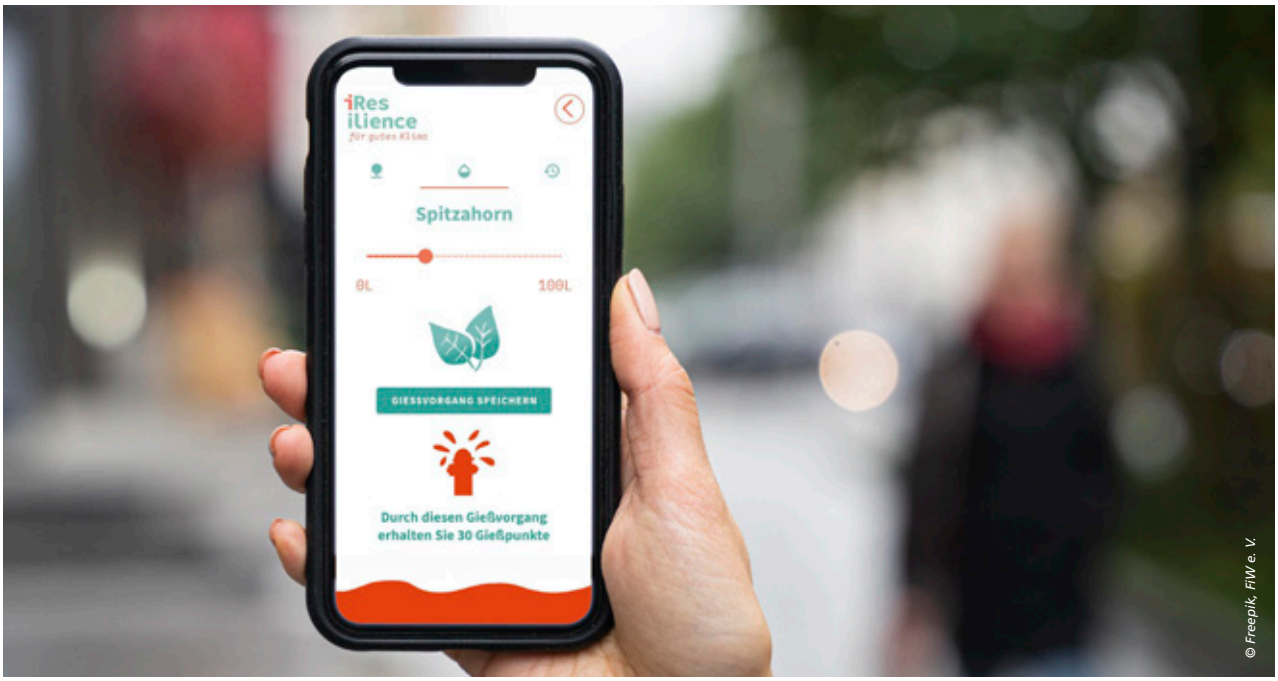
Research. Transfer. Sustainabilty.

iResilience für gutes Klima

Getting active together for a good climate

iResilience – Social innovations and smart city infrastructure fort he resilient city of the future

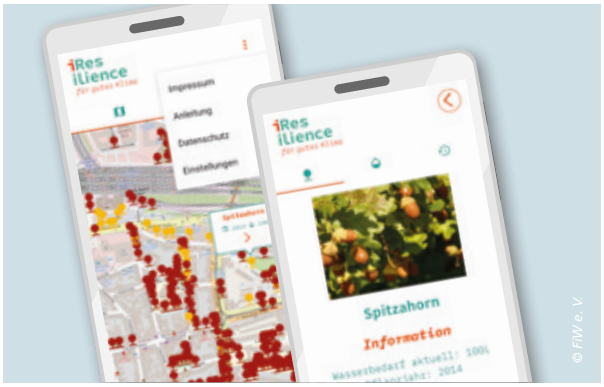


The BMBF-funded project iResilience works with the neighbourhood population, the city administration and other stakeholders to design processes and measures that contribute to a continuous improvement of climate resilience in the partner cities of Cologne and Dortmund. Wishes, needs and also the concerns of all those involved can be taken into account right at the beginning of planning process. The FiW is responsible in the project for the conceptualisation of social media communication, for the design and implementation of regional dialogue platforms in the co-working process and for the development of new communication tools.

