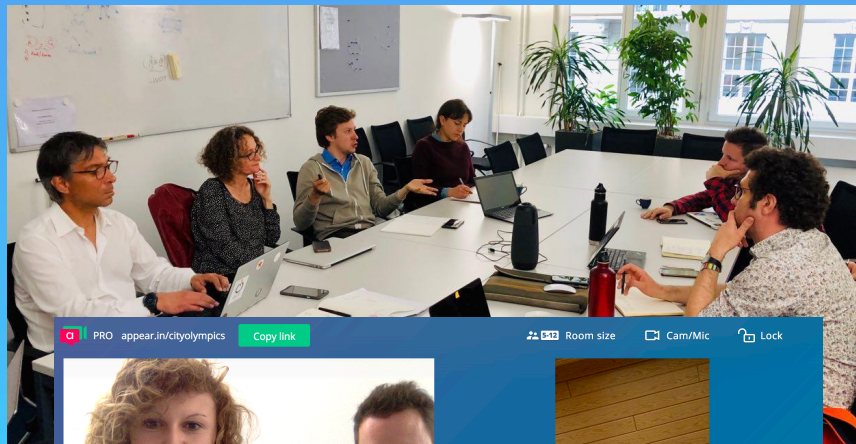
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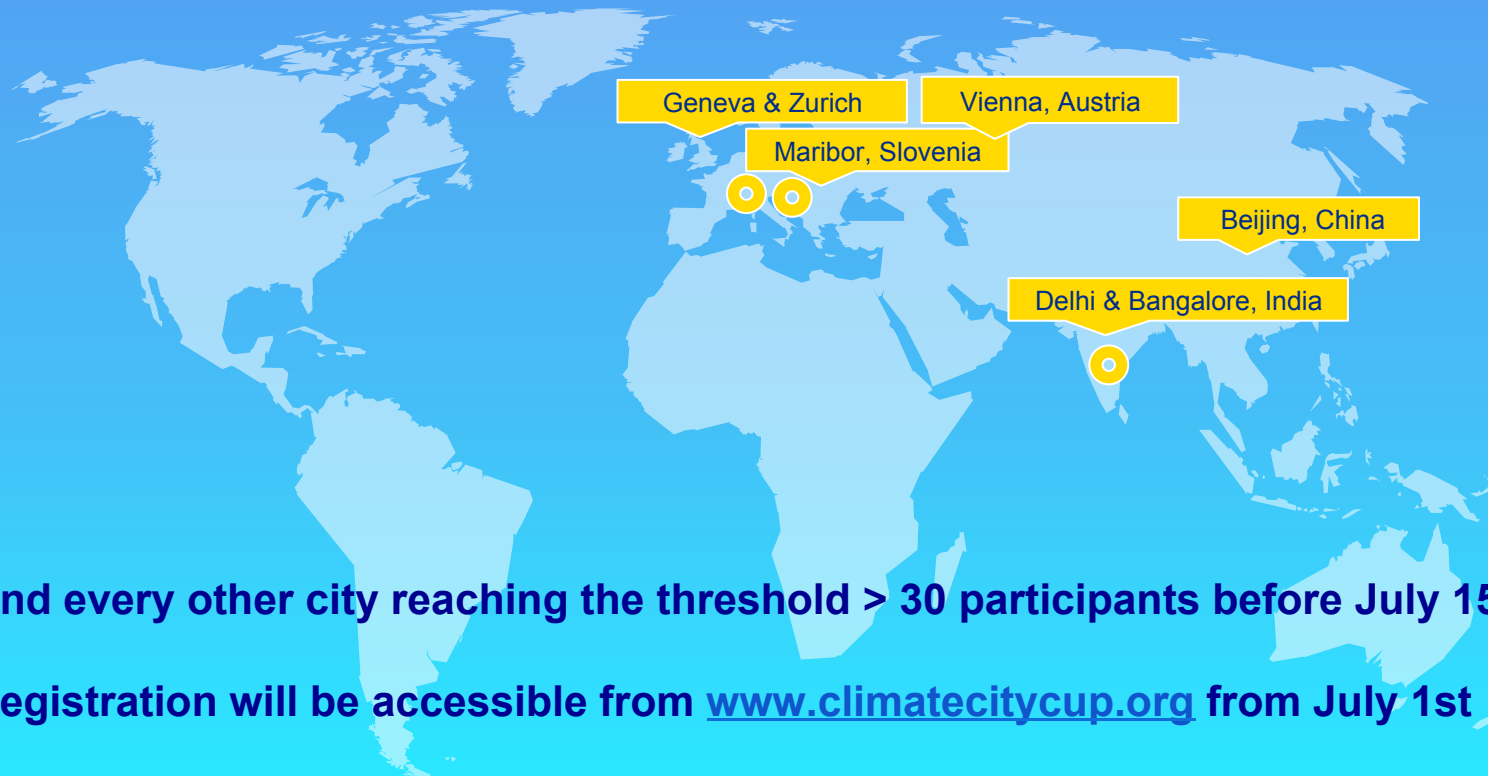


# Collaboration and collective efforts

No boundaries



## Maps – examples of partnering cities



**And every other city reaching the threshold > 30 participants before July 15**

**Registration will be accessible from [www.climatecitycup.org](http://www.climatecitycup.org) from July 1st**





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# Time frame

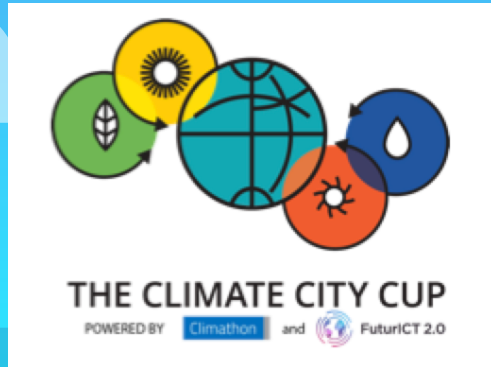


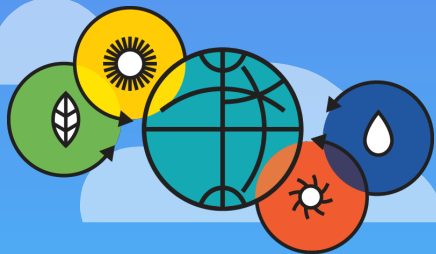
# Awards ceremony

Save the date !

Climate City Cup Awards ceremony combined with FuturICT 2.0 Forum

18 & 19 November 2019 in Zurich





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# Thank you for joining us !



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JOIN OUR COMMUNICATION  
CHANNELS THROUGH OUR  
WEBPAGE



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