

# ROAD MAP OF THE INTEGRATION OF THE EXISTING MEASURES AND TOOLS


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## WORK PACKAGE T2 - INTEGRATION

### ACTIVITY A.T2.1 INTEGRATED TOOLBOX FOR CLIMATE CHANGE ADAPTATION AND RISK PREVENTION -VERSIONS FOR TESTING

#### DELIVERABLE D.T2.1.5

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# 1. Introduction

The road map for the integration of the results and tools from other EU projects consists of an analysis of the results of selected projects, above all tools and catalogue of measures, which could be integrated into the toolbox. The analysis was done based on the D.T1.1.1. and D.T1.1.5. Moreover, in-depth analysis of catalogue of measures, GIS application and tools of particular projects was done. The selected results of each project which will be integrated into the TEACHER-CE toolbox are shortly presented in the tables in the following chapters. The catalogue of measures and its use is one of the cornerstones of the TEACHER-CE toolbox was conceptualized in the D.T1.2.1 report.

## 2. Integration of catalogue of measures

The core of the TEACHER-CE Toolbox CC-ARP-CE is integrated comprehensive catalogue of measures, gathered from all directly exploited projects, listed in Table 1.

For each category, an expert group is assigned to harmonize the collected measures according to the expertise of the Project Partners. The expert group and assigned categories are presented in Table 2.

The task of the assigned PPs is to review the measures collected from selected project and search for similar measures, to merge the similar measures, and to eliminate the unaffected measures on or from Climate Change. The measures related to the assigned category are compared and supplemented with all the collected measures from the catalogues of the other selected projects from Table 1. The measures are then classified according to the Fields of actions (drop-down menu) for the final Catalogue of measures. Detailed description of the procedure and tasks assigned to the Expert group are described in Annex1.

The expert group then review the catalogues of measures from other projects to create synergies (Table 3) and include measures that meet the objectives of TEACHER-CE (described further in Task 3 (Annex1)). The result of this approach is a comprehensive catalogue of measures for integration into the CC-ARP- CE. After completion of the catalogue of measures, the second phase takes place, in which relevant climate indicators and ranking criteria for each measure are be assigned.

Table 1: Results of direct exploited project, which will be integrated into the TEACHER-CE Toolbox CC-ARP-CE (presented in green text)

Project (PPs involved)	Short description of tool and content
<b>DIRECT EXPLOITATION OF RESULTS - Four selected Central Europe projects</b>	
<b>RAINMAN</b> (PP2, 3, 9, 11)	RAINMAN toolbox, especially guidance on heavy rain risk assessment and mapping and heavy rain risk mitigation measures  Contents to be integrated: - Catalogue of measures will be fully integrated into CC-ARP-CE (Annex 01) - RAINMAN toolbox: in CC-ARP-CE will be direct link to the toolbox
<b>FRAMWAT</b> (PP1, 4, 8, 9)	FroGis and DSS (FramWat) tools - used for better assessments of retention needs in wider catchments  Contents to be integrated:



	<ul style="list-style-type: none"> <li>- Catalogue of measures will be fully integrated into CC-ARP-CE, including Slovenian Catalogue of measures with AHP (Annex 02)</li> <li>- FRAMWAT toolbox: in CC-ARP-CE will be a direct link to the toolbox</li> </ul>
PROLINE-CE (PP1, 5, 6, 8 (AP))	GOWARE toolbox and strategy development for Drinking water sources protection with interaction to floods and CC
	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures will be fully integrated into CC-ARP-CE</li> <li>- GOWARE toolbox: in CC-ARP-CE will be direct link to the toolbox</li> </ul>
	SUSSELECT tool - Forest CC vulnerability assessment tool and seed transfer models;
SUSTREE (PP7, 12)	<p>Contents to be integrated:</p> <p><b>SUSSELECT is a predictive tool with output in the form of raster maps without the catalogue of measures. (Annex 03)</b></p> <p>Link SUSSELECT tool (web tool - new in May 2021)</p> <ul style="list-style-type: none"> <li>- SUSSELECT toolbox: in CC-ARP-CE will be direct link to the toolbox</li> </ul>
DIRECT EXPLOITATION OF RESULTS - Other European projects	
LUMAT (PP2)	DSS (LumaTo) tool and action plan for sustainable development on threatened sites by integrated stakeholder management emphasizing CC adaption processes
	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures will be partly integrated into CC-ARP-CE: integrated 5 measures: LUMATO DSS1-5 (Annex 04)</li> <li>- Link LUMATO tool (tool manual: <a href="https://www.interreg-central.eu/Content.Node/LUMAT/LUMATO-tool-manual.pdf">https://www.interreg-central.eu/Content.Node/LUMAT/LUMATO-tool-manual.pdf</a>)</li> </ul>
	ReKIS tool supporting CC adaptation of communities - rollout of CC adaptation strategies
LIFE LocalAdapt (PP2)	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures will be partly integrated into CC-ARP-CE: factsheets for measures on heat stress measures (including physical, administrative and social measures), heavy rain (strategic, communication and technical measures) as well as for droughts (Annex 04)</li> <li>- ReKIS toolbox is the climate information system and is already one of the main parts of the CC-ARP-CE (climate and CC for CE)</li> </ul>
	verification of the effectiveness of natural small water retention measures, toolbox validation
LIFE+ KAMPINOS (PP4)	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures similar to FRAMWAT catalogue (in KAMPINOS more detailed names) (Annex 09)</li> </ul>



