



NICOLE NEWS

Network for Industrially Contaminated Land in Europe

Autumn 2001

NICOLE - 2001 In Overview

Continued Success

By Paolo Cortesi, NICOLE Chairman (Enichem)

Year 2001 is the first of the third Millennium and the third of the new "self-sustained" era of NICOLE. It has again been a year of growth and increasing maturity, as it can be seen from the rich content of this newsletter issue.

Two of the highlights of the year have been the revitalised interest of many industrial members in identifying and supporting joint research projects and the increasing "political" weight of our network.

A number of proposals have been presented to the Industry Subgroup (ISG) and the Service Providers Subgroup (SPG). In my view this is an excellent sign that there is still a need for a specialised forum where contaminated land problem holders can openly and comfortably share problems and ideas, feeling confident in both the discussion and the results. It is evident that industrial members continue to consider NICOLE such a forum and, dare I say, one without competitors in Europe.

A growing membership and strong events have given us a budget surplus. This will allow NICOLE to finance directly a limited number of carefully selected projects. Criteria for selection and financing are being developed by the Steering Group (SG), but key issues will be the need to underpin NICOLE's general strategy and a commitment to significant co-funding.

Volunteers Needed for the Steering Group

NICOLE is now in its third year of independent existence which I think is a fantastic achievement. I and the other SG members feel very proud of NICOLE's success. However, we feel that it is now time for some "new blood" in the Steering Group. I, and some of the other Industry Members of the ISG will retire by February 2002. We are therefore looking for nominations or volunteers from NICOLE's ISG to take over. If you would like to be a candidate, please let the secretariat or me know. When the new SG is formed early in 2002, it will elect a new NICOLE chairman and I shall step down.

NICOLE's Growing Influence

NICOLE has a growing influence with the Commission, with Member States and with other stakeholder groups. For example we have been influential in setting the EC research agenda for contaminated land, and made rapid responses to technical consultations such as the DG Environment on their Soil Paper, and the February 2001 and current drafts of the EC White Paper on Environmental Liability. The ISG also seeks a wider EU role (see Page 10)

With the end of CLARINET, the Common Forum (see Page 6) has become the main regulator network for the EU. NICOLE is therefore very pleased to have been invited to the Common Forum's next meeting in October. We also wish the best of luck to a new network being proposed, by members of CLARINET, ANCORE and NICOLE called HARMONICA (see Page 4)

NICOLE Secretariat



Marjan Euser



Johan van Veen

NICOLE Snapshot

I have been enormously pleased by the tremendous enthusiasm of our growing band of service provider members. Along with our academic and other research stakeholders, they have provided us with a technical perspective second to none, and a wide range of dynamic new ideas that have been taken up by Industry Members, and in proposals to the EC Framework 5 Programme. NICOLE held two very successful workshops over the past year. The first, *Brownfields: How to turn a potential threat into an asset* was held in IJmuiden last November. The second, *Cost-effective Technology: quality assurance and acceptance*, took place in Paris last May, and was organised by the SPG. NICOLE's next workshop will be in November in Rotterdam. It has two topics: *information and communication technologies* and *MNA*.

NICOLE in a Nutshell

NICOLE was created to bring together problem holders and researchers throughout Europe who are interested in all aspects of contaminated land. It is open to public and private sector organisations. NICOLE's overall objectives are to:

- Provide a European forum for the dissemination and exchange of knowledge and ideas about contaminated land arising from industrial and commercial activities;
- Identify research needs and promote collaborative research
- Collaborate with other international networks

NICOLE currently has 143 members. It includes an Industry Subgroup (ISG) - with 29 members; a Service Providers Subgroup (SPG) with 28 members, 70 individual members from the academic sector/research community and 16 members from other organisations. Membership fees are 3,500 EURO per year for companies, and 150 EURO per year for academic institutions

NICOLE's web site (www.nicole.org) contains extensive information about NICOLE, including activities and publications, as well as many links to other contaminated land web sites.

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NICOLE News In Brief

Guidance on Risk Assessment: NICOLE is drafting guidance about the role of a risk assessment based approach to sustainable land management. The guidance is being drafted in a user friendly "questions and answers" format, and is aimed at contaminated land decision makers. The possibility of using this guidance as a basis for information sheets for the general public is currently being considered. The guidance describes the advantages of risk-based land management, in that it is systematic and objective, and provides a consistent basis for dealing with uncertainties, making decisions, and convincing interested parties that appropriate action is being taken. The guidance then describes risk based land management and points out that, these techniques are developing and improving all the time. For more information please contact: Rae Crawford. e-mail: rae.l.crawford@exxonmobil.com.

The Environmental Technologies Concerted Action: ETCA held a meeting at the University of Leeds in the UK at the end of May 2001. The ETCA meeting reviewed many of the current Framework 5 projects funded under Key Action 1: *Sustainable management and quality of water*. A full meeting report will be published soon on www.etcenet.org/.

NICOLE News In Brief Continued

EC Soil Paper: The aim of this important paper is to raise the "profile" of soil issues in policy making at a European level, to ensure that soil protection receives as much attention as that devoted to air and water. NICOLE replied in June, offering its support and its assistance. A copy of the NICOLE response is posted on the NICOLE News Service, www.nicole.org.

White Paper on Environmental Liability: NICOLE has just compiled its response to the latest opportunity for consultation on the new draft of the EC White Paper on Liability. A copy is on the NICOLE News Service, www.nicole.org. See also europa.eu.int/comm/environment/liability/followup.htm.

Project PURE: PURE stands for "Protection of groundwater resources at industrially contaminated sites". PURE is investigating the application of several emerging technologies for groundwater remediation: integrated approaches to bioremediation and electro-remediation, coupled BTEX and chlorinated solvent biodegradation, co-metabolic methods for chlorinated solvents using butane and methane, and Thermally Enhanced Soil Vapour Extraction and Co-Solvent Flooding. PURE is also examining the use of biosensors and immunoassay techniques for the characterisation of aquifers. It aims to produce a decision support tool and handbook for groundwater restorations. PURE has now been running for 16 months and is due to finish at the end of March 2003. The project members are: EniChem, AKZO-Nobel, FORD, ICI Paints, Aquater, VHE, five universities (EAWAG, Konstanz, Cranfield, Stuttgart, and Yeditepe), EniTecnologie and TNO.

For a copy of the Progress Report, visit the NICOLE News

Service on www.nicole.org. For further information contact: Paolo Cortesi, e-mail: paolo.cortesi@enichem.it.

NICOLE Project: Exposure factor source book has been published by the European Centre for Ecotoxicology and Toxicology of Chemicals (ECETOC), Technical Report No. 79, Exposure Factors Sourcebook for European Populations, with Focus on UK Data. Under the CEFIC Long Range Research Initiative (LRI), an RFP aimed at expanding the Sourcebook to include available data for European populations has recently been advertised (www.cefic.be/lri/rfp/rfp.asp). For further information contact Rosemary Tzaleski, e-mail: rosemary.t.zaleski@exxonmobil.com.

