

# SEMIDE

<http://www.semide.org>

Système Euro-  
Méditerranéen  
d'information sur les  
savoir-faire dans le  
domaine de l'Eau



النظام المعلوماتي  
الأورومتوسطي للمعرفة في  
مجال المياه

# EMWIS

<http://www.emwis.org>

Euro-Mediterranean  
Information System  
on know how in the  
water sector

## Progress on the Multilingual Water Thesaurus & Glossary

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J. El Kharraz, EMWIS T. U. ; EMWIS Coordination Seminar, Amman 2005-09-27/28



## Why a multi-lingual water thesaurus for EMWIS?

- **To initiate the process of setting up a basic water ontology for guiding information search and intelligent indexing.**
- **To map the water themes used by various initiatives**
- **To implement EMWIS content simultaneously with ontology updating**
- **To provide our web users with definitions of inland water vocabulary used in the Euro-Med area, to allow them understanding the information published and avoid misunderstanding.**
- **To enhance the quality validation of the used definitions.**
- **To make available terms & definitions in several languages (mainly: EN, FR, AR, SP) and if necessary from different sources**

# MAIN PHASES

- **1st:**
- To build a multilingual thesaurus in fresh water sector in EN, FR, AR.
- **2nd:**
- To get it in SP & IT too, and even with concepts definitions in each language.
- **3rd:**
- The thesaurus will be used for documents indexation & to guide the users in their searches.
- **4th:**
- The multilingual glossary & thesaurus will be available on line.
- **5th:**
- To expand the thesaurus/glossary.

	1st phase	2nd phase	3rd phase	4th phase	5th phase
janv-04					
févr-04					
mars-04					
avr-04					
mai-04					
juin-04					
juil-04					
août-04					
sept-04					
oct-04					
nov-04	■				
déc-04	■				
janv-05	■				
févr-05	■				
mars-05	■				
avr-05	■				
mai-05	■				
juin-05	■				
juil-05	■				
août-05	■				
sept-05	■				
oct-05	■	■	■	■	■
nov-05	■	■	■	■	■
déc-05	■	■	■	■	■
janv-06	■	■	■	■	■
févr-06	■	■	■	■	■
mars-06	■	■	■	■	■
avr-06	■	■	■	■	■
mai-06	■	■	■	■	■
juin-06	■	■	■	■	■
juil-06	■	■	■	■	■
août-06	■	■	■	■	■
sept-06	■	■	■	■	■
oct-06	■	■	■	■	■
nov-06	■	■	■	■	■
déc-06	■	■	■	■	■

# Inventory of existing thesaurus/glossaries

	Thesaurus	Glossary	Multilingual
<b>EDEN Inland Waters</b>		X	X
<b>EEA multilingual environmental glossary (GEMET)</b>	X		X
Water Basics Glossary		X	
Water Words Dictionary		X	
ICID Multilingual technical dictionary on irrigation and drainage	X		X
Water Science Glossary of Terms		X	
Canadian Water Resources Glossary		X	
Water Quality and Waste Management Glossary		X	
<b>Water thesaurus / Thésaurus de l'Eau (OIEAU)</b>	X		X
<b>International Glossary of Hydrology (IGH/UNESCO)</b>		X	X
Arabic Environmental Glossary		X	X
Diccionario of Water Engineering		X	X
Dictionnaire Environnement		X	
Le Lexique 6 langues de l'eau		X	X
DEPweb glossary (WORLD BANK)		X	
<b>Thesaurus on Hydraulic Engineering (CEDEX)</b>	X		
Water Framework Directive Glossary		X	
Glossary of Mediterranean Wetlands (Medwet)		X	X
SAHRA Water Glossary		X	
<b>Water Demand Management Trilingual Glossary (IDRC, Canada)</b>		X	X
The second Multilingual Glossary		X	X
Glossary of Land and Water Terms FAO AGL		X	X
EnVoc: Multilingual Thesaurus of Environmental Terms	X		X

# Resources selected

Following the results of the data manager seminar held in Madrid (November 2004), the following thesauri/glossaries have been chosen:

**1- The simplified OIEAU water thesaurus (THEau-fr)  
1770 concepts**

**Choice reasons:**

- Updated**
- Managed by the French  
NFP**
- Good thematic  
coverage**
- Thesaurus**

