ICOS Cities

WP1 CITY NEEDS AND DATA FOR SERVICES WITH IMPACT

30 Nov 2021 Hugo Denier van der Gon on behalf of WP1 team

WP1: Goals - Two main objectives of WP1 are

- To collect, unlock and harmonize prior information on city infrastructure and emissions needed in WP2 and WP5 (T1.1)
- To investigate relevant services the city observatory should provide to answer the needs of cities in terms of estimation of their GHG emissions and implementation of their climate policies.
 - WP1 investigates economic, societal and political dimensions that influence how city decision makers use and will use emission data and PAUL city flux information in their decision making **(T1.2)**.
 - It also investigates the attitudes and behaviour of humans who both drive the emissions through their personal choices and need to embrace city efforts to act on climate change (T1.3).
 - In close interaction with the pilot cities and the other work packages in the project, WP1 uncovers and translates city needs into relevant services (T1.4) able to be reproduced in other urban settings.

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T1.2:3:4 interdisciplenary science bringing policy support and social sciences into the ICOScities project!

Exciting! Takes an effort from all as we speak different languages

WP1: T1.1 Actions until end of 2022 (TNO, TUM, AIRPARIFF, EMPA)

Different levels of maturity

1.1.1 Spatial distribution of emissions & Nesting1.1.2 Updating and completing emission inventories

<u>Munich</u> city-level data is available, but no spatially explicit city inventory yet





Task 1.2: Science-Technology Policy Governance and Emissions Data: Information and policy needs of the pilot cities (TUM, T1.2 partners)

An action plan

and an ambition

for 2030

for 2050

For a fairer

and more

inclusive city

- Actions in 2022: Analyzing urban emissions policies
- T1.2.1 Linking Emissions Data to Climate Governance in Munich, Zurich, and Paris
- T1.2.2 Spatio-temporal CO2 emissions mapping and scenario building

Which scenario(s) can meet the 2030 ambition?

COS Cities



PARIS CLIMATE ACTION PLAN

TOWARDS A CARBON NEUTRAL CITY, 100% RENEWABLE ENERGIES, RESILIENT, FAIR AND INCLUSIVE

Together

for climate

ici, demain

Landeshauptstadt München

Die Klimaschutzmanagerinnen und Klimaschutzmanager der Landeshauptstadt München Tätigkeitsfelder und Projekte

Sub-Task 1.2.2 Spatio-temporal CO₂ emissions mapping and scenario building

<u>M</u> 6	M9	<u>M</u> 12	M18	M24
M1.7 Mapping of emission reduction targets over the un agglomerations (Report)	n rban	D1.6 An integrated tool capable of mapping future emissions based on city climate plans and urban development plans	M1.8 Design of atmospheric Observing System Simulation Experiments (Report)	D1.7 Report on optimal designs of urban atmospheric networks to monitor city emission reduction goals

Needs:

- Recruitment of a German intern for up to 6 months (between February and June 2022)
- Inventory specification (spatial, sectoral, temporal resolution)
- Input from Task 1.1 for the emission inventory (M1.1 + D1.1)

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Task 1.3: The human dimension of climate policies: economic and behavioural impacts (Lead The European Social Survey (ESS) ERIC)

- The objective is to bring in the human dimension in the measurement of green gas gases
- This dimension is infused **by implementing a series of surveys** in the pilot city observatories in Paris and Munich.
- In 2022 work on preparation and aligning the surveys;
 - develop a cross-city comparative methodology and questionnaire for incorporating human measurements on integrated city observatories for greenhouse gases using survey data.
- Possibly a Swiss team will join to add Zurich



Task 1.3: The human dimension of climate policies: economic and behavioral impacts (Lead The European Social Survey (ESS) ERIC)

- ESS ERIC is a distributed research infrastructure.
- Six ESS teams will collaborate in this project, Core Scientific Team: City University, Universitat Pompeu Fabra, Essex University, Norwegian Centre for Research Data.
- National teams: Germany (GESIS), France (Sciences Po)
 - Gross sample = 2,500
 - 3 waves (huge added value in following the respondents instead of a snapshot)
 - Germany (Munich), France (Paris)
 - Web surveys

D1.8 Report on methodology and findings. Preliminary report (M24).



WP1 task 1.4 (Aalto) – Co-design of service prototypes

Task 1.4 develops new service prototypes and concepts

- Sub-task 1.4.1: Benchmarking and evaluating existing services (2021 Fall end of 2022)
 Objective: •To develop an in-depth understanding of existing services on emission services used by the three pilot cities, and how they connect into policy processes
 - Actions: •See next slide

- > Sub-task 1.4.2: Exploration & ideation (2022 Spring end of 2023)
 - **Objective:** •(Based on sub-task 1.4.1) to develop human-centred, holistic, and iterative service design approaches for new services
 - •The sub-task will primarily utilize the data collected in other tasks of WP1, as well as the inputs from WP2, WP3 and WP4
 - Actions: •3 X workshops (tentative plan, e.g., one project-internal and two for extended audience) beginning in latter half of 2022
 - •Stakeholder engagement based on sub-task 1.4.1 outcomes and the established stakeholder network; Supported with (also external) service developer interviews
 - •Deliverable D1.13 (M30) Report on preliminary outcomes of co-design workshops

[•]Deliverable D1.12 – Report on evaluation and benchmarking of existing services for monitoring of CO2 emissions (M14)

WP1 task 1.4 and sub-tasks – timeline along the project:

lier data OS data on nnish context		Milesto • Compa emissio	one 1.1 (M6) arison of city on inventories		Deliverable • Sub-task 1.4	e D1.12 (M14) 4.1 report		Delive (M30)	erable D1.13
Sub-task 1.4.1 • Interviews with consortium • Refining scope • Survey	I: Benchmark	Sub-ta • Based • Suppo	d evaluating sk 1.4.2: Explor on stakeholder no rted by additional	r ation 8 etworks	k ideation gathered in sub-	-task 1.4.1			Deliverable D1 (M46)
		 Works stakeh groups 	hop activities with olders, also exter	n differer nal actor	 Sub-task 1 Continue Interactio 	.4.3: Service pro	2 .2 2 2 omes with va	nrious acto	or groups
Sub-task 1.4.1:	Benchmarki	ing an	d evaluating -	- proce	ess and inter	ractions (2021	Fall – end	of 2022)
Sub-task 1.4.1: Sub-task 1.4.1 phase:	Benchmarki Project kic	ing an k-off	d evaluating - Interviews	- proce Sur	ess and inter	ractions (2021 External survey	Fall – end In-dep intervi	of 2022 th ews) Deliverables

WP1: Connections to other WPs

- T1.1 collects, harmonizes and advances prior information on city infrastructure and emissions needed in WP2 and WP5
- T1.2 & 1.3 Connects to other tasks in WP1 and WP2&WP3 ; outreach WP5; WP6
- Task 1.4 develops new service prototypes and concepts Uses data other tasks of WP1, and inputs from WP2, WP3 and WP4. connects with WP5 (Task 5.1 City Network) and with WP4 to fit the needs and data together.

WP2 Modelling	WP3 Observations	WP4 Data harmo	WP5 comms, Cities	WP6 integ. into RI's	WP7 Coordination	WP8 Ethics
1.1			1.1			
1.4	1.4	1.4	1.4	1.4		1.4 interviews
1.2	1.2		1.2	1.2		
1.3	1.3		1.3	1.3		
	ties					

WP1 final remarks



Looking forward to a great project!!!!

