

**B.I.R.O.**

Best Information through Regional Outcomes

## **The role of BIRO in EU Policy**

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*2° Annual BIRO Investigator Meeting  
Larnaca, 25 May 2007*

# PART 1

## EU Diabetes Policy Recommendations and BIRO objectives

# The problem

- Explosion in prevalence of Type 2 diabetes: EU rate 7.5%, +16% predicted growth by 2025
- Up to 50% of cases currently undiagnosed
- Inequalities in standards of diabetes care
- Dramatic rise in the costs of diabetes  
50 billion euros spent yearly  
2.5-15% National healthcare expenditure

# EU Health Council 2004

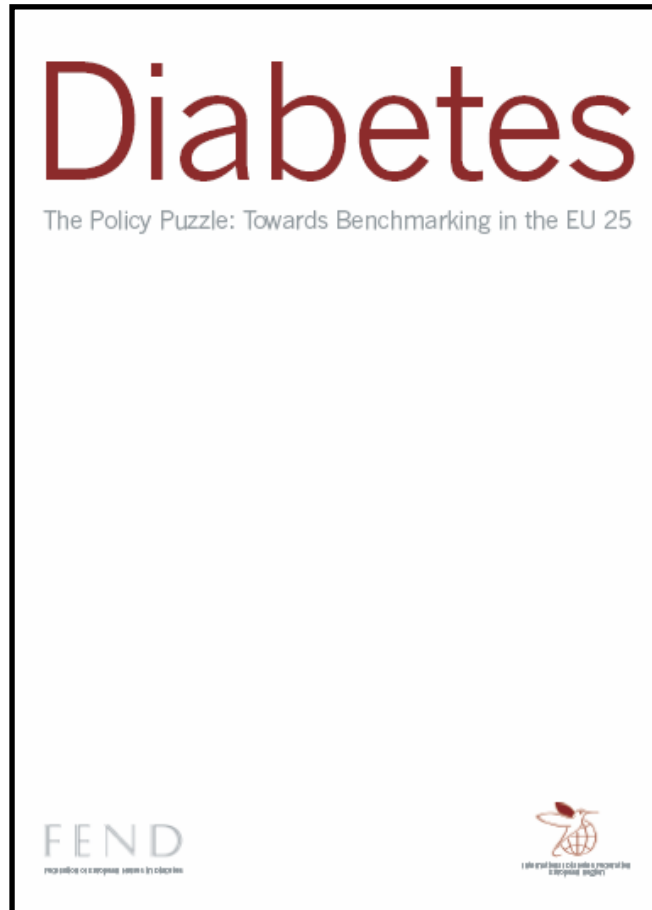
- There is merit in addressing diabetes in a coordinated, strategic & comprehensive way
- A European strategy for diabetes could make important contributions to reducing public health expenditure in member states

# Increasing interest in Diabetes

- The EU Health Commissioner's statement in 2004 that he would "*give his full attention to the growing diabetes epidemic*"
- Austrian Presidency decision to make Type 2 diabetes one of its two key public health priorities

# IDF/FEND Vienna Declaration

February 2006



**The Diabetes Policy Audit**



**EU Policy Recommendations**

# Recommendations (1)

- EU:
  1. Encourage Exchange Best Practices
  2. Establish set of common criteria for collection, compilation and reporting of diabetes information
  3. Assess National Diabetes Plans
  4. Encourage development/implementation of national prevention programs
  5. Facilitate EU diabetes research and ensure wide dissemination of results

# Recommendations (2)

- **Member States:**
  1. Collect, register, monitor, manage comprehensive diabetes data
  2. Collect, register and manage economic data
  3. Develop/implement National Diabetes Plans
  4. Develop/implement Primary Prevention Programs
  5. Develop/implement Screening Programs
  6. Develop/implement Secondary Prevention Programs (Disease Management)
  7. Establish holistic management (discrimination)
  8. Comprehensive training of healthcare professionals



# EU Council Conclusions

**June 2006: EU Ministers of Health adopted a set of Health Council Conclusions on the Promotion of Healthy Lifestyles and Prevention of Type 2 diabetes, agreeing that Member States should:**

- Develop and implement national diabetes framework plans
- Improve the collection and reporting of diabetes epidemiological and economic data
- Adopt a multi-sectoral, multi-disciplinary approach to managing diabetes
- Develop comprehensive diabetes training for all healthcare professionals.
- The Conclusions also called upon the **European Commission** to prioritise diabetes, to promote best practice through networking & exchange between Member States and to facilitate and support European diabetes research.

