From HELICS to HAI-net
a twenty years' experience

Jacques Fabry
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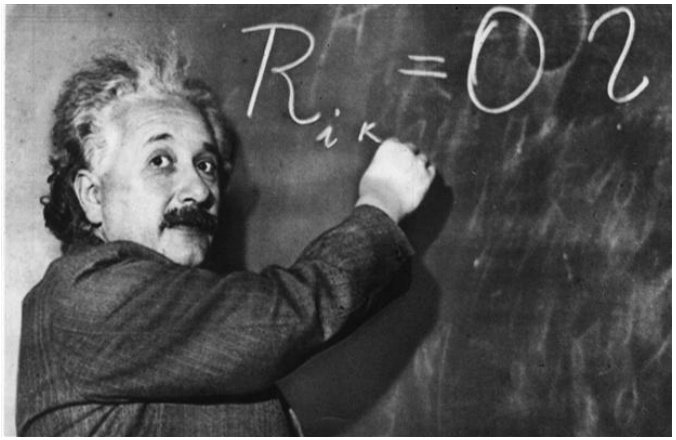


- "A nation which has forgotten its past can have no future". *Winston Churchill*
- "The distinction between past, present, and future is only a stubbornly persistent illusion". *Albert Einstein*

European collaborative experiences (before or beside HELICS)

- Council of Europe's recommendations (1974)
- The DANOP SSI surveillance software (Staten Serum Institue, DK)
- The WHO.CARE project (WHO Copenhagen)
- Several European surveys: ESICM, EURO-NIS, HARMONY, EPIC...

A WHO EURO workshop on the Cost of HAI organised by Anne-Marie Worning in IPH Brussels [around 1990].

Brussels Institute of Public health

Main meeting room

In the early 90's…

- HAI emerged gradually as a public policy concern at the same time at nat. and EU levels. The involvement of nat. health administrations, public health agencies and health organisations were recent and often moderate.
- Several European organisations were possible candidate for regional leadership on the subject.
- Confusion between "nosocomial" events and professional "faults" was usual, making the dissemination of data particularly sensible.

The HELICS co-operation

HELICS 1 94-95 1rst Standardised protocols (SSI, ICU)

HELICS 2 98-99 Inventory - Recommendations

98 Decision 2119/98 on surveillance

HELICS 3 99-02 Initial implementation

HELICS 4 03-04 Organisation. Routine.

IPSE 05-08 Global approach

05 Creation of ECDC

ECDC HAI-net 08 ECDC Implementation incl. HALT, TRICE…

HELICS 1 (1994-1995)

- Agreement ECC / DG V [Oct.1994-Dec. 1995]
- PMG: Raf Mertens, Ole Jepsen, Martin van den Berg, Jacques Fabry
- Objectives (summary):
  - To look at and improve comparability [between 4 existing surveillance networks]
  - To share experiences on the way results are used for feed-back, prevention and cost containment
  - Also to help the setting up of new networks and integration of nosocomial infection surveillance in the routine data handling of the hospital.

HELICS 1 (1994-1995)

- Workshops: Brussels (Nov 94), Utrecht (May 95), Lyon (Oct 95)
- Achievements: First definition of a standard surveillance system:
  - A draft protocol for SSI surveillance + a "surveillance network coordinator's guide" for I.C.U. with a tentative “minimum data set”.
  - Insisting on risk factors, rapid and effective feed-back, inclusion criteria, integration into the routine of health care and in the minimum requirements for health care evaluation.

HELICS 2 (1998-1999)

- Commissioned by EC DG V (tender) for a 15 months period (Jan. 1998- March 1999).
- PMG: Jacques Fabry, S. Cucic, B. Cookson, O.B. Jepsen, C. Suetens, R. Mertens, Brussels. With a scientific team in CBO, Utrecht, The Netherlands.
- Objective: In view of the Decision 21/19/98/EC and given the specific characters of the surveillance of NI, to obtain a detailed description of national strategies to combat nosocomial infections and to make proposals for further EU activities.

