

Zukunft Bau

STRUCTURE SHORT REPORT

Title

Recommendations and tools for the integration of BNB sustainability criteria into PPP-projects
(Reference:S-II3-F20-10-066)

Objective / Initial position

For PPP-projects of federal buildings the Assessment System for Sustainable Building (BNB) is binding by decree, dated 31st of March 2011.

The federal authority shall be able to rate their invitations to tender according to BNB-Criteria. Therefore tools need to be developed that enable the federal authority to rate the degree of BNB-fulfillment by evaluating the sustainable aspects and the specific requirements / qualities of the project.

Subject of research

First the objective target, the representation of the problem, the procedures, the general framework as well as the basics are described.

As basis of the project the Assessment System for Sustainable Building (BNB) and the Contents of the Guideline for Sustainable Building (Leitfaden Nachhaltiges Bauen 2011) are presented in a short survey. Furthermore the Guidelines for the Implementation of the Federal Building Projects (RBBau) and the characteristics of PPP-projects are described.

Essential policies, that must be observed at constructing federal buildings and frame the course of PPP-projects, are defined.

The research and development approach is divided into two work packages (AP).

In the first step (AP1) four PPP-/ General Contractor-projects, that are certified by the German Sustainable Building Council (DGNB) or are evaluated by the Assessment System for Sustainable Building (BNB) or are called for tender including the fulfillment of the BNB-criteria are analyzed. Also it is being evaluated, which goal (gold, silver, bronze) was pursued, how this was described in the tender documents and how the claimed qualities were documented by the bidder.

Subject of the analysis and evaluation are the following four projects:

- Neues Regionshaus Hannover (NRH) - DGNB-Gold – PPP without operation
- Justizzentrum Chemnitz (JZC) - DGNB-Bronze - PPP
- Federal Ministry of Health and Social Security (BMGS), Bonn - BNB-Silver – General Contractor
- Federal Ministry of Education and Research (BMBF), Berlin - BNB-Gold – PPP - (invitation for tender)

In addition to the evaluation of each project, it is being verified which criteria are already met by observing with standards and guidelines (e.g RBBau, DIN standard) respectively by processing the BNB-criteria. General boundary conditions are analyzed resulting from the federal government users regarding the level of fulfillment. Moreover it will be derived, in which parts of invitations for tender of PPP-projects are needs of improvement required regarding BNB-criteria, to reach the achieved goal - silver rating for standard buildings.

Based on the essential results of this basic consideration and analysis of the named projects (AP1), tools and recommendations are developed in part two (AP2). These tools and recommendations shall enable the bidder to rate their projects in an early planning phase according to BNB-criteria and integrate these criteria in PPP-projects.

The approach to the task is explained. Subsequently, the general framework and system boundaries are defined, that form the basis of the tool being developed. Furthermore the tool's methodological approach as well as its structure is described, including an explanation of its components. The tool itself is an Excel-Tool, its application is described in AP2.

AP2 ends with recommendations to make different approaches by different bidders comparable already in the tendering process.

Conclusion

The aim is to enable the award giving authority to pre-rate PPP-project tenders regarding BNB using the boundary conditions and aspired qualities in order to verify the achievement of goals and to provide an assistance for the integration of criteria in the request for proposal.

The developed tool consisting of the components "Questionnaire with Result Sheet" and "Recommendation Sheets for Invitations for tenders" offers the award giving authority this pre-rating and provides text blocks, that can easily be integrated in the tender.

For comparison of different approaches by bidders during tender phase recommendations are made.

Key data

Short title: BNB-Assessment-Tools for PPP-projects

Researcher / Project Manager:
Bilfinger Berger Hochbau GmbH
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Department Sustainability / Energy Efficiency

Project Manager: Dr. Kati Herzog / Wiebke Cartelli / Alice Wildhack

Total cost: 97.100,00 €

Federal grant: 67,970 €

Contract period: 2010-12-15 until 2011-10-31

ILLUSTRATIONS:

