

## News from LIFE LOCAL ADAPT

The work on our project LIFE LOCAL ADAPT is reaching the final phase. This includes the development of a Guidance Document for transferability of the project content to other communities and countries which is presented in this newsletter. We hope that the remaining work of project implementation can be successfully conducted during the next year. In the past months, unfortunately, the work with municipalities on the implementation of measures for climate change adaptation, which began very positively, was strongly restricted due to the Covid-19 pandemic. All the more, we are pleased to announce an online seminar of ClimatEurope with participation of LIFE LOCAL ADAPT. Further information on this you will find in this newsletter and on our website.

If you are interested to receive this information regularly, we would like you to register for the newsletter on [www.life-local-adapt.eu](http://www.life-local-adapt.eu).

With kind regards and best wishes for good health  
 Prof. Dr. Christian Bernhofer

Project coordinator

November 2020

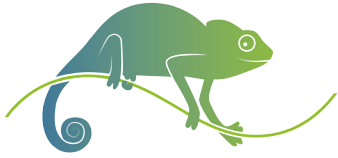
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## Transfer of project findings via a How-to Guidance Document

Within the framework of LIFE LOCAL ADAPT, a large number of adaptation measures in response to various impacts of climate change have been tested in the past four years in the four pilot regions of Saxony, Styria, the northwestern Czech Republic and Valka in Latvia. The work included all steps from (1.) climate data processing and (2.) integration of climate change information into decision-making processes, (3.) identification of possible measures up to their (4.) implementation. All this was done in a joint process with the local decision-makers and considered the specific challenges and conditions in small and medium-sized communities (up to 100,000 inhabitants). An important concern now is to prepare the transfer of the developed solutions to the above-mentioned points

(1.) to (4.) in such a way that the findings can be applied in other regions; this refers both to adaptation planning and respective measures as well as to the methods used during the process.

The Guidance Document consists of a transfer concept and three main sections (modules) that describe the climate adaptation products and measures developed in LIFE LOCAL ADAPT. First, the transfer concept explains which steps a municipality should take to identify and successfully implement appropriate adaptation products and measures. The concept considers the current state of knowledge as well as the already existing climate adaptation measures of the community with the help of three different modules.

### Guidance Document

#### Transfer Concept

The transfer concept consists of three different modules named according to their purposes and contain various CCA products and services:

Module A - Enhancing the information basis

Module B - Supporting tools and instructions

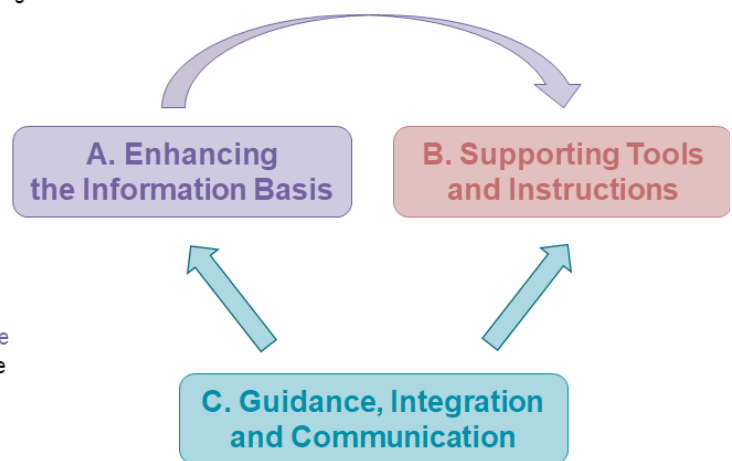
Module C - Guidance, Integration and communication

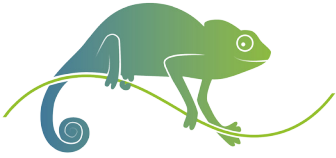
The transfer process works as follows:

1. The municipality or authority has to define its need of CCA.
2. The current level of knowledge regarding the defined CCA must be determined.
3. In case that the level of knowledge is insufficient, a product or service from Module A is selected.
4. After the selection of the respective product or service from Module A, or when the level of knowledge is sufficient, a product or service from Module B is chosen to establish the CCA measure.
5. In case of a need for guidance of the selected CCA measures, a service from Module C is chosen.