# The BIRO project

- **“Best Information through Regional Outcomes” (B.I.R.O.):**
  - Three years project in the field of diabetes funded by the Health Information Strand, Public Health Program, DG-SANCO
    - Start: 1<sup>st</sup> December 2005
    - Total cost: 1.2Mn€
    - Total contribution by the European Union: 715,000€
- ***Aim: “to provide European health systems with an ad hoc, evidence and population-based diabetes information system”***
- Seven partners from academia and governmental institutions, sharing an extensive experience in diabetes research/chronic care management
- Novel strategy for the routine collection of base parameters and the regular production of European summary indicators. The proposal targets better collection and integration of national and international data targeting regional networks, optimizing precision at the lowest cost through the active involvement of local users

# BIRO Consortium



**Department of Internal Medicine  
University of Perugia, Italy**



**Division of Medicine and Therapeutics  
University of Dundee, Scotland, UK**



**Joanneum Research,  
Graz, Austria**



**Department of Medicine,  
University of Bergen, Norway**



**Institute of Diabetes "Paulescu",  
Bucharest, Romania**



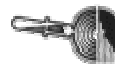
**Department of Medicine,  
University of Malta, Malta**



**Department of Health Promotion,  
Ministry of Health, Republic of Cyprus**



Regione Umbria



NOKLUS



Public Health

# BIRO and the Diabetes EU Policy (1)

- EU:
  - 1. Exchange of best practice
    - Web Portal
  - 2. Establish set of common criteria for collection, compilation and reporting of diabetes information
    - Clinical Review
    - Common dataset
    - Data Dictionary
    - Privacy Impact Assessment
    - Database/Statistical Engine
    - Reports Template
  - 3. Facilitate EU diabetes research and ensure wide dissemination of results
    - Database/Statistical Engine

# BIRO and the Diabetes EU Policy (2)

- **Member States:**
  - 1. Collect, register, monitor, manage comprehensive diabetes data
    - All WPs
  - 2. Collect, register and manage economic data
    - Clinical Review, Common dataset, Data Dictionary
    - Privacy Impact Assessment
    - Database/Statistical Engine
    - Reports Template
  - 3.2 Create an evaluation system to track health outcomes and cost-effectiveness
    - Database/Statistical Engine
  - 6.3 Monitor and measure health outcomes in secondary prevention
    - All WPs
  - 8.2 Establish quality of care measurement as part of normal practice for healthcare professionals
    - All WPs

# Design (5) Multilevel outputs

## Clinical

### Criteria

- Guidelines
- Scientific evidence
- Epidemiological models
- Classification system

### Data

- Relational Database
- Linked structures

**Management**



**Analysis**



**Planning**



## Administration

### System for analysis


- Reports
- Statistical models

## Citizens

### Shared Care

- Risk factors
- Diagnosis
- Procedures
- Treatments
- Outcomes

# www.biro-project.eu



**B.I.R.**

Partners  
About  
Objectives  
Activities  
Documents  
Restricted Area  
Results  
Forum  
Links

**Best Information through Regional Outcomes  
Building a Shared European Diabetes Information System**

A Public Health Project funded by the European Commission  
Health Information Strand, DG-SANCO 2005

[Latest Updates](#)

