With the contribution of the LIFE financial instrument of the European Community

R. Löwner, A. Souhel and the SaDIN Working Group

Sahel – Doukkala Scientific Information Network

Realisation of an online geoinformation system in Morocco

Sahel – Doukkala Scientific Information Network

Realisation of an online (geo)information system in Morocco

1. General settings & Digital Divide
2. The working groups
3. The data and information system
4. SaDIN – what could it be in the future

SaDIN
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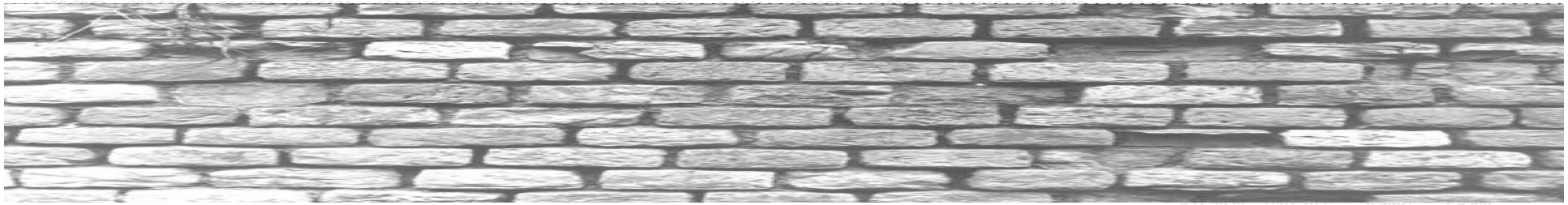
شبكة المعلومات العلمية للساحل - دكالة

1. General settings & Digital Divide

Data & Information producers

Natural Science

Human Science



Users

Other Scientists

Public

Local authorities

Decision makers

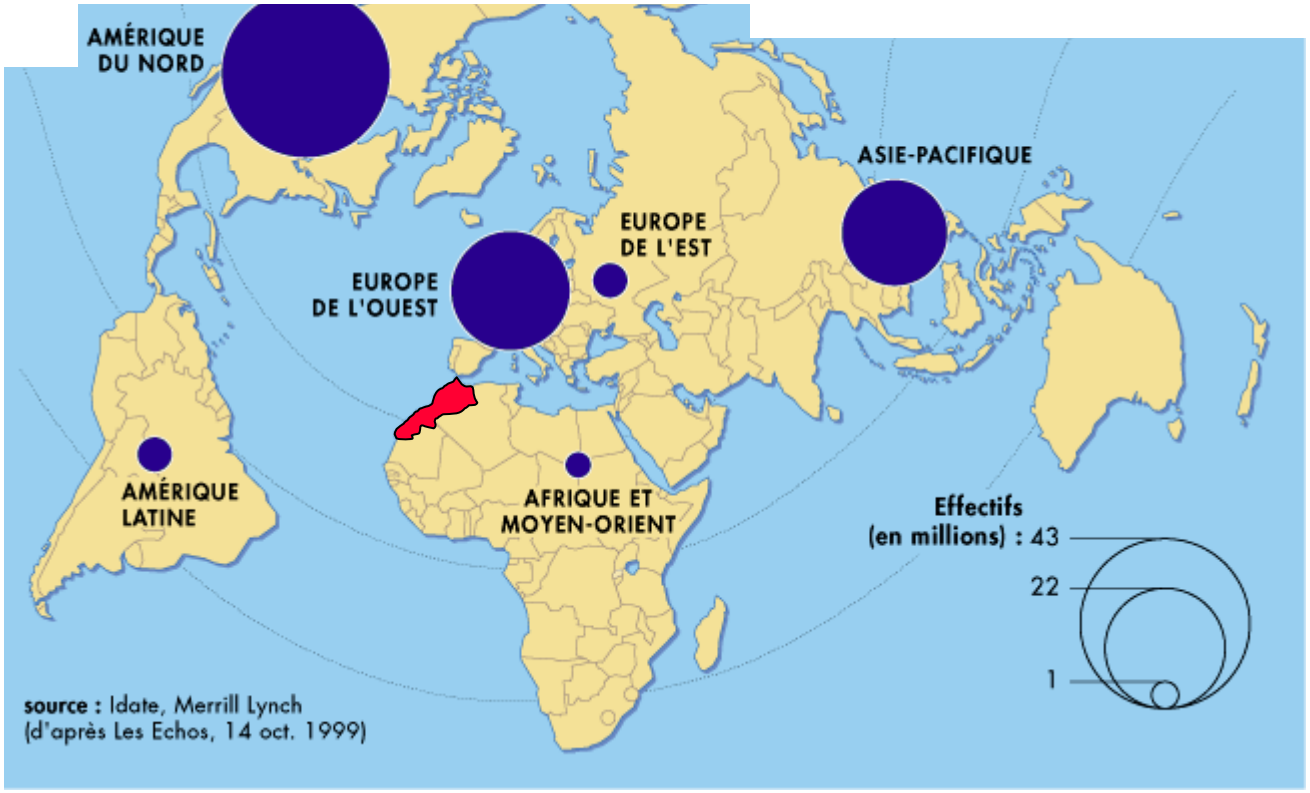
1. General settings & Digital Divide

for all

worldwide

real time

Internet users of large regions



Internet Supported Scientific Information Network

1. General settings & Digital Divide

investigation area of SaDIN

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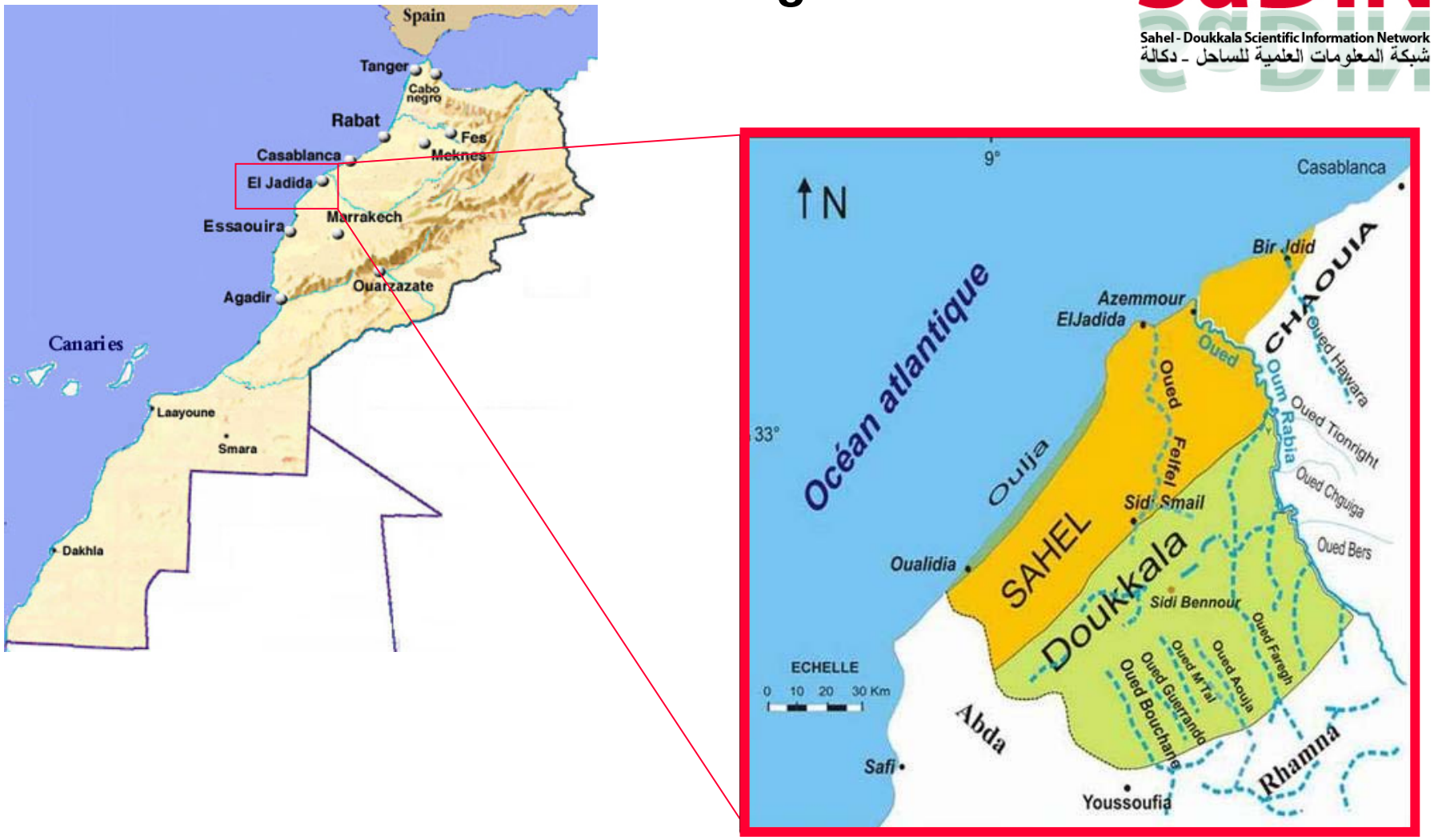
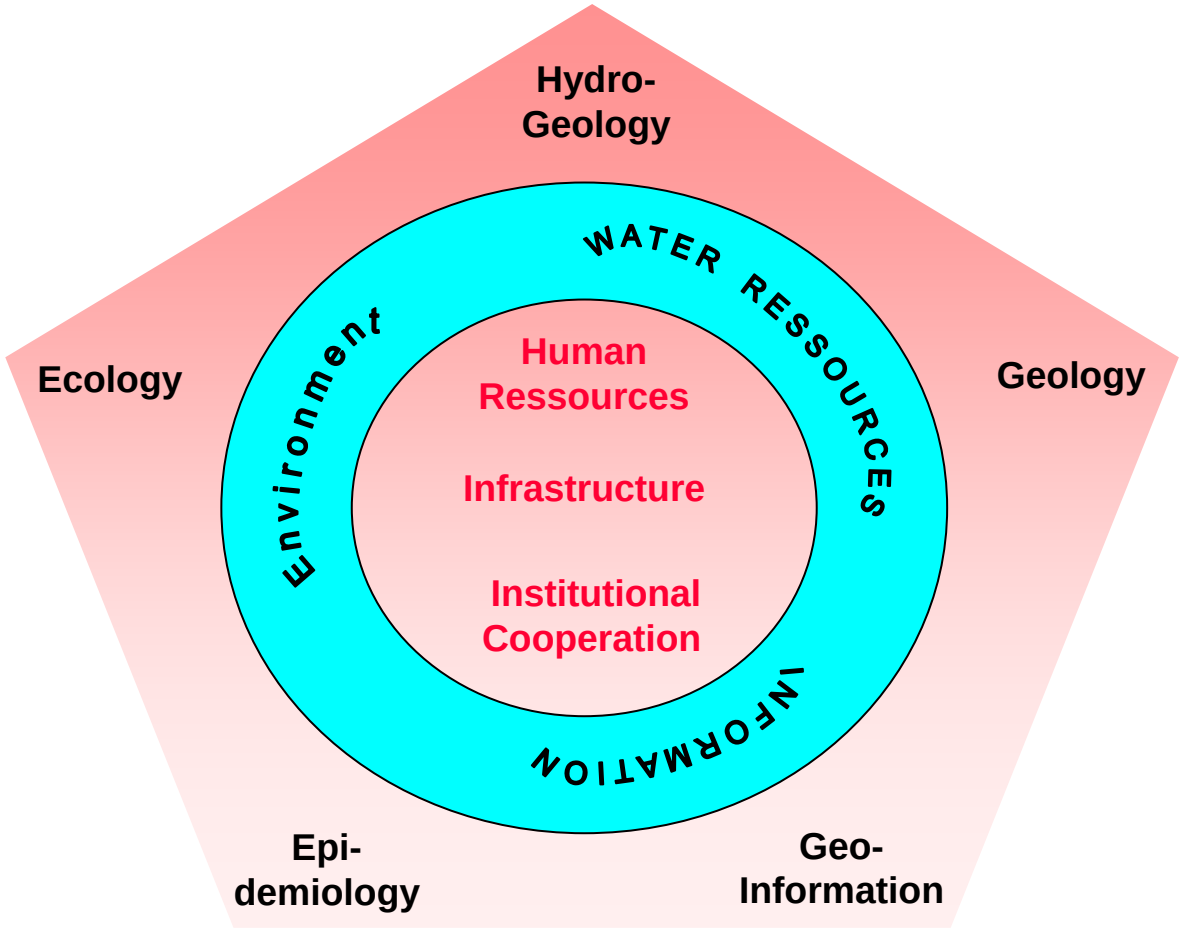