NICOLE Perf Project, Rapid methods for on-site screening A field study of the Membrane Interface Probe (MIP) for the *in situ* detection of volatile hydrocarbons is now being carried out at an AKZO-site near Rotterdam. Project partners include several oil companies from the USA, with BP, AKZO the Port of Rotterdam and Geodelft. (see NICOLE News February 2000) For further information, contact Derk van Ree, e-mail: ree@delftgeot.nl.

MNA Cartoon Book: this booklet is now available in four languages (English, Dutch, French and German). The CNRS-SP and Solvay sponsored the French edition while the Swiss Schwerpunktprogramm Umwelt of the Swiss national science foundation and BMG sponsored the German edition. The booklet can be ordered over the Nicole secretariat. Project contact: Anje Sinke, e-mail: anja.sinke@mep.tno.nl

Calendar	NICOLE Event
14-15 November 2001	NICOLE Workshop: <i>Information and Communication Technologies for Sustainable Land Management</i> and Joint Event with NNAGS <i>Monitored Natural Attenuation</i> , Rotterdam, the Netherlands, sponsored by the Port of Rotterdam, Volpak and SKB (see Page 5).
16 November 2001	NICOLE Industry Subgroup, Rotterdam, the Netherlands
17 April 2002	NICOLE Industry Subgroup, Pisa, Italy.
18-19 April 2002	NICOLE network meeting <i>Site Characterisation and Monitoring: Cost Effectiveness Through Innovation</i> , Pisa (Italy) on, hosted by the Italian National Research Council (CNR)
Autumn 2002	NICOLE Network Meeting, subject to be confirmed, Budapest, Hungary. ***First NICOLE Meeting Outside the EU***
Further meetings	Additional ISG and SPG meetings may take place in 2002. Members will be informed directly of these.



Success for Proposals Related to Contaminated Land and Groundwater

Jürgen Buesing and Thierry Prost, EC DG Research

We are delighted to inform the NICOLE membership that seven projects related to the sustainable management of contaminated land and groundwater are being negotiated with us, under two Key Actions:

- Key Action 1: *Sustainable management and quality of water* 1.4.1 Abatement of water pollution from contaminated land, landfills and sediments, and
- Key Action 4 *City of Tomorrow and Cultural Heritage*. 4.3.2. Optimum use of urban land and rehabilitation of brownfield sites.

These summaries of proposals have been made public for the purpose of the dedicated NAS Call, where institutions from accession countries can apply to join on-going projects. However, no contracts have yet been signed, so while these projects have been selected they are still in the process of negotiation.

ABACUS: Evaluation of availability to biota for organic compounds ubiquitous in soils and sediments. Area 1.4.1. Contamination of soils and sediments by organic chemicals is a major threat to the environmental quality of freshwater and groundwater resources. At present, assessment of the risks of soil and sediment contamination is based on the assumption of bulk organic carbon-based equilibrium partitioning. However, it is generally accepted in scientific circles that this assumption is inappropriate and can lead to an overestimation of the risks of soil and sediment contamination. This project will investigate the mechanistic basis for the formation of different sorbed fractions of contaminants in soils and sediments and the bioavailability of these fractions.

Contact: John Parsons, University of Amsterdam, the Netherlands, email: jparsons@chem.uva.nl

CABERNET: Concerted action on brownfield and economic regeneration network. Area 4.3.2. CABERNET establishes a network of experts across Europe from eight different types of stakeholder groups. It aims to enhance the rehabilitation of brownfield sites within the context of sustainable development of European cities. This will be achieved through a better awareness and shared understanding of brownfield issues across stakeholders groups, the development of a conceptual model for brownfield rehabilitation, a co-ordination of research activities and the identification of good practices. Each group will produce a selection of deliverables and specific new tools which solve problems the group has identified and prioritised.

Contact: Paul Nathanail, University of Nottingham, UK, e-mail: paul.nathanail@nottingham.ac.uk

CORONA: Confidence in forecasting of natural attenuation as a risk-based groundwater remediation strategy. Area 1.4.1. The goal of CORONA is to increase confidence in assessment and forecasting of natural attenuation (NA) of groundwater pollution by strengthening the scientific basis which supports the use of NA. CORONA aims to develop simple but robust engineering tools for assessment and quantification of NA as a remedial approach for groundwater pollution. These tools will be based on investigations of plume behaviour in the field at six different sites.

Contact: David Lerner, University of Sheffield, UK, e-mail: d.n.lerner@sheffield.ac.uk.

HYGEIA: Hybrid geophysical technology for the evaluation of insidious contaminated areas. Area 4.3.2. HYGEIA focuses on the development, test and application of effective, quick and low-cost methods for high-resolution study of contaminated sites. Various geophysical approaches (ground penetrating radar, seismic methods and resistivity methods) will be investigated and combined. Dedicated data treatment software will be developed before being tested on selected sites. Performance, effectiveness and costs will be compared to conventional techniques. The project will deliver guidelines and methodologies for selection and implementation of the optimal combination of techniques, together with validated data acquisition tools and survey procedures.

Contact: Contact person: Michele Pipan, Università degli Studi di Trieste, Italy, e-mail: pipan@univ.trieste.it

SEDNET: Demand driven, European Sediment Research Network. Area 1.4.1. More and more managers, port authorities and researchers have expressed the need to exchange, experiences at river basin level, and to develop sediment management guidelines based on a multidisciplinary, co-ordinated and harmonised approach. SEDNET will provide an international platform to facilitate information and knowledge exchange and to produce a joint recommendations and guidelines for the integrated, sustainable management of sediment, from local to river basin level.

Contact: contact Jos Brils, TNO, the Netherlands, e-mail: brils@mep.tno.nl

URBSOIL: Urban soils as a source and sink for pollution. Area 4.3.2. URBSOIL enlarges the issue of brownfields to the wider consideration of urban soil and thus opens up a new field of debate. Although the quality of soils has been recognised as a fundamental element of global environmental quality, concepts and methods for the definition of soil quality have never been used in the urban environment. The project aims at identifying soil quality parameters and their use in urban areas to provide local, national and European authorities with decision-support tools for sustainable planning and management of the soil resource in European cities.

Contact: Franco Ajmone Marsan, Università degli Studi di Torino, Italy, e-mail: ajmone@agraria.unito.it

WELCOME: Development of Integrated Management System (IMS) for Prevention and Reduction of Pollution of Waterbodies at Contaminated Industrial Areas. Area 1.4.1. In Europe, large areas and regions exist with a high density of industry (e.g. sea ports, large scale chemical industry complexes, metal mining areas, military complexes, etc.). At such "megasites", cost-efficient water quality protection cannot be uncoupled from contaminated land management and regulation. WELCOME's aim is to provide integrated fit-for-use knowledge packages in an Integrated Management System (IMS).

