

Upscaling “Building and Planning Culture” to a Regional Level in Römerland Carnuntum (Lower Austria)

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1 ABSTRACT

Under the term "Baukultur" (building culture), there have been a large number of success stories in Austria in the construction of new buildings or the renovation and transformation of existing buildings. But regional planning and design advisory boards such as the Neusiedler See World Heritage Association (Burgenland, Austria) or the "Rhätische Bahn" advisory board (Kanton Chur, Switzerland), institutionalized above single municipal initiatives (Verein Welterbe Neusiedler See (Hrsg.), 2011; Clemens, n.d.), are still rare. Basically, the term "building culture" (in German: "Baukultur") is much more popular than "spatial planning" (in German: "Raumplanung"), but still misleading and incomplete. Building and planning projects are often preceded by a "common history" during many years of discussion and decision-making processes with different stakeholders, and various instruments involved on the local spatial planning level. Thus, a more comprehensive term, instead of "building culture" would therefore be "building and planning culture" (in German: "Bau- und Planungskultur").

This paper describes how the use as well as the procedure of a Regional Planning and Design Advisory Board (REGB) is prototypically tested in a real-world laboratory, within the framework of a transdisciplinary research project (RLC 2040). The goal is future institutionalisation within the regional development association to aim for quality assurance in planning and building projects with regional relevance in the Römerland Carnuntum region. The participatory workshops including municipality representatives and interested citizens of the regional "future council" (an institutionalised civic platform) identified seven characteristics to classify the regional relevance of building and planning projects. It can be stated that basically every project is regionally relevant whose positive as well as negative impacts are clearly reaching beyond effects on a single municipality. Based on this fundamental finding, the paper discusses the construction and functioning of the catalogue of criteria used for project evaluations and the linkage of these criteria to the five fields of action ("Handlungsfelder") developed for the vision of "RLC 2040". It also explains the possible uses of the catalogue of criteria beyond project evaluations and what added value the different types of the 30 municipalities from the "Römerland Carnuntum" region may gain by using this toolbox. The paper concludes with a summary of the advantages and disadvantages of the advisory board (REGB) draft.

Keywords: transdisciplinary planning, regional design, advisory boards, regional development, building and planning culture

2 MOTIVATION AND METHODOLOGY

The Römerland Carnuntum region is located in the metropolitan area between Vienna and Bratislava in Lower Austria and consists of 30 municipalities with 90,426 inhabitants (Statistik Austria, 2019a) in an area of approximately 613 km² (Bundesministerium für Digitalisierung und Wirtschaftsstandort, n.d.). It is one of the most dynamic growing regions in Austria with a population increase of about 17 % between 2002-2018 (Statistik Austria, 2019b). The region recognises building cultural guidelines as opportunity for integrative, sustainable and high-quality spatial development. This is why the region can be seen as a pioneer for planning and building culture throughout Austria. The ambitious goals of a quality planning and building culture in the region, which were developed in the predecessor project "LENA – Shaping our Living Space Sustainably Together" in 2018-2019, are to be implemented inter-municipally through the establishment of a Regional Planning and Design Advisory Board (REGB) for upscaling planning and building culture to a regional level.

Traditional instruments of spatial planning, structural policy and regional development increasingly show deficits regarding control and innovation in the face of complex and multidimensional challenges (Dentoni &

Bitzer, 2015; Klein et al., 2001). Therefore, new forms of cooperation were initiated and have to be institutionalized in order to support “Sustainability Transitions” (Schäpke, 2018).

The review of the basic principles and working methods of existing planning and design advisory boards is based on a secondary literature research, which is supplemented by guided interviews with experts who were entrusted with or involved in the development process of the analysed advisory boards. The methodological approach of the practical part is based on that of a real-world laboratory (Beecroft & Parodi, 2016) and consists of several components. It was conducted as systemic consensus building (Institut für Systemisches Konsensieren, n.d.) in a participatory process in which the essential questions were worked out with the interested population and municipality representatives of the region, regarding the planning requirements of an advisory board (content-related focal points including the spatial reference levels considered, organisational methods, financing and technical, administrative processing in the course of project accompaniment). The development of a catalogue of criteria with a rating tool and a procedure for the technical operation of an advisory board provided the basis for a test run with experts on a real project. A final scientific report will be produced on the institutionalisation of the regional advisory board (REGB) in the Römerland Carnuntum region as well as the transferability of this initiative to other regions.