1. General settings & Digital Divide

- Desertification
- Ground water pollution
- Salt water infiltration
- Waste management – “illegal waste dumps“
- Health



2. The working groups

Geology & Hydrogeology

ground water pollution & salt water infiltration

- **already existing data**

  inventory, revision, update & storage on digital support

- **investigations**

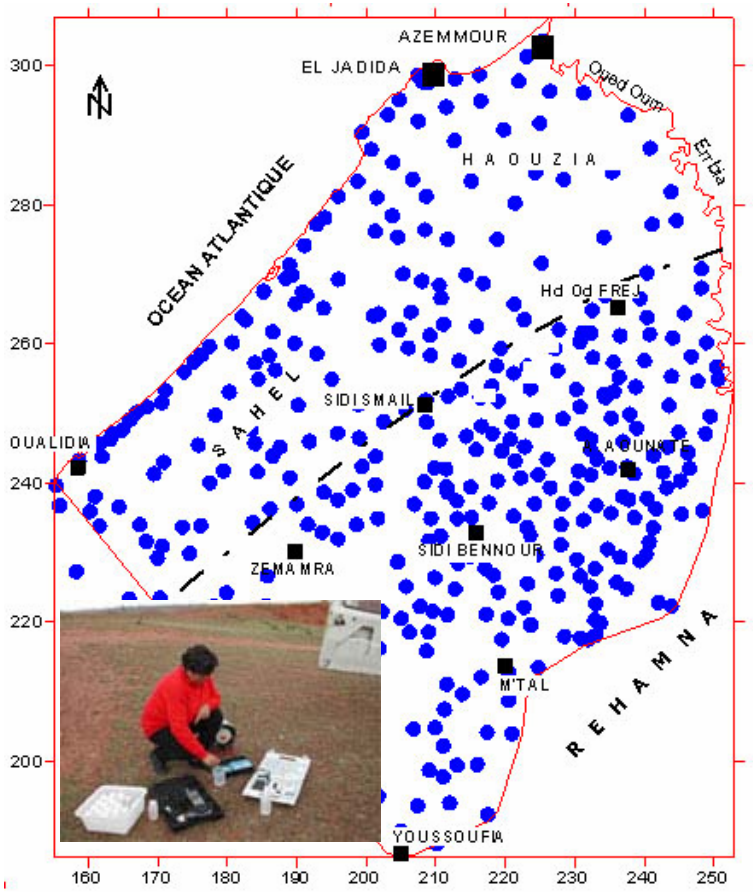
  400 wells & interpretation of 300 soundings

- **drilling**

  vertical to the coastline

- **installations**

  supervision of marin water intrusion



2. The working groups

Ecology

desertification & illegal waste dumps

- **already existing data**

  inventory, revision, update & storage on digital support

- **remote sensing**

  analyse of physical and ecological surface parameters

- **surveying and mapping**

  determination of soil properties and land use & Regional specification of marine fauna of the Sahel coastal area

2. The working groups

Epidemiology

waste management & Health

- **already existing data**

  inventory, revision, update & storage on digital support

- **investigations**

  actual situation of the public health of the endangered population

  impact of solid and fluid waste on the population and of polluted water from illegal waste dumps

- **physical examinations**

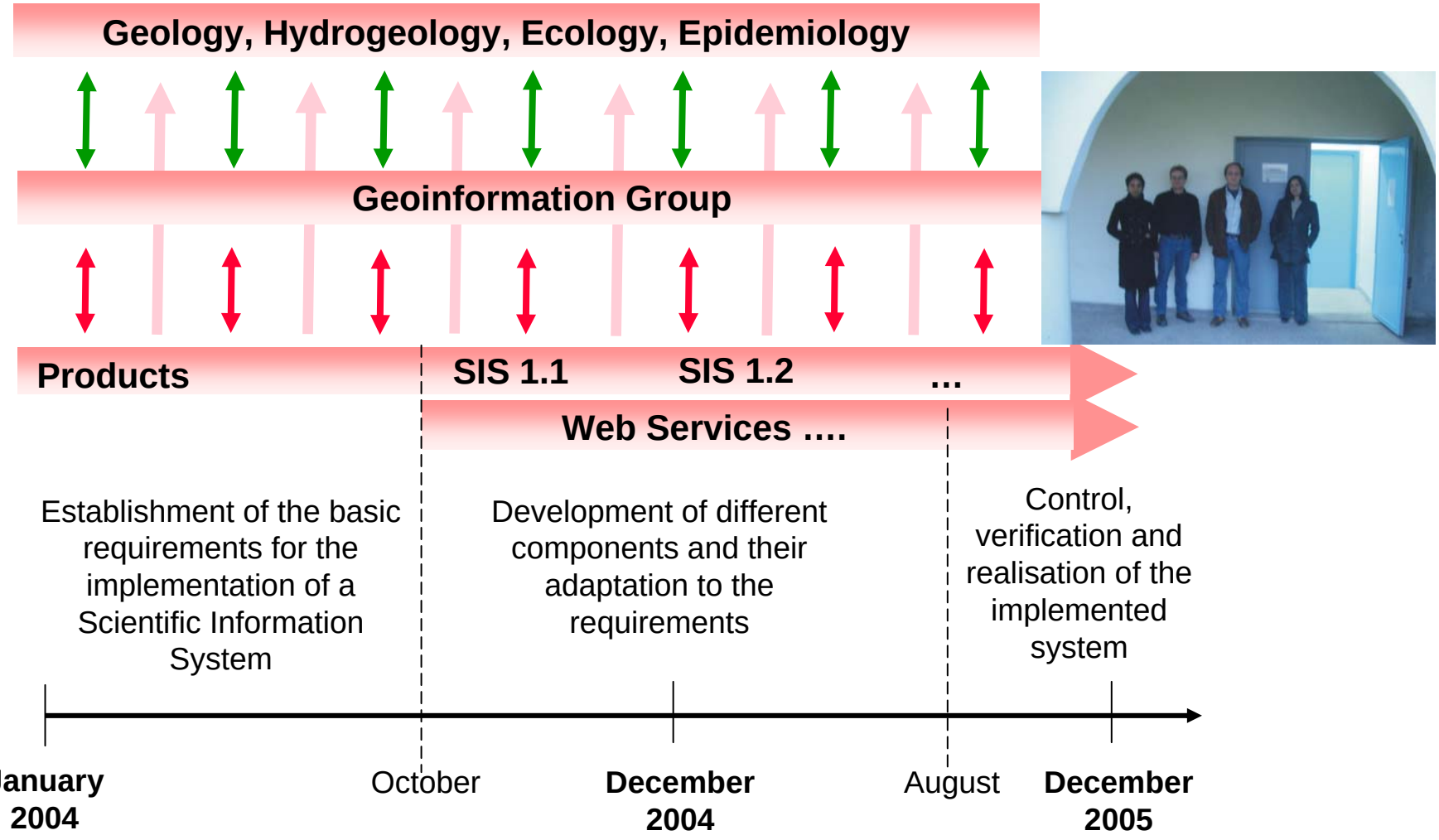
  800 people, living in endangered areas

