




Surveillance Unit (SUN)

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Layout of this presentation



- **Background**
- **Organisation of Surveillance in the ECDC**
- **Surveillance Unit Work and Plans**
- **Major Issues and Activities**
- **Next Steps**

Background

Surveillance in the EU, Starting Position for ECDC



- Statutory List of
 - 47 notifiable diseases
 - + Anti-Microbial Resistance
 - + Health Care Acquired infections

As per Commission Decision 2002/253/EC, Commission Decision 2003/534/EC
- 27 Member States + 3 EEA/EFTA with their **own different surveillance systems** and methods
- **17 Dedicated Surveillance Networks:** covering 20 diseases (+ 3 not on list of 47), complex data flows, different databases

Surveillance Systems in Individual MS

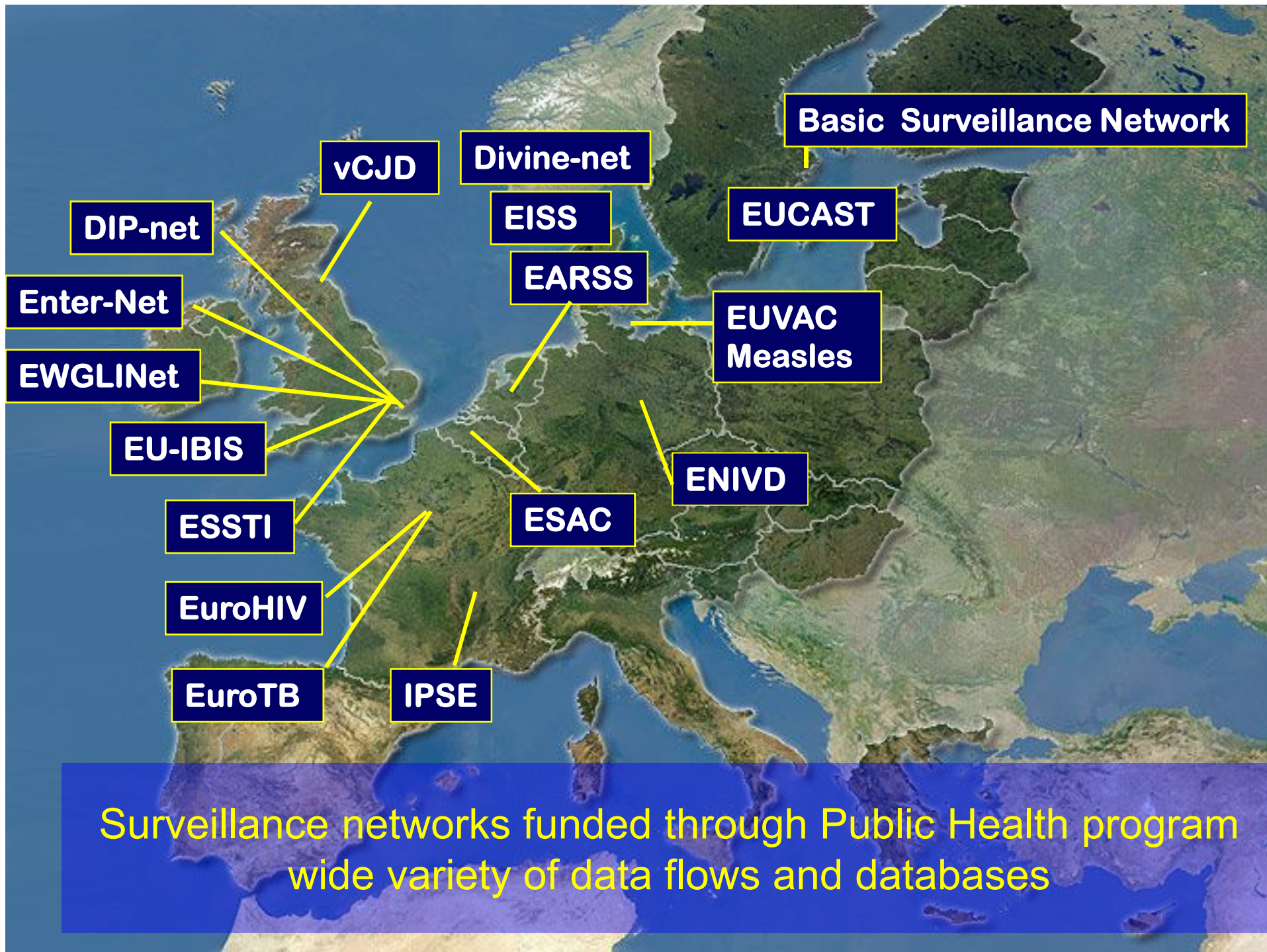


- Differences in
 - **reporting systems** and practices
 - populations covered (**denominators**)
 - **case definitions**
 - **diagnostic methods and practices**
- Data - often **not comparable** or clearly incomplete
