

entera

Environmental Planning & IT

Fischerstraße 3

D-30167 Hannover

Tel.: +49 511 16789-0

Fax: +49 511 16789-99

E-Mail: info@entera.de

www.entera.de



Participation-Online

**Internet based
participation procedures**



www.entera.de

Conventional participation procedures are expensive, time-and paper-consuming



Conventional participation procedures

The effort and complexity implicit in current participation procedures for complex planning (routing procedures, project approval procedures etc) is well known: First, extensive texts and maps, which are valid only for the duration of the participation procedure, have to be produced and distributed in large quantities and at a high cost. Then, the objections, sometimes numbering up to tens of thousands, have to be dealt with and evaluated by the planning organisation and then discussed in a concluding hearing procedure.

A multi-link process chain with numerous changes of medium must be followed.

Two EU directives give new importance to public participation: The directive on public participation (Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003) and the directive on the assessment of the effects of certain plans and programmes on the environment (Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001).

At the same time, however, the financial and personnel resources available for carrying out participation procedures to the required extent are shrinking due to budget cuts.

As a consequence of the constantly growing availability of computers and the Internet, communication habits and needs have changed drastically in the last years. This means that the communication between authorities and citizens has to change as well.

**The solution:
Participation via Internet**

Therefore it seems reasonable to use the Internet as a fast means of communication also for participation procedures. To carry out such an Internet-based participation efficiently and to make the procedure more time-saving and especially more economical for all parties, the engineering company *entera* provides an innovative, proven and practically-orientated tool – *Participation-Online*.

Participation-Online is the completely internet-based and data-base supported solution for participation procedures

Participation-Online carries out the complete participation procedure on the Internet. It can be used for public participation procedures as well as for participation procedures for public bodies (or for administration-internal communication).

Participation-Online

- makes all planning documents available,
- provides a fast means of communication between participants and authority, and
- facilitates the consideration process within the authority.

In this way, the process chain of a participation procedure can be shortened and simplified considerably.

Low requirements regarding hard- and software: Internet Browser is sufficient

The users of the system (participants and the planning organisation or authority) only need an Internet browser. No additional software is required.

Convincing user-friendliness and display quality

As all of the data processing is handled by the Internet server there are no special requirements for the users' computers. Internet Browser is sufficient *Participation-Online* is easy to operate and all of the relevant planning documents are viewable on the Internet as texts and maps in excellent quality. A clear table of content, search engines, and extensive linking (also between maps or legends and text data) make the handling of extensive text material very simple.



With the help of a MapServer, maps and plans are visualized to the participants in any size and quality, and GIS functionalities such as zooming, scrolling, measuring, printing to scale and information retrieval can be used.

Direct on-screen objections

With the participation modules developed by *entera*, objections to the currently displayed planning documents can be drawn up right on the screen. As *Participation-Online* always displays the original data, an exact reference of the objections in relation to contents and spatial location is guaranteed at any time.



No more piles of folders on your desk

The planning organization can view the received objections in a database without manual intermediate steps, supplement them with their considerations, and prepare them for the date for argument. All the information on a procedure is always available and can be viewed by any authorized person at any time.

Carrying around large collections of folders is no longer necessary, not even for the dates for argument of very extensive participation procedures, as all the data can be called up from the online database by a single executive with a laptop.

Deployment of Participation-Online

Participation-Online can easily be adapted for use in any public sector where a participation has to be carried out. It accomplishes different safety requirements. This makes it the ideal tool to put e-participation into practice.

Application of *Participation-Online*:

- Urban and regional planning schemes
- Regional development plans
- Planning approval procedures
- Regional impact assessment procedure
- Water Framework Directive
- Strategic Environmental Assessment (SEA)
- Open landscape development concepts
- Land utilization plans
- Urban development scheme
- Landscape development plans
- Landscape framework plans
- Citizen forums

How does *Participation-Online* work?

The basic principle: data base instead of e-mail

Unlike any other Internet-based participation procedure, *Participation-Online* uses a database provided by the server instead of emails as the communications nerve centre between the participants and the planning organisation or authority. Thus, the manual reworking of incoming objections is no longer necessary.

The core of the *Participation-Online* is the so called participation database, which is located on a powerful web server. There all the objections in the form of texts or maps are received and stored.

