

TIS - An Interactive Information System Supporting Technology Policy in Austria

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Introduction

The ongoing debate between S&T policy practitioners on the one hand and scientists on the other hand on the usefulness and adequacy of indicators suggests that there is still a potential to improve the match of supply and demand of relevant information. Scoreboards with highly aggregated indicators are often criticised for their fuzziness with respect to national specialties and sometimes weak conceptual significance although they are favoured by policymakers as they provide a more general and longer term structure for international benchmarking exercises. Scientists in turn, often provide answers that are too sophisticated for the policymakers' purposes as well as answers that apply only to a limited conceptual or real-world background.

The project on hand aims at establishing a comprehensive S&T information system for the policy level by collecting and processing scientifically validated data and providing "the relevant information to the right people". On behalf of the Austrian Federal Ministry of Transport, Innovation and Technology (bmvit), the customised information system TIS has been developed in an interactive design process. Its final version will comprise S&T indicators, relevant documents and management-related information with respect to the Austrian as well as the international S&T policy. The target groups and users of the system will be policymakers, responsible officials and a limited public such as journalists etc.

Methods

The first step of the project was an extensive feasibility study to assess (1) the clients' demand in terms of content (survey), (2) the relevancy for international benchmarks, and (3) the usability requirements (formats, parameters, architecture, display and export features). Indicators and sources were analysed and ranked with regard to relevance, availability and effort of maintenance.

In a next step a local prototype of the TIS was developed, tested, demonstrated and discussed within the user group. Finally an easy-to-use web-based prototype was created taking into account the user feedback from the local prototype.

Presently an evaluation phase is running to ensure customised development, functionality, usability and a long-term use of the TIS.

Results

The TIS has been designed primarily to support decision making on the S&T policy level by improving the quality of information and labour efficiency. It incorporates data from different sources (e.g. UN, OECD, EUROSTAT, national sources), provides standard charts, allows for individual parameter setting such as selection of time period, region (country and aggregates, Nuts 1, 2 and 3), offers several presentation modes (bar, line, pie, stacked and GIS-map charts and tables), and a download option for post processing.

Conclusions

Modern politics needs easy, fast and dynamic access to accurate and up-to-date information as a basis for strategic and operational decisions. As a management tool a comprehensive information system like TIS has to be output oriented and needs to be regularly updated and currently customised in content as well as usability. Furthermore, full acceptance of all involved users on various hierarchical levels has to be ensured through an intensive discussion process during the design phase and also during operation.