Contact: Huub Rijnaarts, TNO, The Netherlands, e-mail: h.h.m.rijnaarts@mep.tno.nl

For further information about these Key Actions in general contact:

- Key Action 1: *Sustainable management and quality of water*: Jürgen Buesing, E-mail: juergen.buesing@cec.eu.int
- Key Action 4 *City of Tomorrow and Cultural Heritage*: Thierry Prost, E-mail: Thierry.Prost@cec.eu.int

A Proposal for a Concerted Action Under FP5

Johan van Veen, NICOLE Secretariat

NICOLE is taking part the preparation of a new proposal for a concerted action in the EU Fifth Framework Programme, along with CLARINET and ANCORE. At the beginning of the year these networks proposed a project called "Colage". Colage aimed to achieve better co-operation among networks involved with sustainable land management. Unfortunately this proposal did not pass the evaluation by the EU. However, a number of the ideas in Colage were seen as worthy of resubmission. Therefore, the Centre for Soil Quality Management and Knowledge Transfer (SKB) in the Netherlands decided to take the initiative to support a consolidated effort to submit a new concerted action: Harmonica. This proposal will be submitted to the EU on the 15th of October 2001, with SKB as the project co-ordinator.

The aim of Harmonica is to increase the effectiveness of national and EU RTD programmes. National and EU research programmes develop a great deal of knowledge. Still the use of the knowledge specially by local authorities and small and medium sized enterprise is insufficient due to various reasons. The project objective is to improve the use of knowledge in policy and practice, by stimulating some harmonisation of the various national and EU RTD programmes and a better dissemination of knowledge gained in terminated are ongoing projects under the national and EU programmes.

The HARMONICA proposal is divided into four Work Packages

1. Creating a platform for RTD programme managers. Mapping and evaluation of RTD programmes; led by SKB
2. Collecting and structuring of the current state of knowledge; led by the University Tübingen (Germany)
3. Communication of the results of work package 2 by the *world-wide web* and other means led by OVAM (Flanders, Belgium);
4. Analysis of the use of knowledge by authorities and practice to identify and clarify obstacles in the use of the knowledge WP led by the Eurocities, a network of about 100 cities in Europe.

Partners in the project so far are NICOLE and ANCORE, OVAM, SKB and Eurocities. Discussions with other potential partners are ongoing specially with the German UBA and the Austrian ministry for the environment. We are keen to have your support for this important NICOLE project. The secretariat will be writing to you soon about HARMONICA. However, in the mean time, if you have any questions, please do not hesitate to contact me.

Ing Johan van Veen, TNO, The Netherlands. E-mail: H.J.vanVeen@mep.tno.nl

CLARINET

CLARINET's Final Reports

Harald Kasamas, CLARINET Secretariat

CLARINET CONFERENCE PROCEEDINGS

The Concerted Action CLARINET has seen three years of fruitful collaboration between various stakeholders from 20 European countries. The project terminated with an International Conference "Sustainable Management of Contaminated Land in Europe" at the end of June this year. The conference presented the conclusions derived within the CLARINET network and its various Working Groups together with keynote presentations from representatives of the European Commission DG Research and DG Environment, Accession Countries, and European industry (NICOLE). The conference proceedings are available from the CLARINET web site at: www.clarinet.at.

CLARINET FINAL REPORTS

CLARINET has focused on a series of areas of key relevance to finding solutions for contaminated land problems:

- Impact of contaminated land on water resources
- Brownfield redevelopment
- Human health
- Ecology related to land uses and functions
- Remediation technologies and techniques
- Decision support
- Collaboration of R&D programmes in Europe.

Working Groups were set up for each of these topics. These Working Groups are currently completing their final publications. In addition, an overall report will present the concept of "**risk based land management**" (RBLM). RBLM was developed over the course of CLARINET to provide a framework for development of policy, research and practice in sustainable management of contaminated land. The aim of the RBLM concept is to achieve:

- The integration of approaches originating from different perspectives (for example spatial planning, environmental protection and engineering), based on the identification of common goals
- Equivalent levels of protection of health and the environment for all communities, taking into account local characteristics
- Optimised use and development of technical and administrative solutions

CLARINET aims to make this information easily available. All reports will be available for download on the CLARINET web site www.clarinet.at. Also hardcopies and CD-ROMs are planned to enable efficient knowledge and information transfer.

Dipl.-Ing. Harald Kasamas, CLARINET Office, Austria. E-mail: kasamas@caracas.at

Information and Communication Technologies for Sustainable Land Management and Monitored Natural Attenuation

Marjan Euser and Lida Schelwald, NICOLE

NICOLE's next Network meeting will take place in Rotterdam on 14 and 15 November 2001. It will be followed by meetings of the ISG and possibly the SPG on the 16th. The meeting is free to NICOLE Members. Non-members will have to pay a modest registration fee.

We gratefully acknowledge the sponsorship of the Port of Rotterdam, Royal Vopak and SKB (the Dutch Centre for Soil Quality Management and Knowledge Transfer) which has made this possible. The first day of the meeting will focus on *Information and Communication Technologies (ICT) for Sustainable Land Management* and has been organised by members of the Industry Subgroup (ISG). The second day of the meeting focuses on *Monitored Natural Attenuation (MNA)* and we are also delighted to tell you that this event is jointly arranged with the Network for Natural Attenuation in Groundwater and Soil (NNAGS).

What Is ICT?

ICT help contaminated land decision making to be more effective. *Geographical Information Systems* can be used to store data, to help visualise data. Combined with geostatistical analyses it can be used to interpret and extrapolate data, and to make suggestions, for example for most effective further sampling. GIS can be combined with decision support, for example to help decide where remediation work might have the most impact. There are a wide range of decision support tools, for example for remedy selection. An exciting development is support for decision making in real time, for example determining site management actions on the basis of specific analytical results. In particular, using soil screening techniques, with ICT applications (e.g. the MIP-tool, mentioned on page 2) can be used to gain a rapid insight into the quality of both soil and groundwater.

Day 1

The meeting programme aims to provide an overview of the current state of the art and emerging ICT-developments. Presentations will illustrate the use of ICT in site assessment, site investigation and data management at large industrial sites. In addition, over the course of the day several techniques will be demonstrated in parallel sessions.

Day 2

At the joint NICOLE/CLARINET workshop two and half years ago in Copenhagen, MNA was considered to be a viable option for dealing with contamination plumes. Nevertheless, serious doubts existed about the technical performance of MNA under different circumstances and the long time frame needed in conjunction with liability issues. Since this time a lot has happened. The question this session seeks to address is whether the results of the research activities and the experience we gained with field work of the last two and a half years have strengthened our confidence in MNA.

The session will begin with a series of presentations from NNAGS outlining the current state of knowledge, and in particular highlighting the advances that have taken place since Copenhagen. NNAGS will then present a suggestion for ten of the most significant continuing obstacles to the wider use of MNA. These suggestions will be debated by small syndicates of NICOLE and NNAGS members over a "parallel session" in the workshop. The findings of these syndicate groups will then be combined in a final plenary session.

The Meeting Report

A full report of the meeting will be compiled and made available via the NICOLE and NNAGS web sites (www.nicole.org and www.shef.ac.uk/~nnags/) by January 2002. The meeting report will also be made available to one or more journals for publication.

Our Meeting Hosts: The Port of Rotterdam

Willem van Hattem and Lida Schelwald, RMPM

The Port of Rotterdam has been involved in NICOLE from the very beginning. Recognising the importance of sustainable soil management, the Rotterdam Municipal Port Management (RMPM), set out to develop cost-effective solutions for soil remediation in partnership with its industrial clients in the port area (5000 ha) and other parties involved.