## Resources selected / 2

2- EDEN (inland water glossary, validated by EU water community)

1481 concepts in EN (996 translated to FR)+  
definitions in EN

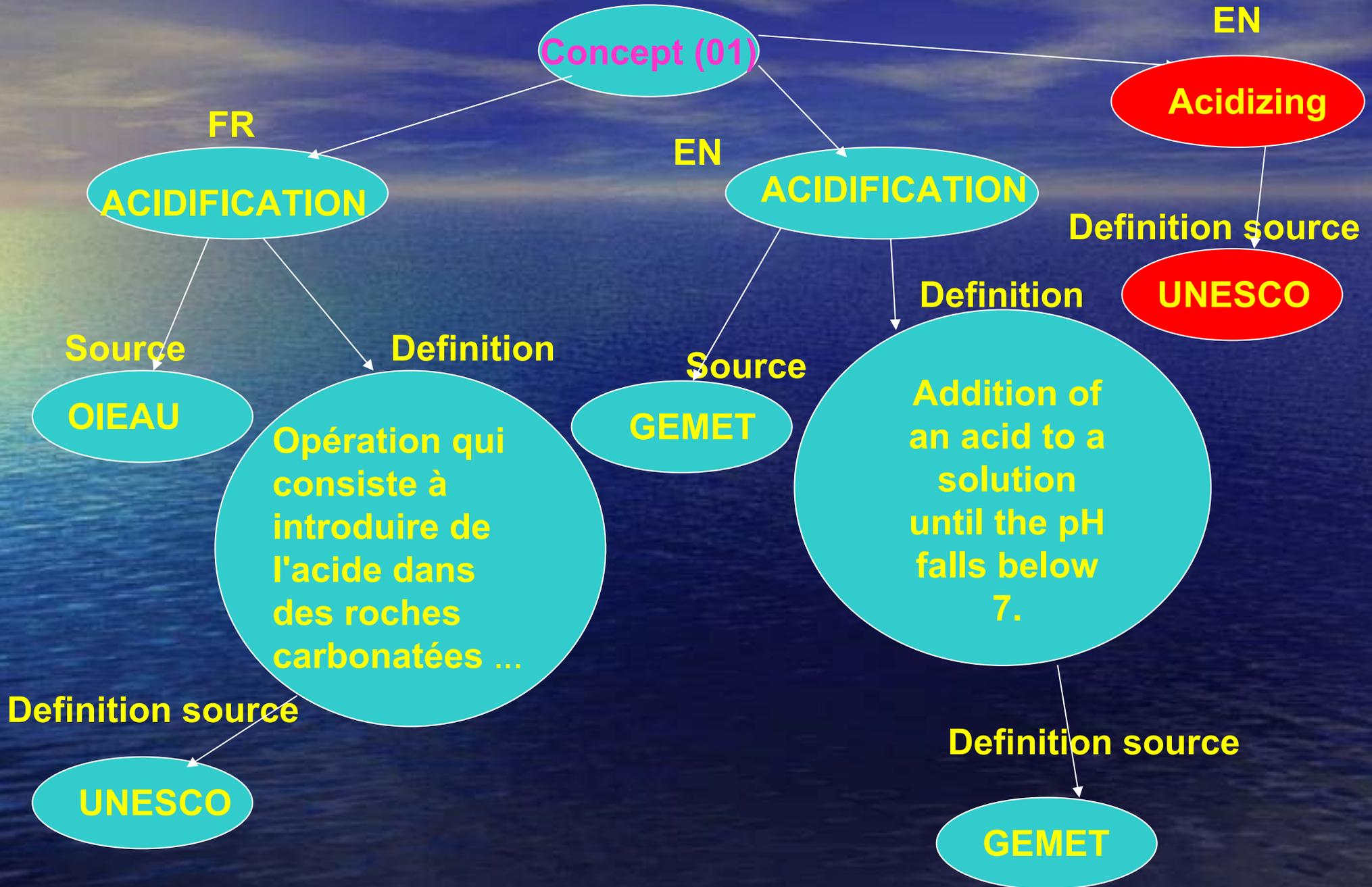
3- IHG (International Glossary of Hydrology, UNESCO,  
15 lang.)