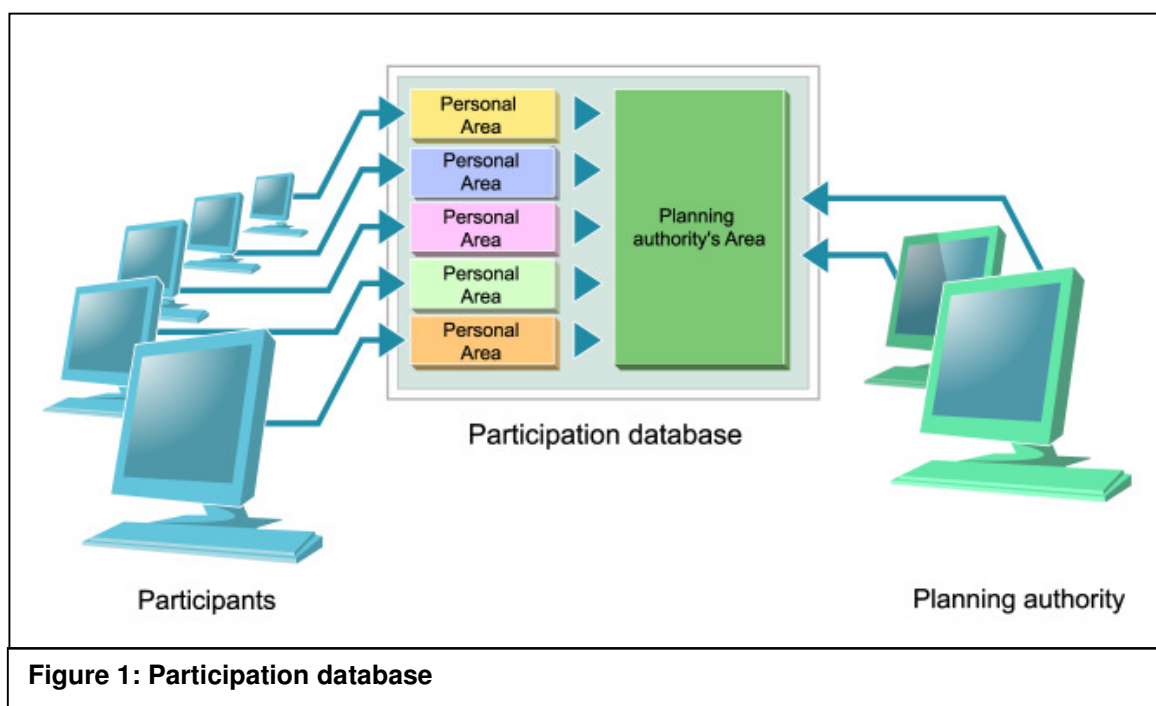


Figure 1: Participation database

Objections based on original maps and texts

The participants make their objections on the basis of the original maps and texts with the help of a special module for texts and maps. This takes place in a personalised area of the participation database protected by a password. After having completed his objections the participant transfers them into the database of the


Sender	Map / Textual setting	Comments (if he wanted)	Consideration	Status
User ID: 00 Name: 2804.2004 Organisation: Amt für Raumplanung Institution: Braunschweig		The marked area should remain arable land.		Not processed
User ID: 00 Name: 28.07.2004 Organisation: Amt für Raumplanung Institution: Braunschweig	From chapter 2.3.3: in the municipalities north of Braunschweig housing projects will not be sanctioned	This is not acceptable, because...		Completed

Figure 2: Table for consideration procedure

planning organisation, keeping, however, a copy for their records in the personalised area.

The consideration of the objections being carried out by the planning authority takes place in the same database but in an area accessible only by the planning organisation. This makes

No problem: queries, sorting, filtering, printing

Figure 3: Query editor

sure that all of the comments received are available to all the responsible specialists at any time.

With the help of a query editor customised for the respective requirements the objections can be called up and sorted in many different ways without needing any database knowledge. With this editor, all the information about the participants and their objections (e.g. name, institution, subject, aim, chapter, map etc.) can be used as criterion for filtering and selecting. In addition, a free text search allows the easy and selective retrieval of particular records.

**Integrated:
Process Documentation**

With the help of an integrated, semi-automatic process documentation information about the considerations that have already been carried out (time, present state, reviser, consideration result, need for action etc.) can be called up as well. The entire table as well as selected records (e.g. those of a certain objector) can of course be directly printed out. Therefore, time-consuming formatting with word processors is no longer necessary.

After entering the results of the review procedure, the whole table is again made available on the Internet to be comfortably used by all participants (with search functions).