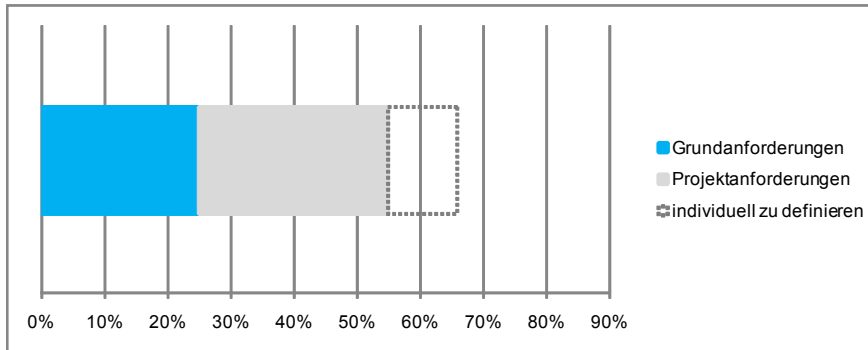


Bild 1: ÖPP- Abbildung 1_Spiegelbild Ausschreibung.jpg

Caption: Mirror image of current public tenders - existing problem of meeting the minimum requirements of the Guidelines for Sustainable Building (2011)

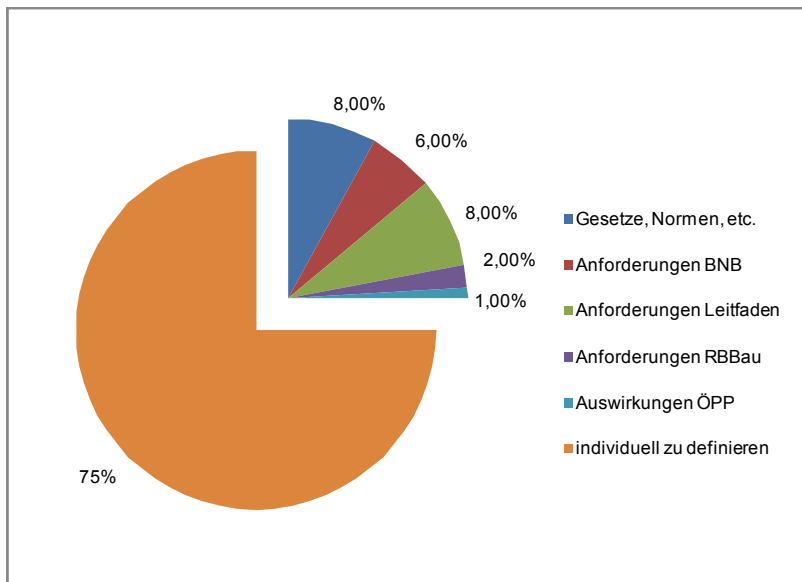


Bild 2: ÖPP- Abbildung 8_BNB-Grundanforderungen.jpg

Caption: Proportion of (project) specific defined requirements and "anyway" fulfilled requirements (basic requirements) as part of a BNB-evaluation