- **cytogenetic examinations**

  30 people, living in endangered areas

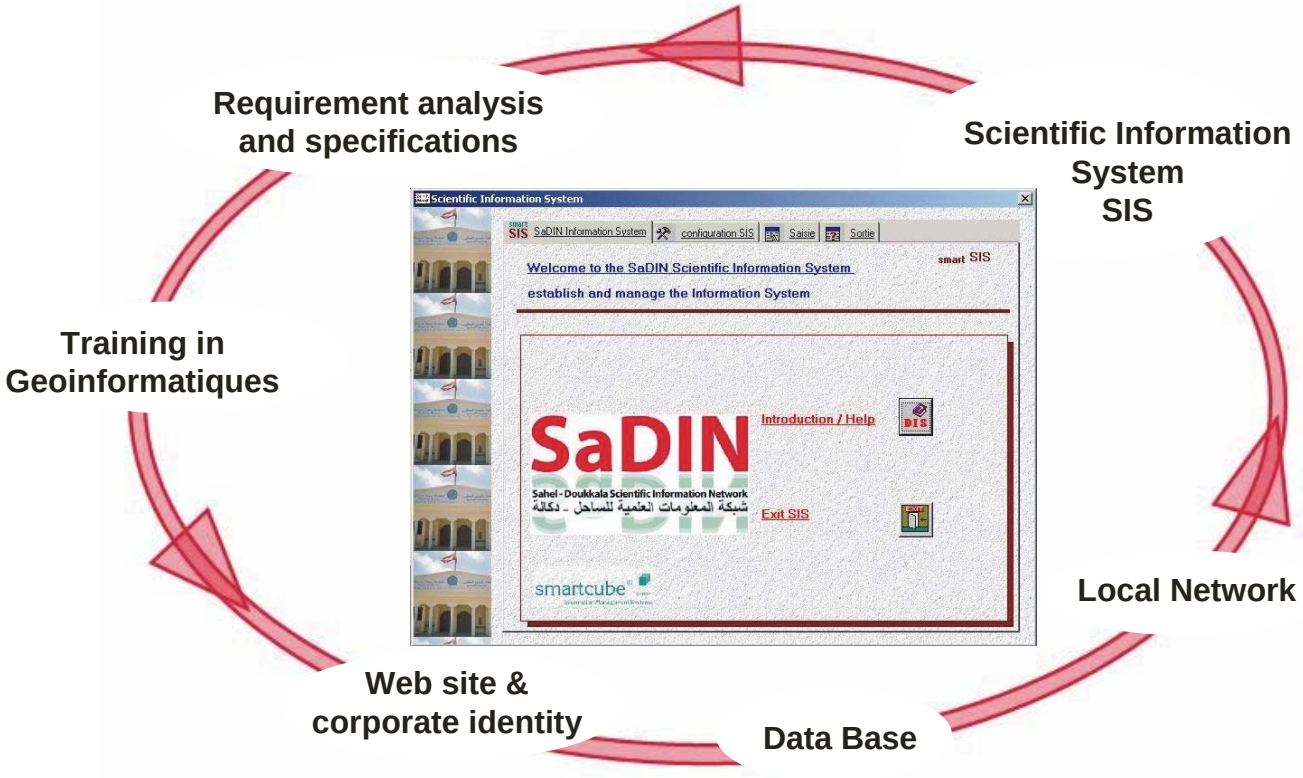
Infectious diseases — **genetic modifications**

3. The data & information system



3. The data & information system

January – October 2004



Establishment of the basic requirements for the implementation of a Scientific Information System

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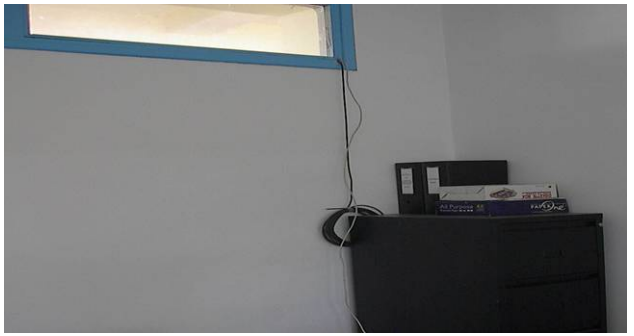
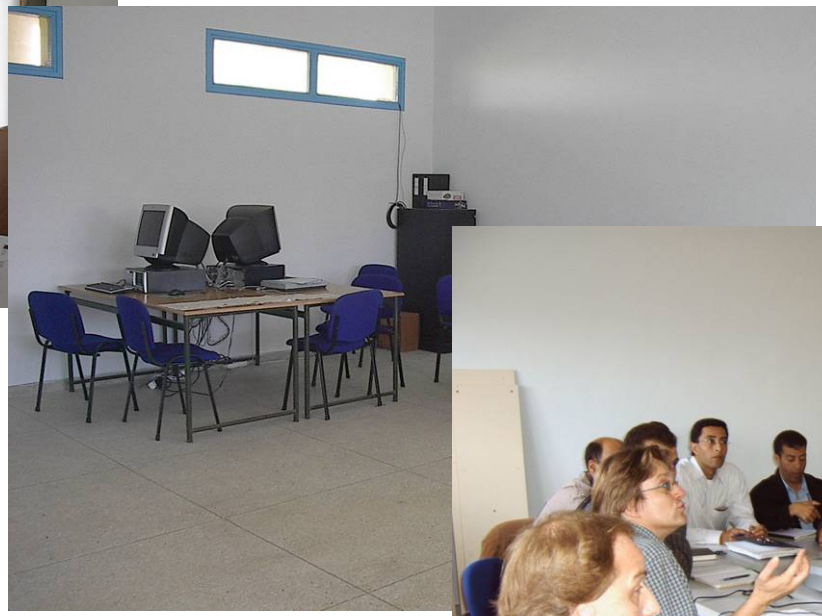
3. The data & information system





