ScorePP is a Specific Targeted Research Project (STREP) funded by the European Commission under the Sixth Framework Programme

Priority Pollutant Reduction Information System

Deliverable No: D1.3b, Date: 11 May 2010

Dissemination level: PU

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Source Control Options for Reducing Emissions of Priority Pollutants (ScorePP)

Sixth Framework Programme, Sub-Priority 1.1.6.3, Global Change and Ecosystems

Project no. 037036, www.scorepp.eu, Duration: 1 October 2006 – 31 March 2010

Deliverable number:	D1.3b
Deliverable title:	Priority Pollutant Reduction Information System
Authors:	Hans-Christian Holten Lützhøft, Tonie Wickman, Matej Cerk, Peter Steen Mikkelsen
Review and assessment	Arne Jamtrot (MF)
Date submitted to project coordinator:	2010-05-11
Approved by Work package leader:	2010-05-10
Approved by Project Coordinator:	2010-05-11

Abstract (max. 200 words)

The work described in this report focused on developing a Priority Pollutant Reduction Information System (PPRIS) for providing information about different aspects (sources, pollution level and dynamics, mitigation options etc) of priority pollutants within the urban environment. The PPRIS was build using the wiki technology, in this case the wiki system provided, hosted and maintained by the International Water Association (IWA), the IWA Water Wiki. The PPRIS consists of 50 articles, 39 of them covering terminologies, concepts, approaches etc., 6 dealing with major subjects, 1 describing the project as well as 4 articles describing the main stakeholders within the area of urban pollution management. The PPRIS is due to its nature as a wiki system a dynamic tool that according to the wish of the ScorePP consortium will evolve as time progresses and as stakeholders and other end-users obtain more knowledge and incorporate this knowledge into the wiki system. The full content will be available during the summer 2010 and can be found by visiting the website: http://www.iwawaterwiki.org/xwiki/bin/view/Main/.

Acknowledgement

The presented results have been obtained within the framework of the project ScorePP - “Source Control Options for Reducing Emissions of Priority Pollutants”, contract no. 037036, a project coordinated by Department of Environmental Engineering, Technical University of Denmark within the Energy, Environment and Sustainable Development section of the European Community’s Sixth Framework Programme for Research, Technological Development and Demonstration.

Table of Contents

1 Introduction

According to the European Water Framework Directive and the Environmental Quality Standards Directive EU member states are required to establish inventories of pollution sources, perform various levels of monitoring (control, operational and investigative surveillance) of surface water bodies throughout Europe and obey the environmental quality standards given by the directive in order to obtain or maintain good ecological and chemical status of the European water bodies (EU (2000); EU (2008)). In order to do so, cities, municipalities, regions, authorities and water companies need tools to identify pollution sources, their characteristics and options to mitigate eventual pollution. Furthermore, it is also needed to get inspiration on how to identify substance pools and flows and model the pollution level. Even further it is needed to obtain knowledge about the results and impacts (both societal, economic as well as chemical and biological) of implementation of a certain mitigation option as well as gain insight into emission control strategies of priority pollutants within the urban environment.

The ScorePP project (www.scorepp.eu) has dealt with these issues during the past 3½ years and one of the last tasks of this interdisciplinary project has been to build a system for disseminating knowledge about the topics mentioned above. The Priority Pollutant Reduction Information System (PPRIS) is the final outcome of the project and has the aim of providing information concerning a broad range of aspects of priority pollutants within the urban environment.

This report describes the thoughts behind the process of building the PPRIS and the structure of the PPRIS including some examples on the content.

2 Selection of media

Early in the project, by the end of the first project year, the consortium discussed how the PPRIS should materialise. The aim was to select a communication form that easily reaches the stakeholders and is easily subject to revision of the content. During the third project year various wiki systems[1] were investigated for the suitability of hosting the PPRIS. In the end the choice was between Wikipedia or the newly founded pendent to Wikipedia targeting the urban water management profession, i.e. the IWA Water Wiki hosted and maintained by IWA. The IWA Water Wiki was chosen because the consortium found it most suitable, both with respect to selecting a strategic media for such information, but also because IWA, the organisation behind, has a good reputation and also because they are maintaining the website's infrastructure. Furthermore, wiki systems have the opportunity for being constantly updated, either by the authors themselves, but also by other users and the selection of a wiki system therefore ensures an information system that has the opportunity of

[1] From wikipedia (www.wikipedia.org): A **wiki** (/ˈwɪki/ *WIK-ee*) is a website that allows the easy creation and editing of any number of interlinked web pages via a web browser:

- A wiki invites all users to edit any page or to create new pages within the wiki Web site, using only a plain-vanilla Web browser without any extra add-ons.
- Wiki promotes meaningful topic associations between different pages by making page link creation almost intuitively easy and showing whether an intended target page exists or not.
- A wiki is not a carefully crafted site for casual visitors. Instead, it seeks to involve the visitor in an ongoing process of creation and collaboration that constantly changes the Web site landscape.