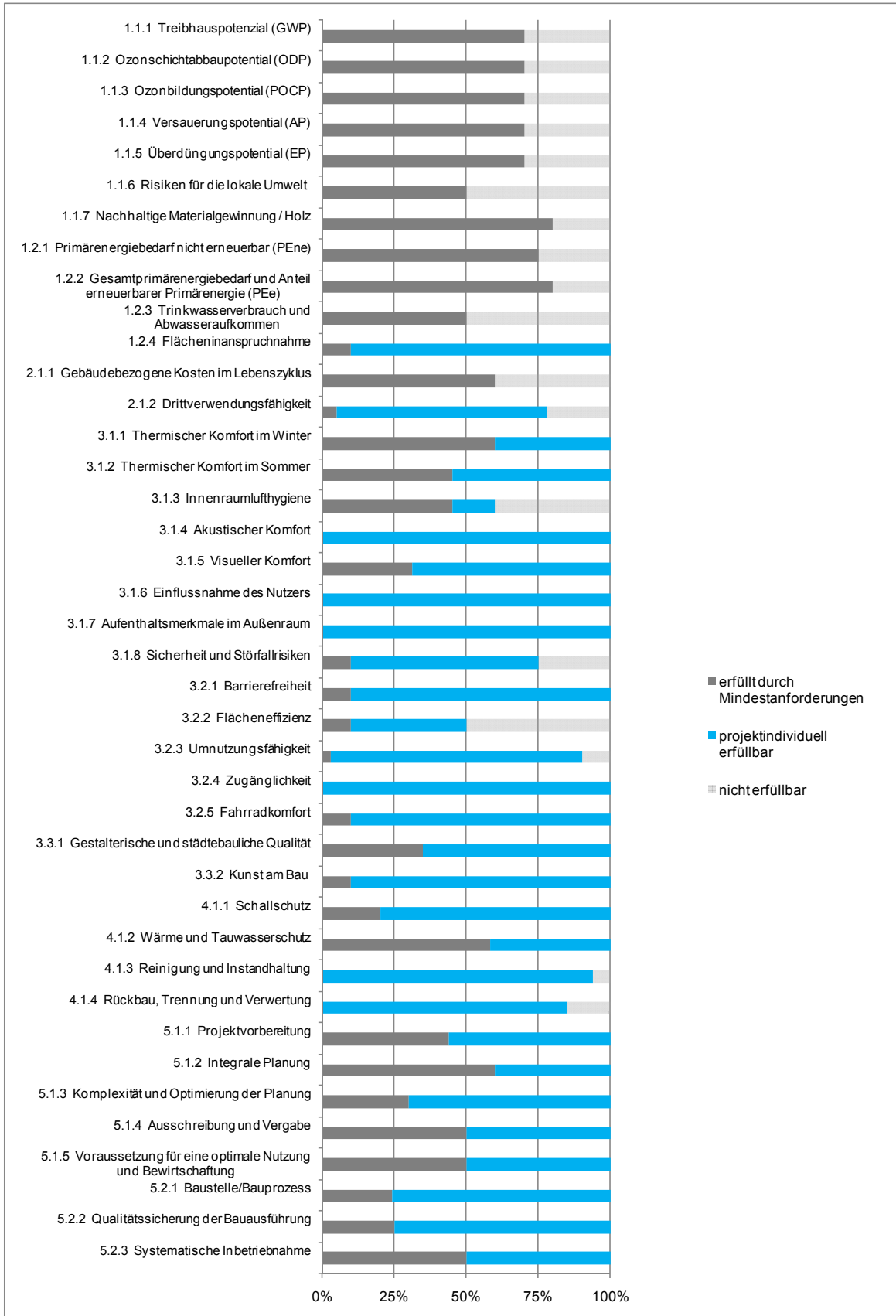


Bild 3: ÖPP- Abbildung 13_BNB-Kriterien.jpg

Caption: BNB criteria - compliance by minimum requirements, project-specific boundary conditions or non-performance due to the defined limits of the tool

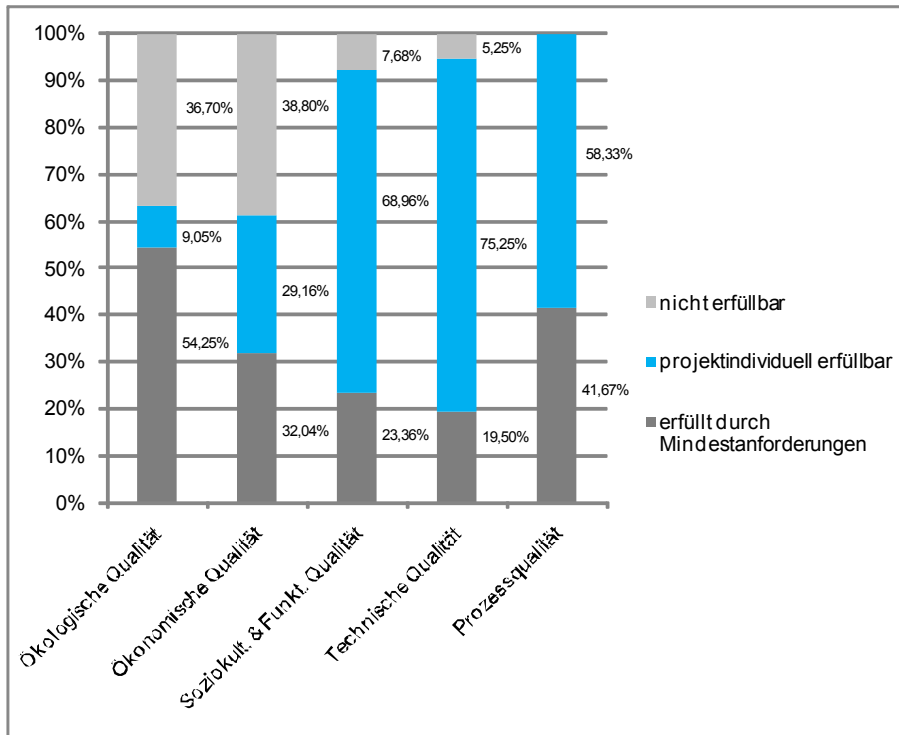


Bild 4: ÖPP- Abbildung 14_BNB-Hauptkriteriengruppen.jpg

Caption: BNB main sets of criteria - compliance with minimum requirements, through project-specific boundary conditions or non-performance due to the defined limits of the tool