- December, 11<sup>th</sup> 2006 - Added [B.I.R.O. Poster at last IDF Congress](#) documents downloadable from the Results area
- November, 27<sup>th</sup> 2006 - Added [EU Policy Recommendations](#) documents downloadable from the Documents area
- November, 14<sup>th</sup> 2006 - Added [Graz Meeting Minutes](#) downloadable from the Restricted area
- October, 18<sup>th</sup> 2006 - Added the first Result ([Clinical Review](#)) downloadable from the new Results area
- October, 4<sup>th</sup> 2006 - Added the official downloadable [B.I.R.O. Brochure](#)

Website

Forum



B.I.R.O. Forum - The European Diabetes Project's Forum - Mozilla Firefox

http://biro-project.eu:8080/forum/forums/list.page

**B.I.R.O. Forum - The European Diabetes Project's Forum**

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Forums			
	Topics	Messages	Last Message
<b>B.I.R.O.</b>			
<b>Restricted Forum</b> B.I.R.O. Consortium restricted forum	21	62	13/12/2006 00:05:00 fabrizio
<b>The B.I.R.O. Blog</b> In this forum you can write all you think about B.I.R.O. and all related things Moderators: B.I.R.O. Consortium	3	8	08/06/2006 10:37:59 Pietro
<b>Bugs and Problems</b> If you find any bugs or problems write a message in this forum	1	3	14/07/2006 12:30:59 sheek

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# PART 2

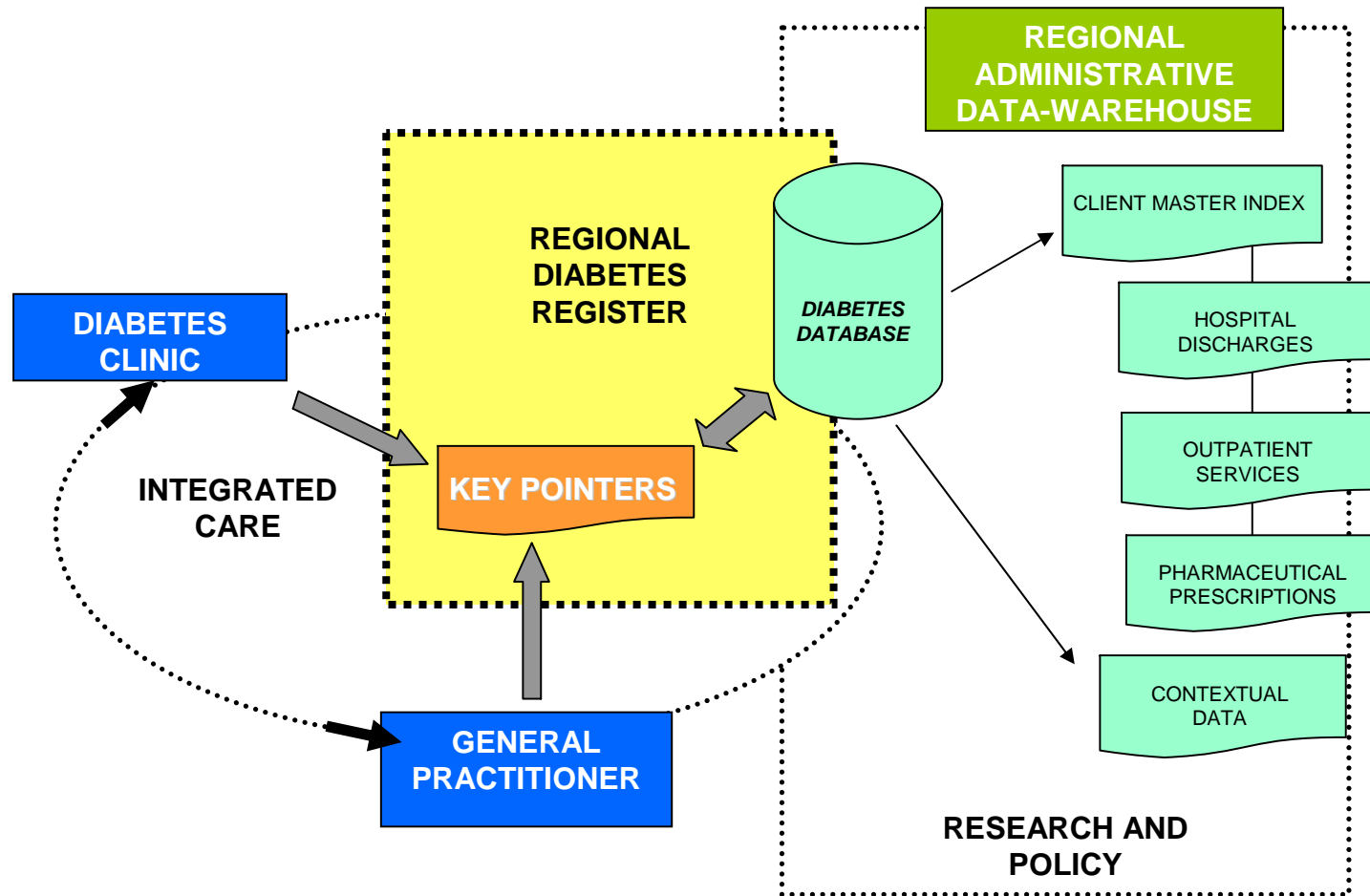
## Implementing the BIRO Model: Project Workplan



