

# Accessing Administrative Environmental Information

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## INTRODUCTION

With the citizens being entitled to be provided with environmental information, the quantity increased, as did the efforts needed to find the desired information on the many distributed Web sites. The Environmental Information Networks (EIN) of Baden-Wuerttemberg and Saxony-Anhalt, presented here, shall serve as a central access platform that facilitates search by offering a thematically structured approach and various search options to the user. They both are instances of a pragmatic approach to the construction of environmental portals for the public.

## BACKGROUND

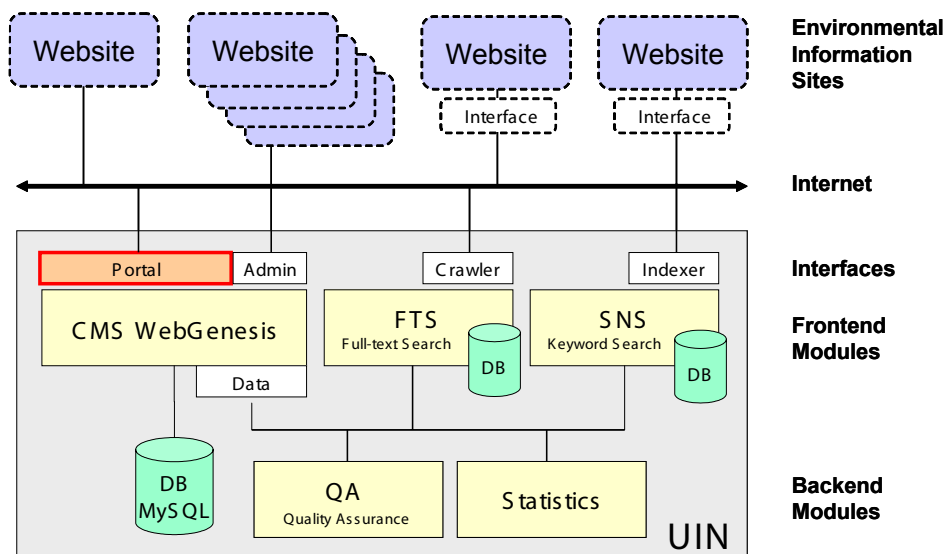
In Germany, supply of environmental information belongs to the obligations of public administration. According to the Environmental Information Act (Umweltinformationsgesetz, 2005), citizens are entitled to have access to the environ-

mental information available at an authority dealing with environmental tasks. For this reason, many authorities provide the corresponding information in the World Wide Web (WWW). Often, these developments have been made by the individual authorities in their own responsibility and are not embedded in a larger context. The Environmental Information Act makes an active supply of information obligatory for public authorities. This further enhances the role of the Internet as a means for the active provision of environmental information.

Many of the authorities' Web sites offer rudimentary search and navigation helps to the data only. Frequently, a full-text search is not available and no metadata, for example, keywords, are added to the usable contents. Links to related offers are often lacking completely or to a large extent. The contents have often been processed in line with the authority's organizational structure, but not according to criteria that seem logical to the user.

For the citizen, this means that the information searched for is often found only when the authorities and their structure

Figure 1. System architecture of the EIN: Components and interfaces



are known in detail. Even Internet search engines are not very helpful, as the large number of hits hides the information searched for.

With the German Environmental Information Network project gein® (<http://www.gein.de>) in 2000, an attempt was made to establish an environmental information portal on the federal level, which offers search functions for information provided by federal and state authorities. Based on the model of gein®, such an environmental portal also is considered a promising approach on the regional level for the states of Baden-Wuerttemberg (<http://www.umwelt.baden-wuerttemberg.de>) and Saxony-Anhalt (<http://www.umwelt.sachsen-anhalt.de>).

A first inventory of environmental information offers showed more than 100 relevant sites on the internet for the state of Baden-Wuerttemberg (2003) and more than 130 for the state of Saxony-Anhalt (2005). Due to the large number of sites from the municipal sector these have not been taken into account in the first step.

## BASIC CONCEPTS

The development of this portal to an environmental information network is aimed at improving the networking of the distributed environmentally-relevant Web offers of the states of Baden-Wuerttemberg and Saxony-Anhalt (Schlachter, 2004a). The users from these states shall be given comfortable access from a central point.

Metadata on all information offers are compiled centrally by an editorial staff. This database represents the starting point for the operation of the portal. The data are stored persistently using a content management system (CMS) and updated in this system via a WWW interface. The CMS provides interfaces to other components, for example, full-text search and automatic keyword search. Moreover, its templates allow for the presentation of the data, the layout, and the generation of navigation.

A major prerequisite for the operation of such a portal is that no, or only a minimum, expenditure is needed for the maintenance of the Web sites referenced therein. Thus, the portal meets with the acceptance of the Web site operators.

Although the expenditure required for the integration of information offers in the EIN shall be minimized, individual interfaces have to be generated for certain information systems. This especially applies to offers that are generated dynamically, as they, for example, query statistical data or measurement values from databases. Moreover, the expenditure needed for the development of these interfaces shall be minimized.

The users of EIN are offered several access paths to the individual information offers, in particular a thematic access, full-text search, keyword search, and other specialized access options.

According to the requirements outlined in the Act on Equal Opportunities of Handicapped Persons (Gesetz zur Gleichstellung behinderter Menschen, 2002), the entire presentation is tailored to barrier-free access, that is, the

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