It is expected that business in the Rotterdam port region will grow over coming decades. This will result in a large number of business and site transactions, involving (contaminated) soil transfers.

Therefore it is very important to find more efficient technical solutions for the site investigations and assessments that these transactions require.

Since 1996, the RMPM has been working together with the industrial partners in NICOLE and the Dutch Research programmes NOBIS¹ and its successor SKB¹ on a range of studies related to site investigation and risk assessment and management. The outcomes of some of this work will be presented at the NICOLE network meeting.

The Port of Rotterdam is at the forefront of using ICT and MNA in land management. It has developed its own Soil Quality Management System (SOQUMAS). Containing the information of more than 2000 reports and 600,000 analyses, SOQUMAS is capable of providing up-to-date information on the contamination situation in the port area at any time. This opens the door to an integral approach of soil remediation.

The Port of Rotterdam takes part in a number of MNA research projects. One of the first of these is the NICOLE data-sharing MNA project, which focuses on the feasibility of NA for various types of contamination and various European soil conditions. A second project is an SKB research project investigating the natural processes occurring at the interface of land and water: a frequent situation in the port area. A third project started recently, also for the SKB. This project investigates factors that effect the sustainability of different MNA approaches.

More information can be found at the Port of Rotterdam's web-site (www.PortofRotterdam.com). The web-site also contains a link to the downloadable (recently renewed) document on the Port of Rotterdam's soil policy ("On good grounds. The RMPM's approach to soil contamination").

For further information contact: Willem van Hattem, E-mail: hattemw@port.rotterdam.nl

A Dynamic Multi-Stakeholder Exchange of Information

Paul Bardos, NICOLE

Since NICOLE began a relatively large number of specialist technical networks discussing contaminated land issues have emerged. Of course there are also a number of networks that predate NICOLE as well, and networks that represent different stakeholder interests or cover different (although sometimes overlapping) geographical regions. New networks have been proposed such as CABERNET and SEDNET (see Page 3). Most significantly NICOLE has bid farewell to its sister network CLARINET which finished its meetings in June this year. Its final reports are available for download on www.clarinet.at.

Following the completion of CLARINET, ANCORE, CLARINET and NICOLE have been co-operating to bring forward a new network, COLAGE, which will be proposed to the Key Action 1: *Sustainable management and quality of water* (see Page 4). I am sure that all of us wish this proposal every success.

I have asked a number of the other networks if they would share their news with us, and I am happy to say that we have news from: The Ad Hoc Working Group, ANCORE, Bioset & SENSPOL, the Common Forum, ImageTrain, NATO/CCMS, PRB, REC, and Sednet. These and other networks are listed under the web links in the Information Gateway on NICOLE's web site: www.nicole.org.

The Ad Hoc Working Group on Contaminated Land

The Ad Hoc Group is an informal coalition of professionals from regulatory agencies and government departments with responsibilities for contaminated land management. It has similar functions to the Common Forum (see below), but has a wider geographical coverage (world-wide) and carries out a slightly wider range of functions. It meets every two years and has a secretariat that rotates from country to country. Approximately every two years it surveys contaminated land policy developments across the participating countries. The next meeting of the group takes place in Geneva on 17 and 18 September 2001. The organisation of the next meeting will be handed over to Canada (host) and France (secretariat). Further information about the Ad Hoc Group is available on its web site: www.adhocgroup.ch/.

ANCORE

ANCORE, the Academic Network on Contaminated Land Research in Europe (ANCORE) was inaugurated by the Centre for Applied Geoscience at the University of Tübingen. ANCORE includes currently more than 60 research institutes from 16 European countries and covers a broad range of scientific disciplines involved in the field of contaminated land and groundwater research. Activities in 2001/2002 include:

* 1st ANCORE Working Group Meeting in Stuttgart, 26 or 27 September 2001 (scheduled)

* NICOLE workshop "Monitored Natural Attenuation" co-organised by NNAGS and ANCORE in Rotterdam, 15 November 2001

* 2nd ANCORE Working Group Meeting in Tübingen, 21/22 February 2002 (scheduled).

For further information please contact Martin Bittens, e-mail: martin.bittens@uni-tuebingen.de.

Ancore's web site, www.ancore.org will be ready soon too.

BIOSET/SENSPOL SENSORS FOR ENVIRONMENTAL MONITORING

The EU network on 'Biosensors for environmental monitoring/environmental technology' (BIOSET) has concluded. Reports on four practical meetings and the brochure 'Biosensors For Environmental Monitoring: State Of The Art 2000' are on the website www.cranfield.ac.uk/biotech/bioset.htm. A compilation of the various BIOSET meeting reports is being published in CD format for library access. The EU Environment and Sustainable Development Programme's network SENSPOL focuses on 'Sensors for Monitoring Water Pollution from Contaminated Land, Landfills and Sediment'. SENSPOL provides a route to identify environmental monitoring requirements and proposed solutions; its website address is www.cranfield.ac.uk/biotech/senspol.htm. For further information please contact the BIOSET/SENSPOL co-ordinator: Dr Susan Alcock, Cranfield University, UK. Email: s.alcock@cranfield.ac.uk

Common Forum

The Common Forum is a platform of co-operation between representatives of the EU Member States, the European Commission and the European Environment Agency on issues related to contaminated land in Europe. Its first meeting took place in Bonn (Germany) in 1994 and since then in Maastricht (1995), Stockholm (1996), Amsterdam (1997), Edingburgh (1998) and Copenhagen (1999). This year, Flanders decided to organise the Common Forum as side-event of the Belgian Presidency of the EU. The objectives of the Common Fora in the past have been to identify thematic areas for EU-wide co-operation, to enhance the dialogue between the different international activities, to collect and discuss the results of these activities and to make recommendation on technical issues and practical aspects to the European Commission and the European Environment Agency and to facilitate the understanding of each EU Member State's approach to tackling the problem of contaminated land. The Common Forum's next meeting will take place in Antwerp (Flanders, Belgium) on October 18-19 2001. Iceland, Switzerland, Norway, the first six Accession Countries and the networks: ANCORE, CABERNET, CLARINET and NICOLE have also been invited to this meeting. Otherwise the meeting is only open to government representatives. NICOLE is pleased to have been invited to take part in this meeting as well to put forward an industry viewpoint. For further information contact: Eddy Van Dyck, E-mail: evdyck@ovam.be

Image-Train

Image-Train is an accompanying measure supporting cost-effective and eco-efficient remediation techniques for groundwater resources in Europe. It is a cluster of three current FP5 projects (INCORE, PIRAMID and PEREBAR) and focuses in particular on training young scientists. It integrates the results and innovation delivered by EC funded research projects, specifically those concerning passive *in situ* techniques for groundwater remediation approaches. One major focus of this project is dedicated to efficient knowledge and information transfer towards the European scientific community and potential end-users, and includes also a particular emphasis on the specific situation in EU Accession Countries. Among its meetings will be three Advanced Study courses for academics and young scientists.. Public access to the derived results and information within Image-Train will be provided via a web page, reports, newsletters, and technical/scientific workshops. The main objectives of Image-Train are to combine innovative research projects and available knowledge supplied by EU funded RTD projects and shorten their transfer towards practical application for needed problem solving and to transfer existing and emerging knowledge to young scientists and academics in the European Union and the EU Accession Countries. For further information contact: Georgia Spausta, e-mail: spausta@ubavie.gv.at