# BIRO approach

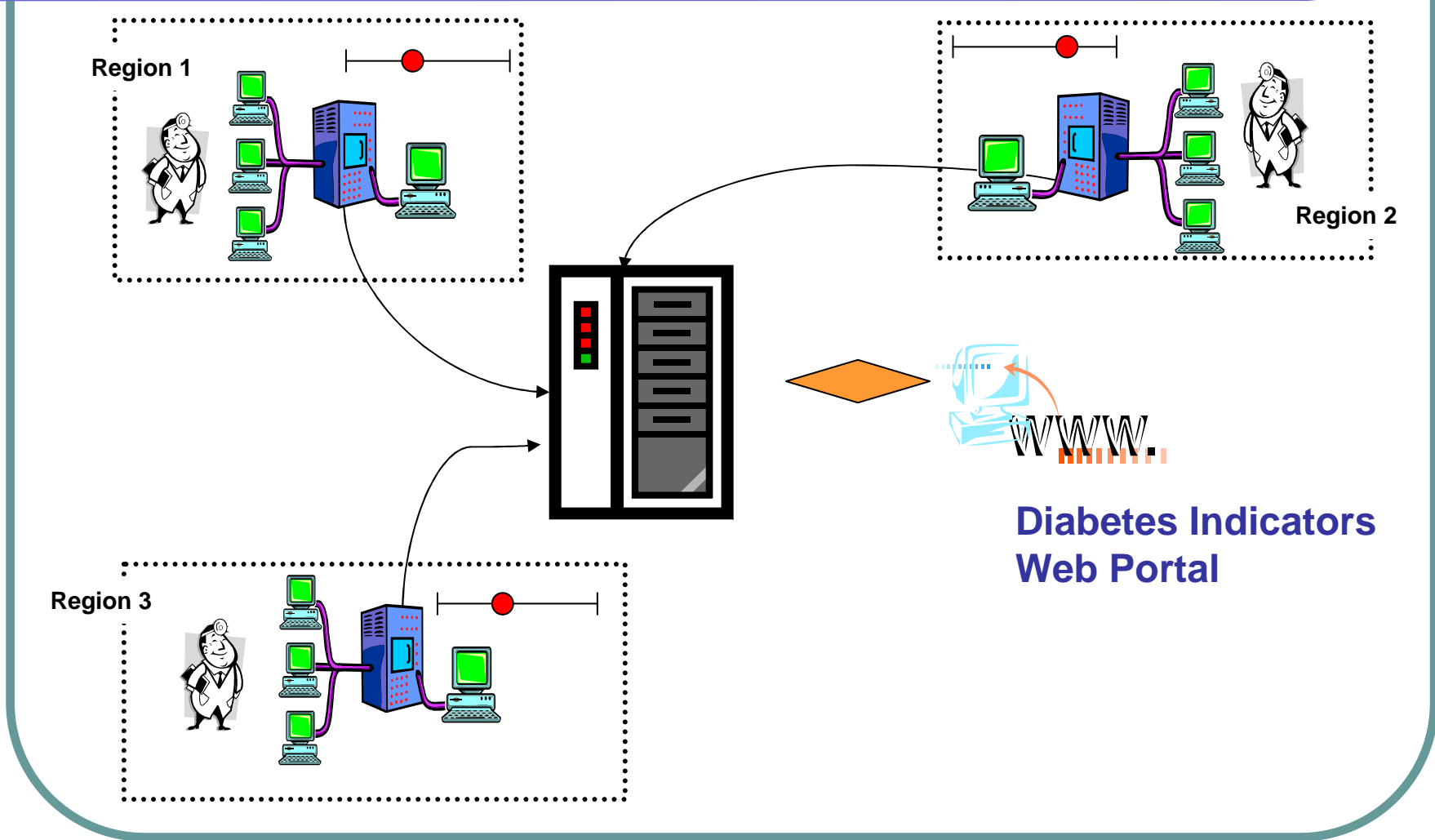
- Continuous, automated, standardized collection of longitudinal data from regional registers as a way to produce sustainable and reliable population-based indicators at the European level