3 INTRODUCTION TO THE AUSTRIAN “BUILDING AND PLANNING CULTURE”

The term “building culture” is still better known to the general public than the term “spatial planning”. On the regional scale, however, the term building and planning culture is much more appropriate, because it deals not always just with the design aspects of single buildings, but also with much larger and more integrative projects. The following section 3.1. first briefly describes the Austrian “Baukultur” history and the “LENA” project which led to a real-world laboratory that aims to establish a regional planning and design advisory board (REGB).

3.1 Austrian building culture – guidelines

In 2017, the building culture guidelines were adopted by the Council of Ministers, with which the federal government acknowledges its responsibility for Austrian building culture in its own sphere of influence. The aim is to promote building culture comprehensively. This is to be achieved by raising broad awareness in society, in particular among those with responsibility for this in politics, administration and business. An overall strategy at the federal level to anchor building and planning culture as an interdepartmental cross-sectional issue at the federal, provincial and municipal levels is to support these projects. The design of anthropogenic living space is always connected with the emergence or development of building and planning culture, which manifests itself physically as well as in terms of the design of buildings, public space, technical and social infrastructure buildings, industrial parks and village centres. The daily life of different user groups is shaped by the quality of building culture. This has a direct impact on the spatial behaviour of the population, which is determined by building and planning structures as well as the distribution of uses and is thus directly correlated with the quality of life to be found (Bundeskanzleramt, Abteilung II/4, n.d.).

How we design and change cities, towns and landscapes, in what processes and with what results, is what creates identity for the population. Successful building culture enhances the quality of life and upgrades business location. In this context, architectural and design aspects and the quality of internal and external development must be considered at the building and neighbourhood level in order to ensure optimal usability in accordance with the function (e.g. typical local development forms and architecture, local (public) transport connections, barrier-free access). At the local and supra-local planning level, the spatial-structural quality is important, which depends on the distribution of use of demanded functions in the area and has a significant effect on mobility behaviour. This influences the quality of life through noise and pollutant emissions as well as through required time expenditures. The desired sustainability goals of spatial planning cannot be solved at the administrative level of the municipality as it requires regionally coordinated spatial development. (Bundeskanzleramt, Abteilung II/4, n.d.) It can be concluded that building and planning culture goes beyond the architectural design of buildings and includes all elements of the built environment even outside protected zones and valuable sites, for example, the revitalisation of town centres and the high-quality design of streetscapes, squares and green spaces (Klingler, 2018).

3.2 Transfer of building and planning culture on the regional level of Römerland Carnuntum

In the project "LENA – Shaping our Living Space Sustainably Together" (2018-2019), the Römerland Carnuntum region has intensively dealt with its living space. The starting point was an extensive discussion process with local stakeholders, as well as external experts, on issues related to the processes of construction activities to maintain and promote the high quality of life. The results of the project are the Pactum Römerland Carnuntum and LENA's Toolbox in which principles and guidelines for future living space development were formulated. In the process, the federal guidelines for building culture have been transferred to the regional level for the first time. The Pactum is a commitment of all municipalities to common principles for a regional planning and building culture. LENA's Toolbox contains ways in which the principles can be implemented. One promising implementation option is the establishment of a Regional Planning and Design Advisory Board (REGBs), which was decided in the course of the "LENA" project (Dillinger et al., 2019).

The Römerland Carnuntum region is economically attractive and at the same time offers a high quality of life. In order to maintain these strengths in the future, the region has committed itself to a quality building and planning culture. In this context, buildings, streets and squares, traffic areas, village and town centres, as well as open spaces are part of the so-called built environment. Building culture arises wherever people are involved in shaping their living space, which has a significant influence on the quality of life in the region. The following four elements for a regional planning and building culture have been defined:

- (A) Preserve and carefully develop settlement and landscape areas
- (B) Observe and establish regionally typical construction and living
- (C) Improve communication within the region and between all planning participants and stakeholders
- (D) Promote attentiveness, awareness and knowledge of building culture issues (Dillinger et al., 2019).

These four elements were further differentiated and principles were derived from them. They are laid down in the Pactum Römerland Carnuntum, to which the signatory communities from the region commit themselves and formulate:

“We want to promote the quality of life for ourselves and our descendants by planning and carrying out all construction activities with care. Furthermore, we want to create better framework conditions for future-oriented construction and cooperate regionally” (Preisinger & Rupp, n.d.).