HELICS 2 (1998-1999)

- Six meetings in Brussels, Veyrier du Lac, Amsterdam, Luxembourg, Paris, Berlin. Two expert conferences in Paris (Nov 98) and Luxembourg (Jan 99).
- Achievements: "The HELICS Report" (1999) proposing:
  - A global initiative in a 'bottom-up' and 'step-by-step' manner with a real permanent organisation.
  - The organisation of consensus on critical aspects of NI surveillance and control, and the support to the setting up or adaptation of EU networks;
  - European training programmes;
  - A European epidemiological communication tool.

Sept. 1998

The decision 2119/98/EC

- Taken by the Euro Parliament and Council, in the context of the Maastricht treaty.
- "…to set up a network at Community level, to promote co-operation and co-ordination between member states … for epidemiological surveillance… early warning and response system for the prevention and control of … communicable diseases"

Sept. 1998

The decision 2119/98/EC

- including nosocomial infections and antibiotic resistance.
- The inclusion of the last two conditions within the list of “communicable diseases” has been the subject of debate.

HELICS 3 (2000-2002)

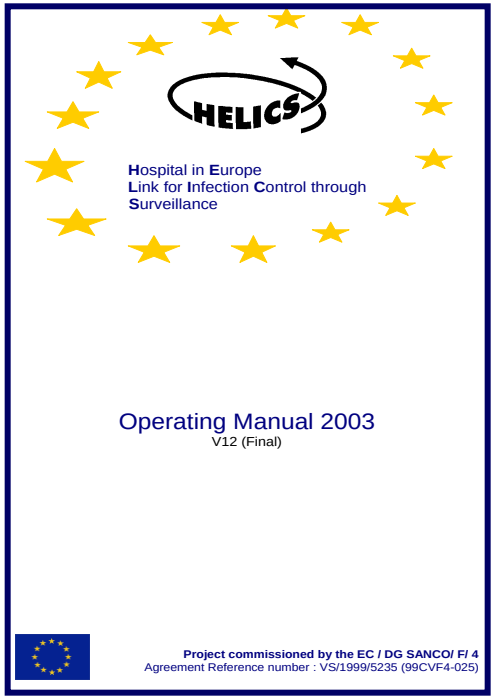
- Commissionned by EC DG SanCo for a 30 months period (Jan 2000-June 2002)
- PMG: Jacques Fabry, Barry Cookson, Annette De Boer, Petra Gastmeier, Ole B. Jepsen, José Rossello-Urgell, Carl Suetens, Philippe Vanhems.
- Objective: First implantation of the project within the context created by the decision 2119/98/EC. Focused on the harmonisation of existing European networks, solution of the technical problems and production of data.

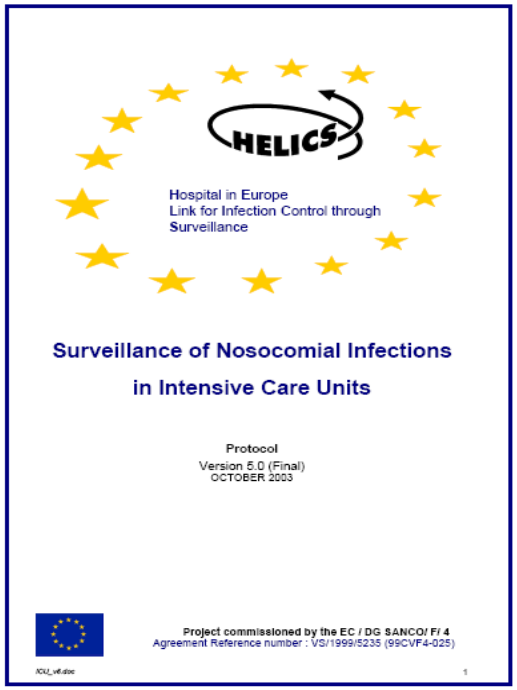
HELICS 3 PMG Meeting Lyon, June 2000

HELICS 3 (2000-2002)

- Four meetings in Lyon (June 2000), Brussels (Dec 2000), Paris (June 2001), Barcelona (June 2002).
- Achievements: The practical foundations for the network of networks.
  - Finalization and adoption of three master protocols:
    - for infections in ICU Patients (with two levels);
    - for Surgical Site Infections;
    - prevalence surveys.
  - Standard Operating Manual
  - Organization of two database
  - Inventory of European training programs on NI surveillance methods.