The components of *Participation-Online*

No “ready made“ Product

For the development of *Participation-Online*, numerous existing software components were tested, compiled, customised and

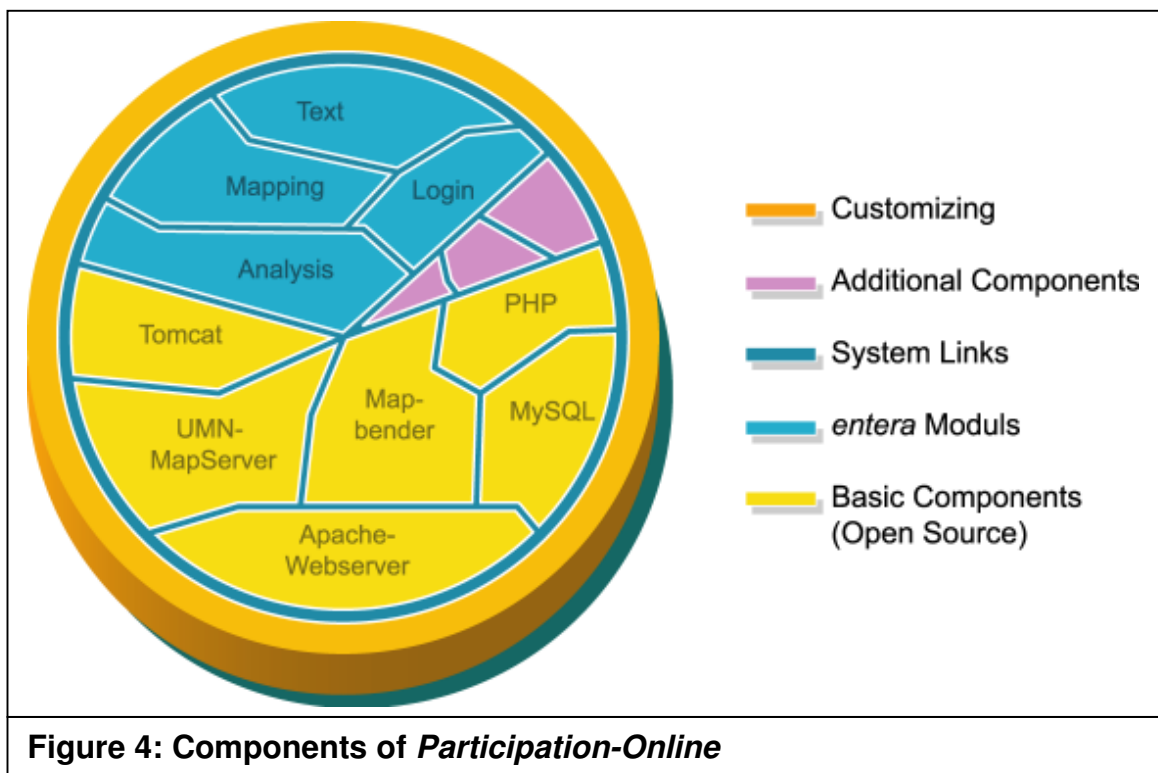


Figure 4: Components of *Participation-Online*

linked together in one system, using mainly professional products, which are available as open-source software. That means the source code of these products is publicly-available and easily modifiable. The so-called “participation modules” were developed by *entera* as completely new, independent components and joined together with the existing open-source modules.

This complex interaction of many different single components is supplemented by individual customisations to for the particular procedures and or institutions.

Therefore *Participation-Online* is no ready-made and an unchangeable product, but can easily be individualised and flexibly applied.

Important advantages for the planning organisation

The advantages at a glance As the planning organisation or authority has to operate under the pressure of limited time and financial resources, *Participation-Online* offers many important advantages:

- + considerable reduction of costs
- + tangible decrease in working time
- + acceleration of Participation procedures

These advantages are derived from the following aspects:

- Save costs**
 - Printing, shipping an material costs are reduced to a minimum
 - latest software technology makes it extremely easy to operate
 - a ready-to-use database is integrated
 - consideration process becomes much more effective
 - faster Participation procedures allow earlier commissioning dates
- User-friendliness**
 - objections are entered into the database by the participants, not by the authorities
 - easy to handle user interface
 - fast database
 - no more time consuming intermediate analogue steps necessary
- Safe and effective**
 - authentication encoded and protected by passwords (multiple authentication levels are available)
 - Graphical objections are made on the original maps; no more inaccurate descriptions or poor black and white copies
 - precise spatial location of selected map excerpts due to georeferencing
 - objections are always clearly structured in tabular form; they can be printed out at any time; time-consuming formatting is no longer necessary
 - convenient database queries allow the filtering, sorting and revising of any objection; standard queries and a free text search are available