NATO/CCMS Pilot Study - Evaluation of Demonstrated and Emerging Technologies for the Treatment and Cleanup of Contaminated land and Groundwater

This pilot study is led by the United States with Germany and the Netherlands as co-pilot countries. The intent of these meetings is to freely exchange information and experiences among remediation experts from various countries. The goal is for each country to go away from each meeting having increased their knowledge in the remediation field. Since these meetings have started, this goal has been met. Information from the pilot study is placed on NATO (www.nato.int/ccms/home.htm) and EPA (www.clu-in.org/partner1.cfm) web sites. The fourth meeting will be held in Liege, Belgium in September of 2001. Over 80 delegates from twenty-one countries and the European Union and United Nations are expected to attend the meeting representing Armenia, Austria, Belgium, Canada, Czech Republic, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Portugal, Romania, Slovenia, Spain, Switzerland, Turkey, United Kingdom, and United States. Each meeting consists of four principal parts: 1) the technical session addressing a specific topic, 2) the country updates on regulatory and environmental issues, 3) the field trip, and 4) the discussion of projects associated with the pilot study. An annual meeting report and technical session report are produced after each meeting. These reports are placed on the above web sites. The fifth pilot study meeting will be held in Rome, Italy in 2002. For further information, contact the specific country representatives which are listed in the annual reports or the co-pilot study directors Steve James (james.steve@epa.gov) or Walter Kovalick, Jr. (kovalick.walter@epa.gov).

Permeable Reactive Barrier Network

The Permeable Reactive Barrier Network (PRB-Net) held its first workshop during 25th – 27th April, 2001, focussing on PRB technology and its current international status. This workshop included a field trip to two reactive barrier sites in N. Ireland: a Zero Valent Iron reactor and a biological PRB (both firsts in Europe). The workshop attracted delegates from 13 different countries, including the USA, Canada, Germany, Belgium, France, the Netherlands, and Korea. PRB-Net is in the process of co-ordinating the submission of a Framework 5 proposal to establish a concerted action linking groups in the EU working on reactive barriers and zones (EURB-Link). A number of other workshops and an International Conference on Reactive Barriers / Zones are planned for the next 2½ years, serving to disseminate information to the wider community and facilitate communication between inter-disciplinary groups. Further details can be found at www.prb-net.org or by contacting us as prb.net@qub.ac.uk.

REC

The Regional Environmental Centre for Central and Eastern Europe (REC) is an international, diplomatic status organisation with a mission to assist sustainable development and coping environmental challenges in Central and Eastern Europe (CEE). The REC fulfils its mission through encouraging cooperation among governments and businesses and NGOs, supporting the information exchange and promoting cross-sectoral (or multi-stakeholder participation and dialogue in environmental planning and decisionmaking. The REC was established by the Governments of Hungary, United States and European Commission in 1990, and it is legally based on a Charter signed by 28 countries so far. RECs main donors include the European Commission, the governments of the United States, Japan, Canada, the Netherlands, UK, Denmark,

Austria, Germany, Hungary, Czech Republic, Slovakia, Croatia, as well as other intergovernmental and private institutions. For further information contact: robert.nemeskeri, e-mail: robert.nemeskeri@rec.org

SedNet

The international sediment network SedNet will, amongst others, organise conferences and workshops where those responsible for the management of riverine sediments and dredged material can meet the experts who provide them with the tools, technologies and expertise needed for that management. The knowledge disseminated via SedNet will be consolidated in a guideline for integrated, sustainable sediment management, from local to river basin level. A proposal for EC support for SedNet received a high rating (81/100), contract negotiations are in progress and the official start is aimed before the end of this year. For further information visit: www.mep.tno.nl/SedNet or contact Jos Brils: brils@mep.tno.nl

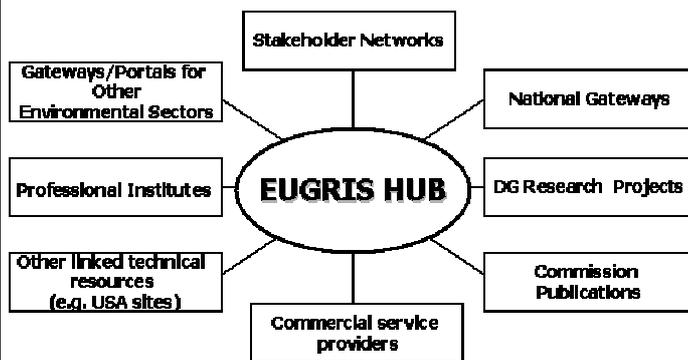
The EUGRIS Initiative

Detlef Grimski, UBA, Berlin

EUGRIS is a *proposal* for an Accompanying Measure to Key Action 1 to provide a web based European Groundwater and Contaminated Land Remediation Information System.

This "gateway" will be effectively a "one stop shop" for contaminated land information for all stakeholders in the field. It will consolidate and organise the huge amount of disparate information available, and provides access to it via a carefully structured site. EUGRIS will provide contextual guidance on the information on offer, and clearly written reviews for users who require them.

EUGRIS will be designed to cater for a range of users from researchers seeking advanced information on specific topics to general enquiries from those seeking a basic level of easy to digest information. EUGRIS will furnish an easy route of access to knowledge about contaminated land and groundwater issues for all stakeholders, and so improve the general efficiency of information use in a wider Europe.



EUGRIS aims to bridge the apparent information divide between those who apply contaminated land and groundwater management at an operational level, and those carrying out RTD, policy and regulatory developments for example in NICOLE, ANCORE and CLARINET. EUGRIS can:

- provide a platform for the exchange of knowledge
- enhance the transfer of information to the end users
- support co-ordination of RTD funding
- improve efficiency of RTD mechanisms and policy and regulatory development
- contribute to the harmonisation of standards across Europe.

The EUGRIS proposal will be submitted in February 2002. Please contact me, Detlef Grimski, for further information, and especially if you are able to support this important initiative, e-mail: detlef.grimski@uba.de

Rapid Access to Key Contaminated Land Information

Paul Bardos and Anita Lewis, NICOLE (r³ Environmental Technology Limited)

Within its "Information Gateway" zone, the NICOLE web site contains a searchable links section, which is continually updated. These web links are a careful selection of information rich web sites from across the world that we have either tracked down ourselves, or have been suggested to us by you or the webmasters for the sites concerned. This is a significant resource with more than 260 links (filtered down from a far larger number). It is separate from NICOLE members' own links, which have their own special page in the *Information Gateway*. Entries are listed by country, with their web address (URL) and a brief description of the site. The links point to sites that discuss: technologies, contaminated land management approaches, supporting disciplines such as geology, regulatory information, policy information and further information networks. As well as European links - EU and nonEU countries, we have links from Australia, New Zealand, North America and Asia and Russia). Information providers include environment (protection) agencies, water agencies, waste agencies, as well as business networks and associations, academic departments, societies and networks, in fact any site that appears to have some useful information. This is a major resource, please feel free to use it, and if you like, let us know how you got on.