Revision, finalization and adoption of the HELICS protocols and manual





http://helics.univ-lyon1.fr/helicshome.htm

HELICS 4 (2003-2004)

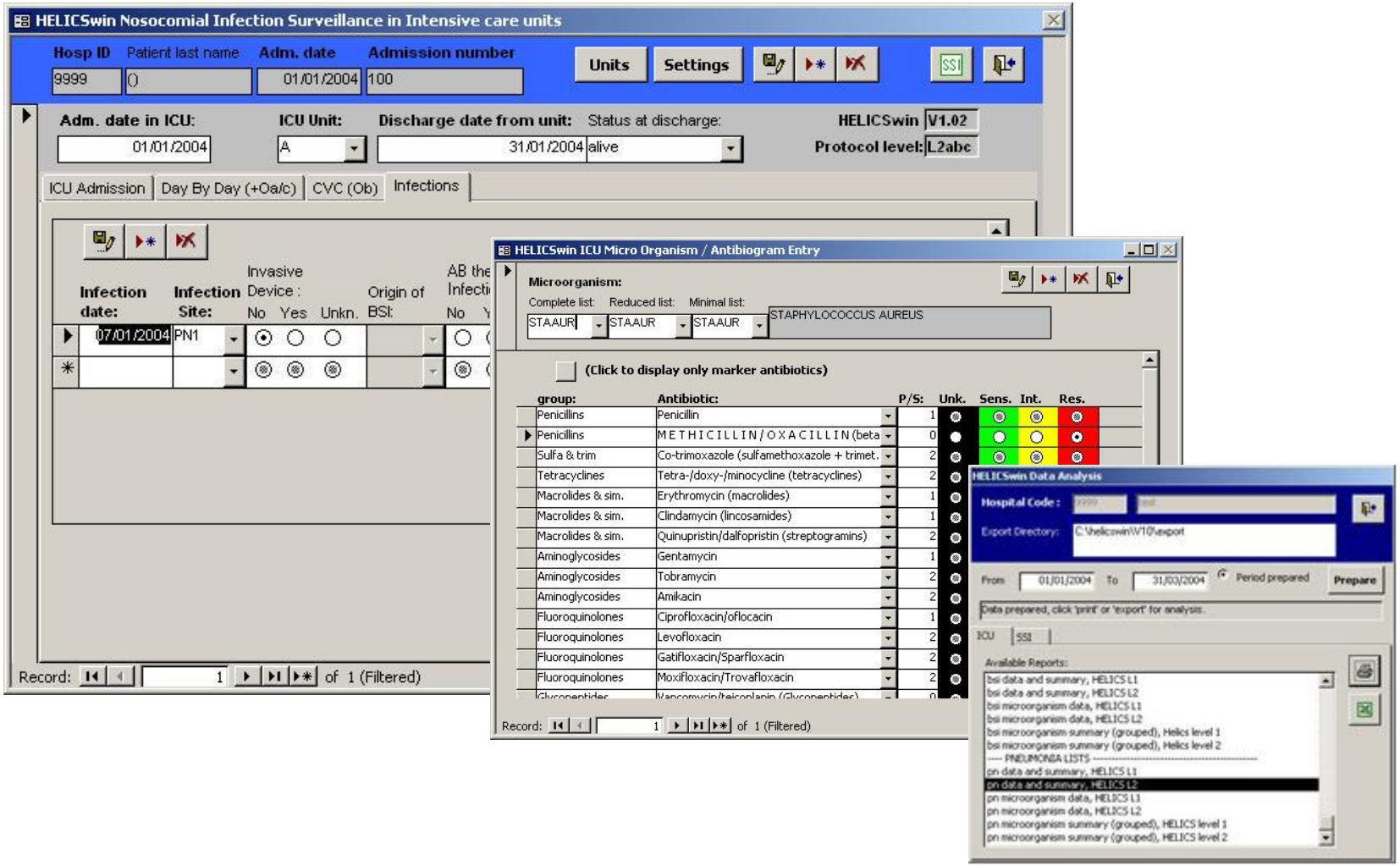
- Commissioned by DG SanCo for two years.
- PMG : Jacques Fabry, Ian Russell, Carl Suetens, Annette de Boer (2003), Susan van den Hof (2004), Petra Gastmeier, Barry Cookson, José Rossello.
- Objectives:
  Same as HELICS 3 plus development of an IT support system, organization of Training sessions and Site visits for supporting the development of new surveillance national networks.
- Four meetings in Lyon (Feb 2003), Brussels (May 2003), Brussels (Dec. 2003), Lyon (Nov. 2004)

