



**Office International de l'Eau**

**International Office for Water**

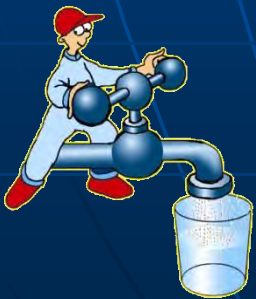
**Oficina Internacional del Agua**

**Công ty cấp thoát Nước Quốc tế**

**Международное бюро по водным ресурсам**

**المكتب الدولي للمياه**

**水资源国际办公室**





**All over the world,  
we need to BUILD CAPACITIES  
in water supply and sanitation sectors!**



**Even though investments are still insufficient to meet the needs of most emerging and developing countries, faced with a serious water crisis, significant funds are spent in the water sector each year...**

**BUT**

These investments do not fully achieve their targets: this is sometimes the result of design faults in infrastructures, but more often due to multiple deficiencies in the way they are managed.

As well as inadequate maintenance and upkeep, vocational skills and capacities in management, operations and maintenance are still insufficiently developed at every level of the water sector work chain, which often results in a swift degradation of infrastructures.

**The consequences are serious, because there are severe hold-ups in solving difficulties, resulting in a considerable waste of funds!**



**INTERNATIONAL NETWORK  
OF WATER TRAINING  
CENTRES**

TRAINING IN THE WATER SECTOR  
IS A PROFITABLE INVESTMENT!



[www.inwtc.org](http://www.inwtc.org)

**December 2008 - Paris**



16 countries:

Algérie, Benin, Burkina Faso, Kenya, Laos, Mali, Maroc, Pologne, Togo,  
Tunisie, Ouzbékistan, Viêtnam, France, Liban et Mexique...

# International Network of Water Training Centers INWTC – December 2008 -Paris

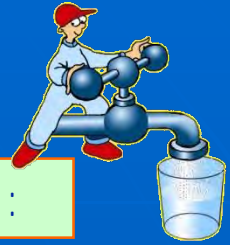


## OBJECTIVES:

- developing appropriate and lasting relations between the interested institutions
- promoting among them the sharing of experience and know-how,
- increasing awareness on the significance of professional training on water in development strategies and programmes
- promoting its account taking by the concerned national and international authorities,
- co-operation and the relationships with the main bilateral and multilateral donors or the international institutions involved in the development of the water sector,
- encouraging the dissemination of good practices and innovations in the vocational training in the water sector ,
- promoting innovative training,
- facilitating the development of common tools
- supporting the development of new water training centres,
- developing a platform for competencies and human resources,
- evaluating the undertaken actions and at disseminating their outcomes.



## WATER PROFESSIONS - II -



The best staff structure in the water sector is estimated at :

- 500 to 700 staff members

- \* for 1,000,000 inhabitants covered by a water supply service
- \* for 1,000,000 inhabitants connected to a sewerage network

- 5 to 8 staff members

- \* per 1.000.000 m<sup>3</sup> used in the other sectors  
(*hydropower, industry, irrigation...*)

