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Research article

Key dimensions of cities' engagement in the transition to climate neutrality

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ABSTRACT

Urbanization and the concentration of energy-consuming economic activities make cities responsible for more than 70% of global greenhouse gas emissions. At the same time, cities are becoming increasingly vulnerable to climate change impacts. The European Cities Mission launched a call in September 2021 to set out on a path towards "100 climate-neutral and smart cities by 2030". A very large and diverse sample of 344 candidate cities in 35 countries (a subset of the 362 considered eligible to participate in the Cities Mission) was used to conduct this timely research aimed at identifying the main dimensions on which cities are working to achieve a smart and sustainable transition.

The research focused on five main dimensions: local climate planning, climate emergency declarations, participation in networks, international projects and competitions. Results show that only 20 (5.8%) cities have no experience in any of them, while there are 18 (5.2%) cities that have in their background activities that fall under all dimensions. Moreover, networking is the most important dimension, among the five analysed, for cities applying for this Mission, involving 309 cities (approximately 90% of the sample). This is followed by local climate planning, involving 275 cities (80%) and city participation in international projects, involving 152 cities (44%). Cities that have declared a climate emergency are less than a fifth of the sample and are very unevenly distributed in only 37.1% of the countries represented (interestingly, all the UK cities in the sample). Similarly, only 49 cities (14.2%) have received international awards.

The results provide insights into the main efforts currently being made by cities to engage in the transition to climate neutrality and may be useful to practitioners, scholars and policy-makers at all levels to improve their knowledge of the steps they need to take to support this process and amplify its scope.

1. Introduction

Over 72% of the EU population lives in urban areas - defined as cities, towns and suburbs, covering 17% of the land area - and nearly a quarter of the EU population is still at risk of poverty and/or marginalisation (European Commission, 2019). The urban population has continued to grow in the last 50 years at the expense of the countryside that has gradually been depopulated (Nabielek et al., 2016).

Urban areas are at the centre of transformation process to achieve the European Green Deal goals and to fulfil commitments related to several international initiatives (including the UN's 2030 Agenda for Sustainable Development, the UN-Habitat's New Urban Agenda, the New European Urban Agenda, the Paris Agreement) and to support the New European Bauhaus movement (European Union, 2022a). The latest IPCC's report on Mitigation of Climate Change devotes Chapter 8 to "Urban systems and other settlements" (IPCC, 2022) where it is highlighted that although the global share of emissions that can be attributed to urban areas is increasing, these areas can create opportunities to increase resource efficiency and significantly reduce greenhouse gas

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