HELICS 4 Workshop
Brussels, May 2003

HELICS 4 (2003-2004)

- Achievements:
  - HELICS IT system developed and two functioning European database (working with 10 countries).
  - Increased participation of countries.
  - A “Training the trainers” module (21 countries).
  - Complementary study linking NI rates to patient care quality parameters.
  - First reports ‘*Surveillance of nosocomial infections in intensive care units in Europe*’ and ‘*Surveillance of Surgical Site Infections in Europe*’ 2000 – 2003.

Screenshots of HELICSwin software



The HELICS Network of Networks (2004)

Scotland
SSI network

Netherlands
PREZIES RIVM
SSI Network

Germany
KISS SSI & ICU
Networks

Norway
SSI network

Finland
SSI network

Polands
SI network

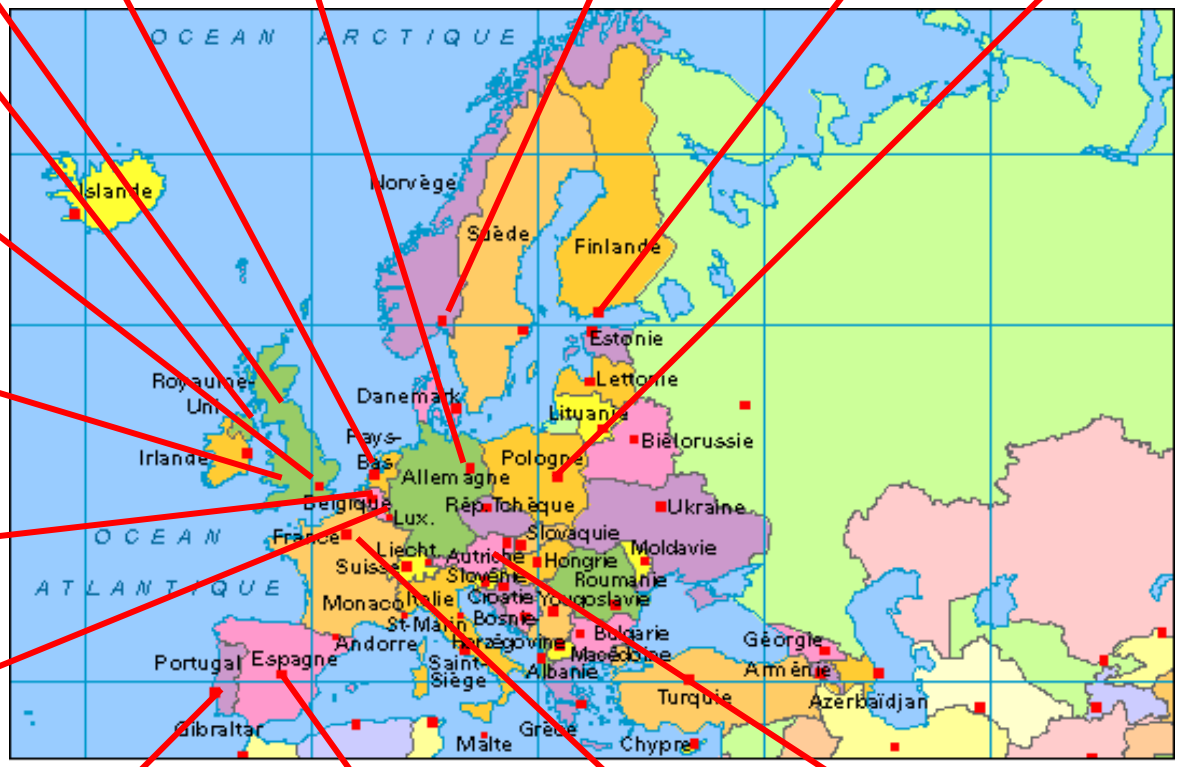
Northern Ireland
SSI network

England HPA
NINSS SSI network

Wales
SSI network

Belgium
NSIH SSI & ICU networks

Luxembourg
ICU network



Portugal
ICU network

Spain
Previn/Envin
SSI & ICU
networks

France InVS
RAISIN SSI &
ICU networks

Austria
ICU network

Projects
Czech Rep.
Hungary
Malta
Slovenia
…

IPSE (2005-2008)