Together with the various local actors, the project team is testing new solutions and technologies to make neighbourhoods in the cities of Dortmund and Cologne more resistant to heat and heavy rain. To this end, local actors who live or work in the neighbourhood, for example, have been sensitised and mobilised to become active together. The topics of urban green space, flood prevention, heat and health are thus being worked on together and concrete ideas are being taken up in local working groups.

Watering app: A prototype for Cologne Deutz

To support this active exchange, various innovative practices and technologies are being developed and tested in the project. One of these technologies is the watering app, which was conceptually developed and implemented by FiW. One consequence of climate change is hotter and also drier summers - this is also felt by our urban trees. On most days of the year, trees can cover their water needs themselves, but in summer there are more dry phases, so the trees need support. Therefore, on some hot days, residents water the city trees to support the City of Cologne.



City map with tree selection, information and estimated water requirements

„Greening Month“: Hands-on activities and information events in summer 2021

So that not everyone waters the same tree, we have designed a first version of a watering app for Cologne Deutz in the iResilience project. This is a prototype that contains the „basic functions“.

A tree can be selected on the city map and information about this tree and its estimated water demand can be retrieved. This information comes from the tree cadastre of the city of Cologne. This cadastre contains information such as the size, location and age of almost every city tree in public space in Cologne In the prototype, users can then select that they have watered a tree and enter the amount of water. Other users can then see that this tree has been watered and can water another tree that still needs water. The prototype also includes an explanation of why and how urban trees are watered. This prototype was tested by citizens in Deutz in the summer of 2021 as part of iResilience.

In the course of the project, we exchanged ideas with local stakeholders and came up with many additional functions that a watering app should have. A watering app could, for example, show where there is public access to water, what kind of ground the tree is standing on (because this influences how well the tree can supply itself with water), how much it has rained at the tree's location or which tree is already being cared for by the city or a tree sponsor.

Imagine a heatwave summer in 2024: the last few weeks have been very dry, the media report that the soil is also very dry and the harvests are declining. You can already see from the window that the city trees are suffering.

Imagine if there was a watering app! That way, everyone would have the opportunity to see what the actual water needs of the individual trees are before they become noticeable. By communicating via the watering app, the tree care of all actors could be managed in a resource-saving way!

Greening Month: Deutz becomes greener – together we can do it!

In the iResilience project, in addition to the working groups, various individual events took place to draw attention to the issues addressed in the project and to promote active cooperation between different actors. Among other things, the „Greening Month“ took place in summer 2021. In line with the motto „Deutz is becoming greener – let's do it together!“ various participatory activities and information events were held from May to mid-June on how urban greenery can help neighbourhoods adapt to the consequences of climate change and become (even) more liveable. For the start of the „Greening Month“, for example, on 9 May, in cooperation with the VCD Cologne, the walking trees moved from Cologne Südstadt to Cologne Deutz and showed how streets can be made greener. During the „Greening Month“, six walking trees stood at three locations in Deutz. In addition, information evenings were held on the topics of roof and façade greening and urban trees, and several participatory activities were offered, such as planting campaigns or a walk through the neighbourhood. The project team was supported in all activities by local actors such as residents, initiatives and municipal employees.

Join in: Planting campaign through the neighborhood

Outlook

The project ended for FiW at the end of October 2021. We were able to build and strengthen our competences for app development in the field of climate impact adaptation and knowledge communication within the framework of this collaborative project. It is planned to expand the concept of the watering app and thus the understanding of „water in the city".

Project overview

PROJECT TITLE

iResilience – Social innovations and smart city infrastructure fort he resilient city of the future

PROJECT PERIOD

11/2018 – 10/2021

PROJECT PARTNERS

TU Dortmund – Sozialforschungsstelle (sfs); Deutsches Institut für Urbanistik (Difu); Dr. Pecher AG; HafenCity Universität Hamburg (HCU); Stadt Dortmund – Koordinierungsstelle „nordwärts"; Stadt Köln – Umwelt- und Verbraucherschutzamt; Stadtentwässerungsbetriebe Köln AöR (StEB Köln); TU Dortmund – Institut für Energiesysteme; Energieeffizienz und Energiewirtschaft (ie³)

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SUPERVISOR

DLR Projektträger

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STATUS

October 2022