**Best practice products and services in the different modules are described in a "How to establish..."-style in this guidance document.**

LIFE LOCAL ADAPT | Integration of climate change adaptation into the work of local authorities





The transfer concept is followed by three main sections in the Guidance Document, which present the different modules in the transfer concept and are subdivided as follows: (1.) enhancing the information base for adaptation planning, (2.) support tools for the provision of climate change information, and (3.) guidance and communication for the integration of the information into local decision-making processes. A general introduction is given for each

of these three areas. Subsequently, all tested products, methods and approaches are presented in detail in step-by-step explanations.

For this purpose, an active digital document is designed so that cross-connections between the individual building blocks can be easily established (as shown in the following picture using the example of the Local Climate Fact Sheets)

## Enhancing the Information Basis

### Best practice: Local Climate Fact Sheets

LIFE LOCAL ADAPT | Integration of climate change adaptation into the work of local authorities

#### How to create Local Climate Fact Sheets?

Expert knowledge is required for the development of local climate fact sheets. This knowledge is provided by climate service centres or by national weather services. The development process should go through the following steps:

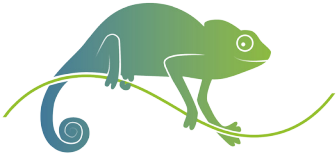
1. Involvement of potential users ([link](#))
2. Selection of target region ([link](#))
3. Selection of indicators ([link](#))
4. Selection of emission scenarios ([link](#))
5. Selection of a reference and scenario period(s) ([link](#))
6. Selection of an appropriate database ([link](#))
7. Conducting the analysis ([link](#))
8. Choosing a user-friendly illustration and explanation of the results ([link](#))
9. Publishing of local climate fact sheets ([link](#))

The above steps are described in more details on the following pages:

Example of „How-to“ section in the LIFE LOCAL ADAPT Guidance Document including links to more detailed information

Exemplarily for the Climate Coach it is shown, which the main tasks can be, which role it takes in the process of the adaptation planning, which

expertise it needs for it and which experiences were made during LIFE LOCAL ADAPT.



## Guidance, Integration and Communication

### Best practice: Climate Coach

➤ The advisory program is intended to help cities and municipalities to adapt to the possible risks of climate change. Many municipalities have a lack of resources and capacities for planning and measures for climate adaptation. The Climate Coaches should act as advisors and supporters.

#### General goals:

- Advice and support for municipalities in the development of climate adaptation strategies and measures
- Integration of external expert knowledge
- Provision of regional-specific climate information
- Announcement of best practice examples
- Long-term support of the municipalities in the adjustment process

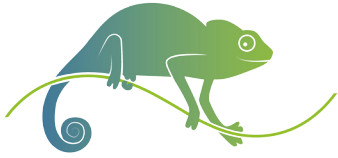
LOCAL <sup>LIFE</sup> | Integration of climate change adaptation  
ADAPT | into the work of local authorities



Example of easy to read basic information to best practice solutions in the LIFE LOCAL ADAPT Guidance Document

In this way, a clear Guidance Document is created, which explains the respective purposes (and limitations) and procedures for all pro-

ducts, methods and approaches. This enables the transfer of the results to other regions with similar problems.



## Implementation of adaptation measures

In the last weeks, the activities of the Saxon State Office for Environment, Geology and Agriculture have concentrated on the implementation of the contest ideas. In order to support the six selected winning ideas for climate adaptation to various planning offices are commissioned. These offices are planning specific measures and carry out accompanying public relations work.

The city of Bad Dübén is creating concepts for the topics urban greenery, sponge city and facade and roof greening. These climate adaptation measures are to be discussed with the citizens as part of a citizens' dialogue and with the focus on being able to implement the measures later on. The implementation should not only be realised on communal land, but also in the private land and commercial areas. The public kick-off event has already taken place. A large number of committed citizens and local stakeholders supported the project by collecting ideas and suggestions on the mentioned topics. Three follow-up events will focus on creating specific measures for each topic.