IPSE
Improving Patient Safety in Europe

- Commissioned by DG SanCo (with WHO, ESCMID)
- Objectives: Resolving persisting differences across EU through a more ambitious project .
- PMG: Jacques Fabry, Maria-Luisa Moro, Andreas Voss, Ana Paula Coutinho, Uwe Frank, Hajo Grundmann, Hakan Hanberger, Carl Suetens, Barry Cookson.
- Five meetings: Copenhagen (Apr. 2005), Vienna (Nov 2005 & 2006), Lyon (May & Nov 2007).

Work Package	IPSE Improving Patient Safety in Europe	Work Package Leader
1	European Training for Infection Control Doctors and Nurses in connection	Claude Bernard University Lyon1
2	European Standards and Indicators for Public Health Surveillance and Technical Guidance for the Control of HAI and AMR	World Health Organization, Copenhagen
3	Event Warning and Rapid Exchange	RIVM, Bilthoven
4	Technical Support for Sustaining and Extending HELICS Surveillance of HAI	Institute of Public Health, Brussels
5	Improving Surveillance and Controlling Antibiotic Resistance in ICUs	Swedish Institute for ID Control
6	Providing Complementary Tools for the Study and Control of AMR in ICUs	Freiburg University Hospital
7	Feasibility Study of HAI Surveillance in European Nursing Homes	Regional Health Agency, Bologna
8	**Coordination and dissemination**	Claude Bernard University, Lyon

IPSE
Vienna, Ministry of Health
November 2005

The HELICS Network of Networks (2008)

Scotland
SHAIP SSI network
+ ICU pilot

Netherlands
PREZIES RIVM
SSI Network

Germany
KISS SSI & ICU
Networks

Norway
SSI network +
ICU pilot

Finland
SIRO SSI
network

Northern Ireland
HISC SSI network

England HPA
NINSS SSI network
+ ICU pilot

Wales
WHAIP SSI network
+ ICU pilot

Belgium
NSIH SSI & ICU networks

Luxembourg
ICU network

Lithuania
SSI & ICU
networks

Poland
SSI network

Slovakia
ICU network

Hungary
SSI network
+ ICU pilot

Portugal
SSI & ICU
networks

Spain
Previn/Envin
SSI & ICU
networks

France
RAISIN
SSI & ICU
networks

Austria
ANISS
ICU & SSI
networks

+ Pilot Activity : Ongoing & Planned
Bulgaria (BulNoso-ICU), Croatia (SSI & ICU),
Czech Republic (SSI),
Estonia, Italy (SSI & ICU, regional),
Malta (SSI) , Romania (SSI & ICU),
Slovenia (SSI).

IPSE (2005-2008)

IPSE
Improving Patient Safety in Europe

- A lot of achievements:
  - A survey on IC training in 28 countries and consensual definition of competencies for ICP.
  - A set of Performance indicators to monitor progress in IC policy.
  - The extension of surveillance: 22 networks.
  - Four training sessions. Site visits.
  - A description of IC in LTCF in 26 countries.
  - A protocol for surveillance in LTCF (prevalence)

Creation of the European Centre for Disease Prevention and Control (ECDC)

