

## REPORT

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D.T3.3.3 Report about Implementation of  
Value Calculator

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Version 1



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## 1. Introduction

The Information for D3.3.3 Report about the Implementation of Value Calculator of RURES project was based on the information from previous results developed in the project. The online Value Calculator (VC) was created as part of the RURES project and is a major output of the transnational work during the project. All extra necessary information was combined by the external sources, eg. [www.iea.org](http://www.iea.org) and also interesting similar information about RES, like open sources. The tool was created by the project partner VŠB-TU Ostrava (PP11, TU Ostrava), who is a specialist in the field energy utilization and especially RES. The mission of this report is to present information about way of implementation of the Value Calculator tool by all partners.

## 2. Principles of RURES value calculator

Main aims of the team during the Value Calculator creation

- Improve the promotion of the use of RES with the simultaneous use / extension of digital literacy and IT thinking.
- Creating a new software application in the field of RES utilization and thus creating a new digital educational resource. Involvement of innovative and knowledge potentials of the project partners involved.
- Provide methodological and technical support for the use of the created application in digital technology in the field of using RES within the Value Calculator.
- Promote innovative methods of using RES with the help of digital technologies and disseminate good practice examples to VC users.

Value Calculator structure

- Selection of legal form of the entity
- Selection of RES source (geothermal, biomass, heat pumps, photovoltaic)
- Answering some question about the location and expected “products”
- Expected impacts (models, environmental and financial benefits)

Technical details:

- According to the detailed analyses of previous deliverables of the T3 work package in the RURES project and newly collected information, including own knowledge and studies of others sources (web pages, similar calculators, and discussion with partners and other companies specialized to the RES system installation), TUO prepared a structure for the Value Calculator (questions, answers, examples).
- The application layer is written in C#
- The Calculator is developed in Microsoft Visual Studio, Version 16.0.



- Internet Information Services (IIS)
  - o IIS works with ASP.NET Core
  - o the presentation Layer
  - o using the HTML5
- Calculator is realized in multilanguage mutations to make it easier for stakeholders

#### Summarized

- User-friendly output structure for LSGs
- Expected increase in RES shares in energy structure
- Clarification of the basic principles chosen by the RES for the general public
- Possibility to test all selected RES (biomass, geothermal energy, photovoltaics, and heat pumps)
- Multilingual output mutations, the possibility of further language versions

The outputs will be used primarily in the NUTS regions of the partners involved, but are made available to all potential users in the form of open access. In general, the Value Calculator is valid for NUTS regions other than those involved, but are receiving potential open access to potential new users

### 2.1. Extension and update options

The Calculator is developed in Microsoft Visual Studio. The advantage is one place and one development and management tool. The calculator will continuously provide information on generally applicable technical laws in the field of heat pumps, geothermal energy, photovoltaics and biomass use.

The created output will be updated at pre-agreed intervals (1x6 months), it will be mainly service interventions or incorporating groundbreaking ideas. The information contained in the output is generally valid. It is currently agreed to use the output in all regions involved to the project. If other regions are interested, the created tool can be extended. The sustainability of the output is assumed for 3 years.



## 3. Implementation

### 3.1. Implementation strategy generally

Implementation is the process of planning the implementation of a strategy. This process typically involves programming, budgeting, and procedures. Implementation is the most critical and crucial element of strategic management. Without it, nothing will change. The project identified indicators of this strategic operation, namely the number of users using the Value Calculator.

Soft indicators, such as user satisfaction, should also be part of the strategy definition. To this end, an “LSG satisfaction questionnaire” will be created and anyone who receives training will have the opportunity to enter their findings into the questionnaire. Some of this knowledge will then be incorporated into the final version of the calculus.

Implementation progressed in three steps:

- making strategic analyses
- selecting and formulating the best approach to the calculator
- custom implementation strategy

### 3.2. Implementation strategy, expected results of implementation of the Value Calculator

The Implementation strategy was elaborated within the project in general and especially in the presented output. The principle of the so-called functional strategy (the lowest hierarchical point) was used for its elaboration. Functional strategy, which offers the possibility to think in more detail and develop a long-term plan (strategy) for the so-called functional areas of the VC. The functional strategy was elaborated especially during the creation of the VC, when the main focus was on the subsequent applicability of the VC results. The strategy was communicated with the project partners.

As part of the implementation activities carried out, the mission and vision of Value Calculator, which stands at the very top of the strategic hierarchy, has been elaborated. The mission is a timeless expression of the basic meaning for which VC exists and is being used. The mission of VC is to introduce possibilities of further development of RES utilization and identification of strategic options/types of RES for involved partners.

The vision, on the other hand, is an expression of what a VC should look like in a very long time horizon. VC's vision is aimed at expanding the number and structure of VC users in other language versions. Both quantities were formulated outwards, in the sense of “inside” they were already prepared in the form of strategic documents prepared by the LP in the project design.