- **Small countries struggle** to participate in EU surveillance initiatives - due to manpower and resource limitations
- Nearly all MS surveillance systems find it hard to **keep up with advances in surveillance** methods and practices

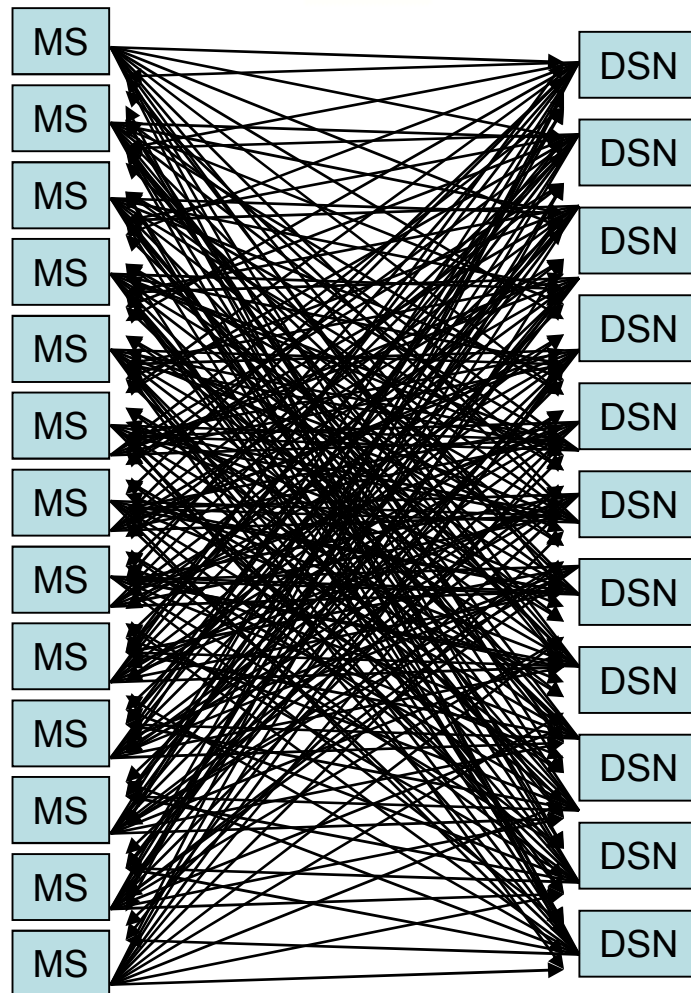
Dedicated Surveillance Networks (DSNs)



- Basic Surveillance Network (**BSN**) –*integrated into ECDC*
- Vaccine preventable diseases (**EUVAC-NET, DIPNET, EU-IBIS**)
- Respiratory diseases (**EuroTB, EISS, EWGLINet**)
- Sexually transmitted diseases (**EuroHIV, ESSTI**)
- Zoonoses/food-borne diseases (**Enternet, DIVINE, EuroCJD**)
- Antimicrobial resistance/nosocomial infections (**EARSS, ESAC, IPSE, EUCAST**)
- Other diseases, imported diseases (**ENIVD**)



Current information flow MS-DSN



- *Impact of networks for MS*
 - Huge additional workload
 - Different interfaces for data upload
 - Different database formats
- *Impact for DSN hubs*
 - Data cleaning effort for all MS
 - Individual feedback for all MS