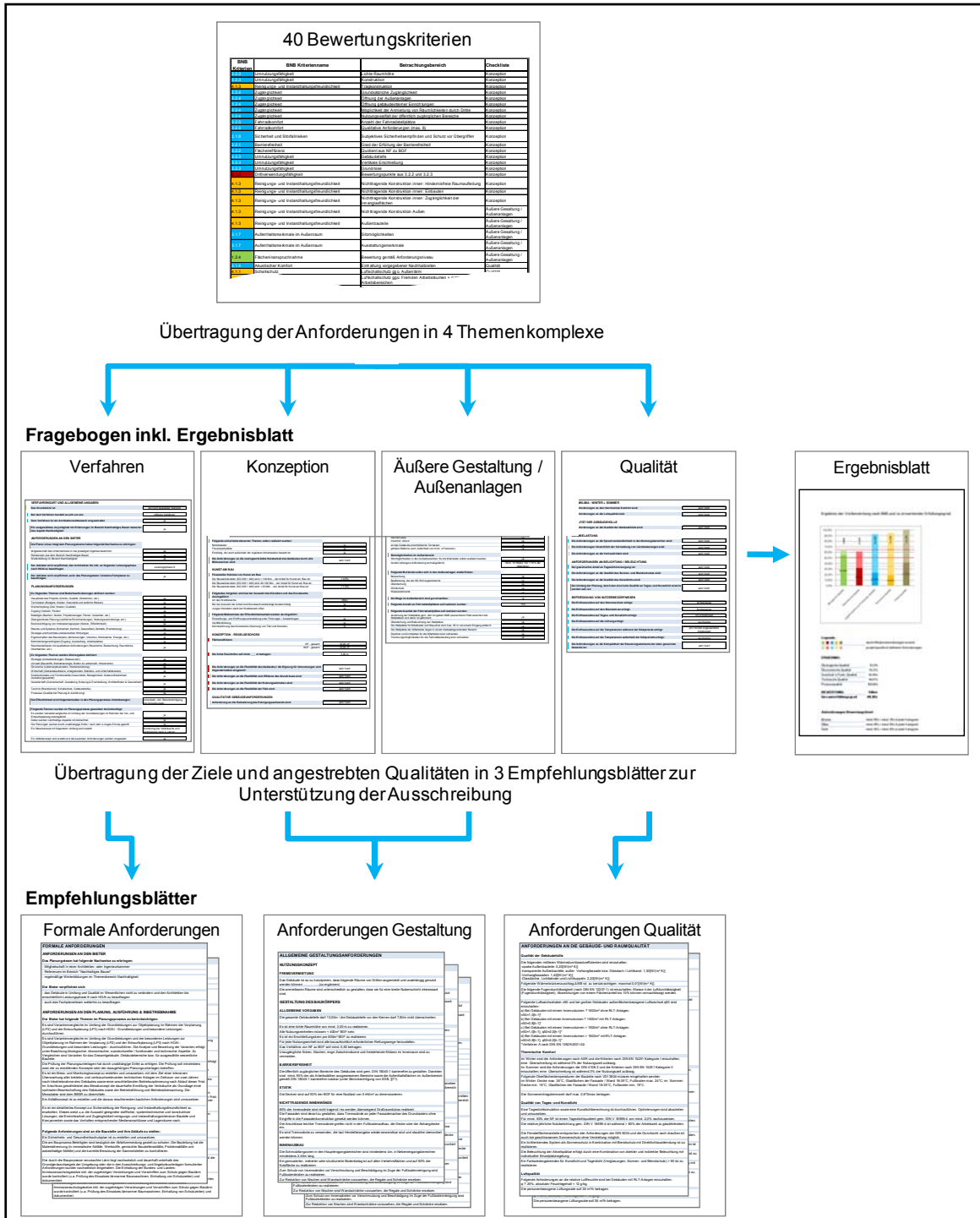


Bild 5: ÖPP- Abbildung 21_Hilfsmittel.jpg

Caption: Tools with components questionnaire, result sheet and recommendation sheets