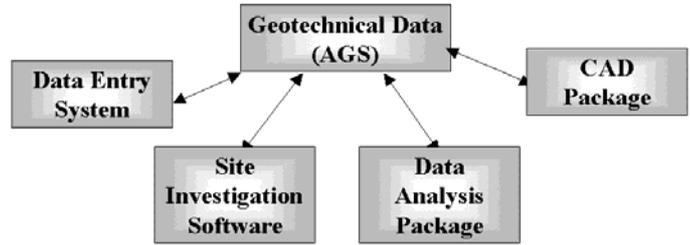
We have highlighted below just a small selection of the web sites we currently have listed, to give you an idea of the range of information currently accessible from NICOLE. In future newsletters we will produce further selections of interesting sites and new additions to the web links section. We would love to see an even more global selection of web links and we always welcome suggestions for entries into the links section. If you would like to suggest a new web site we should consider for our links section, please your e-mail suggestion to Paul Bardos (at paul@r3environmental.co.uk). If the web site is not in English, please let us know what language it is in, and provide a 200 word description of the site.

BrownfieldBriefing (UK)	www.brownfieldbriefing.com/	Brownfield Briefing is designed to cover the latest news in the area of brownfield development. There is news coverage, a mix of expert commentary, analysis and interviews with key figures in the industry, along with reports on management, legal and insurance issues
Centre d'Information Environnement pour les Entreprises (France)	www.ccip.fr/bourse-des-dechets/	Information on French regulations, taxes, waste management, restoration of sites and soil. French language version.
Clu-In (USA)	clu-in.org/	Gateway to web based information on contaminated land in the USA, operated for the US EPA Technology Innovation Office. Provides information about programs, organisations, publications and other tools - as well as an international links section.
Compendium of Pesticide Common Names (UK)	www.hclrss.demon.co.uk	Compendium of all pesticide common names, together with their systematic chemical names, molecular formulae and Chemical Abstracts Registry Numbers.
European Environment Agency	www.eea.eu.int	European Environmental Agency information provides easy access to understandable and well-structured environmental information. Accesses the Catalogue of Data Sources, the State of the Environment Reporting Information System, the Global Environmental Information Locator Service, and the Data Warehouse.
European Committee of Environmental Technology Suppliers Associations	www.eucetsa.org/	The main purpose of the European Committee of Environmental Technology Suppliers Association is to foster the development and the dissemination of environmental technologies, in particular in the field of air, water, ground and waste.
GWRTAC (Groundwater remediation) - USA	www.gwrtac.org/	Information on innovative ground-water remediation technologies. Provides access to regulatory information, technical documents and vendor information.
Land and Water Resources: Research and Development Corporation	www.lwrrdc.gov.au/	Provides publications, databases and web links in Australia.
Centre for Soil Quality Management and Knowledge Transfer (The Netherlands)	www.skbodem.nl	The SKB is a co-operative body involving all parties interested in soil management in the Public and Private Sectors. It promotes the exchange of knowledge in the field. This web site provides comprehensive information on all its work
RTDF: Remedial Technology Demonstration Forum (USA)	www.rtdf.org/	Private/Public sector programme for demonstration of remediation technologies. Provides information and reports on research, development, demonstration and evaluation of remediation technologies for achieving common clean up goals.
Umweltbundesamt: German Federal Environment agency	www.umweltbundesamt.de/uba-info-e/e-lernen.htm	Information on environmental planning strategies, environment and health, sustainable technology, safety of chemicals, contaminated land and waste management
US EPA's Environmental Technology Verification Program	www.epa.gov/etv	Part of the Office of Research & Development dedicated to verifying the performance of innovative technical solutions to problems that threaten human health and the environment.

Introduction

As information technology developed into the geosciences in the late 1980's and early 1990's a wide range of data formats for the transfer and manipulation of geotechnical data were being developed from spreadsheets to complex databases. In 1991 the Association of Geotechnical and Geoenvironmental Specialists (AGS) set up a subcommittee to investigate this and in 1992 proposed a standardised format. It has been reviewed and updated when necessary, Version 3 was released in March 2000. The AGS format uses a data dictionary approach to define data groups and fields to ensure reliability and consistency for data transfer. The format is now widely used and has proved to be a major advance for the management and interchange of geotechnical and geoenvironmental information. It has received strong support from all involved, data producers, data receivers, users, and software developers.

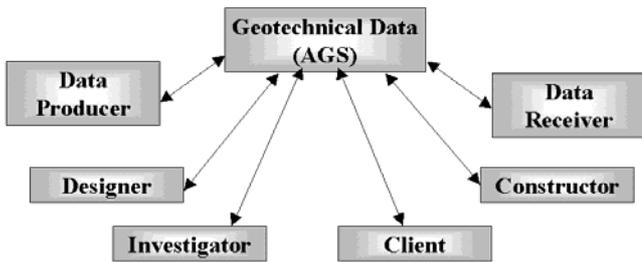
**Allows data to flow ...
between programs**



The AGS Format

The standard defines the data format for files conveying factual information from a complete ground investigation, including geoenvironmental and laboratory test data. The files are transmitted as simple ASCII (text) files. Strict rules have been established for creating AGS data files so that the simplest existing programs, in particular spreadsheets, can use the format, as well as more comprehensive database systems.

**Allows data to flow ...
between customers**



Data Dictionary

To provide maximum flexibility and to allow the file formats to be easily recognised by the non-specialist, Data is structured in a consistent and logical manner by dividing it into *data groups* within which a series of *fields* are defined to contain the relevant information. These fields may have the status of *key* or *common*. Key fields are required to define the data unambiguously. The common data fields are used on an as needed basis for the associated data. The data fields and data groups listed are extensive and cover the majority of requirements of geotechnical and geoenvironmental investigations. However, rules are given for the creation of new, unique fields and groups, should the need arise, to transfer data not otherwise covered by the AGS Format.

Its adoption has not been without its difficulties, the most common problem which has been identified is that of 'pseudo AGS' data that do not fully conform to the standard.

Web Site

Version 3.0 of the AGS standard is available as a 110 page, "shareware" document from the AGS web-site at www.ags.org.uk. A web page here also exists for discussion of problems, the development of ideas and the solving of problems. For further information contact Steve Walthall, e-mail: sxwaltha@bechtel.com

NICOLE MNA-project

Recent Findings and Current Status

Anje Sinke, TNO and Roger Jacquet, Solvay,

In the second phase of the Monitored Natural Attenuation project, demonstration sites are currently being investigated. Eleven companies from across Europe are participating in this project. On some sites, research is done in collaboration with research institute (e.g. TNO) or universities. The sites represent a variety of geologies including fractured bedrock and unconsolidated deposits. The types of contamination encountered include hydrocarbons, chlorinated hydrocarbons, phenols and mixed contamination. The feasibility of MNA is being investigated using the "lines of evidence" strategy formulated by the US EPA. The probable outcome looks like being that for some sites MNA will be a good and reliable approach as the sole risk management measure. At others MNA will be used in addition to other remedial technologies. Finally, at some sites MNA may not be applicable at all owing to unfavourable conditions.