4- GEMET (the General Multilingual Environmental  
Thesaurus –and glossary- of the European  
Environment Agency, 24 lang.).

# Overall Methodology and Principles

- For each concept in THEau-fr: a translation is proposed with the source following the order: EN, AR, SP, IT...
- Sources are identified for terms and Definitions in each language
- Definitions are not translated
- When translations are identical in different sources, all the sources are listed
- In the case of 2 different concepts for the same term in FR, it is necessary to insert a new concept in French, which can make the 2 concepts in harmony inside the thesaurus as a network of concepts.

# Example scheme



# Mapping

<b>Concepts in FR</b>	<b>THEau-fr</b>	<b>EDEN</b>	<b>IHG</b>	<b>GEMET</b>
THEau	1770	348	135	588
EDEN	348	996		
IHG	135		1620	
GEMET	588			5120

**- All the common terms in IHG & THEau are included in EDEN & GEMET**

# Steps 4 building the thesaurus/ glossary

## 1<sup>st</sup> step:

Identifying and correcting problems in the source file (FR) (e.g. spelling & capitals).

## 2<sup>nd</sup> step:

Completing with EN translation elements from EDEN, IGH, GEMET.

## 3<sup>rd</sup> step:

Missing terms to be searched in WDM and general English dictionaries

## Steps 4 building the thesaurus/ glossary

### - 4th step:

Resolution of ambiguities (several translations for some terms, "10 French terms are not yet translated)

### - 5th step:

Translation in AR with IGH, WDM, the Arabic Environmental Glossary.

### 6th step:

Translation in SP with IGH, Thesaurus on Hydraulic Engineering (CEDEX), Glossary of Land and Water Terms, GEMET, Mediterranean Wetlands terms.

## Steps 4 building the thesaurus/ glossary

- 7th step:

Adding new terms.

- 8th step:

Positioning new terms into the thesaurus.

## 40 Thesaurus top level themes

- The top level themes will be used to guide users for searching and for delivery of information based on topics of interest
- We must agree on these themes
  - Too many?
  - Are they representatives for user needs?
  - Easy mapping with MEDA-Water themes, SMAP, and other relevant international programs

# 40 Thesaurus top level themes (1/2)

1	AGRICULTURE	AGRICULTURE
2	AMENAGEMENT DU TERRITOIRE - PAYSAGE	LAND SETUP
3	AMENAGEMENTS DES EAUX	WATER ARRANGEMENT
4	ANALYSES ET TESTS	ANALYSIS & TESTS
5	BIOCHIMIE - CHIMIE	BIOCHEMISTRY-CHEMISTRY
6	BOUES	SLUDGE
7	CLIMATOLOGIE	CLIMATOLOGY
8	CONTROLE QUALITE - ENTREPRISE	QUALITY MONITORING- ENTERPRISE
9	DROIT	RIGHT
10	ELEVAGE ET AQUACULTURE	BREEDING & AQUACULTURE
11	ENERGIE	ENERGY
12	ENVIRONNEMENT	ENVIRONMENT
13	FAUNE	FAUNA
14	FINANCES - ECONOMIE	FINANCE-ECONOMY
15	FLORE	FLORA
16	GENIE CIVIL	CIVIL ENGINEERING
17	GEOLOGIE	GEOLOGY
18	HYDRAULIQUE - HYDROLOGIE	HYDRAULICS, HYDROLOGY
19	HYDROGEOLOGIE	HYDROGEOLOGY
20	INDUSTRIE	INDUSTRY