Organisation of Surveillance in the ECDC

Director and Director's Cabinet

Management Governance External relations Country cooperation

Scientific
advice

Surveillance

Preparedness &
response

Health
communication

Administrative
services

Antimicrobial resistance & healthcare-associated infections

Food- & waterborne diseases

HIV, STI & blood-borne viruses

Influenza

Other diseases of environmental & zoonotic origin

Tuberculosis

Vaccine preventable diseases & invasive bacterial infections

Director and Director's Cabinet

Management

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ECDC Surveillance Unit Mission Statement



**To strengthen the European
surveillance**
in order to reinforce
detection, prevention and control
of infectious diseases in Europe

Surveillance Unit Tasks



- **Search, collect, collate, evaluate** and **disseminate** data
- **Coordinate** the integrated operations of the DSNs
- **Maintain the databases** needed for surveillance
- **Initiate** applied scientific studies and projects for the feasibility, development and preparation of its activities
- **Cooperate** with organisations in the field of data collection

Surveillance Unit Aims



- To support **strengthening** of national surveillance systems
- To develop **integrated data collection** systems covering all MS and all notifiable communicable diseases
- To establish EU-wide **standard case reporting**
- To **monitor trends** of diseases across Europe in order to provide a rationale for public health actions in MS
- To **disseminate the results to stakeholders** for timely public health actions at EU and MS level

Added Value of EU-wide surveillance ...integrated system



- Co-ordinating the harmonisation of EU-wide communicable disease surveillance – **improves comparability of data** (SOPs, databases, etc)
- Providing **better public health evidence** through more reliable data
- Improving the **detection, monitoring and reporting of international outbreaks**
 - to better characterize affected populations
 - to enable more timely prevention and control measures
- Sustainable structures to support the **strengthening of national surveillance systems** (all components of surveillance (epi, lab, IT))

Added Value of EU-wide surveillance ...integrated system



- **Facilitates expanded coverage** to all notifiable diseases under surveillance at EU level by all MS
- **Unified data access procedures** clarifies
 - Restricted access to full database
 - Public access to selected data
- Improve the **sustainability of funding** of specific networks
- **Synergistic effects**
 - Overarching issues affecting more than one disease
 - Economically more efficient
 - Agenda setting according to European priorities
- Improve specialised **EU epi training**

Surveillance Unit Work and Plans

Major achievements SUN 2005-2007



- **Short-term surveillance strategy** developed in October 2005
- **Work on Dedicated Surveillance Networks:**
 - **Protocol and process** for evaluation and assessment developed,
 - **Evaluation** completed for 14 networks,
 - **Transfer** of 4 networks to ECDC in 2008 prepared (two completed),
 - **Contracts** (by analogy or based on open calls) for 5 networks established,
 - **Annual meetings** of all (17) surveillance networks attended (4 such meetings organised in Stockholm);
- Database for the European Surveillance System (**TESSy**) developed
- Human zoonotic diseases regular contribution to **Annual European Zoonoses Report** (collaboration with EFSA)
- First **Annual Epidemiological Report** designed and published
- Regular **collaboration** with WHO/EURO, EFSA, EMCDDA established.

Overall components of the future surveillance system



- **Routine surveillance:**
 - Basic information to be covered for all diseases
 - Gradually refined/expanded according to objectives agreed upon with MS

- **Enhanced surveillance:**
 - Priority diseases will have more detailed information
 - ECDC and MS decision on a case-by-case basis

- **Feasibility projects/special studies:**
 - New diseases, techniques or methods
 - Pilot in few countries before involving all MS

Multiannual Strategic Plan adopted basis for 2008 workplan



Strategy 1: Improving data collection system

- Further develop TESSy towards enhanced epi surveillance for priority diseases, and include laboratory sub-typing data
- Agree on the alignment of reporting with relevant organisations and agencies
- Support MS in strengthening surveillance systems

Strategy 2: Trend analyses

- Further development of regular analysis and output to *Eurosurveillance*
- Further develop the extent and depth of analysing surveillance data

Strategy 3: Reporting

- Improve further the content of the *Annual Epidemiological Report*
- Further website development