A wiki enables documents to be written collaboratively, in a simple markup language using a web browser. A single page in a wiki website is referred to as a "wiki page", while the entire collection of pages, which are usually well interconnected by hyperlinks, is "the wiki". A wiki is essentially a database for creating, browsing, and searching through information.

being up-to-date at any time. The full content will be available during the summer 2010 and can be found by visiting the website: http://www.iwawaterwiki.org/xwiki/bin/view/Main/.

3 Structure of the PPRIS

The IWA Water Wiki has a similar structure to the well known Wikipedia and thus functions as a kind of encyclopaedia where one article can be consulted on an individual basis or be a starting point to a journey through a wide range of articles via links established in the individual articles, i.e. links to other articles describing words, concepts, terminologies etc. The wiki is by nature not hierarchical, but more like articles in a big bunch linking to one another. However, when structuring the ScorePP PPRIS a hierarchy has been used to structure the knowledge presented in the PPRIS, see Figure 1.

A stakeholder analysis was performed in order to identify the key end-users of the ScorePP PPRIS. A "stakeholder article" was produced for each stakeholder type, which focuses on the certain parts of the urban water management topics of the ScorePP project that are relevant for that particular stakeholder. Also a "main project entry article" with an illustration of the ScorePP working environment, i.e. a city with various activities, is included in the PPRIS. As the project work plan was divided in a number of work packages with specific subjects and aims, a range of "subject articles" have been produced. Naturally associated with these subject articles a number of "specific articles" covering terminologies, concepts, approaches etc. have been produced. There is thus a natural hierarchy with the "main project entry article" as the top article going through the "subject articles" down to the "specific articles". But at the same time, links exist between "specific articles" and from "specific articles" to other "subject articles" or even to websites like Wikipedia, websites with EU legislation like the Water Framework Directive or the Environmental Quality Standards Directive etc.

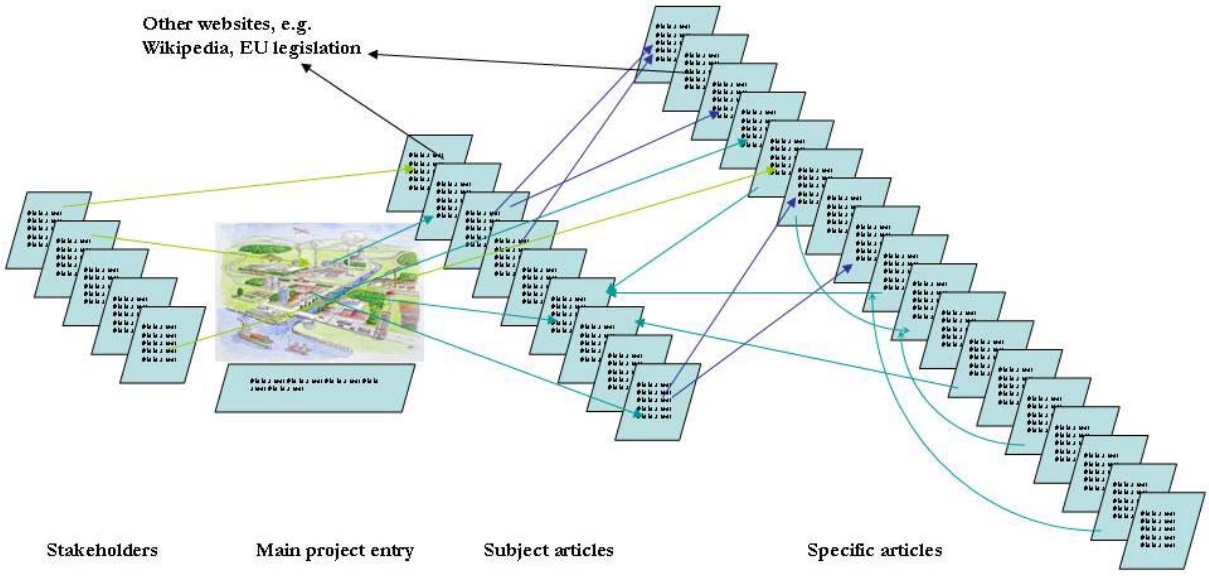


Figure 1 - Conceptual diagram illustrating the wiki system.