Starts operating in 2005

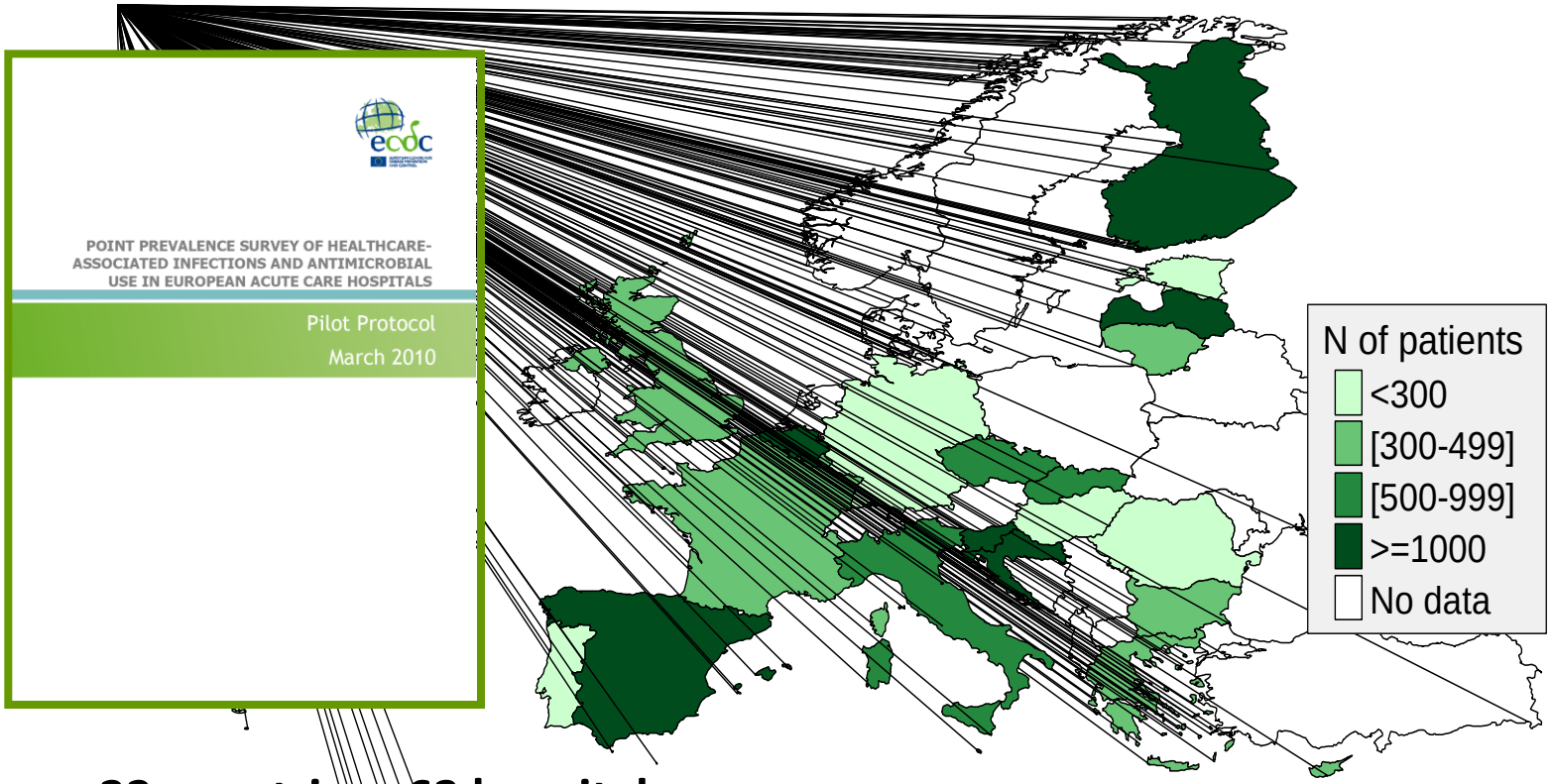
IPSE → ECDC July 2008

- The IPSE project was preparing the transition to ECDC which was tanking in charge progressively the responsibility of the DSN (Designated Surveillance Networks).