# Design (1) - The Regional Diabetes Register



# Design (2) – Information Exchange

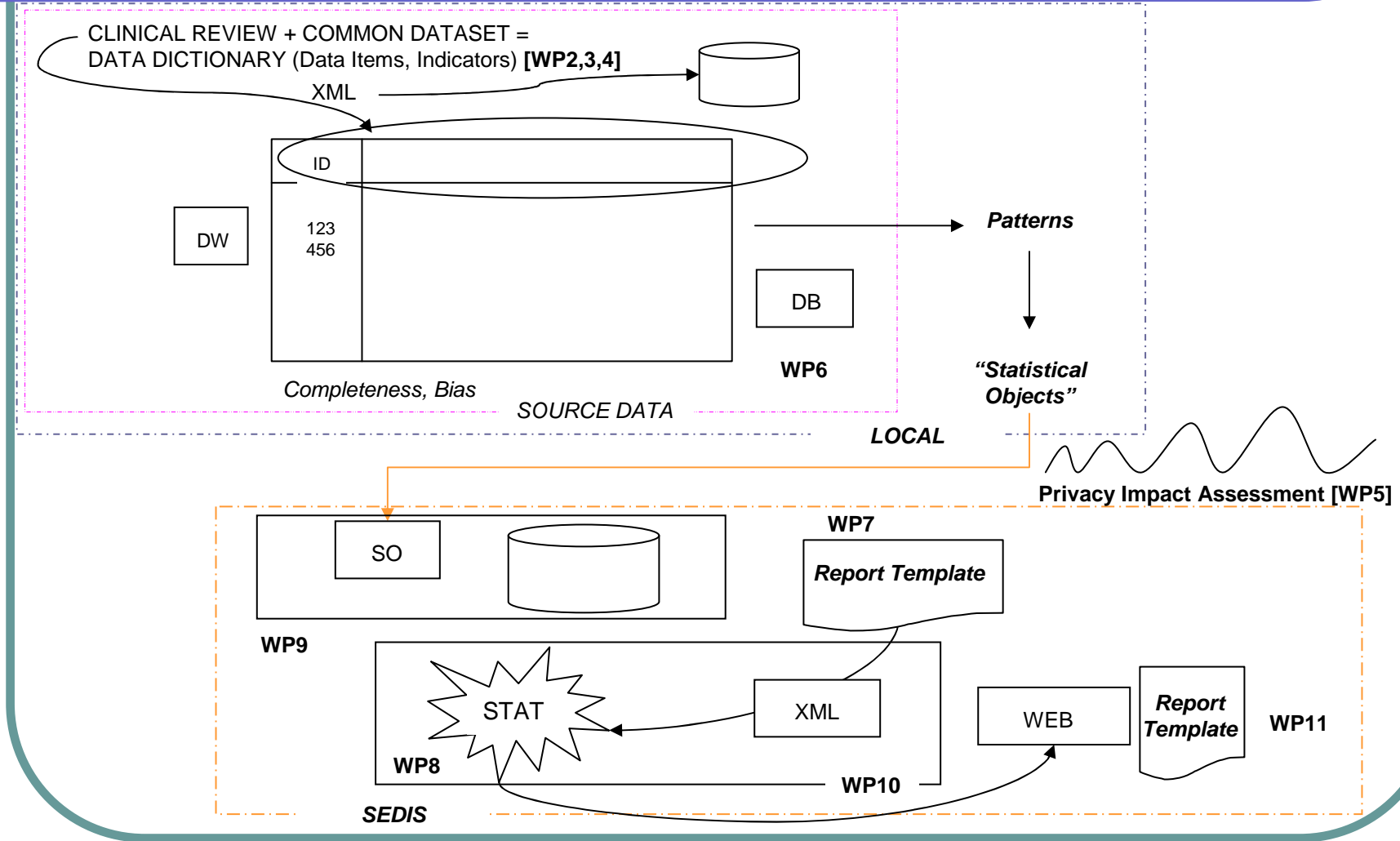
## Shared Evidence-Based Diabetes Information System (SEDIS)