Strategy 4: Quality assurance of surveillance data

- Continuous improvement of automated data quality checks
- Pilot assessments of under-ascertainment/under-reporting for one disease group

Major Issues and Activities

Current major activities ...towards an integrated system



- New Case Definitions, *finalising*
- Surveillance Long-term Strategy - future surveillance aims & objectives
- Evaluation of DSNs, transition plans for DSNs
- Integrated surveillance strategy with EPI and LAB components
- Developing European Database (Tessy) and IT working groups
- Annual Epidemiological Report

Current major activities ...towards an integrated system



- **New Case Definitions, *finalising***
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...towards an integrated surveillance system, Case Definitions



Case Definitions:

- **uniform reporting base** from national to the European Union (EU) level - allow better **comparability of data** within the Community.

- **Process of Case Definitions:**
 - Original Publication in 2002
 - Went through a long revision process
 - Final round of MS feedback being incorporated this week
 - Will be finalised in few weeks – then published by EC

Current major activities ...towards an integrated system



- New Case Definitions, *finalising*
- **Surveillance Long-term Strategy - future surveillance aims & objectives, 7 year perspective**
- Evaluation of DSNs, transition plans for DSNs
- Integrated surveillance strategy with EPI and LAB components
- Developing European Database (TESSy) and IT working groups
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Surveillance Long-term Strategy (7 years, 2007-2013)



- Future surveillance **aims and objectives**
- The **organisational structure** to meet the objectives (TESSy)
- **Prioritisation of diseases** under surveillance
- **Support MS** to meet the demands (assessment of needs to strengthen national systems)
- **Quality assurance** and control processes
- **Integrated Laboratory** Surveillance Networks with the Epidemiological aspects

Current major activities ...towards an integrated system



- New Case Definitions, *finalising*
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- **Evaluation of DSNs, transition plans for DSNs**
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...towards an integrated surveillance system, Future of DSNs



- **External evaluation** of each DSN
- Decision **how to continue** taken, based on
 - Disease priority for ECDC
 - Results of the evaluation and assessment of the network
 - Staff capacity at ECDC
 - Considerations of cost-effectiveness

...towards an integrated surveillance system, Future of DSNs



- **Transition plan**

- IT transfer: Transfer of the database and the website
- Re-Orientation to work responsibilities (Epidemiological activities (data collection, transport, analysis, outputs, etc), Laboratory activities (EQA, training, molecular subtyping, etc), Communication/response aspects, Cooperation (non-EU participants, WHO, other agencies involved), Scientific work, etc)
- Preparation of calls for any (or all) activities to be outsourced
- Collaboration with/briefing MS
- Planning future surveillance activities in that area

...towards an integrated system, areas to consider for each DSN



- Epidemiological activities
 - Data collection and transport
 - Data analysis and outputs
- Laboratory activities
 - Not established for all diseases
 - EQA, training
 - Molecular subtyping
- Communication/response aspects
 - Annual meetings/Steering groups
 - Early warning and response component
 - General outputs
- Cooperation
 - Non-EU participants
 - WHO
 - Other agencies
- Scientific work

Overview of Status of the DSNs



Basic Surveillance Network

EUCAST

ESAC

DIVINE

Enternet

EU-IBIS

EuroCJD

EISS

EARSS

EWGLINet

ENIVD

EuroTB

EuroHIV

IPSE

ESSTI

EUVAC.NET

DIPNET

ECDC

outsourced

outsourced (3y)

discontinued surveillance

ECDC

ECDC

outsourced

ECDC (2008)

outsourced (2y)

outsourced (2y)

outsourced

ECDC

ECDC

EC (end of June 2008)

EC end of 2008

EC Oct. 2008

EC 2009

Current major activities ...towards an integrated system



- New Case Definitions, *finalising*
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- Evaluation of DSNs, transition plans for DSNs
- **Integrated surveillance strategy - EPI and LAB components**
- Developing European Database (TESSy) and IT working groups
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...towards an integrated system, Laboratory Surveillance issues