The demonstration sites are being investigated according to a common strategy defined to be consistent with the protocols reviewed. Based on these well-investigated sites a best practise plan will be formulated and an optimal technically needed data-set for reliable application of MNA will be published. The project will also contribute to the definition of MNA "operating windows" to allow rapid screening of the potential for MNA in future applications. For further information please contact: Roger Jacquet, e-mail: Roger.Jacquet@solvay.com.

Industry SubGroup

Lida Schelwald, NICOLE and Rae Crawford, Chairman, ISG, ESSO

The NICOLE Industry Subgroup has already met twice this year; in Köln and in Paris, with several new members joining this year. The majority of ISG members still belongs to the petroleum and chemical industries, but other sectors represented are the nuclear, steel, construction, coal, gas and automotive industry, all facing contaminated land problems, although to a different extent. With this wide ranging expertise in mind, several letters were sent earlier this year by ISG members to various European sectoral organisations, such as UNICE, CEFIC and EUROPIA to offer NICOLE's support and assistance on contaminated land issues, as NICOLE would like to become more involved at EU level. NICOLE's offer is to co-ordinate industry comments on DG Environment consultations to provide a strong "single voice" response. The reactions so far have been quite positive.



Rae Crawford

Lida Schelwald

The ISG has also been working on a discussion paper about risk assessment for sustainable land management (see Page 2).. It uses a 'Questions & Answers' approach. Although risk based land management is considered by most EU Member States as the best available and most sustainable strategy for dealing with the problems posed by land contamination, there are still questions about available tools and techniques for assessing and managing risks. The document, which is expected to be issued in October this year, hopes to clarify most of these issues and resolve many existing doubts.

The NICOLE ISG has also been quite active in promoting RTD projects. Apart from endorsing several EU-Framework 5 RTD project proposals, the ISG itself has quite a number of on-going projects and new projects are in the pipe-line. One major on-going project is on MNA. In this project 11 companies (BP Amoco, DOW, Eni Ambiente, ExxonMobil, Ford, Fortum, Port of Rotterdam, Shell, Solvay, Texaco and TotalFinaElf) have agreed to share information and exchange data on planned and on-going MNA research projects at their sites for the next 3 years. The aim is to investigate and demonstrate the effectiveness of MNA at many sites across Europe with various geological conditions and contaminants.

Our members have recently been challenged by the chairman to bring forward new topics for (problem-solving orientated) projects that would be of interest to industry and to champion them. This challenge was picked up and resulted in many new ideas for projects at the last meeting. It is the intention of the ISG to work together closely with the Service Providers Subgroup and academics on most of these projects.

For more information about the Industry Subgroup see our pages on the NICOLE web site, or contact: Lida Schelwald, Secretary to the NICOLE ISG, e-mail: LSVdK@schelwald.nl

Service Providers Subgroup

Mike Summersgill, Outgoing Chairman, SPG, VHE Technology

The Service Providers Subgroup will shortly have been two years in existence. In that time, it has emerged from an idea into a functioning sub-Group within NICOLE. Currently 31 companies are members of the SPG and membership is increasing rapidly year on year. New members so far in 2001 are: Biosoil, Clayton, Ecotec, Golder Associates, Montgomery Watson and Niton (see full list below) Some of the SPG's members are subsidiaries or otherwise related to industry members of NICOLE already in the ISG.

The SPG continues to develop several Proposals for potential projects, some with the Industry Group and some (more esoteric) alone. We should, after our next meeting in Antwerp in September, have the SPG web page up and running on www.nicole.org, with information on and links to member companies. I was delighted to see how well members of the SPG worked together organising NICOLE's Paris meeting last May (see Page 11). Currently SPG members are deeply involved in the programming of next year's Workshop in Pisa on Site Investigation Technologies.

Well, it is now time to hand over the Chairmanship baton to my able Vice-Chairman, Wouter Gevaerts of Gedas (Antwerp and Leuven, Belgium), and welcome the new Vice-Chairman, Thierry Imbert of Tauw (Lille, France). Wouter is a (hydro)geologist with 13 years experience in groundwater pollution and remediation. He is the technical manager responsible for the Environmental department of Gedas (the Belgian subsidiary of the Arcadis group).



Elze-Lia Visser-Westerweele

Wouter Gevaerts

Wouter is also a member of the board of the VEB (Belgian Society for soil remediation specialists).I hope that you will all give him as much support in his role as I have received the past two years, and I look forward to maintaining a presence at NICOLE events in the future.

For more information about the Service Providers Subgroup please contact:, Secretary to the NICOLE SPG, e-mail: visser.vwma@hetnet.nl

SPG Members August 2001: Ambiente S.p.A., AQUATER S.p.A., Arcadis Geraghty & Miller International Inc., Arcadis Heidemij Advise, BioSoil BV, Clayton Umweltschutz GbR, Crosfield Ltd., Dow Research, DuraVermeer, ECOTEC Srl, Edmund Nuttall, Fugro Consult GmbH, Fugro Milieu Consult BV, Gedas NV, GeoDelft, Golder Associates Europe Ltd., Golder Associates Geoanalysis S.R.L., Golder Grundtechnik KB, HBG, HBG Civiell Milieu, Hochtief Umwelt GmbH, ICF Environnement, IWACO BV, KemaktaKonsult AB, MB Envirotech AB, Montgomery Watson, Neste Engineering Oy, Niton Corporation, Niton Europe GmbH, Niton UK Ltd., Ophrys, TAUW, Tebodin, URS Dames & Moore, UW Umweltwirtschaft GmbH, VHE Technology Ltd. and Ways & Freytag

ISG Members August 2001: Akzo Nobel NV BNFL BP Amoco Oil Europe Corus Steel Deutsche Steinkohle AG Dow Chemical Dynea Chemicals Oy ENEL S.p.A. ENI S.p.A. ExxonMobil Ford Motor Company Fortum Oyj Gaz de France HBG Huntsman Polyurethanes ICI Group JM AB Lattice Property Holdings Ltd. Lyondell Italia Norsk Hydro AS Port of Rotterdam Powergen Royal Vopak Shell Solvay S.A. Taylor Woodrow Texaco TotalFinaElf VHE Holdings plc.