# 40 Thesaurus top level themes (2/2)

21	INFORMATION - INFORMATIQUE	INFORMATION- COMPUTER SCIENCES
22	MESURES ET INSTRUMENTATION	MEASUREMENT AND INSTRUMENTATION
23	METHODE ET STATISTIQUES	METHODS AND STATISTICS
24	MILIEU NATUREL	NATURAL MEDIUM
25	PARAMETRES CARACTERISTIQUES DES EAUX ET DES BOUES	CARACTERISTICS OF WATER AND SLUDGE
26	POLITIQUE	POLICY
27	POLITIQUE DE L'EAU ET GESTION DE L'EAU	WATER POLICY & WATER MANAGEMENT
28	POLLUANTS	POLLUTANTS
29	POLLUTIONS NUISANCES ET PREVENTION	PREVENTION AND NUISANCES POLLUTION
30	PROCEDES COMMUNS EPURATION ET TRAITEMENT	COMMON PURIFICATION AND TREATMENT PROCESS
31	PROCEDES DE TRAITEMENT STRICTS (EAU POTABLE)	STRICTS TREATMENT PROCESS (DRINKING WATER)
32	PROCEDES D'EPURATION STRICTS	STRICTS PURIFICATION PROCESS
33	QUALITE DE L'EAU	WATER QUALITY
34	RESEAUX CANALISATIONS	NETWORKS PIPES
35	RESSOURCE CAPTAGE ET DISTRIBUTION DE L'EAU	RESSOUCCE CATCHMENT AND WATER DISTRIBUTION
36	RISQUES	RISKS
37	SANTE - HYGIENE - MICROORGANISME PATHOGENE	HEALTH- HYGIENE- PATHOGENIC MICROORGANISM
38	SCIENCES EXACTES SCIENCES HUMAINES	EXACT SCIENCES AND HUMANITIES
39	TOURISME - SPORT - LOISIR	TOURISM-SPORT-HOBBY
40	TYPOLOGIE DES EAUX	WATER TYPOLOGY

# Prospects & Suggestions

- This activity requires very specialised skills, EMWIS TU look forward to establishing a working group with mandated experts to enrich and validate this multilingual thesaurus and glossary.
- The minimum language requirements are: AR, EN & FR, but additional languages used by the existing NFP will be an asset: SP, IT, GR, PR, HEB.
- Agreement on top level themes
- It is necessary to design experts from NFPs in order to validate such translations?!

# Prospects & Suggestions / 2

- EMWIS TU is expecting GWP community collaboration, but the contribution can be open to a wider community using the online tool and announcement in EMWIS news Flash
- We would like to “link” existing specialised water glossaries in order to provide for a term all the existing definitions with their references (i.e: source of definition)

# Thesaurus management tool Presentation

EMWIS TU

J. El Kharraz, EMWIS T. U. ; EMWIS Coordination Seminar, Amman 2005-09-27/28

# Functionalities

- Search
- Terms proposition
- Translation
- Comments
- Resources
- Administration

# User identification

- To identify « who insert what »



# Functionalities

## 1. Search

- Allow searching terms in the Thesaurus (words, language)

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Search

Propose new terms

Translate

Comments

Resources

**THESAURUS**

# Functionalities

## 2. Terms proposition

Steps:

1. Proposition of a word/ word source
2. Definition/ definition source
3. Comments about a word
4. Links to:
  1. **Add a translation in EN**
  2. **Add a translation in AR..**

# Functionalities

## 3. Translation

Steps:

1. Choose a language
2. The tool provides the terms not translated in the chosen language
3. Translation (possibility to insert a comment)

# Functionalities

## 4. Comments

- Allow inserting comments about the tool.

# Functionalities

## 5. Resources

- Resources for the thesaurus set up.

# Functionalities

## 6. Administration

First of all: Identification

- Validate a term
- Validate a translation
- Check the comments
- Add user

# 6. Administration

## 6.1. Validate a term

The administrator can get more information about the proposed term in order to validate or delete it.

**Les termes à valider :**

**Il existe 6 mots proposés.**

FRANCAIS	ENGLISH	ARABE	ESPAGNOL	ACTION
----------	---------	-------	----------	--------

eau

water

علا

agua

[valider](#)

[supprimer](#)

[INFO](#)

# 6. Administration

## 6.2. Validate a translation

- The administrator can validate or delete a translation (the arrow below shows translator comments if any)

**Les termes à valider :**  
**Il existe 1 mots proposés.**

FRANCAIS	ENGLISH	ACTION
HORTILLONNAGE	hortio	<a href="#">valider</a> <a href="#">supprimer</a> 