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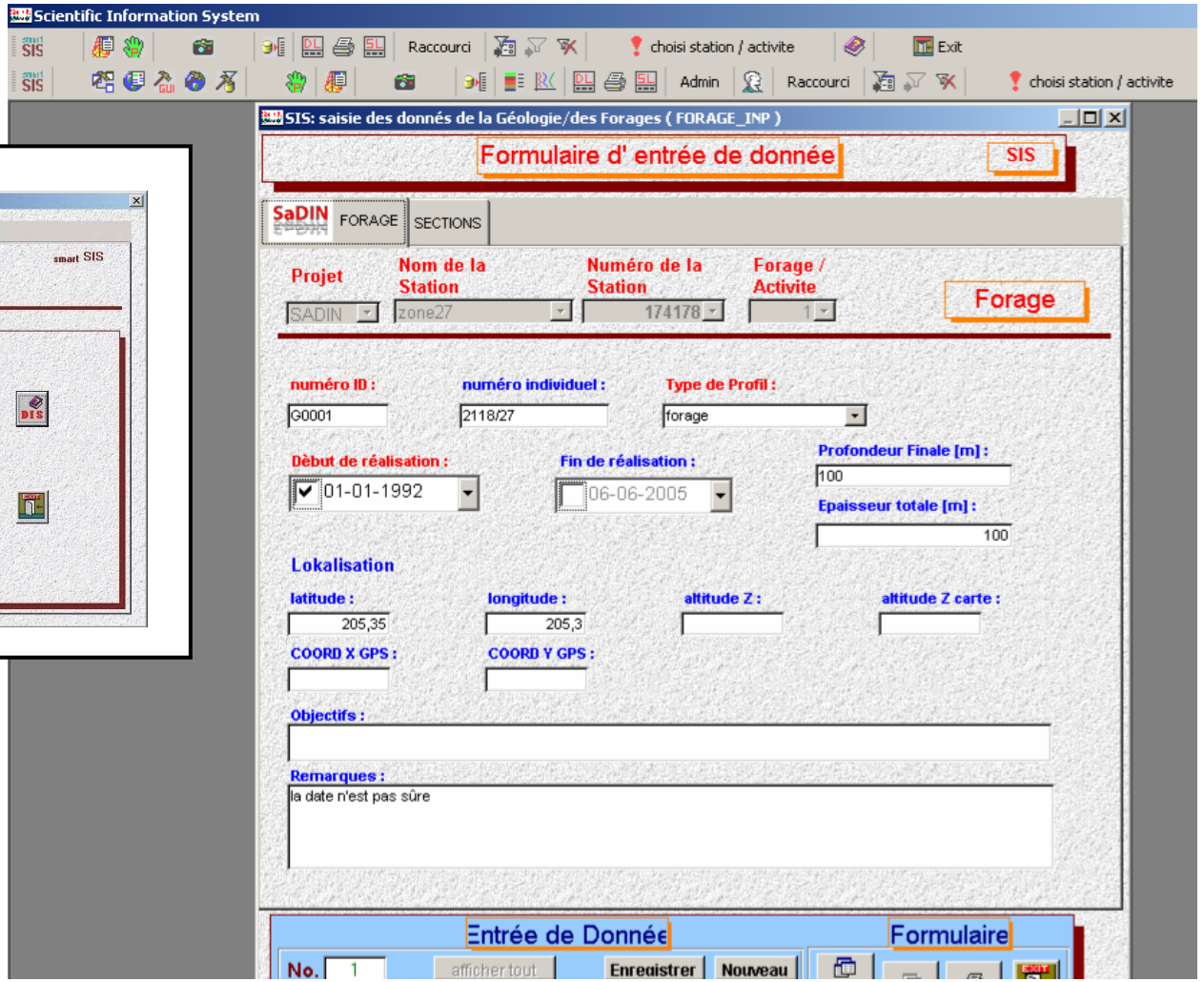
3. The data & information system