4 THE PROJECT “RLC 2040” AND REAL-WORLD LABORATORY “REGIONAL PLANNUNG AND DESIGN ADVISORY BOARD” (REGB)

The Project team of “RLC2040”¹ consists of 15 people from the University of Technology Vienna, the University of Life Sciences Vienna, the regional development agency Römerland-Carnuntum (30 municipalities) and the “Club of Rome Carnuntum”. RLC2040 has a transdisciplinary character, meaning to support the self-empowerment and self-organisation of the regional actors towards a “pervasive” transformation, instead of doing another research that ends with its financial support. Among the project methods are scenario processes (e.g. back-casting), visioning, accompanying research (q method), serious games and two real laboratories. For several reasons, the preconditions in the Römerland Carnuntum region are outstanding among the Austrian regions:

- Decades of experience in inter-municipal and regional cooperation with lots of success stories;
- A well-trained and well-experienced staff of 20 people within the Regional Development Agency;
- A pretty active and socially diverse “crowd” from the civil society, willing to join and work in the numerous and various events and workshops.

After the first project year in spring 2020, our research was “struck” by the Corona pandemic which made it necessary to totally redesign all out events and workflows, but so far this was pretty successful and has even empowered some people to participate who might have stayed “invisible” in “non-digital” events. Within the visioning scenario, we started with five thematic reports or “fields of action”: (fellow) human beings, landscape & settlements, climate-energy-mobility, economy-agriculture-tourism and education-culture-

¹ See documentation (german only) at <https://rlc2040.at/>

innovation. Those five reports formed the initial input to aim, over several workshops, for a common vision which meanwhile led to several realistic projects that have started during the remaining project time (spring 2022) but will proceed far beyond that timeframe.

A speciality of RLC2040 are the two real laboratories. The first one is the REGB and the second one is called “future council 2.0.” aiming to transform the current council body into something self-empowered, being active, transformative and creative also after the RLC2040 project is completed when the funded manpower of the research team will no longer be available.

The REGB aims to apply the LENA principles under “practical” conditions, together with surveys of the institutionalisation aspects from a perspective of a future “serial” use.

4.1 Finding a consensus on the “Regional relevance” of projects to be surveyed (or not) by the REGB

Together with municipality representatives and other interested people from the civil society from the “future council”, it took four workshops before seven characteristics were consensually identified. These seven characteristics determine whether a project draft has or has not a “regional relevance”. Herein, regional relevance does not only stand for importance clearly beyond the borders of a single municipality, but also to make sense that the REGB council should do an evaluation. If one or more of the following characteristics are true, this is the case:

- Development of large residential projects (both greenfield and local urban/central development projects)
- Large additional business areas (e.g., zoning and positioning of commercial units)
- Cross-municipality social infrastructure facilities (education, culture, health)
- Mobilisation of areas for potential energy plants that do not supply only one municipality
- Mobility supply
- Comprehensive transformation of an existing settlement (e.g., retroactive densification, revitalisation, reuse)
- Creation of regional strategies and concepts.

Although these seven criteria contain many fuzzy terms, the project team deliberately refrained from operationalising them in the first pre-selection stage. A more detailed evaluation will only take place in the second stage. Sections 4.2. and 4.3. show the “matrix” of the experts involved and the second, thorough evaluation step undertaken by using a MS Excel based toolbox that collects und summarises all the recommendations.