- **Standardise which Samples** to be sent for laboratory analysis
- **Standardisation** of analytical methods
- **Quality Assurance** of laboratory methods
- Use of **molecular sub-typing for epidemiologic/public health purposes** to improve:
 - detection of outbreaks
 - monitor spread of transmission
- **Plans for**
 - ⇒ Disease-specific networks of national reference level laboratories
 - ⇒ Develop strategy for support of standard QA
 - ⇒ Evaluation of typing methods for surveillance
 - ⇒ Training of laboratory technical personnel

Current major activities ...towards an integrated system



- New Case Definitions, *finalising*
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- **Developing European Database (TESSy) and IT working groups**
- Annual Epidemiological Report

...towards an integrated system, IT component



- **Database: The European Surveillance System**

- Easy and rapid transfer from MS to ECDC
- Interface with various electronic systems in MS
- Accommodation of the network databases
- Generic solution as option to offer for MS

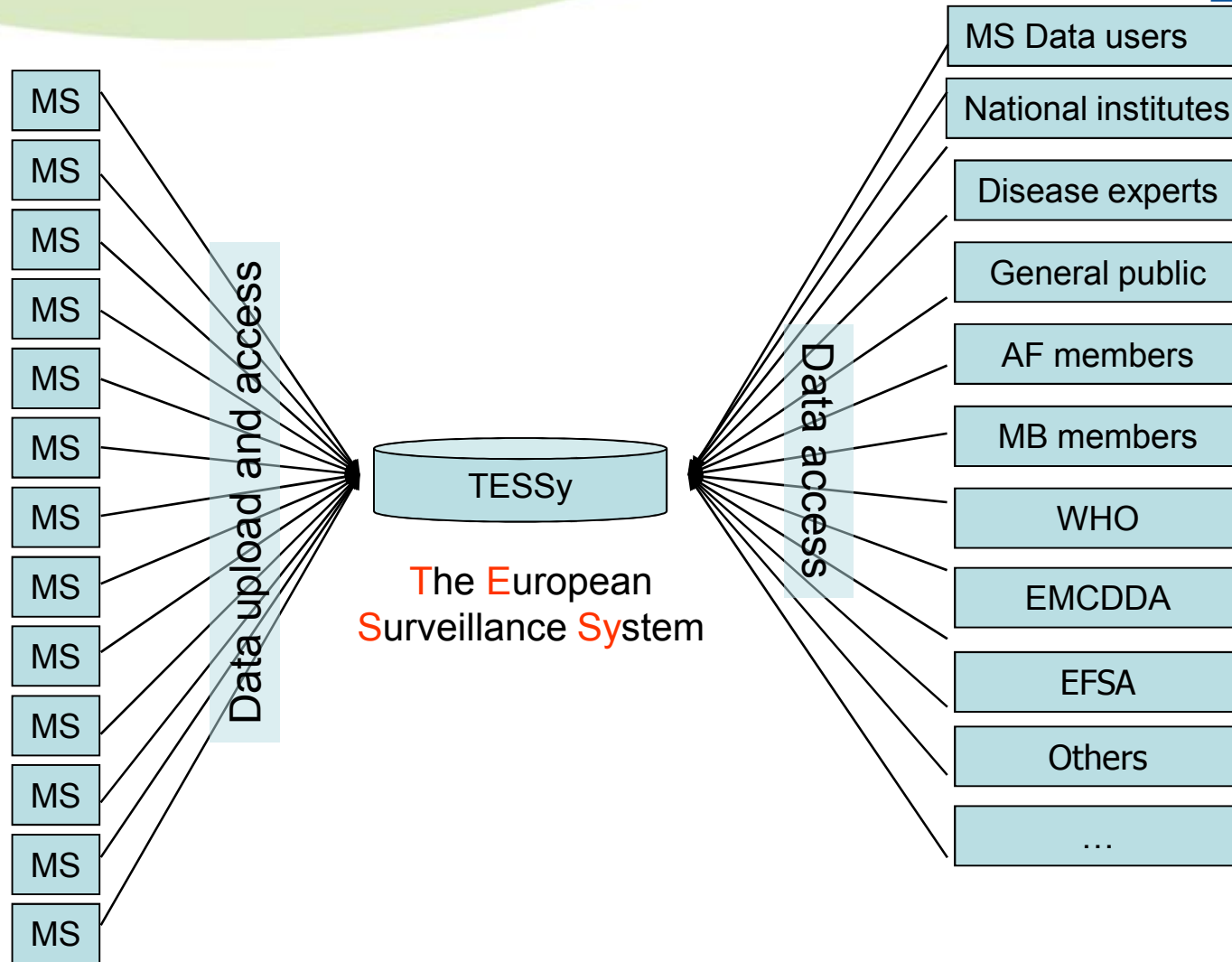
Finished test phase with 2006 zoonosis data, about to go live