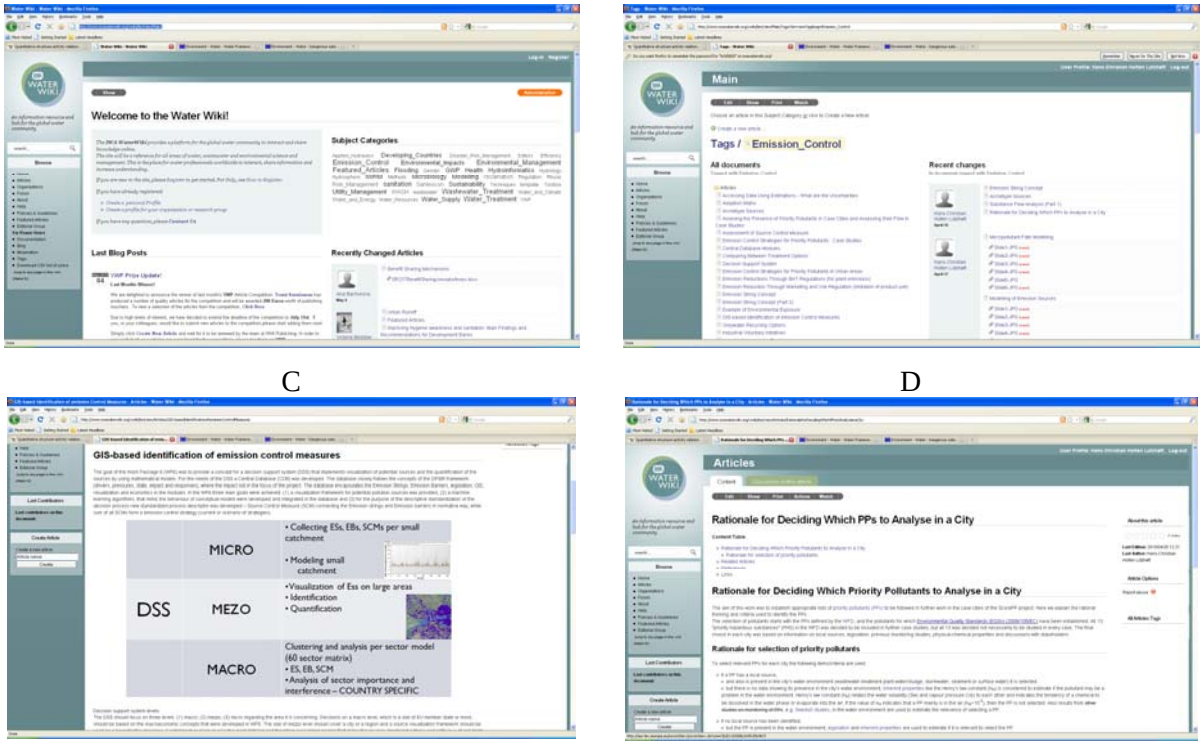
Using this approach, the particular stakeholder will be guided through the PPRIS, thereby optimising the "distance" from entry into the PPRIS to reaching the desired articles.

4 Results

The PPRIS consists of in total 50 articles distributed on 4 stakeholder articles, 1 main project article, 6 subject articles and 39 specific articles. Figure 2 shows four different screen prints from the PPRIS (IWA Water Wiki) giving examples on the website entry, the Emission_Control group, a subject article and a specific article. Each article varies with respect to length (from a few lines to more than

10 pages), depending on weather it contains graphics/tables or not, only have internal links, i.e. within the IWA Water Wiki, or if it also have links to external websites like Wikipedia and finally if it has references or not.

A B



C D

Figure 2 – Screen prints from IWA Water Wiki. A: Main entry. B: List of articles within the Emission_Control group. C: Example on a subject article. D: Example on a specific article including links.

5 Outlook

The Emission_Control group within the IWA Water Wiki is as other wiki systems an open and dynamic system. The ScorePP consortium has produced a basic tool for stakeholders within the area of priority pollutants, emission control and urban environment that will undergo development based on the users' growing knowledge within the topic.

The ScorePP consortium's wish is that individuals from the consortium or other parties with interest in the topic will contribute to a growing tool as time progresses and as knowledge builds up.

6 References

EU (2000): The European Parliament and the Council of the European Union. Establishing a framework for Community action in the field of water policy. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000.

EU (2008): The European Parliament and the Council of the European Union. Environmental quality standards in the field of water policy. Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008.