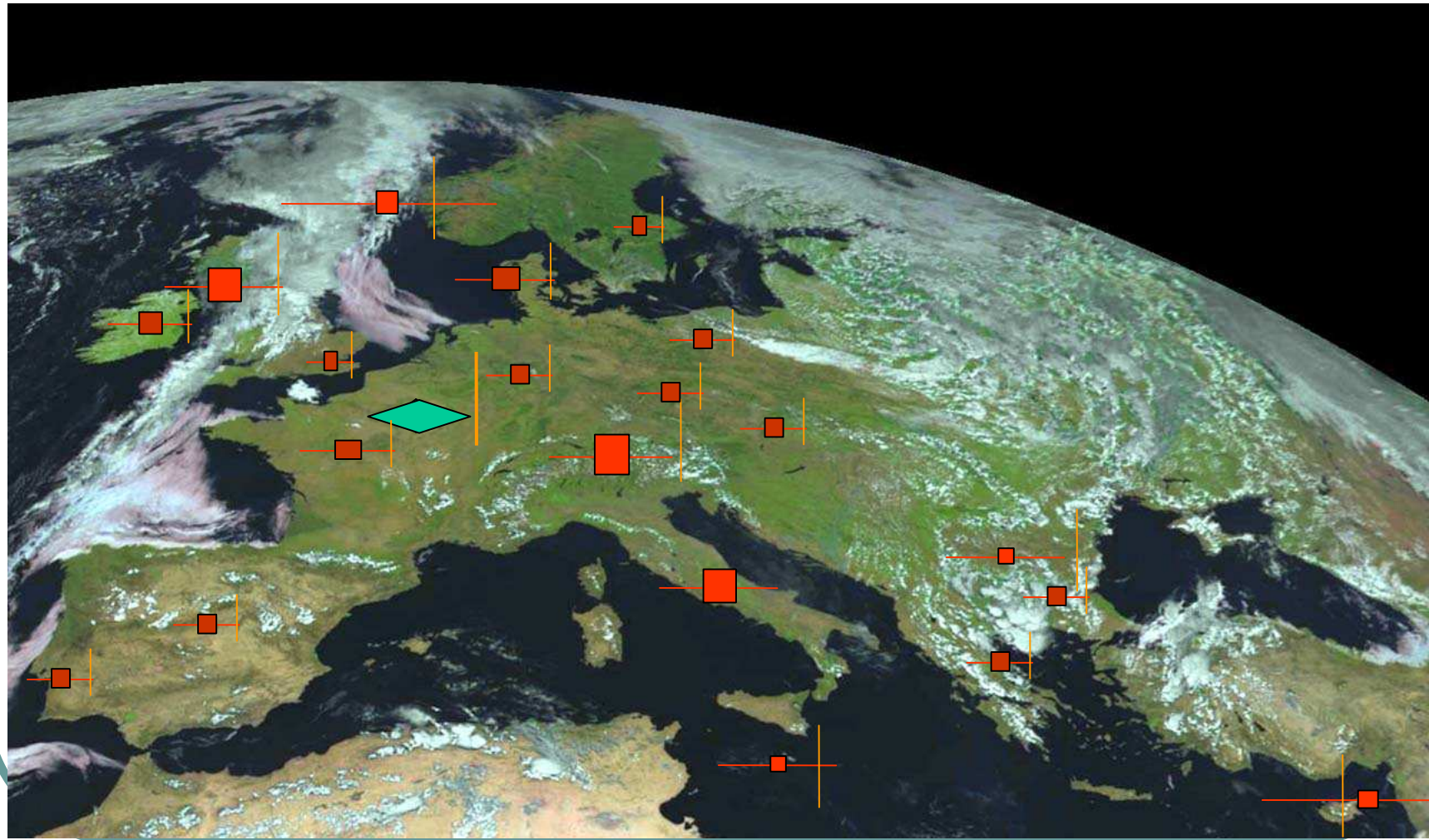
## Design (3) BIRO logic

- Minimise burden for data collection
  - Data collection unaltered locally
  - Data translated to a BIRO common format
- Standardise definitions
  - Common dataset and data dictionary
- Standardise statistical methods and reporting tools
- Adopt modern software standards

# Design (4) - BIRO Technology



# Design (6) - Overall Results



# WP Leaders



**Department of Internal Medicine  
University of Perugia, Italy**

**COORDINATION, MANAGEMENT, DISSEMINATION  
PRIVACY IMPACT ASSESSMENT  
DATABASE/STATISTICAL ENGINES**



**Division of Medicine and Therapeutics  
University of Dundee, Scotland, UK**

**COMMON DATASET  
DATA DICTIONARY**



**Joanneum Research,  
Graz, Austria**

**CLINICALREVIEW  
COMMUNICATION SOFTWARE**



**Department of Medicine,  
University of Bergen, Norway**

**REPORTS TEMPLATE  
WEB PORTAL**



**Institute of Diabetes "Paulescu",  
Bucharest, Romania**

**TECHNOLOGY TRANSFER**



**Department of Medicine,  
University of Malta, Malta**

**EVALUATION**



**Department of Health Promotion,  
Ministry of Health, Republic of Cyprus**

# Results

- After 1 yr:
  - n. 4 meetings
  - 1<sup>st</sup> Year Investigator Meeting Malta June 2006
