

How to adapt cities to climate change ? From Science to Urban actors.

Proposed by Valéry Masson

URL: <https://escmp.euroscience.org/proposal/view/591>

Status: Corrected

Programme: Scientific Programme

Format: Traditional panel discussion

Duration: 1h15

Theme: Sustainable cities, sustainable living

Abstract: While already just over 50% of the world population lives in cities, it is expected that on balance practically all population growth up to 2050 is in cities, amounting to 3 billion extra urban population, i.e. approx. 6.5 billion in tota. Cities are particularly vulnerable to climate change, because of the concentration of population, goods, capital stock, and infrastructures. For example, heat waves, enhanced locally by the so-called 'Urban Heat Island' (UHI) are particularly deadly in cities. Intense precipitation creates easily floods with dire consequences, because of the impermeability of the urban surfaces. Air quality conditions in cities are recurrently and often even continuously exceeding health limits. Furthermore, cities are a main emitter of greenhouse-gases, as the high concentration of human activities, like transport and industry, entails high levels of energy consumption. Therefore, city actors, especially planners, are facing numerous and sizeable climate change related challenges, while having to manage and plan their city development in a sustainable and climate proof way. In such a complex multi-dimensional and multi-objective decision environment pertinent and clear, decision relevant information is indispensable for urban planners and related stakeholders. However climate information is mostly provided by climate models at spatial scales much larger than the (sub)urban scales at which mitigation and adaptation measures are to be realized. This sessions will present urban climate issues and impacts, in relation with both city expansion and global climate warming, how such such impacts can be estimated and what are the levers for future city adaptation strategies, and, finally, how scientific knowledge is transformed into pertinent information for urban planners and city actors, to build the cities of tomorrow.

Target audience: Scientists, Policy makers, General public, Students

Cross-cutting approaches: Risk and safety

Relevance of the selected approaches:

Special requirements and demands:

Does the session organiser (or a speaker of the session) envisage to propose an event in the Science in the City festival (same dates as ESOF) about the same topic oriented towards the public (this should be in French or in English and French) ? : Don't know

Does the session organiser (or speakers of the session) envisage to participate in an event in the Science in the City festival on a topic related to that of the session (this should be in French or in English and French) ? : Don't know

Status	Name	Email	Gndr	Position	Organisation	Country	Role	Reason for inviting
Submitter	Valéry Masson	valery.masson@meteo.fr	M	researcher in urban climate and adaptation of cities	Centre National de Recherches Météorologiques	FRANCE	Submitter	
Confirmed	Geneviève Bretagne	genevieve.bretagne@aua-toulouse.org	F	urban planner	Toulouse urban planning agency	FRANCE	Keynote speaker	urban planner involved in research project MAPUCE and previous research projects on adaptation of cities to climate change.
Confirmed	Votsis Athanasios	Athanasios.Votsis@fmi.fi	M	researcher	finnish Meteorological Institute	FINLAND	Keynote speaker	Votsis Athanasios is a researcher at the Finnish Meteorological Institute, specialist of urban impacts and evaluation of cities to climate change. His fields of expertise are urban and regional planning, with focus on applied urban economic modelling and housing market analysis; climate-sensitive ecological risks; architectural/Urban theory, with focus human geography, and the archaeology of human settlements. He participates to the URCLIM project, which aims to produce URban Climate Services.

Status	Name	Email	Gndr	Position	Organisation	Country	Role	Reason for inviting
Confirmed	Valéry Masson	valery.masson@meteo.fr	M	researcher	METEO-FRANCE	FRANCE	Moderator	Specialist in urban climate. Previous organizer of the 9th International Conference on Urban Climate, which took place in Toulouse, with 600 scientists from 60 countries.
Confirmed	Chao Ren	renchao@cuhk.edu.hk	F	architect and researcher	Chinese University of Hong Kong	HONG KONG	Keynote speaker	Dr Chao Ren is specialist in the transfer of information from urban climate scientists towards urban planners. She works on many cities in several countries (China, Germany, Netherlands, Japan, France).