

# Communication Strategy of MBR-Network

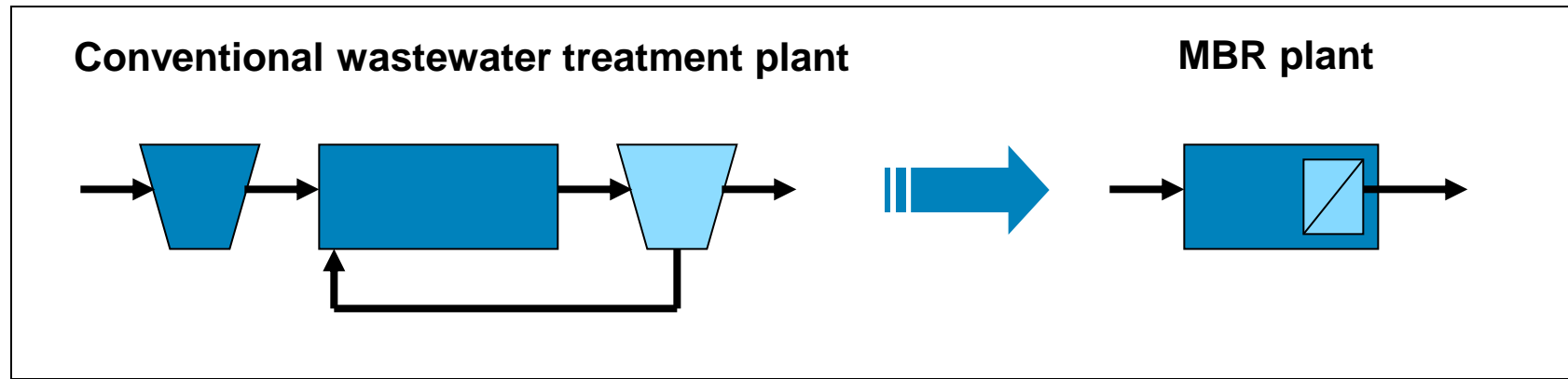
The European coalition dedicated to  
the membrane bioreactor technology

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# Content

- ▶ Background on MBR-Network
- ▶ Communication Strategy

# Membrane bioreactor (MBR) technology ?



- ▶ Combination of activated sludge with membrane filtration to treat municipal or industrial wastewater
- ▶ Advantages
  - Compactness
  - Robustness
  - Treatment quality



## EC to boost MBR technology in 6<sup>th</sup> FP



- ▶ 4 R&D projects within Oct. 2005 – Dec. 2009
- ▶ Total budget: € 16 million, incl. € 9 million EU
- ▶ About 50 European and international partners
- ▶ About 1.800 person months = 150 person years !  
(~ 40 full-time p.a.)
- ▶ Focus on municipal applications
- ▶ Build-up on current European expertise and know-how
- ▶ Foster MBR technology advances, competitiveness, acceptance and application in EU



## 4 projects = 1 cluster



Accelerate membrane development for urban sewage purification (STREP, M€ 6.1)



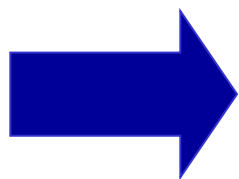
Membrane bioreactor technology for advanced municipal wastewater treatment strategies (STREP, M€ 6.2)



Process optimisation and fouling control in membrane bioreactors (Marie-Curie EST, M€ 2.4)



Energy efficient approach to MBR operation for decentralised wastewater treatment (INCO, M€ 1.2)



[www.mbr-network.eu](http://www.mbr-network.eu)

## Strategic objectives

- ▶ Technological  
Increase competitiveness and reliability of MBR techniques in comparison with conventional processes
- ▶ Environmental  
Broaden an advanced treatment process to common practice in environmental engineering, with increased sustainability
- ▶ Industrial  
Foster development of competitive European MBR-filtration technologies and know-how
- ▶ Economical  
Increase EU share in worldwide municipal & industrial MBR market

# Communication Strategy and targeted audiences

- ▶ Strong and coordinated effort of dissemination (~ 5% of budget)
  - Visual identity for high visibility  
logo, templates for presentations, reports, posters, flyers
  - Press releases and articles in national / international journals  
target: national wastewater communities
  - Scientific articles in peer reviewed journals  
target: international scientific and expert MBR communities
  - International conferences endorsed by IWA  
target: international scientific and expert MBR communities
  - Technology transfer workshops in targeted regions  
target: local practitioners in regions with high market potential
  - Plan for using and disseminating the knowledge  
exploitable knowledge and publication list
  - Joint and interactive webplatform  
[www.mbr-network.eu](http://www.mbr-network.eu): the website of the MBR community

## Press releases and general articles


- ▶ 9 press releases
  - At key project milestones
  - English, German and Dutch
  - International and national journals
  - Appeared in 20 vectors each (high impact rate)
- ▶ 5 general articles in specialist press
  - Start of project
  - International journals