- powerful database engine provided
- statistics about the status of the consideration procedure
- consideration results are Internet presented by a database table; no hardcopies needed
- ensures legal compliances

Participation-Online
**A democratic tool
 for modern participation**

Compared to analogue participation procedures, the use of this technology simplifies the handling of extensive documents not only for the planning organisation, but also for the participants. In addition, the Internet-based platform *Participation-Online* makes it possible to integrate particularly young people who are interested in the Internet better into political decision-making.

Hosting

**A safe alternative:
 using enteras hosting service**

Both, the required software for *Participation-Online* and the project data are hosted by *entera* on a powerful server. Users communicate with our server through a encrypted connection (SSL) whereas the administrative access is restricted exclusively to the root-administrator (via SSH). Thus an unauthorized access is impossible.

The server is situated in a guarded and air-conditioned computer centre with its own emergency power supply. The Internet connection is made through a redundant IP backbone with a transmission rate of up to 1.600 Mbit/s (OC-192). Server uptime of 99.5% is guaranteed.

From within the computer center an automated 7x24h server monitoring is carried out. Additionally the server status is permanently checked from outside.

Two autonomous backup systems are set up to secure the data on the servers. On the servers in the computer center a data mirroring is running every two hours. In addition there is a daily backup to another server outside which is guarded by tape backup system.

Low Requirements

As all of the processing is handled by the server it should be a powerful system with a very fast connection to the Internet.

Entera 's Internet servers are optimised for these requirements. In case of higher performance requirements they can be scaled accordingly.

There are no special requirements for the client computers. This includes the computers of the participants as well as those of the employees of the planning authority. The computers only need Internet access and an Internet browser (Internet Explorer, Mozilla etc.). The geo-data of the project that has to be made

viewable can be integrated in many different raster or vector formats. The actual size of the maps is irrelevant for the display speed. Thus, it is no problem to make maps of an entire region available on the Internet at a scale of 1 : 50,000.

Using *Participation-Online*

Most customers use *Participation-Online* as Application Service Providing (ASP).

**Model 1: ASP (Application Service Providing)
– try *Participation-Online* without risk**

ASP means that all programmes and the appropriate modules as well as the project data are hosted on a powerful *entera* Internet server. A fee is charged for these services on a monthly basis. Of course *entera* takes care of the setup, operation, security, and backup of the server. The additional hosting fee comprises the necessary hard disk capacity as well as a large monthly traffic volume.

Thus ASP offers the possibility to use *Participation-Online* without long term capital lockup for license, hardware and personnel.

As an additional service *entera* edits the required geo- and textual data and uploads it to the server. Optional individual adaptations of *Participation-Online* to the specific requirements of particular customers are carried out by *entera* as well.

Of course *Participation-Online* is able to make use of existing Web Map Services (WMS) and thus integrating existing geo data.

Testing *Participation-Online* On the *entera* server at

www.participation-online.com

you will find of *Participation-Online*. You are very welcome to test the various functions of the modules and to enter objections without disturbing current participation procedures. You can change you profile to administration rights in order to try out the powerful consideration tools. *Participation-Online* is available in English and German and other European languages.

Technical details

Participation-Online is available in a Linux and a Windows version.

The *entera* Internet servers and the *entera* development platform are both equipped with powerful Linux systems.