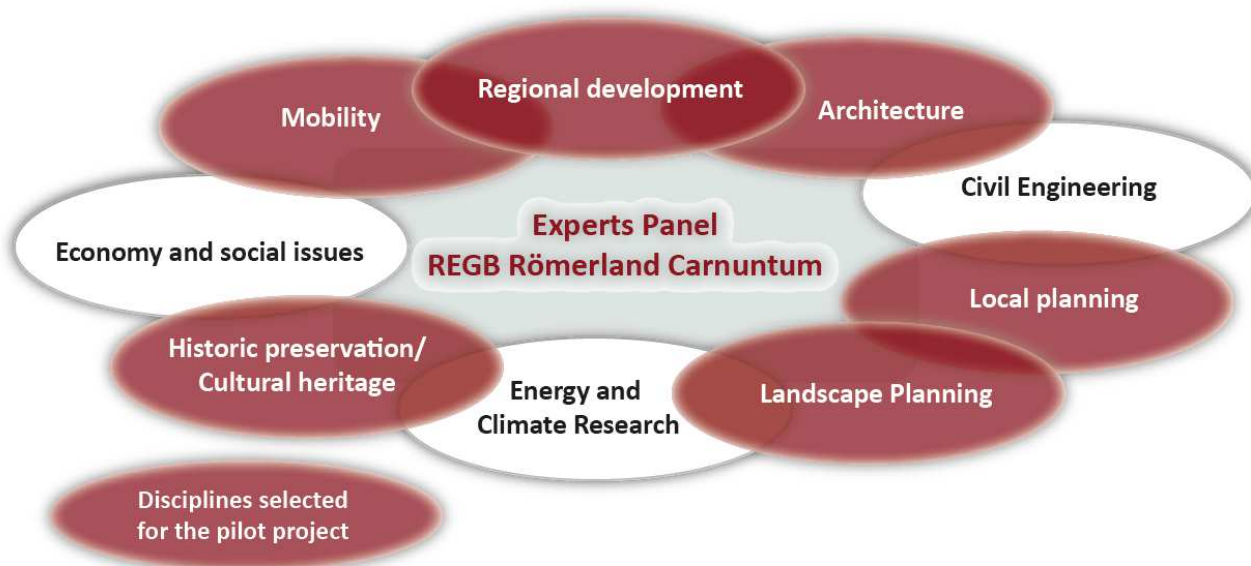


Fig. 1: Thematic clusters in the REGB “experts panel”

4.2 Constitution and workflow of the Regional Planning and Design Advisory Board

With regard to the constitution of the REGB experts are involved from the disciplines spatial planning, architecture, mobility, landscape planning, climate and energy research, civil engineering, monument preservation and cultural heritage, economy and social affairs. For a residential pilot project, experts of five relevant disciplines were selected to test the prototype (Fig. 1). It should be noted that a balanced and gender-appropriate constitution is required. The experts should bring along an relevant knowledge of the region, while excluding a possible bias. Regarding to a future seriality of the REGB Römerland Carnuntum the constitution can be selected accordingly, depending on the topic-specific task of planning.

The Regional Planning and Design Advisory Board (REGB) is available to all 30 municipalities of the Regional Development Association (REV) Römerland Carnuntum. The regional relevance of projects is assessed in advance. If a project is of regional relevance, the REGB advises the municipalities concerned and makes recommendations for their municipal implementation without competing existing procedures. Thus, the Advisory Board initially assesses projects, but also strategies and concepts. The research team from RLC2040 developed a draft catalogue of criteria for the test run, while the advisory board may develop further criteria in the future.

Fig. 2 shows in detail the elaborated work flow of project assessment, which have been tested in the first test-run. It was adapted respectively and refined via iterative feedback loops in coordination with the experts involved. Basically, a project in a municipality presents an occasion for assessment. Such a project is submitted by the municipality to the Regional Development Association, which assesses its eligibility for examination on the basis of criteria of regional relevance and the vision for the region. If a project is regionally relevant the expert committee assesses the project and submits an opinion, which may contain recommendations for quality improvement with regard to the catalogue of criteria created to promote sustainable spatial development.

