

Formative and prospective site analysis for research institutions – the case of Davos

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BACKGROUND

Promoting a location analysis for a specific institutional group, such as research institutions, requires an in-depth analysis of the situation. The insight won in such an analysis contributes to the compiling of courses of action for an efficient location promotion. In this study, a comprehensive analysis of the research site Davos was accomplished.

However, what does „comprehensive“ imply? In economics, production site analysis is a widely accepted tool to evaluate the quality of one resp. several sites based on so-called location factors (E.g. BAK Konjunkturforschung Basel AG, 1998).

These factors are mostly analysed statically and thus considered separated from each other. This limits the usability of these analyses. The knowledge about the interaction between different factors as well as their potential future development could offer valuable information regarding the future planning of location promotion. In this study we intend to integrate system knowledge into a site analysis and to complement it by a scenario analysis. By also incorporating local knowledge, this approach should offer information needed to plan future strategic decision making and to identify feasible and purposeful policy measures.

THE CASE OF DAVOS

Davos is well-known as a holiday resort and venue for international conferences. However, Davos is traditionally also a site for research institutes. Today, four internationally renowned institutes conduct high-class research in the community of Davos: AO Foundation (a medically guided nonprofit organization led by an international group of surgeons specialized in the treatment of trauma and disorders of the musculoskeletal system), SIAF (Swiss Institute of Allergy and Asthma Research), SLF (Swiss Federal Institute for Snow and Avalanche Research) and PMOD/WRC (Physikalisch-Meteorologisches Observatorium Davos/World Radiation Center). Altogether, about 350 staff members are working in these institutes. Unlike the seasonal fluctuations in the tourist sector, the staff members are living the whole year in the area of Davos and contribute with their families to constant stability of the region.

The economy of Davos is closely interweaved with the tourist sector and the prosperity of the community is strongly depending on this sector (Walz, 2006). However, sustainable regional development should account for a diverse economy resting on several pillars. In this regard, the four research institutes offer a great potential as they distinguish the community of Davos from other tourist destinations. The mission statement of the community of Davos in 2006 mentions thus the support of the research institutes. As part of the implementation of this statement, the “Regio Plus” project “Wissensstadt Davos” (Davos, Town of Knowledge) was founded. In collaboration with the “Wissensstadt Davos” association, this comprehensive site analysis was accomplished to encourage the ongoing discussion of efficient location promotion in favour of research institutes.

OBJECTIVES

This study aims for two main objectives: The first objective is to evaluate the advantages resulting from complementing a site analysis with a system and scenario analysis and the suitability of this combination of methods for the formulation of policy measures. Second, the specific situation in Davos should be described: which factors contribute to the “research site Davos” according to the local institutes and which supportive measures are possible.

APPROACH

Framework

The Formative Scenario Analysis (FSA), as detailed by Scholz&Tietje (2002), provides – with some modifications – the methodical framework of this study. FSA has been applied to various subjects, especially in the transdisciplinary¹ case studies at the Chair of Natural and Social Science Interface (NSSI) at ETH Zurich. The approach starts from a description of the system under investigation by means of a sufficient set of *impact variables*. In this study, we modified the standard procedure of a FSA by using a set of *location factors* to describe the system “research site Davos”. These factors were collected by carrying out a *site analysis*. Subsequently, the interactions among the location factors were identified and systemically characterized (*system analysis*). Finally, different scenarios for the system “research site Davos” were generated and assessed (*scenario analysis*).

Site Analysis

The system “research site Davos” was defined by all location factors, which were relevant for at least one institute in Davos. These factors were set down by conducting individual interviews and one workshop with leading representatives of the four research institutes. Prior to this a set of factors was drafted based on a literature review. This set was constantly modified by the results of the interviews and the workshop. The necessity of action concerning the several factors could be derived from the additional assessment of the satisfaction with the same factors.

System Analysis

After conducting the site analysis the interactions between the location factors selected were assessed to form a system. By filling out an impact matrix, the “activity” (impact *on* other factors) and “passivity” (impact *of* other factors) was calculated. Thus, it was possible to characterize the systemic relevance of the factors. This created the base for a further reduction of the factor set, which was essential for the third part, the scenario analysis.

Scenario Analysis

Prior to embarking on the scenario analysis, a further literature research was carried out and subsequently further individual interviews were conducted, this time with local decision makers. By this means, different potential developments (so-called “levels”) of the remaining local factors were generated. The year 2030 has been selected for the projection. To construct the scenarios the levels of the different factors were combined while a consistency analysis assured that only logically consistent (which means possible not necessarily probable) scenarios are remaining. The selected scenarios are consistent possibilities for the future, which cover a broad range of potential developments. The scenarios were the base for discussions in two workshops, one with local decision makers and the other with

¹ Transdisciplinary means that „scientists and persons from business, administration, government and the public – to put it carefully – interact intentionally and purposefully to generate socially robust and scientifically reliable knowledge“ (Wiek, 2007)

representatives of the research institutes. By this approach, different assessments and priorities could be detected.

CONCLUSIONS

On the Case of Davos

The most relevant site-related factors of the research site Davos could be detected. The results of interviews and workshops with the leading representatives of the four research institutes lead to the conclusion that the regional connection of the institutes needs to be strengthened, since the historical bond to the location Davos is declining. This implicates the preservation resp. upgrading of local subsidies, the preservation resp. extension of the convention centre (especially for the AO Foundation) and the creation of affordable lodging as well as location development (which includes new research institutes and SME, particularly ones that are working in the same fields as the present institutes). The assessment of the revenue and expense regarding the strengthening of the research site differentiates between the local decision makers and the representatives of the research institutes just like the dependency of external developments.

On the Method

The site analysis turned out to be compatible with the procedure of the FSA. The FSA acted as a scientifically well-founded framework to structure the proceeding.

In this study it seemed that some location factors could be strongly interlinked, which leads to a shift in their systemic relevance. This gives evidence that complementing the site analysis with a system analysis can be useful in regard to the future planning of efficient location promotion. The ensuing construction of scenarios, which were discussed in workshops with different stakeholder groups, revealed different assessments. Comparing these differences can enhance the design, communication and implementation of future supportive measures by evaluating their acceptance and impact.

We suppose that in the case of Davos complementing the location achieved a surplus. Especially the transdisciplinary proceeding, i.e. the integration of the systemic knowledge of different stakeholder groups (local decision makers and leading representatives of the four research institutes) and their mutual learning supported the ongoing discussion within the community. Furthermore, the results of this study not only described the research site Davos in detail, but by highlighting the interrelations between different factors, valuable information for planning policy measures were offered.

Hence, the conclusion of this study in Davos can potentially be applied to other sites, which are dealing with the design of supportive measures.

However, the proceeding developed in this study presents one possible approach to enhance policy making even though the most efficient proceeding has to be assessed in each particular case.

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