The Landscape Management Association Grimma and Leader Region Leipziger Muldenland are creating the conception of water management. The first step is to support municipalities by providing all necessary documents, data, identify the potential watercourses and adjacent areas. In addition, the legal basis and funding opportunities will be provided.

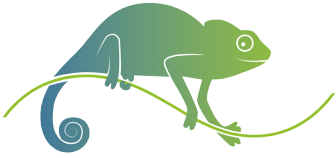
The district of Sächsische Schweiz Osterzgebirge, together with an agricultural cooperative in the Ore Mountains, are investigating erosion and flood protection measures on the slopes.

A simple and permit-free, management-integrated dam is a possible measure for the agricultural sector to adapt to the coming extreme weather events and to minimize the associated damage. A carbon balance should also be calculated and grant easier access to specific funding opportunities.

The city of Zwickau is looking for climate-resilient tree species. In combination with rainwater management, the city would like to secure urban green spaces in the future. The proposed tree species should be able to withstand drought and heat stress, but also cope with the frosty days in winter. In future, the rainwater should not be discharged into the public sewer system, but rather serve to irrigate the urban green.

In Freital specific adaptation measures are in planning stage. To improve the flood protection for the lower lying areas green strips and hedges have to be implemented. Dialogues with multiple stakeholders and a mediation process shall create a common consensus and support the implementation of the measures. Various funding opportunities are to be addressed and supported by LfULG in the future.

In the district of Mittelsachsen more dry years are expected for the future. Therefore, it is very important to clarify the responsibilities of the administrative structures in municipalities and the district to ensure the drinking water supply. As a base for the study, water resources have to be quantified first, based on the water flow rates approved by the lower water authority. Unfortunately, no suitable executive office has been found for the implementation of the project yet.



## ReKIS in a new layout

As part of LIFE LOCAL ADAPT a special portal area for municipalities has been added to the regional climate information system ReKIS. The new portal is called ReKIS Kommunal. At the beginning of this process, a new, uniform layout was designed by Graphixer. In the meantime, the information system has been tested and transformed to the new layout. Fact sheets for general adaptation measures, good

practical examples from the first contest and climate information specific to the municipality can be downloaded from the portal. Saxony-Anhalt and Thuringia, the partners in the ReKIS association would like to take over ReKIS Kommunal with all functions. Saxony-Anhalt finances the professional revision of the layout of the fact sheets to increase the attractiveness and comprehensibility for the municipalities.

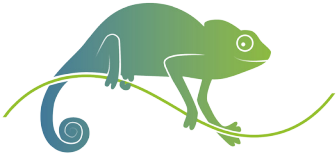


New layout of the ReKIS platform

## Participation of LIFE LOCAL ADAPT at the 2nd European Workshop of LIFE ASTI

The aim of the online workshop “**Urban Heat Island and Heat Resilience: Networking for Future Strategy**”, was to enable exchange of knowledge and expertise between different projects and to support networking. LIFE LOCAL ADAPT took part in the session “Other LIFE projects – Networking with partners”. The topic of the presentation was “Improving climate resilience of small and medium-sized communities” with special focus on heat stress. During

the workshop, the LIFE ASTI team presented their development of a forecast system for the urban heat island effect. In addition, other projects also presented their work on the topic of heat resilience. The workshop was a good opportunity to get insight into the activities of other research groups and to establish new contacts. For more information see: <https://lifeasti.eu/2020/09/11/life-asti-2nd-european-workshop/>



## Implementation of measures

The five pilot municipalities in Styria are now in the process of preparing the implementation of the selected measures. For this purpose and due to the COVID-19 Pandemic an online workshop with the representatives of the municipalities will be organised. In the course of the workshop, a short overview of the current status of the project and the administrative handling of the financing of the measures will be discussed. The pilot municipalities will then also present those measures they want to implement in the coming weeks. Some municipalities already have very concrete proposals for this. For example, the municipality of Weiz will implement the greening of a bus stop and the municipality of Hartberg will install a fog shower to cool the heated surfaces in public spaces.