Subsequently, the Strategic Analysis was elaborated. This analysis was based mainly on previously processed analyzes of individual outputs and their detailed evaluation. This was consistent with the fact that strategic analysis is a set of analyzes that can be used to support decision making on strategy.



The analysis discussed possible risks that would be omitted without a more systematic approach. At the same time, close cooperation with project partners did not neglect any facts and new opportunities to use RES.

The internal analysis, which was carried out during the preparation of the project proposal, made it possible to define the potential of the team and to apply the results out. The implementation strategy was given by the project framework, including the sustainability period.

As part of the implementation activities, the following strategy was chosen

- **WHAT** - what activity or project should a given area of the company realize in a given period?  
Enable the use of VC LSGs,  
ensure PR activities for a given output,  
after training to incorporate any comments of LSGs
- **WHO** - is generally responsible for the implementation of the activity or project.  
With the help of project partners ensure the use of VC.
- **WHEN** the activity or project is to be implemented,  
Provide LSGs training by the end of the 6/2020 project
- **HOW MUCH**  
Everything is realized within the approved project budget

### 3.3. Testing of the Value Calculator by all partners, recommendations for improvements

In the course of compiling the calculator, the Czech version of VC was first created. This trial version was tested by the stakeholders and the findings were continuously implemented in the final version.

The comments concerned in particular

- User friendly environment
- Question structures
- Methods of evaluation of answers
- Selection of model examples
- Geographical specifics

Based on these comments, the final English version was created. Within the VC testing, the English version was intensively tested by partners. During implementation and testing, partners were actively involved.



After collection of first comments, an improved VC version was prepared. This version was again subject to partners for their next comments. During implementation and testing, partners were actively involved.

A joint meeting of project solvers in Čakovec was also used for active discussion. During this meeting, the responsible partner (TUO) presented the progress achieved and the knowledge gathered (also knowledge gained from BP, etc.). Individual outputs of VC were presented. Again, all project partners and their expert experts were asked for feedback.

From the meeting were created some tasks for partners and feedback of discussion were incorporated in the VC.

The comments concerned in particular

- Due to the convenience of using the calculator, the requirement to compile the calculator in all language versions was supported, not all LSGs are language equipped and if only one (English) language version exists, the range of users would normally be reduced
- Prepare the possibility of creating additional language mutations in the future
- Some variants of the cyclical decision-making chain have been subject to minor modifications, eg the definition of the applicant's legal form, the method of defining the subsidy, etc.
- Comments have also been provided to help information appearing in "help", in particular how detailed we are
- Special attention was paid to the handbook and its language versions,

TUO collected in the report the suggestion, comments, questions, which were received via e-mails and phones. Based on the comments received was created new version.

- Provide methodological and technical support for the user/s of the created application in digital technology in the field of using RES within the Value Calculator.
- Promote innovative methods of using RES with the help of digital technologies and disseminate good practice examples to VC users.
- Prepare the possibility of creating additional language mutations in the future

## 4. Summary

- Implementation strategy
  - o Partners are using the link <https://decisiontree.eu/>, <http://decisiontree.eu/>
- According the AF partner TUO prepared the English (and Czech) version, all the partners were/are testing it.
- Their comments are (and new in the future will be) incorporated in the national language version of VC for the LSGs.



### *The impact of the following areas can be expected:*

Municipalities and their life, entrepreneurs, natural persons

- using RES will develop community and protect the environment
- developing awareness of the marginal conditions for using RES
- the use of RES is of a long-term nature
- visible qualitative changes in RES utilization are only in the long term, short-term effect can be seen only by limiting the use of fossil fuels in the locality
- changing the attitude of the population in relation to the environment
- development of technical infrastructure
- energy savings
- creating conditions for the use of renewable and environmentally friendly energy sources
- increased awareness of environmental protection options in the region
- gentle management of vital raw materials
- increasing the energy self-sufficiency of municipalities and the region
- public involvement and citizens' initiatives as a precondition for establishing a relationship with the environment





- the usefulness of the knowledge acquired in the coming years

Thanks to the project

- developing new partnerships
- developing international and interregional cooperation

Based on the above, the best implementation strategy

- free access to the calculator in language mutations
- tracking number of hits
- privacy - anonymity of approaches (https)
- compiling a legal document with selected users in accordance with the project documentation (in the next period)

After the finalization of the tool (VC) and summarization of comments, by the end of the semester, it is planned the dissemination for January 2020 during the Info-Therma fair. The tool (VC) is prepared for use. But during the tool is going to be a work on real condition (by LSG using) it will be improved, which means the more it is used and disseminated by partners, the more it can and will be improved as well during the last project semester.