Training in Geoinformatics

3. The data & information system

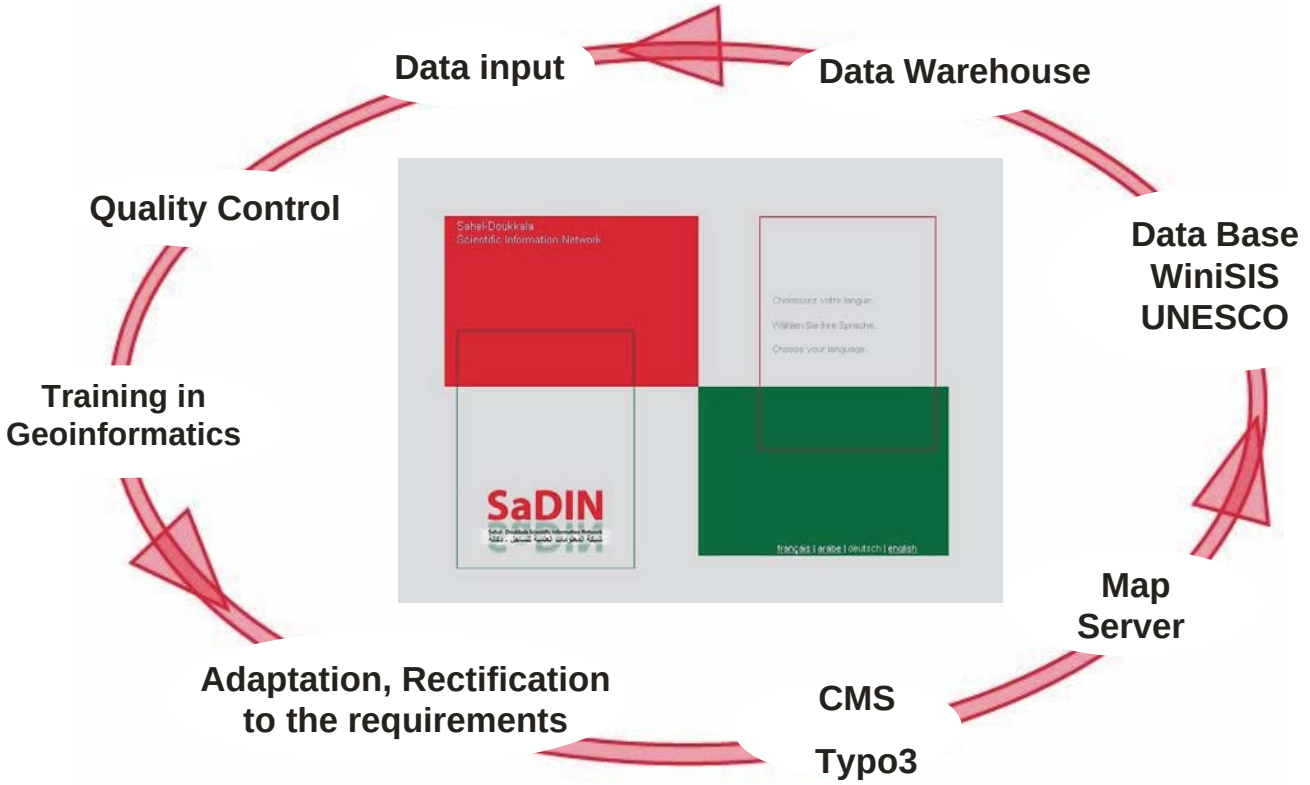


SIS

The Scientific Information System

3. The data & information system

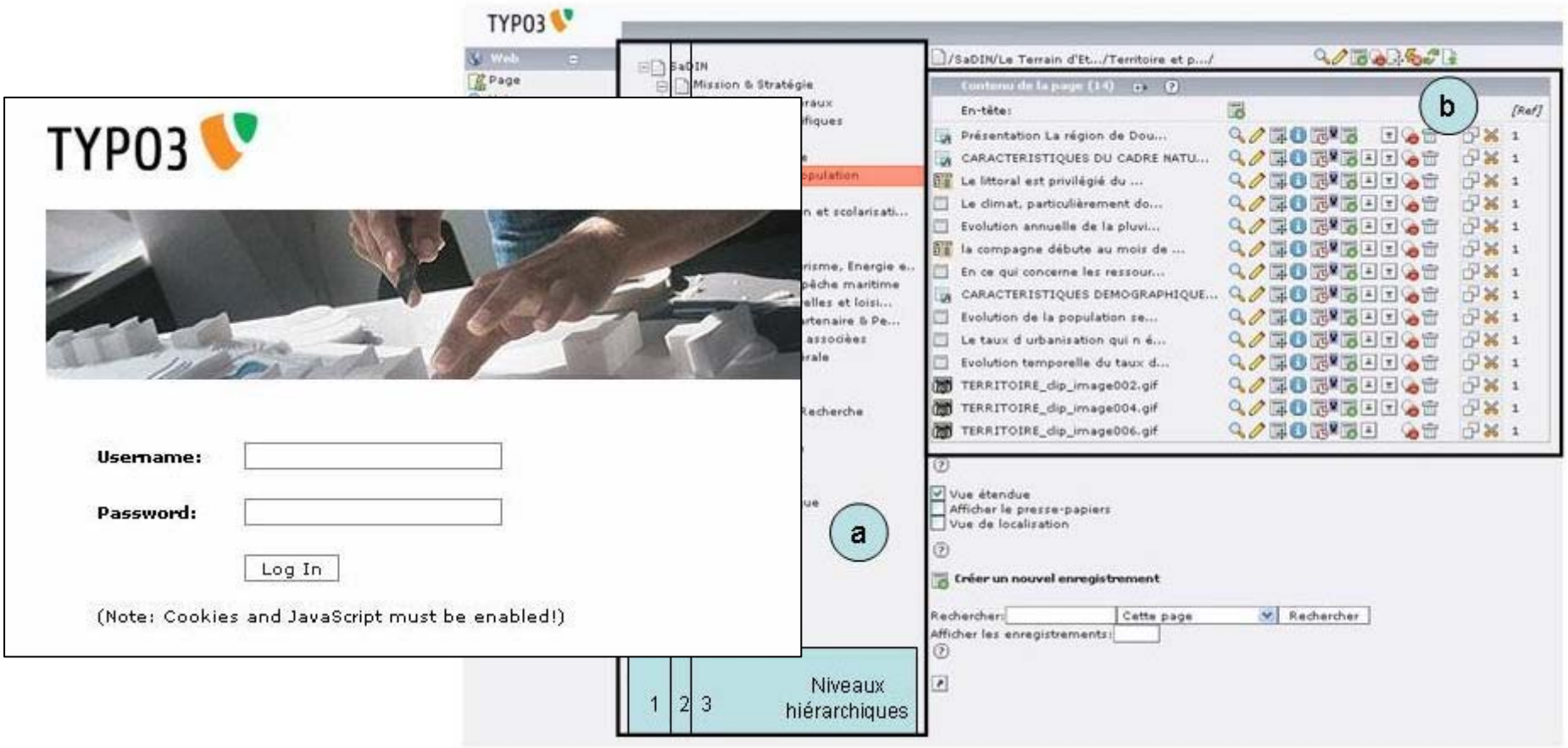
November 2004 – August 2005



Development of different components and their adaptation to the requirements

3. The data & information system

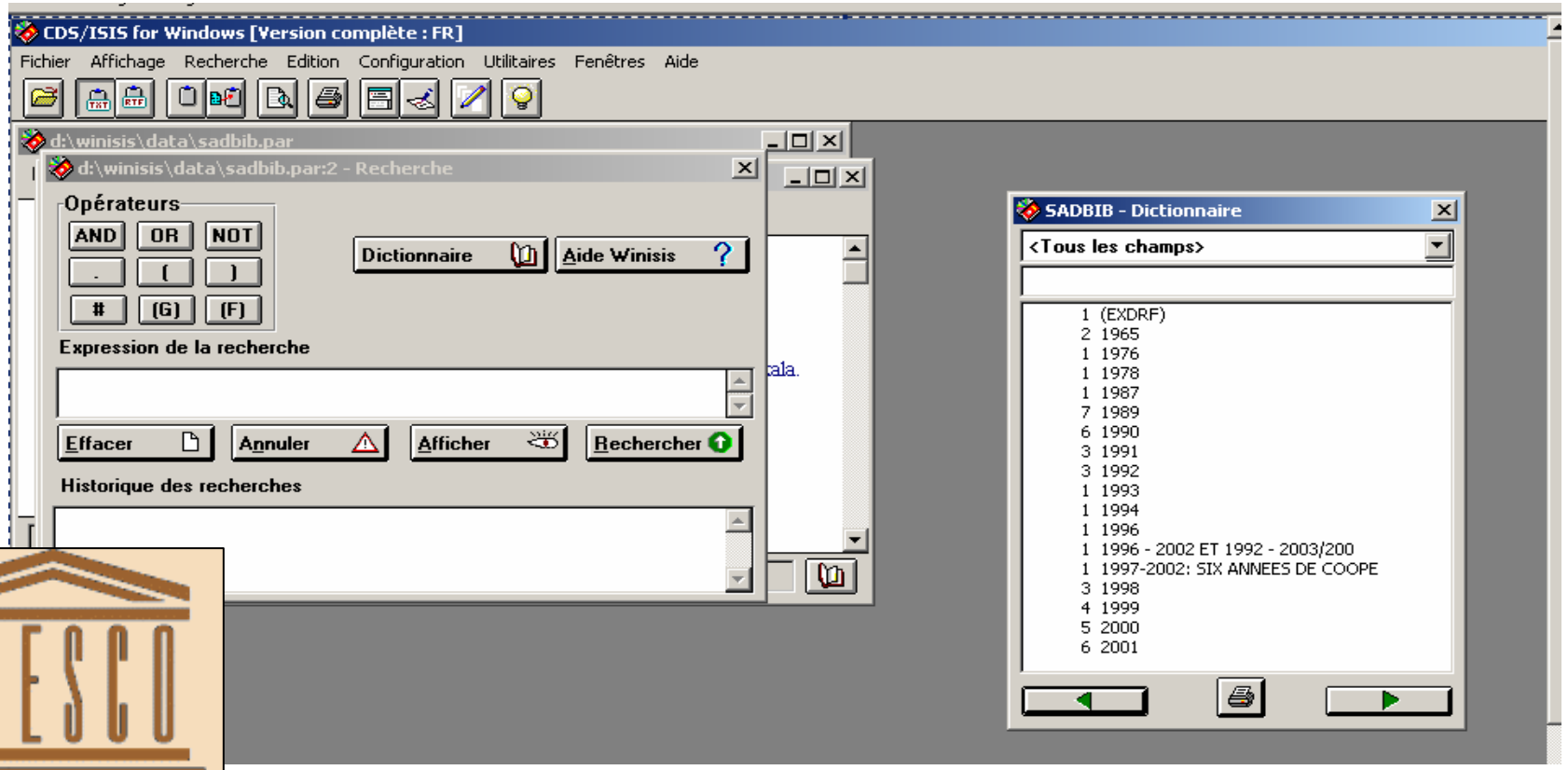
free software