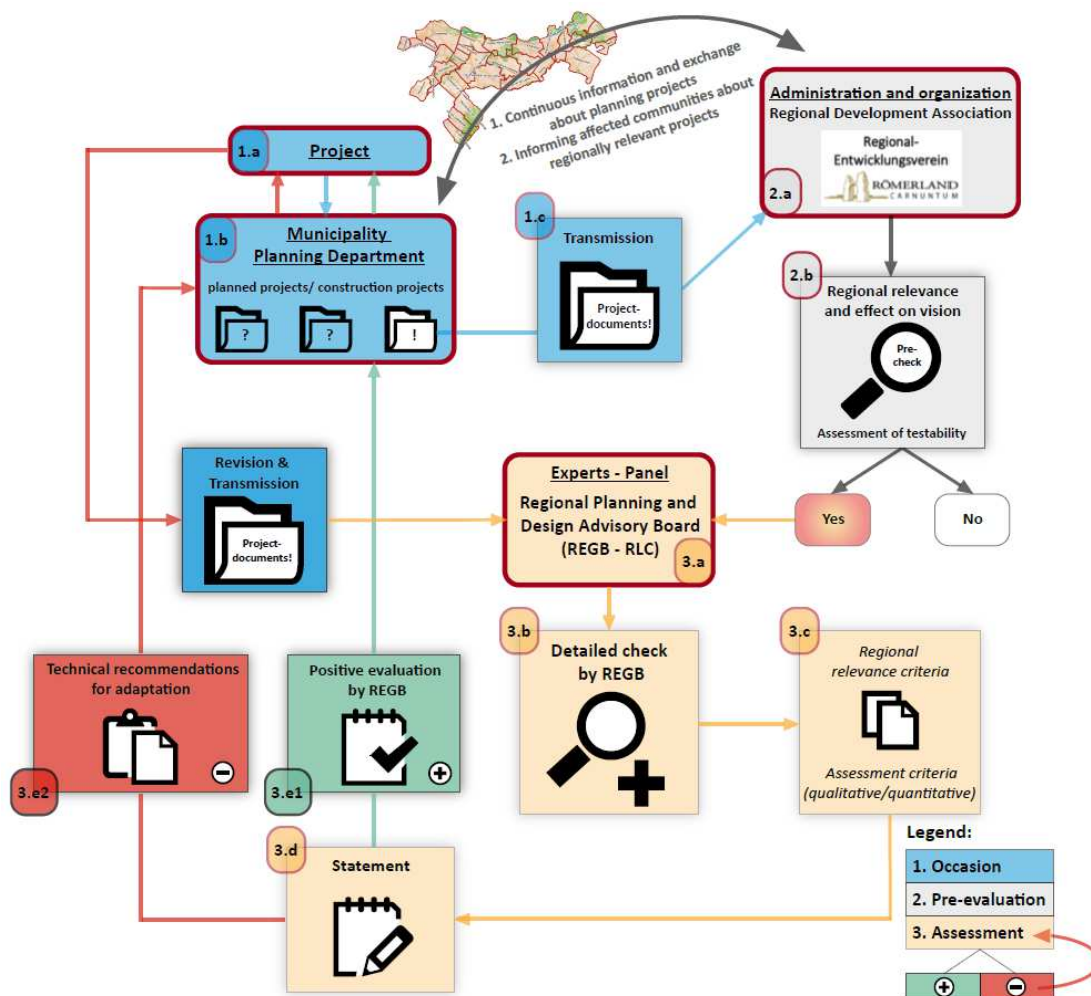


Fig. 2: Workflow of the advisory board (REGB)

4.3 Catalogue of Criteria and evaluation tool

A toolbox was created with MS Excel to be able to collect the opinions of experts on a specific project in a standardised, comprehensible and simple way (Fig. 3). The following screenshot shows how this toolbox works and which settings are available. The complete list of 29 evaluation criteria from five fields of action is shown in the appendix.

	A	B	C	D	E	F	G
1					Weight: Criteria	1	Threshold value
2							49%
3					Weight: regional impact	1	
4			Criteria value (Pulldown, yes-no-not clear)	Impact on the REGIONAL vision (Pulldown, not very important, important, very important)	Criteria Points (auto-generated)	Are recommendations necessary? (auto-generated)	Recommendations if "F" is "yes", please type some recommendations
5							
6	C_index	Criteria for the field of action "People and Fellow Human Beings" Vision: https://rlc2040.at/handlungsfelder/handlungsfeld-1-mensch-mitmensch/					
7	MS_1	The planning project respects the daily needs of different population groups (children, youth, working people, retired people, ...).	no	very important	1	yes	text text text
8	MS_2	The project covers services for which there is a need at the communal level.	yes	very important	0	no	

Fig. 3: Screenshot from the REGB Toolbox (MS Excel)

Each of these criteria has an evaluation line and is evaluated twice: once in terms of local impact (column C) and once in terms of impact on the regional vision (column D). These two evaluations are used to generate a score using a VLOOKUP function, and this score is used to generate a "yes" or "no" answer to the question "Are recommendations necessary" via the threshold value (G2).

The screenshot shows the default setting: The weighting between local and regional importance is set to be the same (1:1), but this ratio can be changed in the F1 and F3 fields if it is suitable for the project situation. Likewise, the threshold can be changed between 0 and 99% to be able to simulate how this affects the amount of recommendations.

Each expert fills out an excel file, after which the individual files are merged and summarised and evaluated both in tabular and text form. This report can be passed on to local stakeholders. It contains all recommendations and all evaluations in a very comprehensible and transparent way.