IPSE - HAI.net transition

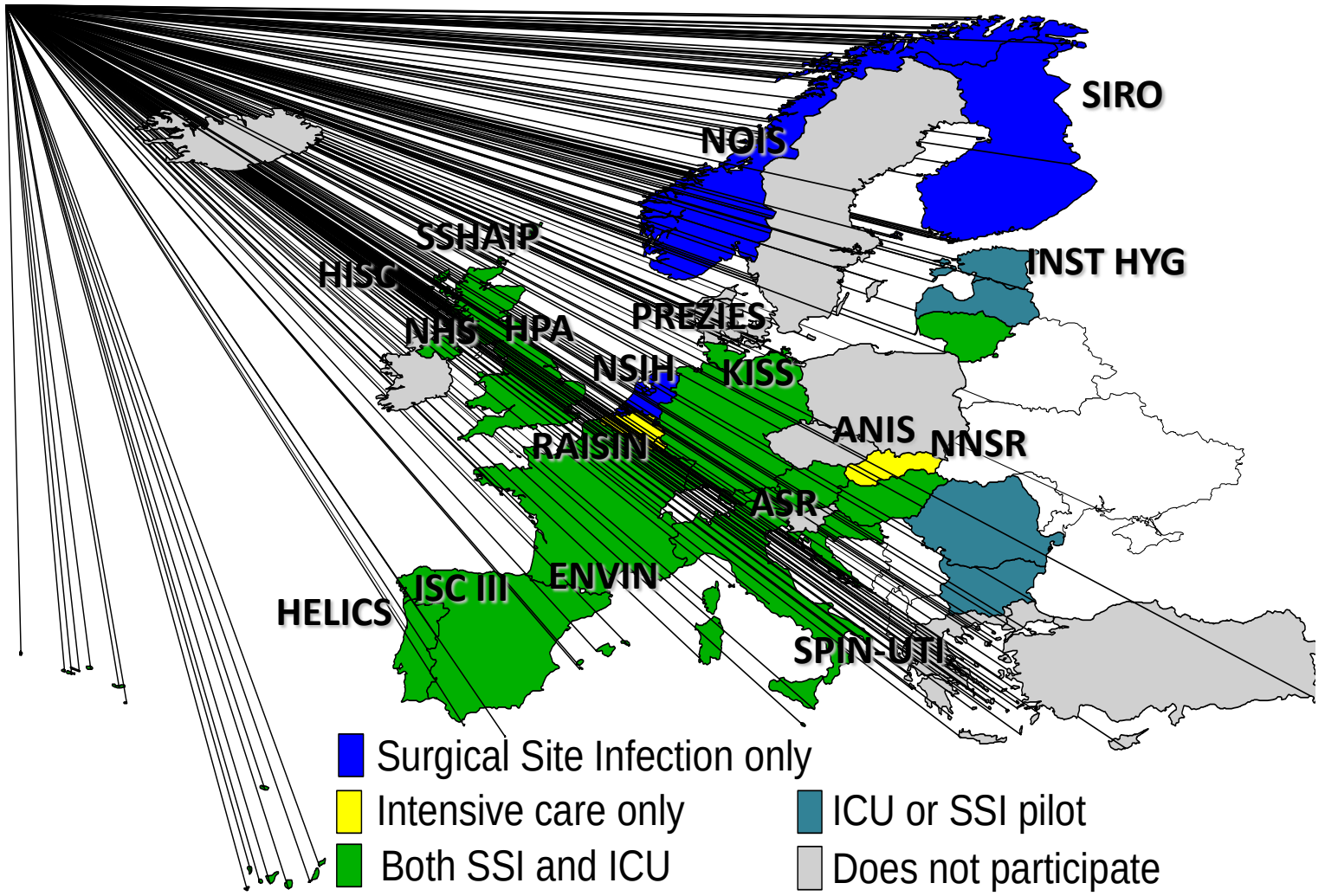
WP1 Infection Control Training	2 ECDC CfT: ☞ IC training needs assessment ☞ PPS training module
WP2 Standards & Indicators	ECDC - SPI surveillance
WP3 Nosocomial Warning	ECDC EPIS
WP4 SSI & ICU surveiillance	ECDC HCAI surveillance : ICU-module in TESSy + SSI surveillance+ + HELICSwin support, TESSy training
WP5 CARE-ICU (AMR & AB)	ECDC: EU PPS of HAI (& AB use) in hospitals + Call concordance study HAI case definitions
WP6 ICU tools (typing)	ECDC CfT MRSA typing
WP7 HAI in Nursing Homes	ECDC CfP HCAI surveillance in LTCF (HALT)

Participation in 2010 pilot PPS of HAI and antimicrobial use in European hospitals



- **22 countries, 63 hospitals**
- **Unit-based protocol: 15**
- **Patient-based protocol: 48**
- **N of patients: 17900**

HAI-net surveillance of surgical site infections and/or ICU-acquired infections in 2010