Summaries from Full Meeting Reports Posted on www.nicole.org

Paul Bardos and Anita Lewis, NICOLE (r³ environmental technology Ltd)

<p>IJmuiden The theme of the workshop held in IJmuiden, The Netherlands on 9 and 10 November 2000 was "Brownfields: How to turn a potential threat into an asset". The meeting was timed to support research proposals for the Energy, Environment and Sustainable Development Programme (EESD) of FP5, and directly led to two collaborative research proposals for the Key Action on City of Tomorrow and Cultural Heritage. A selection of papers describing brownfields projects, policies and research in Europe and the USA were presented, along with updates on the activities of NICOLE, ANCORE and CLARINET.</p>	<p>Paris The theme of the workshop held in Paris, France on 17 and 18 May 2001 was "Cost-effective Technology: quality assurance and acceptance". The meeting explored costs and benefits of land remediation from the perspectives of different stakeholders, and to discuss how the wider economic, environmental and social values of remediation work could be assessed to result in good decision-making. The programme included technical papers about cost effectiveness, cost and benefits appraisal and communication strategy from different stakeholders (regulators and service providers) from France, Belgium and Italy. The workshop also included a selection of case studies for problem sites decision making and papers about quality management.</p>
<p>IJmuiden Conclusions There is broad consensus amongst what might be called "technical stakeholders", that the best approach to decision making for contaminated land management is one based upon risk assessment and management. However, it is not clear that this approach is as widely accepted by all other stakeholders involved in brownfields projects. While risk based decision making is a powerful tool, it cannot be assumed that all stakeholders will automatically accept its use. Decision makers should be prepared to adequate time and explanation if they wish to reach a consensus with all stakeholders. It is also important to note that risk based decision making addresses only one of many strands important in brownfields decisions. Others include social and economic considerations or issues of wider environmental effects. It does seem very hard to consider these different strands in a holistic way at present, and in a way that is inclusive of all stake-holders.</p> <p><i>A summary report is also available as: Bardos, R. P. (2001) Report of the NICOLE workshop: Brownfields: How to change a potential threat into an asset. 9 and 10 November 2000, IJmuiden, The Netherlands. Land Contamination and Reclamation 9 (2) 252-256.</i></p>	<p>Paris Conclusions As well as risk management, considerations of cost effectiveness, sustainable development, stakeholder inclusion and quality management are of increasing importance in contaminated land decision making. The workshop developed the conclusions about stakeholder involvement that emerged from the IJmuiden workshop. Contaminated land professionals need not just to be aware of the need for better communication of technical matters to all stakeholders in a project, but to take action to ensure this communication takes place. In particular technical people need to be sensitive to the legitimate interests of lay-people who have their own knowledge and perspective to bring to discussions. Those involved in contaminated land management recognise that the actions that are finally agreed are the result of a process of negotiation, effectively bargaining, which weighs the interests of different stakeholders. It is perhaps this bargaining process that could be made a little more guided, a little more transparent and a little more explicit. Perhaps some of the future research effort on contaminated land management should be directed towards finding tools that facilitate stakeholder involvement in contaminated land decision making, and that support transparency and reproducibility in decision making, reconciling the various different issues such as risk management, cost effectiveness, quality and sustainable development.</p>

CLARINET and NICOLE Special Edition of Land Contamination and Reclamation

This special issue of Land Contamination and Reclamation (Volume 9, Part 1) was published in January 2001 and highlighted a range of CLARINET and NICOLE activities and projects. It focused on the progress that is being made towards the establishment of better risk-based land management protocols and practices in the EU. It described the recent (second) call for projects under Framework 5 (see Page 3) and identified commonly perceived research needs among stakeholders in European countries. It is available on www.nicole.org. But if you do not fancy a lot of downloading and printing, you can order a hard copy from: EPP Publications, e-mail: enquiries@epppublications.com.

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<p>An analysis of national and EU research programmes related to sustainable land and groundwater management</p>	<p>Towards a framework for selecting remediation technologies for contaminated sites</p>
<p>Scientific and Research needs for contaminated land management</p>	<p>Source remediation vs. plume management: critical factors affecting cost-efficiency</p>
<p>Guidelines for the preparation of proposals for Framework Programme V.</p>	<p>Urban brownfields in Europe</p>
<p>Water resource protection issues in relation to contaminated land</p>	<p>Framework for decision support used in contaminated land management in Europe and North America</p>
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	<p>ANCORE: Academic Network on Contaminated Land Research in Europe</p>

Chairman's Corner

NICOLE's Plans for 2002

Paolo Cortes, NICOLE Chairman (Enichem)

E-mail: paolo.cortes@enichem.it



I believe that 2002 will be another busy and interesting year for the NICOLE community. The Steering Group and the secretariat have been shaping the working plan for next year, as usual based on two main types of activity consistent with NICOLE's aims:

1. Continue to develop the scientific background for a sustainable (cost-effective, eco-efficient) contaminated land management, based on risk assessment and fit-for-purpose criteria
2. Take a catalytic/proactive role in promoting a continuous forum for all stakeholders to achieve a broad consensus on the industry view on what a contaminated land "sustainable" management should be "to pursue environmental/social benefits and maintain economic growth"

Regarding the first activity, it is encouraging to see a renewed interest of members in asking for new projects targeting specific problems and coming up with brilliant ideas for co-operation. The Industry and the Service Providers Subgroups are discussing some very interesting proposals for projects and ideas for NICOLE's 2002 meetings. Two meetings are being developed (see below). Their themes of costs and benefits and effectiveness are consistent with NICOLE meetings in the past, and once again we hope for a full and frank discussion between the various stakeholders who will attend. I want to take this opportunity to invite you to comment on these suggestions, in particular the Autumn 2002 meeting. I am keen that our activities be of interest to all of the NICOLE community. Please e-mail me your thoughts.

NICOLE Looks East: As part of its second activity, NICOLE has set itself the mission of expanding the network towards East, considering the huge dimension of the contaminated land problems in the former Communist countries. To this end we plan to hold our Autumn 2002 meeting in Budapest, which we hope will be more accessible for experts from these countries. An important theme for NICOLE is to emphasise the importance of pollution prevention.

Like most involved with contaminated land, NICOLE members feel that as we now have the means to break the cycle between production/manufacturing and contamination, it is inexcusable to avoid doing so. This puts the accent on future sustainability and continues society's "licence" for industry to operate. The problems the contaminated land industry faces today are a legacy of the past, and should not be recreated for the future.

I look forward to an exciting 2002 for NICOLE, to continuing to work with all of you, and to working with our new Steering Group.

Spring 2002	Autumn 2002
<p><i>Site Characterisation and monitoring: cost effectiveness through innovation.</i></p> <p>This meeting will be held in Pisa (Italy) on 18-19 April, hosted by the Italian National Research Council (CNR) which has a dedicated facility in Pisa studying soil characterisation and remediation.</p> <p>The workshop is co-organised and/or sponsored by a number of industrial members of NICOLE (BNFL, ENEL, ENI, Lyondell), the National Association of the Environmental Experts and a number of service providers (Aquatec, GeoDelft, Fugro, Studio Aglietto).</p> <p>If you would like to find out more or register your interest in taking part, please contact Ms Marjan Euser, E-mail: M.Euser@mep.tno.nl</p>	<p><i>Remediation costs/financial risk: is prevention cost-effective vs. liability/insurance?</i></p> <p>This is still only an initial idea that is yet to be refined. This discussion of costs is intended to be wide-ranging, considering indirect as well as direct technological costs. The idea for this topic arose from previous meetings where it was quite often evident that these wider cost issues could have a far reaching impact on the feasibility and economics of remediation. It is quite possible for these wider costs to exceed the direct costs of remediation activities. NICOLE's Steering Group felt it timely to address these issues, involving not just contaminated land professionals from industry, regulators and academe, but also involving the financial and legal communities as well such side of the problem. Of course this means trying to involve not just engineers and scientists, but economists, financiers and business people too.</p>

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