Content Management System (CMS) & Wiki

3. The data & information system

free software

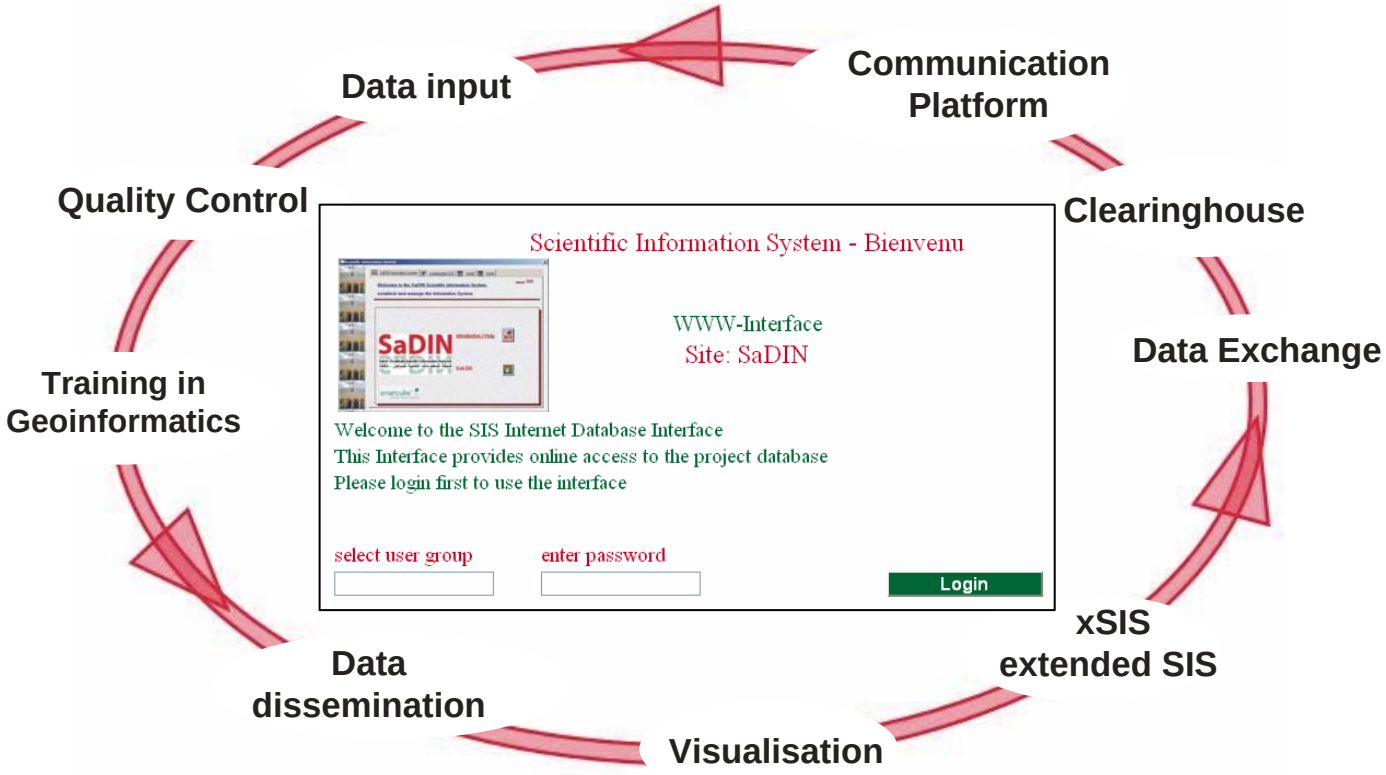


www.unesco.org/webworld/isis

Bibliographic database

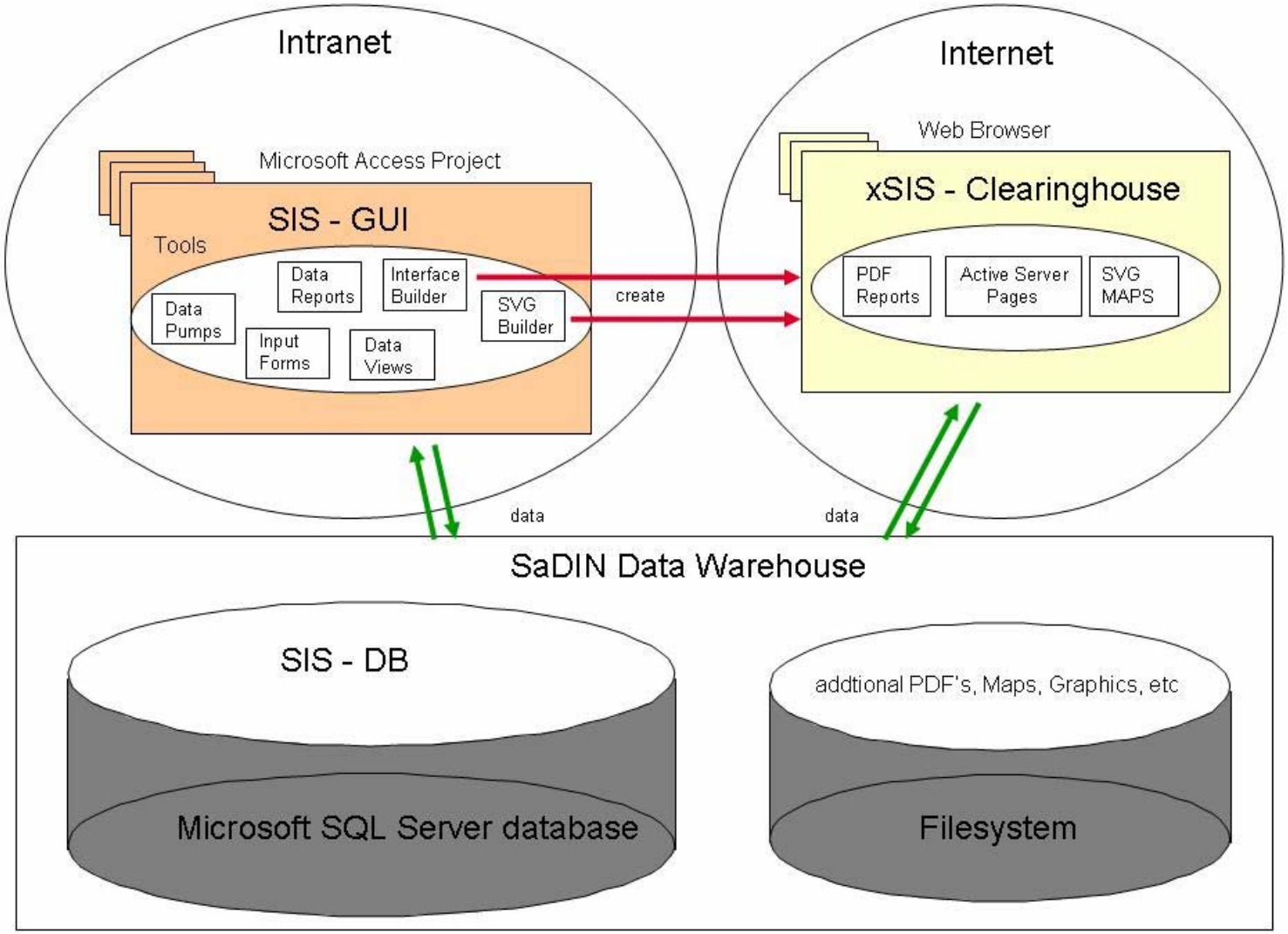
3. The data & information system

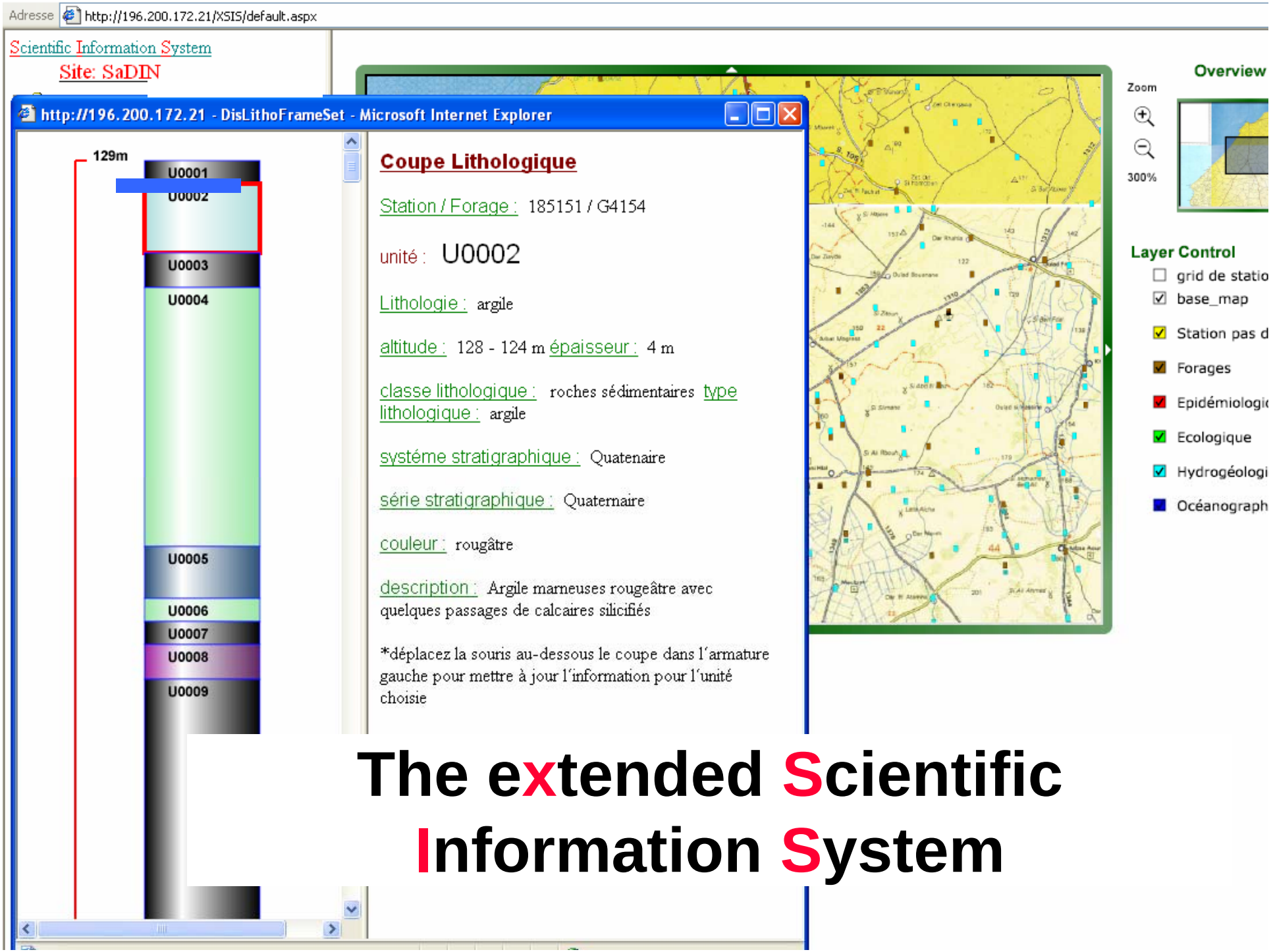
September - December 2005



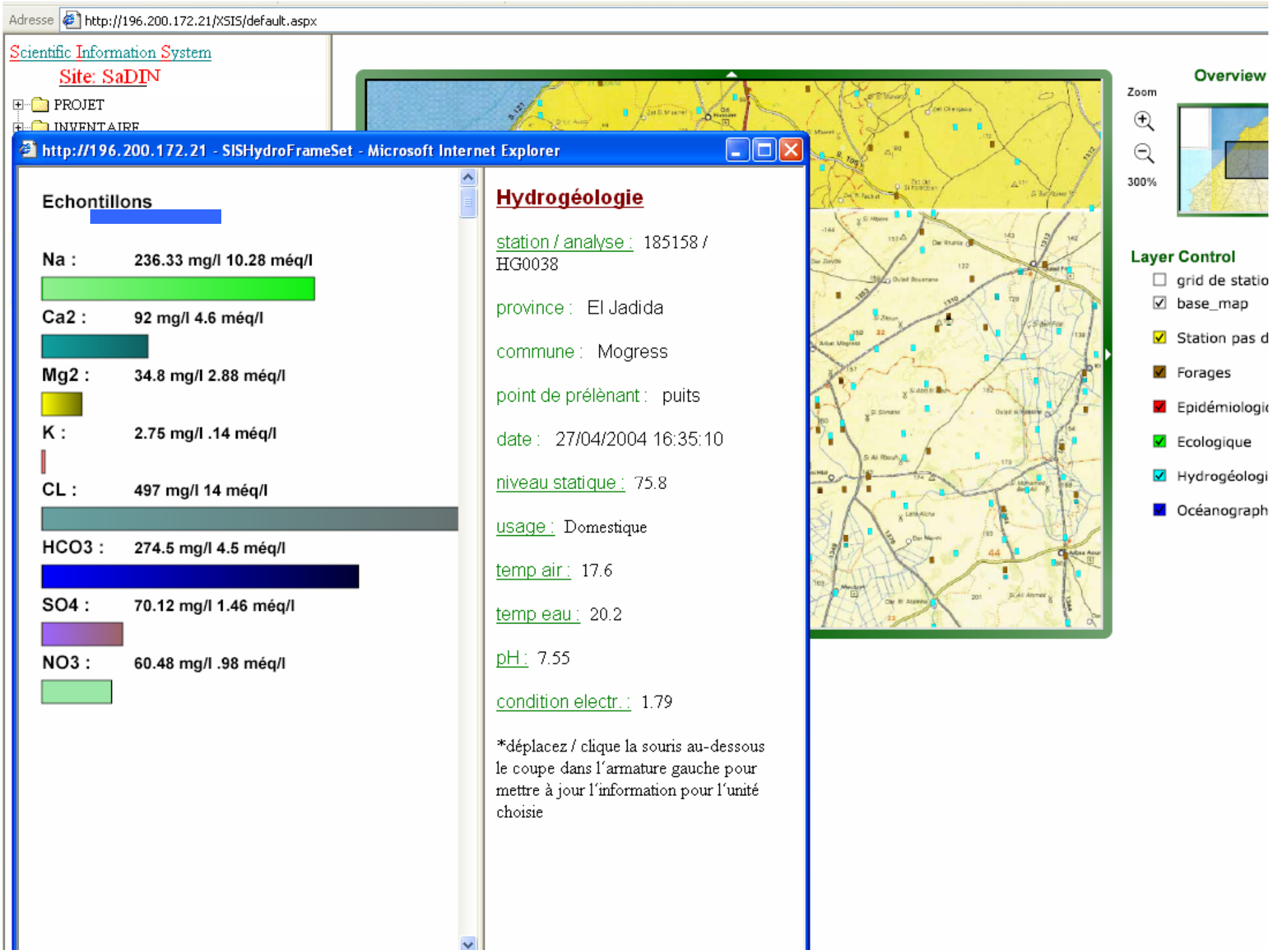
Control, verification and realisation of the implemented online system