- 80 % of workers and technicians

15 % of middle managers-foremen  
5 % of engineers and senior executives

# TRAINING FOR WATER PROFESSIONS



## VARIOUS SPECIALIZATIONS

Administration - organization

Financial and economic management

Project studies - Operation management - Planning

Operation and maintenance of facilities

Organization of information systems

Environmental protection

- Environmental impact assessment
- Ecological balances

Relations with the users and the public



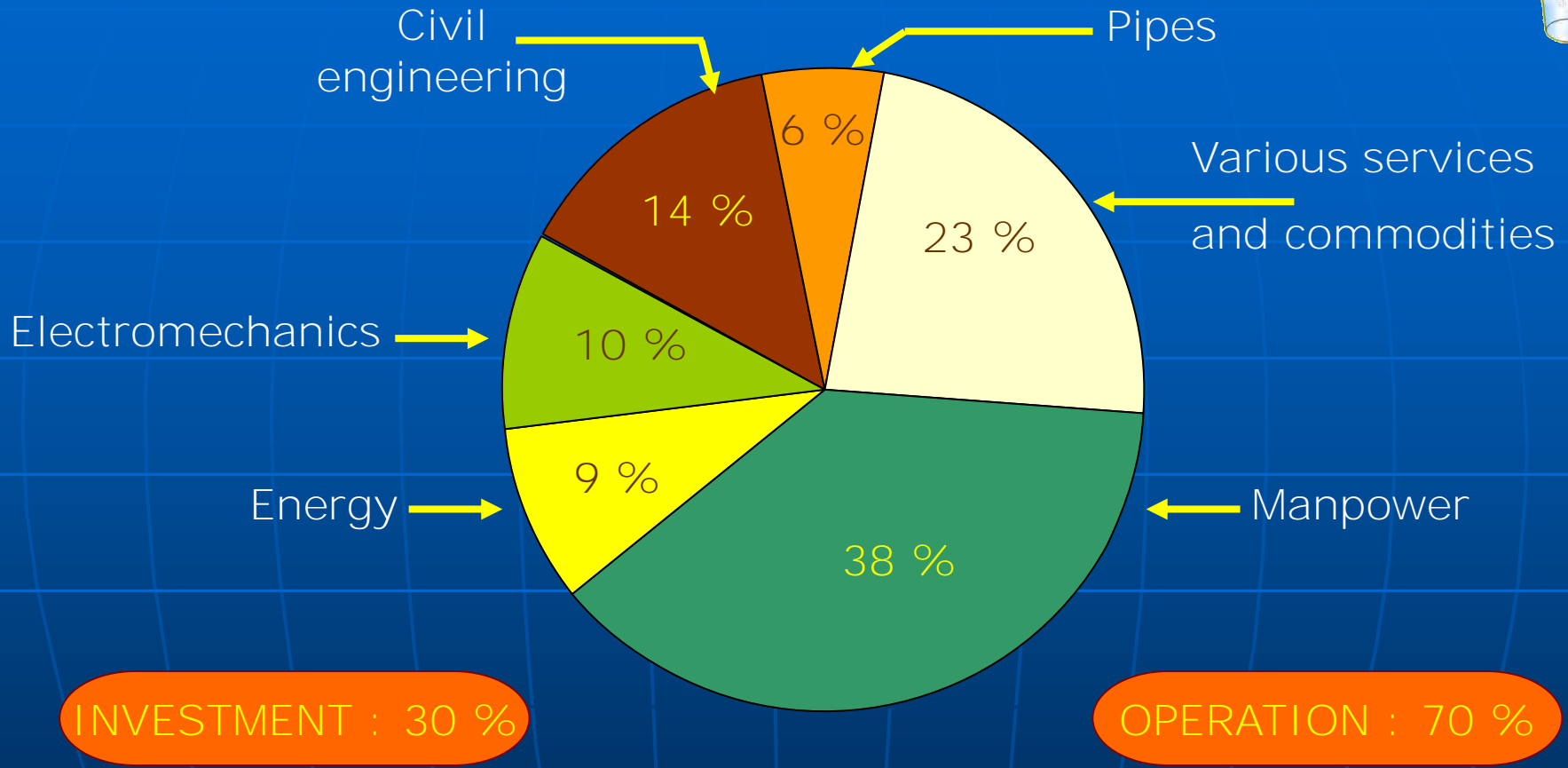
## **INTEGRATED WATER RESOURCE MANAGEMENT : MAIN BASIC FUNCTIONS**



- **International agreements**
- **Legislation - Regulations**
- **Standardization**
- **Authorizations for abstraction or discharge - Water policing**
- **Monitoring**
- **Follow-up of the environment and uses**
- **Warning and protection**
- **Planning**
- **Funding - Programming**
- **Investments**
- **Operation - Maintenance**
- **Research**
- **Training**
- **Information**



# WATER PROFESSIONS - III -



## Personnel costs represent :

- 38 % of the total water cost
- 55 % of operating costs





# Investing in water training if pays back!



**CONTINUED VOCATIONAL TRAINING is a vital tool  
for boosting the efficiency of water and sanitation services**



**CREATION OF NATIONAL TRAINING CENTRES  
FOR WATER PROFESSIONS OVER THE WORLD**



**CREATION OF NATIONAL TRAINING CENTRES  
FOR WATER PROFESSIONS OVER THE WORLD**



# FRENCH NWTC



**International Office for Water**



# TRAINING CENTRE « CEMCAS » IN MEXICO





# Saudia Arabia





# Algérie



# Training platforms: water networks

## SOUTH AFRICA





# Training Platforms – Water Networks



**KENYA**



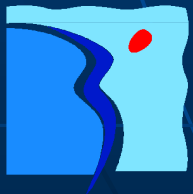


# Poland



# Vocational water training is a job!

- WS utilities have to make use of specialized training bodies with the appropriate capacities, professional trainers, educational tools, training platforms....



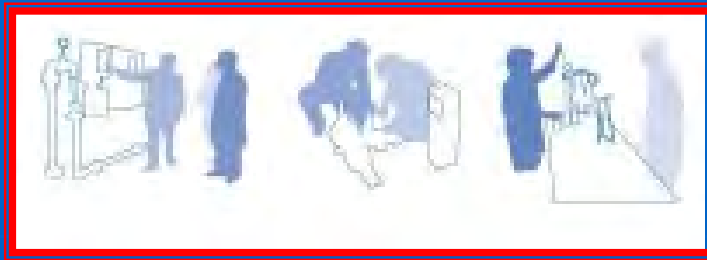


# Training has a cost!!



- Vocational training is a productive investment and should be considered as such within development projects.
- WS utilities and donors may back water training with sustainable financial mechanisms!
- Water training needs long term efforts: It cannot be a one shot action!





[www.ricfme.org](http://www.ricfme.org)

**THANK YOU**

[www.inwtc.org](http://www.inwtc.org)



**International Office for Water**