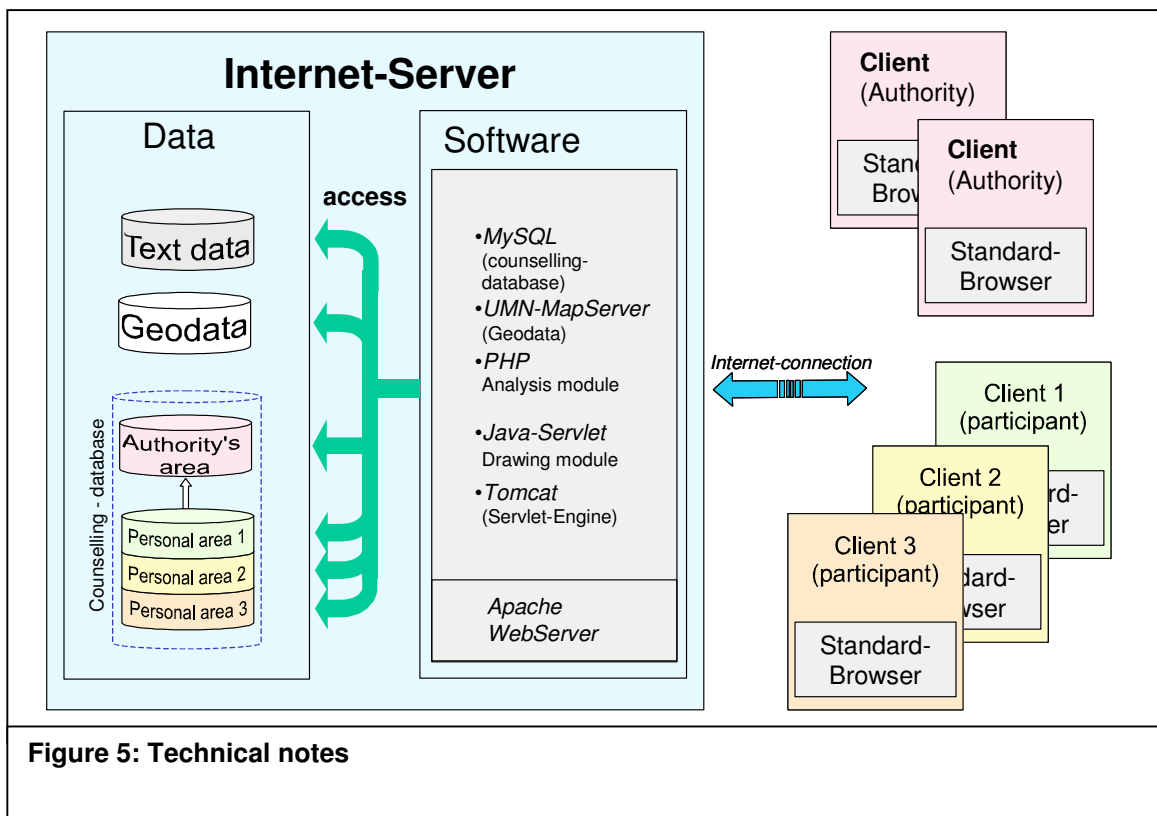
On the *entera* Internet servers an Apache webserver is utilized.

The geographic data that need to be viewed are visualized on the Internet with the help of the geo-frontend Mapbender which utilizes mapservices via WMS. Locally existing geodata are visualized with the UMN-MapServer.

For storing, analysis and revision of the incoming objections, the open-source database MySQL is used.

The drawing module was developed as Java Servlet/Applet while the MapServer interface, the text module, and the consideration functionalities were programmed in PHP and JavaScript. Tomcat is used as the servlet engine.

Participation-Online is fully compatible to all OGC-compliant WMS and WFS services.



Participation-Online users References



- Landschaftsrahmenplan Landkreis Diepholz (www.diepholz.de); a landscape framework plan for the administrative district of Diepholz



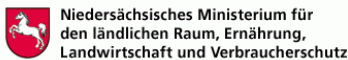
- Freiraumkonzept Zweckverband Großraum Braunschweig (www.zgb.de); a landscape development concept for the conurbation of Braunschweig



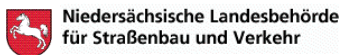
- Regionales Raumordnungsprogramm (RROP) Landkreis Diepholz; (www.diepholz.de); a regional planning programme for the administrative district of Diepholz; (at the moment for official use only, not open to the public)



- Regionales Raumordnungsprogramm Landkreis Rotenburg (Wümme) (www.lk-rotenburg.de)



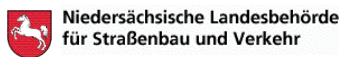
- eGovernment-Project LROP-Dialog-online; Re-compilation of the „Niedersächsische Landesraumordnungsprogramm“ 2005 (in process)



- Interactive Internet portal for the costal highway A22 www.kuestenautobahn.org



- Landschaftsrahmenplan Landkreis Verden (Aller); a landscape framework plan for the administrative district of Verden (Aller); www.landkreis-verden.de/



- Area Planning Procedure for the highway A 39



- Landesamt für Datenverarbeitung und Statistik (LDS) in NRW; online participation procedures in Northrhine-Westfalia will be carried out by the LDS with the aid of Participation-Online.

Several other projects are currently in the preparation phase and will soon be activated.