3. The data & information system





The extended Scientific Information System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Scientific Information System
Site: SaDIN
PROJET
INVENTAIRE
http://196.200.172.21 - SISHydroFrameSet - Microsoft Internet Explorer
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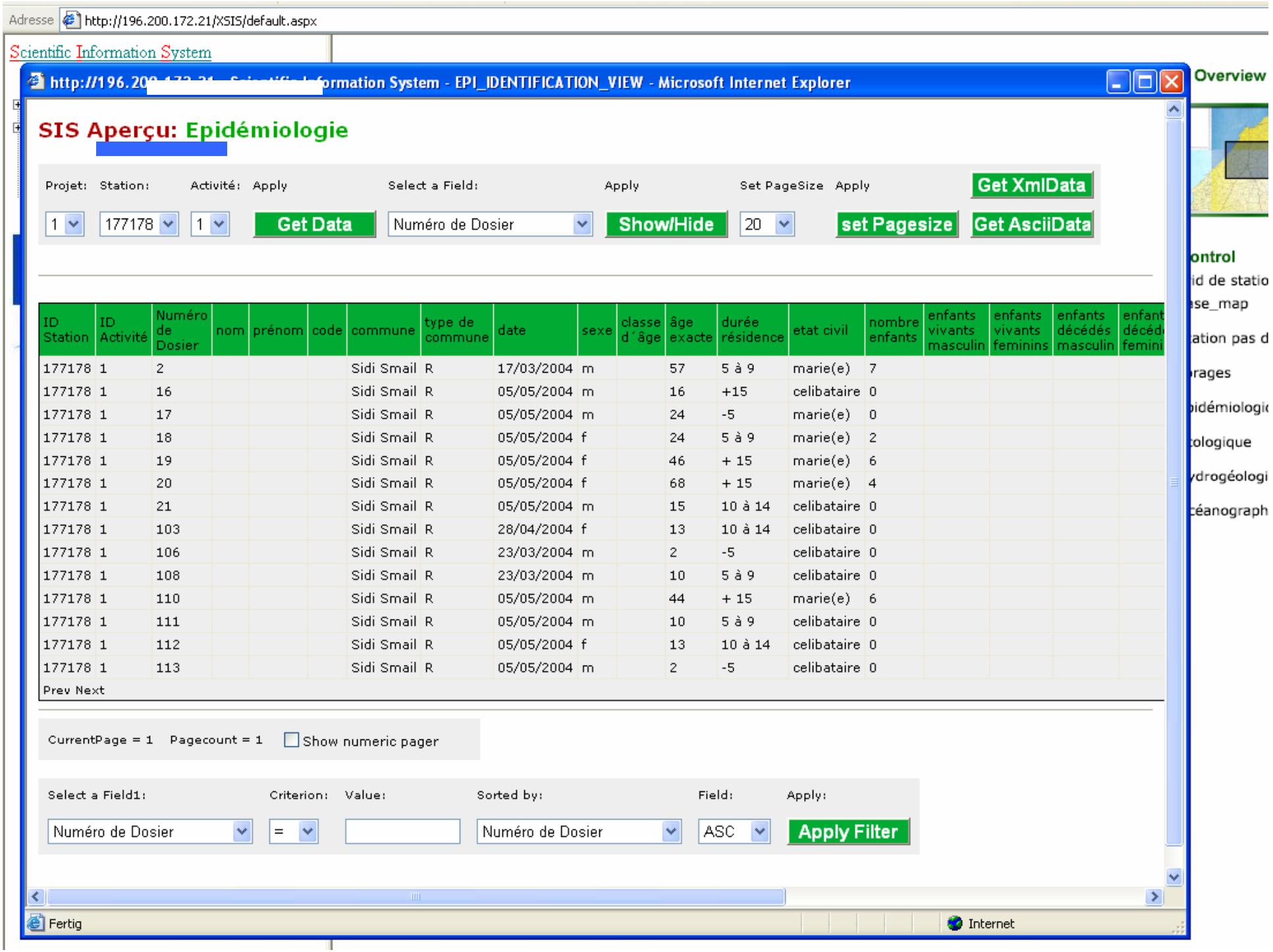
Na : 236.33 mg/l 10.28 méq/l
Ca2 : 92 mg/l 4.6 méq/l
Mg2 : 34.8 mg/l 2.88 méq/l
K : 2.75 mg/l .14 méq/l
CL : 497 mg/l 14 méq/l
HCO3 : 274.5 mg/l 4.5 méq/l
SO4 : 70.12 mg/l 1.46 méq/l
NO3 : 60.48 mg/l .98 méq/l
Hydrogéologie
station / analyse : 185158 / HG0038
province : El Jadida
commune : Mogress
point de prélènant : puits
date : 27/04/2004 16:35:10
niveau statique : 75.8
usage : Domestique
temp air : 17.6
temp eau : 20.2
pH : 7.55
condition electr. : 1.79
*déplacez / clique la souris au-dessous le coupe dans l'armature gauche pour mettre à jour l'information pour l'unité choisie
Overview
Zoom
300%
Layer Control
grid de statio
base_map
Station pas d
Forages
Epidémiologi
Ecologique
Hydrogéologi
Océanograph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Scientific Information System
http://196.20 formation System - EPI_IDENTIFICATION_VIEW - Microsoft Internet Explorer
SIS Aperçu: Epidémiologie
Projet:
Station:
Activité:
Apply
Get Data
Select a Field:
Numéro de Dosier
Apply
Show/Hide
Set PageSize
20
Apply
set Pagesize
Get XmlData
Get AsciiData
ID Station
ID Activité
Numéro de Dosier
nom
prénom
code
commune
type de commune
date
sexe
classe d´âge
âge exacte
durée résidence
etat civil
nombre enfants
enfants vivants masculin
enfants vivants feminins
enfants décédés masculin
enfant décéd
177178 1 2 Sidi Smail R 17/03/2004 m 57 5 à 9 marie(e) 7
177178 1 16 Sidi Smail R 05/05/2004 m 16 +15 celibataire 0
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177178 1 112 Sidi Smail R 05/05/2004 f 13 10 à 14 celibataire 0
177178 1 113 Sidi Smail R 05/05/2004 m 2 -5 celibataire 0
Prev Next
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Show numeric pager
Select a Field1:
Criterion:
Value:
Sorted by:
Field:
Apply:
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Internet
Overview