- **Data exchange and access**

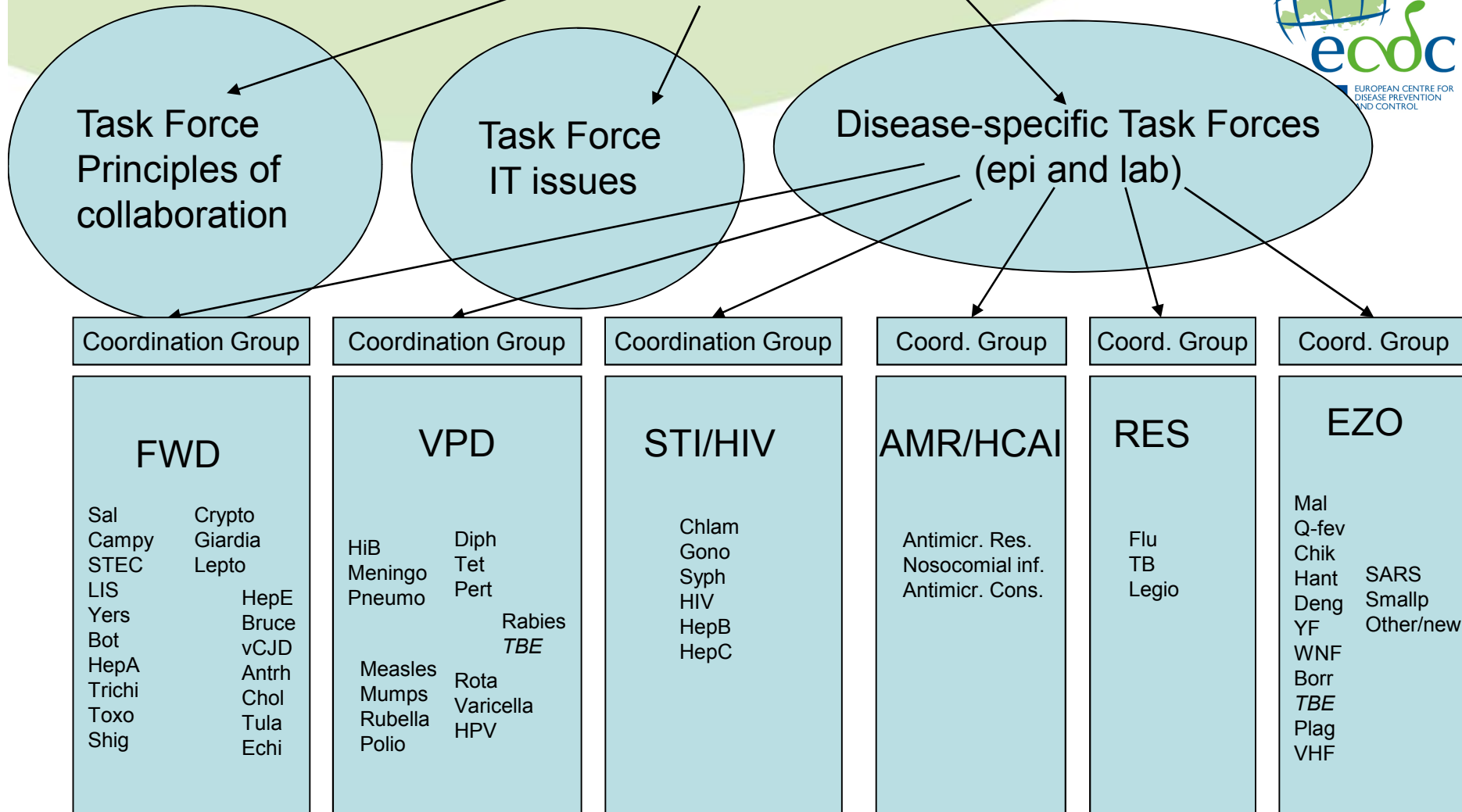
- Agreement with Member States
- Agreement with Networks
- Working Group established – Febr 2007