## 6. Administration

### 6.3. Check the comments

- Check users comments on the tool

**Commentaires des utilisateurs:**

**Il existe 7 commentaire(s).**

ID	COMMENTAIRE
1	Bon outil de traduction
2	un autre commentaire
3	comment

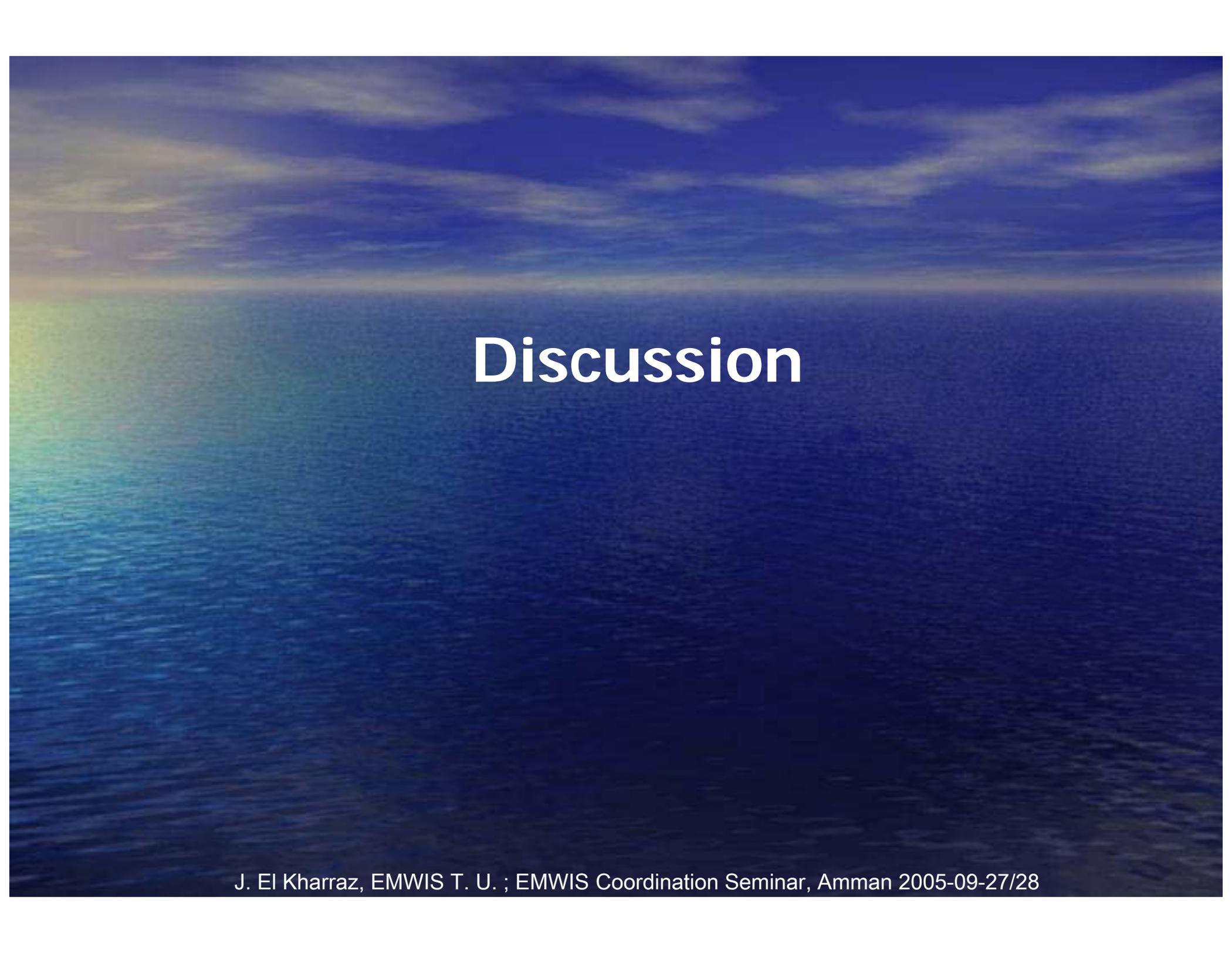
## 6. Administration

### 6.3. Add a user

- Allow to the administrator adding a user

Donnez un login, un mot de passe, puis validez :

Valider



# Discussion