3. The data & information system

Software/data costs: 0,- €

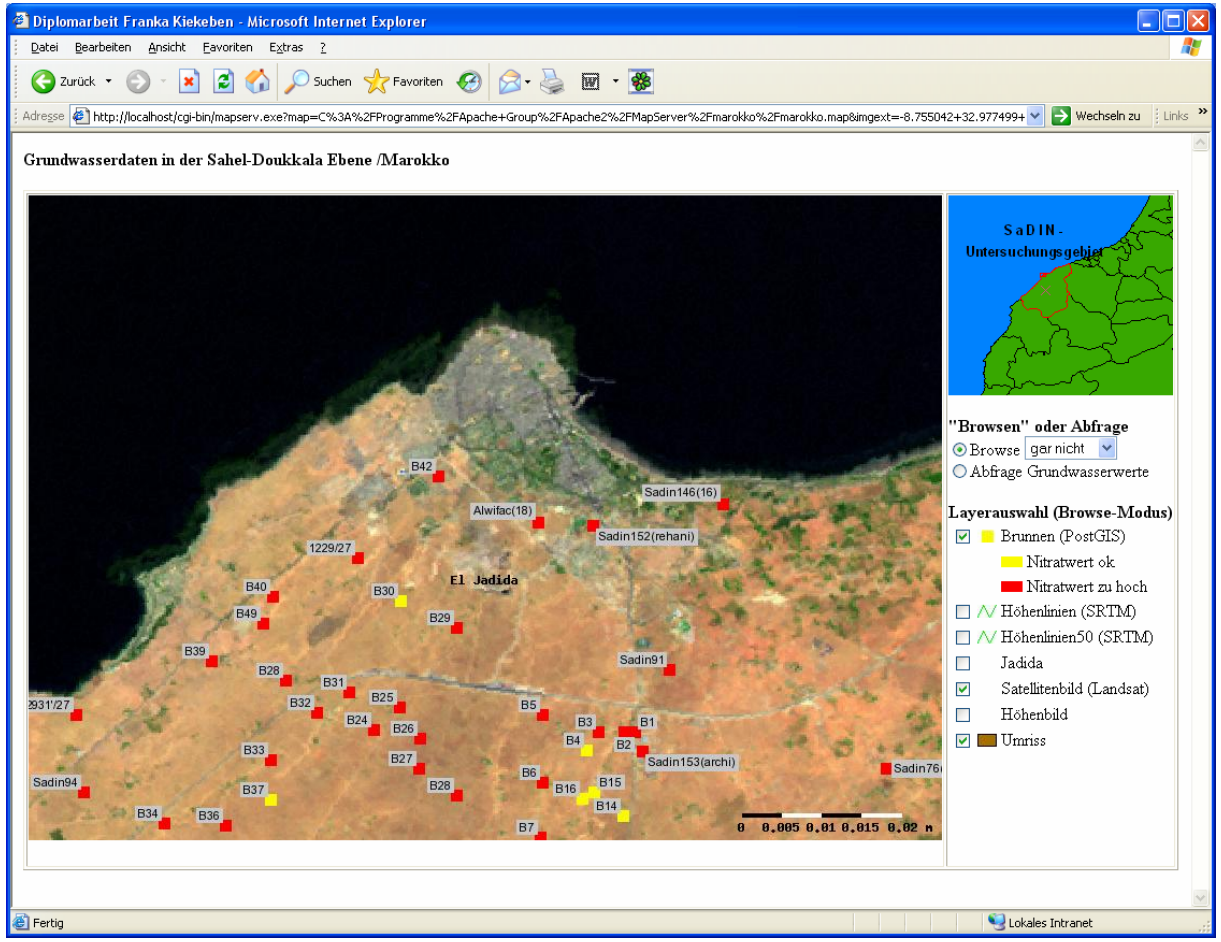
SIS - xSIS

↓

PostgreS

↓

UMN Mapserver



3. The data & information system

Results

- Data and Information Center “La Salle SaDIN”
- Scientific Information System (SIS, xSIS)
- A first collection/archive of all available data of the Sahel-Doukkala region
- Bibliographic Database (Winisis)
- Bridging the gab between research and local authorities
- Introducing New Media for professional research management

3. The data & information system

Problems

- Technical Problems
- Administratif problems
- “Acceptance” of New Technologies *(Not only in Morocco)*
- **Development of servcies simultaneously to data production**
- **Commercial software**
- **“Acceptance” of free available software & data**

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3. The data & information system

Caracteristics

- open source products & commercial software
- exchangeble with worlwide community (standards)
- capability to integrate data (standards)
- open and freely accesible
- open to any kind of interfaces and other IS

Could be a part of an

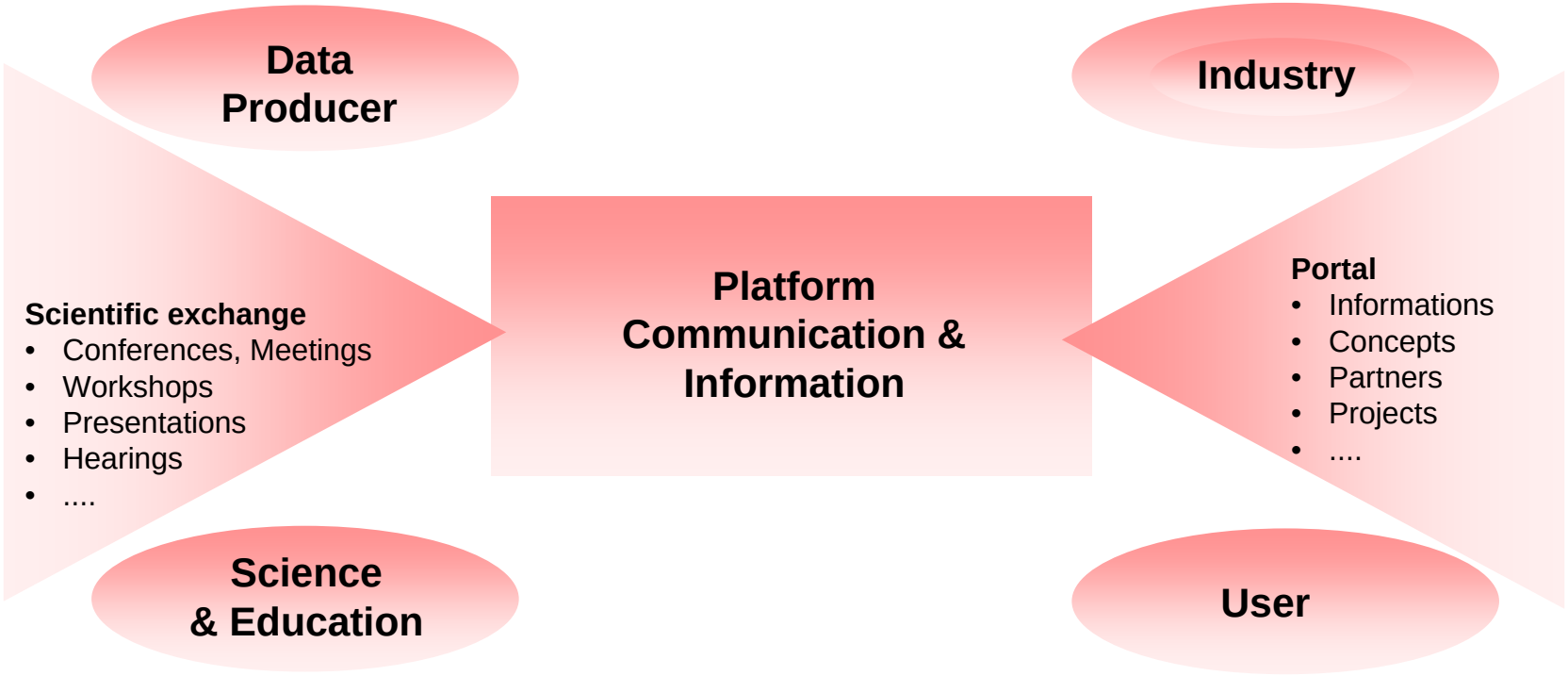
African Spatial Data Infrastructure

4. SaDIN – what could it be in the future

4. SaDIN – what could it be in the future

- Local authorities
- Private enterprises
- Scientific Instituts ...

- Producer of Software-/Hardware
- Data processing
- Service...



- Universities
- Schools
- Research Instituts
- Training of teacher...

- Industry
- Local authorities
- Town councils...

4. SaDIN – what could it be in the future

Local authorities

Concerned users (well diggers, engineers, industries…)

Citizens

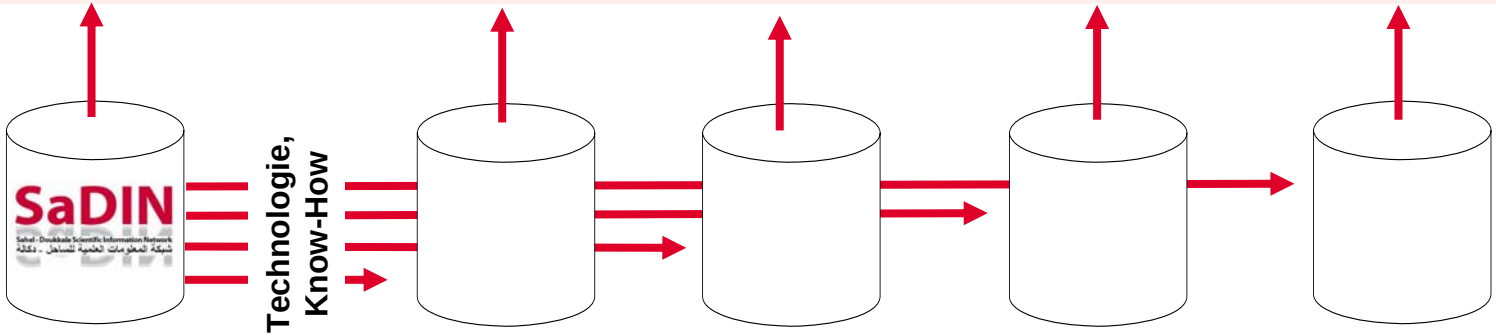
Science

risk assessment/evaluation of land use,
multidisciplinary risk research in the Sahel-Doukkala region

SPATIAL DATA INFRASTRUCTURE

Portal – Communication Platform

Technology - Infrastructure



UCD El Jadida

Universities / government / decision makers

Geology | **Hydrogeology** | **Ecology** | **Epidemiology** | **Social Sciences** | **…**

4. SaDIN – what could it be in the future

merging local efforts...

Partners

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www.sadin.org

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12351 Berlin
fk@smartcube.de

References

www.ucd.ac.ma/fs/departements/geologie
www.gfz-potsdam.de
www.icdp-online.de
www.smartcube.de

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