CLIMATE PROOFING OF (URBAN) PLANNING INSTRUMENTS

MOTIVATION

Cities and urban regions are particularly affected by climate change. **Spatial planning plays a key role in anchoring climate change adaptation measures and creating framework conditions for their implementation** [1]. In the Austrian spatial planning context, climate change adaptation via planning instruments and procedures has not yet been discussed comprehensively. **The Austrian planning system and instruments are not yet sufficiently climate sensitive.** There is neither a well-prepared study of possible approaches and starting points for adaptation to the consequences of climate change in and with spatial planning, nor a climate assessment of the strategies and instruments themselves.

Figure 1: Heavy rain, flooding, heat and drought as central challenges of climate change in spatial planning

OBJECTIVES

The main goals of the project are:

- An explorative development of a **climate proofing mechanism** for the Austrian spatial planning context
- The development of an **iterative theoretical and methodological framework** for the analysis and implementation of climate change adaptation
- An evaluation of **policies, planning laws, programmes and plans** on their **adaptive capacities**
- An elaboration of pathways to integrate **climate change adaptation** measures into **normative planning instruments and planning processes**

The outcomes provide **a foundation for political and planning implementation processes in Austria** and contribute to the recent international discussion on operationalizing **climate change adaptation through spatial planning.**

METHODS AND APPROACH

The project is based on a mixed-methods approach and includes the following working steps:

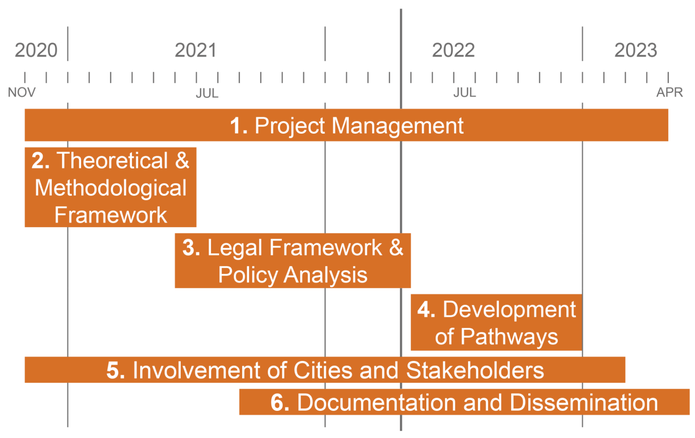
A Based on the difficulties cities face in the Austrian planning context, **participating municipalities (Graz, Salzburg, Wels, Vienna)** bring in their examples and challenges from their daily work.

B Existing **policies, planning laws, programmes and plans** are examined to determine **supportive and missing components for a climate- sensitive spatial development.**

C International literature and (good) practice approaches are analysed to formulate a **theoretical and methodological framework for climate proofing** in the Austrian planning context.

Used methods: expert interviews, stakeholder workshops, literature review, policy analysis, collection and analysis of practical examples

PROGRESS OF THE PROJECT



CONCEPTUAL UNDERSTANDING OF THE TERM „CLIMATE PROOFING“

Referring to Birkmann and Fleischhauer (2009), who define **climate proofing as methods, instruments and procedures to ensure that plans, programs and strategies as well as investments are resilient and adaptive towards recent and future impacts of climate change** [2, p. 117], climate proofing related to the Austrian spatial planning context can be **defined** as the integration of **changing environmental conditions into decision-making** in planning processes. It addresses the **mainstreaming of climate change adaptation** in spatial planning. Climate proofing primarily tries to cover adaptation measures, while climate change mitigation measures can ideally be evaluated and considered in SEA and EIA processes (Fig. 2).

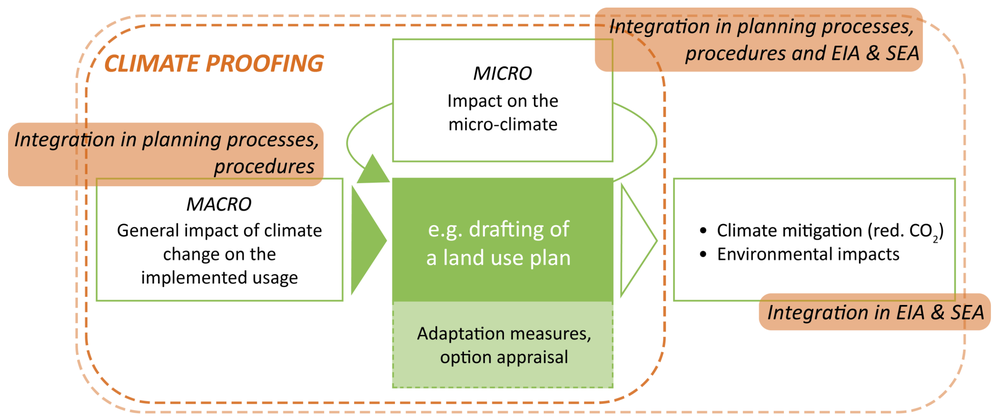


Figure 2: Conceptual understanding and possible elements of a climate proofing framework.

PROPOSAL OF AN ITERATIVE CLIMATE PROOFING FRAMEWORK

From a systemic perspective, we developed an **iterative climate proofing framework** that encompasses not only the actual **process of climate change adaptation** in spatial planning and development, but also the **framework conditions that influence adaptation** (Fig. 3).
The framework consists of three components:

1 The **overall framework conditions** as **requirements** for **the development and implementation of adaptation measures into spatial planning (instruments)** (e. g. political objectives, legal legitimacy and sufficient resources).