# Scientific articles in peer reviewed journals

- ▶ > 100 published manuscripts
  - Peer reviewed journals
  - Conference manuscripts
  - Joint review articles




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## Activated sludge model (ASM) based modelling of membrane bioreactor (MBR) processes: A critical review with special regard to MBR specificities

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### ABSTRACT

Membrane bioreactors (MBRs) have been increasingly employed for municipal and industrial wastewater treatment in the last decade. The efforts for modelling of such wastewater treatment systems have always targeted either the biological processes (treatment quality target) as well as the various aspects of engineering (cost-effective design and operation). The development of Activated Sludge Models (ASM) was an important evolution in the modelling of Conventional Activated Sludge (CAS) processes and their use is now very well established. However, although they were initially developed to describe CAS processes, they have simply been transferred and applied to MBR processes. Recent studies on MBR biological processes have reported several crucial specificities: medium to very high sludge retention times, high mixed liquor concentration, accumulation of soluble microbial products (SMP) rejected by the membrane filtration step, and high aeration rates for scouring purposes. These aspects raise the question as to what extent the ASM framework is applicable to MBR processes. Several studies highlighting some of the aforementioned issues are outlined through the literature. Hence, through a concise and structured overview of the past developments and current state-of-the-art in biological modelling of MBR, this review explores ASM-based modelling applied to MBR processes. The work aims to synthesise previous studies and differentiate between unmodified and modified applications of ASM to MBR. Particular emphasis is placed on influent fractionation, bio-kinetics, and soluble microbial products (SMPs)/exo-polymeric substances (EPS) modelling.

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## Conferences and workshops



International  
Water Association

- ▶ International conferences endorsed by IWA
  - IWA Young Water Professional workshop, 120 participants
  - IWA Final Workshop of MBR-Network workshop, 220 participants
  - 1st international conference 100% dedicated to MBR technology
  - Key of success: intensive promotion, endorsement by IWA and other associations, attached to international events (Wasser Berlin)
  
- ▶ 4 project workshops or sessions in conferences
  
- ▶ 4 technology transfer workshops in potential market regions (P, CZ, GR, AU)
  
- ▶ total: 900 participants



## Joint and interactive webplatform

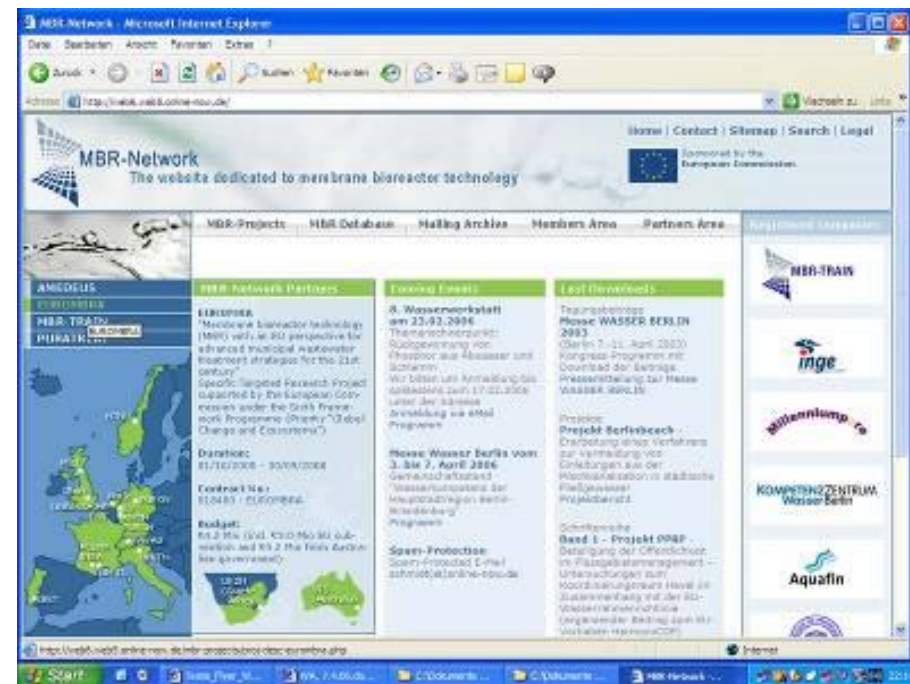
### ► [www.mbr-network.eu](http://www.mbr-network.eu)