H2020 Fairway (PP1)	Farm water management to mitigate diffuse pollution of vulnerable drinking water sources; measures for groundwater protection
	<p>Contents to be integrated:</p> <p>Catalogue of measures - for drinking water protection due to agricultural activities (pollution) (Annex 07)</p> <p>Link ANCA &amp; other tool download (link not available yet)</p>
DTP DRIDANUBE (PP8)	DroughtWatch tool, Drought Risk mapping method, drought management measures
	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures: Review and classification of IDMP long-term and short-term measures (Annex 5)</li> <li>- Link DroughtWatch tool</li> </ul>
DTP JOINTISZA (PP8, 9)	flood measures, governance (cooperation River Basin Management Plan - flood risk prevention)
	<p>Contents to be integrated:</p> <ul style="list-style-type: none"> <li>- Catalogue of measures: Measures supporting WFD and FD objectives (Annex 06)</li> </ul>
Copernicus Climate Change Service (C3S) (PP5)	Disaster Risk Reduction Sectoral Information System (CMCC): climate simulations driven by reanalysis at very high resolutions for reconstructing urban flooding past events dynamics.
	<p>on-going project, results cannot be yet incorporated</p> <p>Catalogue of measures: not existing (Annex 10)</p> <ul style="list-style-type: none"> <li>- Climate data, extreme events data: in the future development of the CC-ARP-CE possible direct exploration of the data set or setting a link to that data set</li> </ul>
C3S Soil Erosion Demo Case (PP5)	Toolbox for quantification of potential soil loss due to rainwater erosion for both recent decades and future time.
	<p>Catalogue of measures: not existing (Annex 10)</p> <p>Test case is only in Italy: datasets and applications on C3S (remark: soil erosion modelling, no measures)</p>



Table 2: Expert group for harmonization of the measures from directly exploited projects

Category	Expert group	
	Main PP for coordination	Supporting partners
Agriculture	PP4 WULS	LP UL BF
All land uses (general water management)	LP UL	PP11 IMGW-PIB
Forest	PP6 BOKU	PP7 BFW
Grassland	PP4 WULS	LP UL BF
River training and erosion control structures	LP UL	PP11 IMGW-PIB
Urban	PP3 IU	
Wetland	PP5 CMCC	PP4 WULS

Table 3: Results of not direct exploited projects for building synergies with the TEACHER-CE Toolbox CC-ARP-CE

Project (PPs involved)	Short description of tool and content
<b>NOT DIRECTLY EXPLOITED EU PROJECTS FOR BUILDING SYNERGIES</b>	
CE boDEREC (UL, ADBPo)	Pharmaceutical Drug Residues in Drinking water (water quality management) <b>Very specific goal, no explicit synergies</b>
DTP CAMARO-D (UL, BFW, BOKU)	Management of land use impacts on the water regime <b>Catalogue of measures: integrated by selection of the expert group</b>
DTP Danube Floodplain (UL, GWP-CEE, MTDWD)	Reducing the flood risk through floodplain restoration along the Danube River and tributaries <b>Very specific goal, no explicit synergies</b>
DTP DAREFFORT (UL)	Danube River Basin Enhanced Flood Forecasting Cooperation <b>Too general, no explicit synergies</b>
DTP REFOCuS (BFW)	Forest management under climate change: Spatially explicit maps of which tree species to plant in Riparian zones, their vulnerability etc. These maps also take into consideration water level and some other hydro morphological parameters. After species selection where to get seeds and planting materials for such tree species. <b>Catalogue of measures: NO Outputs are similar as SUSTREE.</b>
CEF Telecom HIGHLANDER (CMCC)	Management of lands under the challenges posed by climate change. <b>Very specific goal, no explicit synergies</b>
H2020 OPERANDUM (CMCC)	Reducing hydro-meteorological risks in European territories through innovative green and blue/grey/hybrid Nature Based Solutions. <b>Very specific goal, in TEACHER-CE not all risks addressed, NBS already in Framwat</b>
H2020 SHui (BOKU)	Develops and implement new strategies to increase water use efficiency and yield, based on sustainable intensification through integrated use of soil and water across different spatial scales. <b>Very specific goal, no explicit synergies - not TEACHER-CE focus</b>





LIFE+ ReQpro (ADBPo)	Reuse of wastewaters in agriculture for improving crops results.
	Very specific goal, no explicit synergies - not TEACHER-CE focus
V-A DE-Saxony/CZ;STRIMA II (LfULG)	cross-border flood risk management
	Project results included in RAINMAN catalogue
V-A Saxony/PL TRANSGEA (LfULG)	effects of extreme weather phenomena
	Project results included in RAINMAN catalogue
V-A; Saxony/PL NEYMO-NW (LfULG )	protection of water resources of low-water conditions.
	Project results included in RAINMAN catalogue

### 3. Conclusions

The catalogues from directly exploited projects will be harmonized and classified into Fields of actions by the assigned expert group. Not all projects from the list of exploited projects produced catalogues of measures, some of them produced modelling tools instead. These projects will be integrated into our toolbox in two possible ways: as links to the tools or within the catalogue as a measure, which will introduce this modelling tool. Result of the review and harmonisation of the measures will be a comprehensive catalogue of measures for integration in the CC-ARP-CE.

### 4. Annexes

Communication with partners:

Annex01\_RAINMAN

Annex02\_FRAMWAT

Annex03\_SUSTREE

Annex04\_LUMAT, LifeLocalAdapt

Annex05\_DriDanube

Annex06\_JOINTISZA

Annex07\_FAIRWAY

Annex08\_C3S SOIL erosion, Coprenicus

Annex09\_LIFE+ Kampinos

Annex10\_C3S Copernicus + Soil erosion