5 CONCLUSIONS, DISCUSSION AND PERSPECTIVE

In the future, the Regional Planning and Design Advisory Board (REGB) could be available for all 30 municipalities of the Regional Development Association (REV) Römerland Carnuntum. The regional relevance of projects is assessed in advance by the REV. If a project is of regional relevance, the advisory board advises the municipalities and makes recommendations for their municipal implementation without competing existing procedures. The REGB initially assesses projects, but also strategies and concepts according to the criteria defined. At the moment, the advisory board is still in a test phase, but this paper has shown that both the evaluation criteria and the recommendations already work very well as a common toolbox. But there are still some steps to be taken and discussed to institutionalise it:

- After a unanimous decision of all mayors, the advisory board would need an ongoing, secured funding and an ongoing adaptation of the evaluation criteria during further practical applications;
- The regional non-binding nature of the recommendations would continue to exist in the future. This disadvantage may or may not be problematic, for example if the mayors voluntarily commit themselves to fully respect the recommendations of the advisory board.

Regardless of the specific test of the Römerland Carnuntum region, the evaluation tool offers the following options:

- It has a very high transferability for use and testing in many other regions. This would also have the advantage that after a few years an interesting collection of case studies could be created and collected. and this collection would be valuable for the exchange of experiences between the regions and the further improvement of the catalogue of criteria.
- The toolbox does not have to be used in its entirety; only parts of the criteria (even without text recommendations) can be used, for example to obtain a quick and simple overview of a project. which becomes also particularly easy when comparing several project variants for one location.

The authors are convinced that the advisory board REGB will be an exciting contribution to the future sustainable regional development of the Römerland Carnuntum region and are very much looking forward to the future improvements of the toolbox and also on feedbacks on the real-world laboratory.

6 APPENDIX

Criteria set of the “REGB” toolbox (29 criteria in 5 fields of activity).

C_index	Criteria for the field of action "People and Fellow Human Beings"
MS_1	The planning project respects the daily needs of different population groups (children, youth, working people, retired people, ...).
MS_2	The project covers services for which there is a need at the communal level.
MS_3	The project covers services where there is a need at the regional level.
MS_4	The project promotes population growth in the municipality.
MS_5	Does the project strengthen the regional identity?
C_index	Criteria for the field of action "Landscape and Settlement"
LS_1	The project promotes a transformation of existing buildings in the sense of inner central development (strengthening of local/regional centres; building densification).
LS_2	The design preserves the architectural heritage of the region, handles it with care and develops it further in a contemporary manner.
LS_3	The design preserves the architectural heritage of the municipality, handles it with care and develops it further in a contemporary way.
LS_4	The design includes high-quality qualitative and quantitative ideas on open and green spaces (private; semi-private; semi-public; public).
LS_5	The project embeds itself in the surrounding cultural landscape in terms of construction and landscape.
LS_6	The planning project preserves green and open spaces through a mindful and coordinated development of habitats.
LS_7	The planning project does not cause any landuse conflicts of use (no=it does!).
C_index	Criteria for the field of action "climate, energy and mobility"
KEM_1	Aspects of climate- and resource-friendly planning and construction exist in the design (consideration of a high overall energy efficiency of the project).
KEM_2	The planning project includes a concept for sustainable energy supply (heat demand for heating + warm water and options for local supply – share of renewable and/or decarbonised energy production).
KEM_3	A convincing, local mobility concept has been prepared with the design, including safety and layout of the pedestrian and bicycle connections.
KEM_4	Is there a good connection between the regional and the local mobility means (quality/frequency)?
KEM_5	Does the project promote environmentally friendly and health-conscious mobility and lifestyles?
KEM_6	Does the project respect microclimatic aspects such as the avoidance of heat islands and sufficient green space elements?
C_index	Criteria for the field of action "Education, Culture and Innovation"
BKI_1	The planning project was preceded by a municipal participation process.
BKI_2	The planning project has been preceded by a regional participation process.
BKI_3	The planning project includes flexibly usable community spaces (e.g. "discovery and experience spaces", but also for educational and cultural events)?
BKI_4	The project has a positive effect on an increased local culture of participation.
BKI_5	The project has a positive impact on an increased regional culture of participation.
C_index	Criteria for the field of action "Agriculture, Economy and Tourism"
LWT_1	Does the project generate additional jobs?
LWT_2	The planning project leads to a significant increase in municipal tax revenues.
LWT_3	The project promotes inter-municipal cooperation – costs and benefits are coordinated across municipalities, (land) resources are saved.
LWT_4	The project does not cause any/low additional land demand
LWT_5	The project promotes the supply of products from municipal agriculture
LWT_6	The project does not reduce fertile farmland soils (no=bad=it reduces soils; yes=good=no reduction!)

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