‘The website dedicated to MBR technology’  
on-line since July 2006

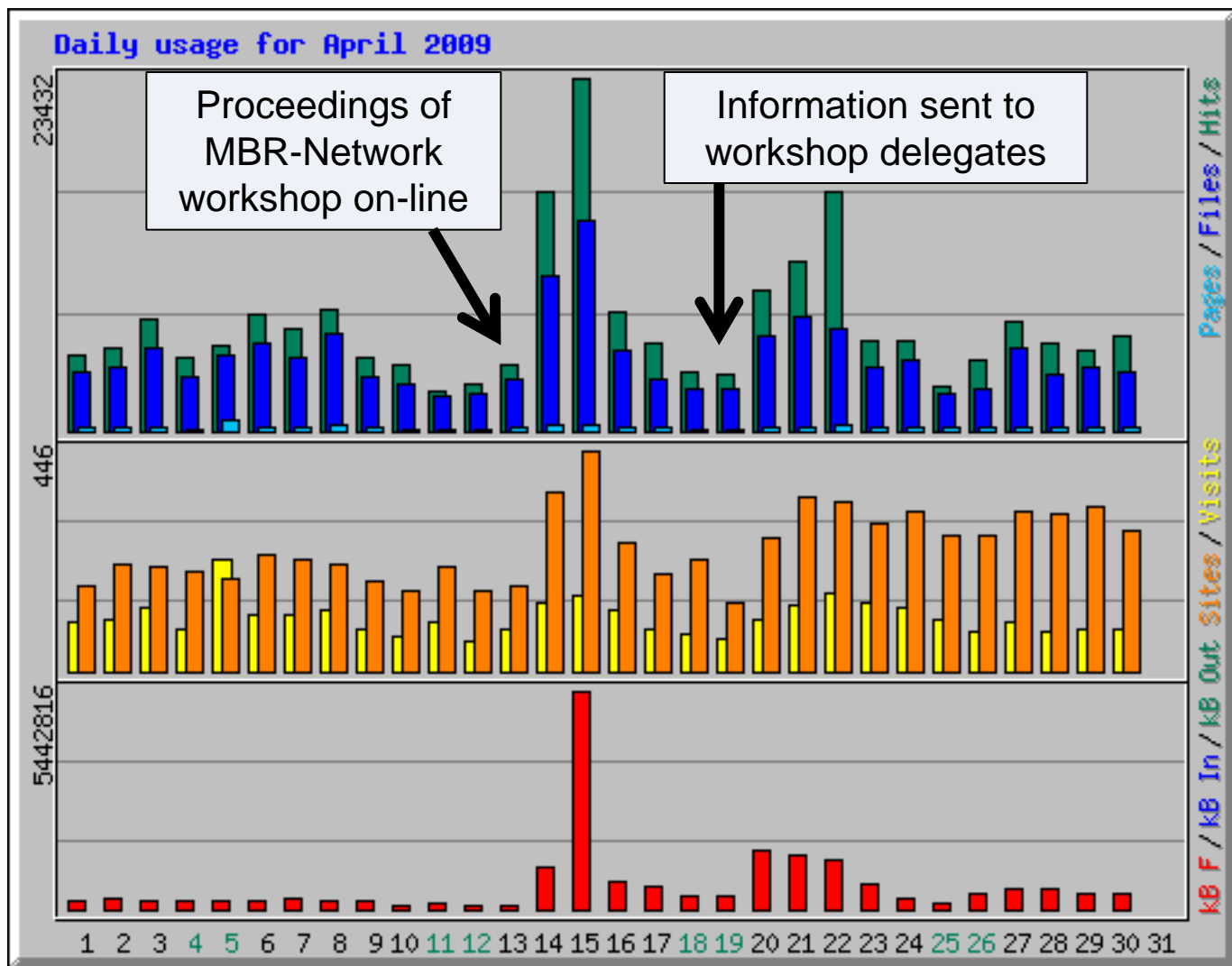
- Actual information / reports / conference proceedings of the 4 EU projects
- Discussion forum between specialists of the MBR-community
- Data-base of MBR companies and institutions  
(starting with 50 project members)
- Data-base of articles (journals and conferences)
- Data-base of other European projects involved with MBR
- List of international conferences, symposiums or seminars

# Design of www.mbr-network.eu

- Strategy for interactivity:
  - reduce time required by users and editors
  - Site to be as frequently as possible updated
  - Most procedures automatised
  - Members logo with link to website
  - Emails sent to members for each new information
  - No needs to go on website to receive info !



# Dynamic website



## Website still active since end of project !

Statistics	At end of project (09.2009)	Today (10.2011)
International members	1090	1520
Companies / institutions	155	185
Article references	1200	1845
Article consultations	2200 views / mth	4200 views / mth
Download documents	2300 downloads / mth	2300 downloads / mth
Frequentation	5000 visits / mth	6000 visits / mth

## Conclusion

- ▶ Ambitious communication strategy of MBR-Network
- ▶ Good prerequisites:
  - Size of cluster with high visibility (4 projects, 50 partners)
  - Specific and booming technology at time of projects
- ▶ But also a collective and coordinated effort
- ▶ Strategy implented for greatest short term and long term impacts towards targeted audiences

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They constitute the MBR-NETWORK Cluster  
More info: [www.mbr-network.eu](http://www.mbr-network.eu)