Now: Nomination of users by CB, more later

Planned Solution: one stop-shop



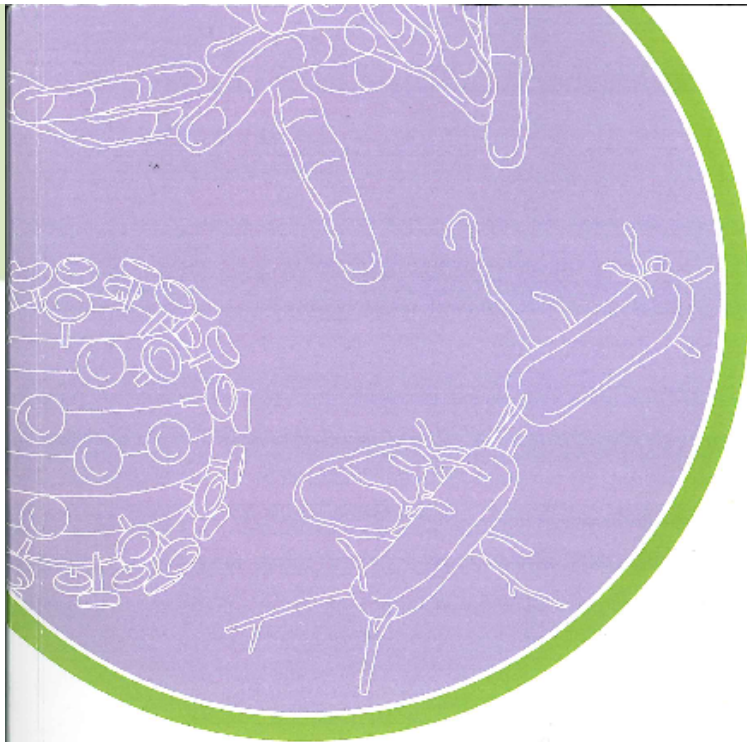
TESSy working group



Current major activities ...towards an integrated system



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- Developing European Database (TESSy) and IT working groups
- **Annual Epidemiological Report**



ANNUAL EPIDEMIOLOGICAL REPORT ON COMMUNICABLE DISEASES IN EUROPE

REPORT ON THE STATUS OF COMMUNICABLE
DISEASES IN THE EU AND EEA/EFTA
COUNTRIES

ecdc.europa.eu

AER 06

Coming soon!



- - Preface and Foreword
- - Summary and Conclusions
- - Introduction:

Structure of the report and description/explanation of data sources used

- - Epidemiological situation of comm. diseases in EU2006

Description of all listed diseases/conditions described, with Main Patterns and Trends

- - In-depth focus on HCAI/Patient Safety

Actions to strengthen prevention, control and surveillance in EU for the diseases concerned (20 pages each)

- - Annual Description of Threats monitored and actions taken in 2006

NEXT STEPS

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...towards an integrated system, next steps



- Acceptance of the long term **surveillance strategy** and the **adoption of the case definitions**
- **Setting up links with designated Contact Points**
- **TESSy database**
 - Ongoing Development (soon working on version 2!!)
 - Final Agreement on Variables by Disease
 - Final Agreement on Users and training them
 - Final Agreement on data exchange and access
 - TESSy Helpdesk in Stockholm
 - Possible specific MS country technical support

...towards an integrated system, next steps



- **Surveillance Outputs**

- Automatic reports within TESSy - Interactive part of database
- Levels of access for Technical Users, General Public
- Regular updates => Website with updated information for specialists and public
- Recurring reports: Feed into Annual Epidemiological Report report, Annual Zoonoses report, others
- Direct Information to targeted audiences

Thank you