2 The **process of developing and implementing adaptation measures**. It includes the typical steps municipalities tend to follow when implementing climate change adaptation in spatial planning [3-5].

3 An **iterative component**. This refers to the possibility of **adapting the framework conditions due to challenges** or barriers in practical implementation, and, conversely, adapting the standards and authorization.

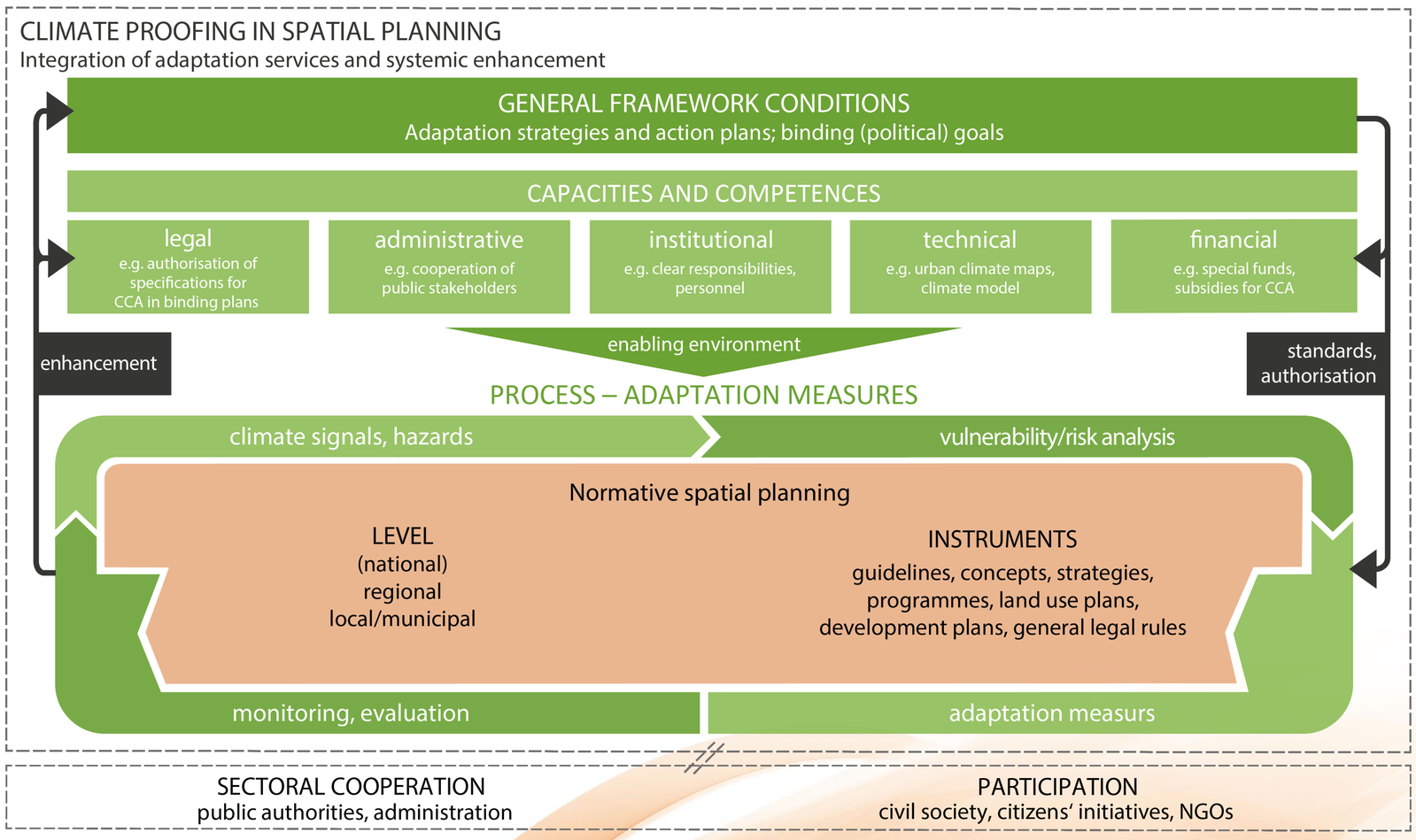


Figure 3: Proposal of a possible climate proofing framework.

DISSEMINATION AND PUBLICATIONS

- Schindelegger, A. & Reinwald, F. (2021) (eds.). Klimawandelanpassung und Klimaresilienz in der Raumplanung [Special Issue], Der Öffentliche Sektor / The Public Sector, 47(2) 2021.
- Schindelegger, A., Weichselbaumer, R., Damyanovic, D., Reinwald, F. (2021). „Climate Proofing“ – Ein Framework zur Integration der Klimawandelanpassung in die Raumplanung, Der Öffentliche Sektor / The Public Sector, 47(2) 2021.
- Reinwald, F. (2021). Regulations: revision of laws and regulations in building law. The climate-resilient, green, nature-inclusive city, Online-Symposium, 24. 09. 2021, Online.
- Schindelegger, A. (2021). Climate proofing of (urban) planning instruments in Austria. 10th International and Interdisciplinary Symposium – European Academy of Land Use and Development, Sustainable Land Use and Development: Planning and Monitoring, 02. 09. - 04. 09. 2021, Vienna.

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