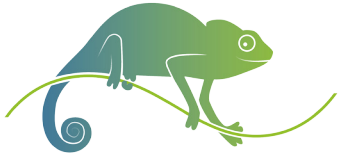
Within the framework of a follow-up project “Climate Change Adaptation Communities of Styria”, eight out of ten Styrian municipalities have already been advised on how to adapt to climate change. Like the pilot municipalities of LIFE LOCAL ADAPT, the municipalities participating in the follow-up phase will receive an introductory workshop on the topic of climate change, a natural hazard check and a plan of action with information on possible implementation measures, subsidies and information on best practice examples from other communities.

Regarding the previous process and results, you can also see the previous newsletters and the LIFE LOCAL ADAPT website:

<https://www.life-local-adapt.eu/en>



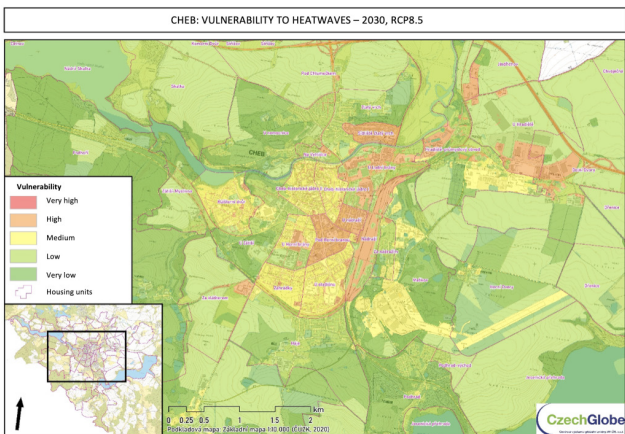
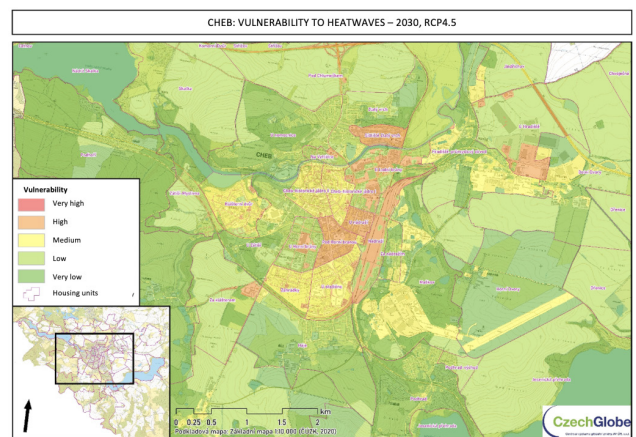
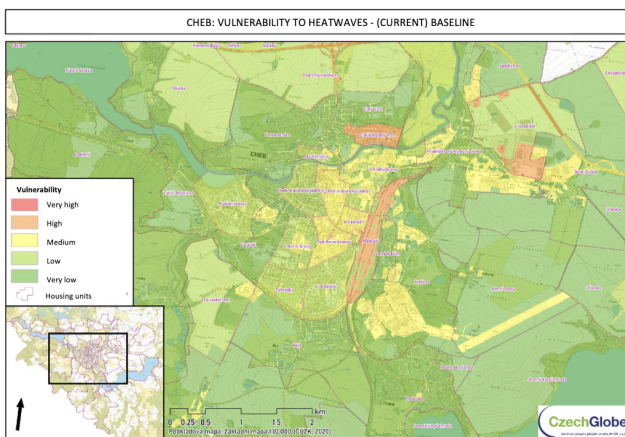
Workshop in the municipality of Hohentauern, © Land Steiermark



## Vulnerability analyses

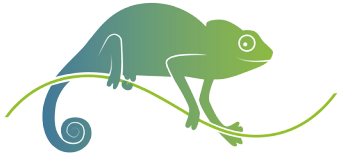
As a preparatory phase of adaptation, we conducted a vulnerability analysis for each of the municipality. With a focus on vulnerability to heatwaves and extreme rainfall, the vulnerability was projected to 2030 under the RCP4.5 and RCP8.5 scenarios (Fig. 1). The vulnerability maps show the areas which are, and will be, the

most affected by the impacts of climate change while accounting with the land cover, population density, vulnerable groups of populations and economic indicators. Therefore, vulnerability analyses are a useful tool for setting the priorities and aims for local strategic development.