  - Deliverables:
    - Clinical Review
    - Common Dataset
    - Preliminary Privacy Impact Assessment
    - 1<sup>st</sup> Year Evaluation Report
  - Poster IDF Cape Town December 2006
  - Website + Forum



# Activity 2007

- Dundee Technical Meeting (April)
- Deliverables: Data Dictionary, Privacy Impact Assessment, Database Engine, Communication Software, Report Template
- Statistical Analysis of Test Datasets
- 2<sup>nd</sup> Investigator Meeting, Cyprus (May)
- BIRO Paper(s)
- Evaluation Report

# What are we doing in Cyprus

- Privacy Impact Assessment: Dephi Panel to rank candidate architectures selecting the best fit for the BIRO Information System
- Reports Template: agree on the index and list of contents of European BIRO Reports
- Data Schema: agree specifications for the first version
- Database Engine: agree technical aspects in the progress of the WP
- Statistical Analysis: present an example and outline the whole process to run the first test
- EU projects: discuss the content and agree on all operational aspects for new submissions

# Test Datasets

- Deadline: end 2007 (Region, N subjects)
  - Umbria (IT): 30,000
  - Tayside (UK): 15,000
  - Styria+Carinthia (AT): 40,000
  - Cyprus (CY): 5,000
  - Malta (MT): 25,000