Cheb - Vulnerability to heatwaves in current and 2030 scenarios of RCP4.5 and RCP8.5. © CzechGlobe





## Participatory Workshops

As reported in previous newsletters, we planned participatory workshops with two of our cooperating municipalities – Cheb and Kadaň, Czechia - in spring 2020. Unfortunately, these had to be cancelled to COVID-19 so we postponed these workshops to the late summer.

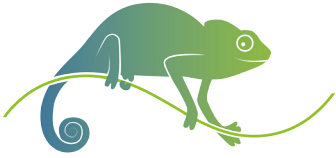
The participatory workshop “Cheb as a climate-resilient city” was held on the 25th August at the municipality with 13 stakeholders from various fields, including the mayor of the city (Fig.2). The workshop aimed to initiate the multi-stakeholder process for adaptation planning, to prompt a discussion among stakeholders and to create a basis for adaptation strategy with a possible action plan. During the workshop activities, stakeholders discussed the risks and impacts of climate change disturbing

their municipality and priorities and mapped the locations which are the most affected. Stakeholders were also given a task to imagine possible future scenarios of the municipality’s development which were used for strategic planning and identification of possible threats and opportunities. And finally, we got to design an implementation plan of adaptation measures until 2030.

The workshop in Kadaň had to be postponed again because its planned date was already in the second wave of the pandemic. Currently, we are working on moving the workshop and all its activities to the virtual world and we will hold a web-based participatory workshop with the Kadaň municipality by the end of this year (2020).



Pictures from the participatory workshop in Cheb – sharing the results of activities between groups. © CzechGlobe



## Announcement

Joint LIFE LOCAL ADAPT and Climateurope webinar on 26. Nov., 2 pm, on **The challenges of small and medium-sized municipalities in climate change adaptation.**

Cities are key players when it comes to climate change. They not only contribute to climate change, they are also affected by the expected impacts. Many of the activities in research projects focus on large cities, as the concentration of people and infrastructures, but also the economic value creation is higher here. Even though, small and medium-sized municipalities are equally affected by climate change with very specific associated challenges, they are not as much in the research focus as larger cities and metropolitan areas. Some of the challenges are the financial and structural conditions, or the availability of human resources. All of these issues make it a real challenge to integrate climate change adaptation into the everyday work of

local decision-makers in politics and administration. Consequently, solutions that can be successful in larger cities are not always transferable to small and medium-sized municipalities.

This webinar aims to provide a forum to discuss these challenges of climate change adaptation and possible solutions for small and medium-sized municipalities. We will learn about the specific challenges in the introductory talk of a representative of a medium-sized municipality. This presentation is followed by a second talk showcasing some of the solutions that have been co-developed and tested in the LIFE LOCAL ADAPT project. The final talk will provide insights in how multiplier organizations support adaptation processes in small to medium sized municipalities and help transfer research outputs in practical implementation. After this there will be ample time for questions and discussion.

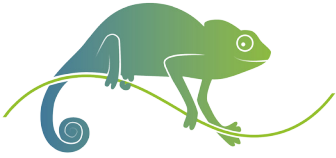
### Speakers:

1. Jana Putnina: *representative of the municipality of Valka / Latvia*
2. Majana Heidenreich: *representative of the LIFE LOCAL ADAPT project (TU Dresden)*
3. Vaselios Latinos: *representative of the Covenant of Mayors (ICLEI)*

### Date:

26<sup>th</sup> of November 2020 from 2 to 4 pm CET.

If you are interested to join our webinar, register through the following link of the Climateurope webpage: [https://www.climateurope.eu/event/webinar-the-challenges-of-small-and-medium-sized-municipalities-in-climate-change-adaptation/?instance\\_id=210](https://www.climateurope.eu/event/webinar-the-challenges-of-small-and-medium-sized-municipalities-in-climate-change-adaptation/?instance_id=210)



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For further information please visit our website: [www.life-local-adapt.eu](http://www.life-local-adapt.eu)

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