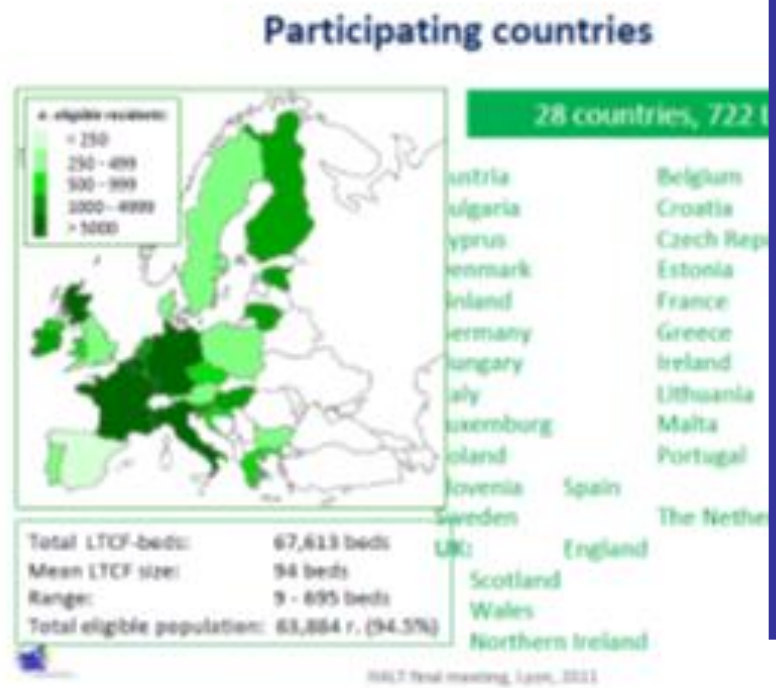


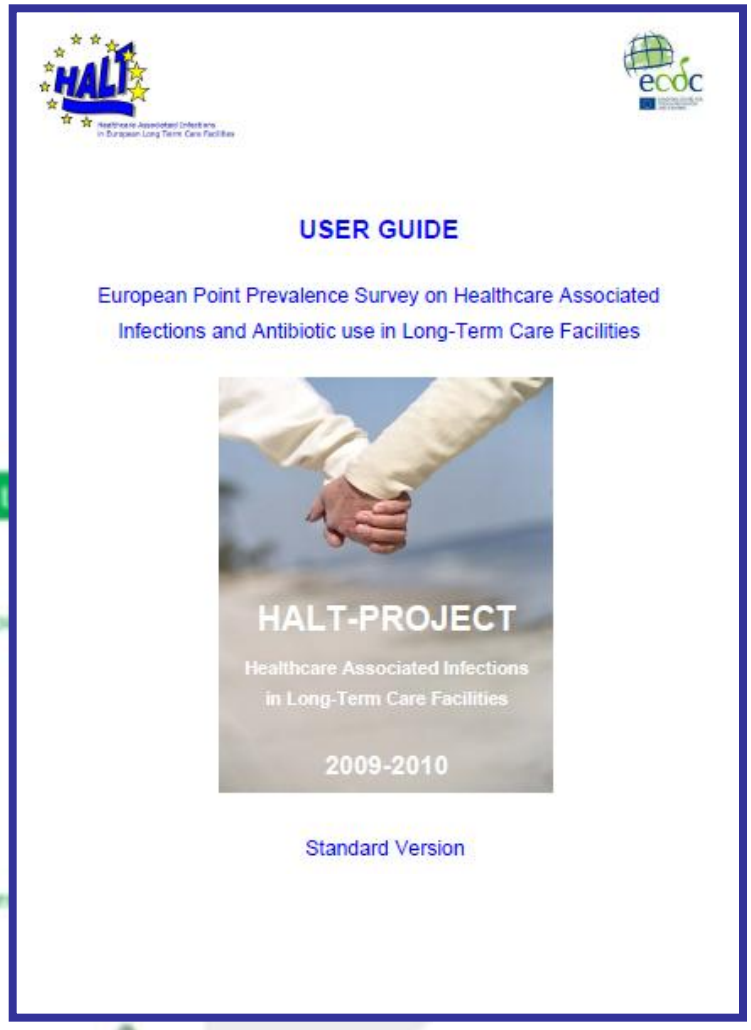
HALT Workshop Brussels, April 2010

HALT project

28 countries

722 facilities

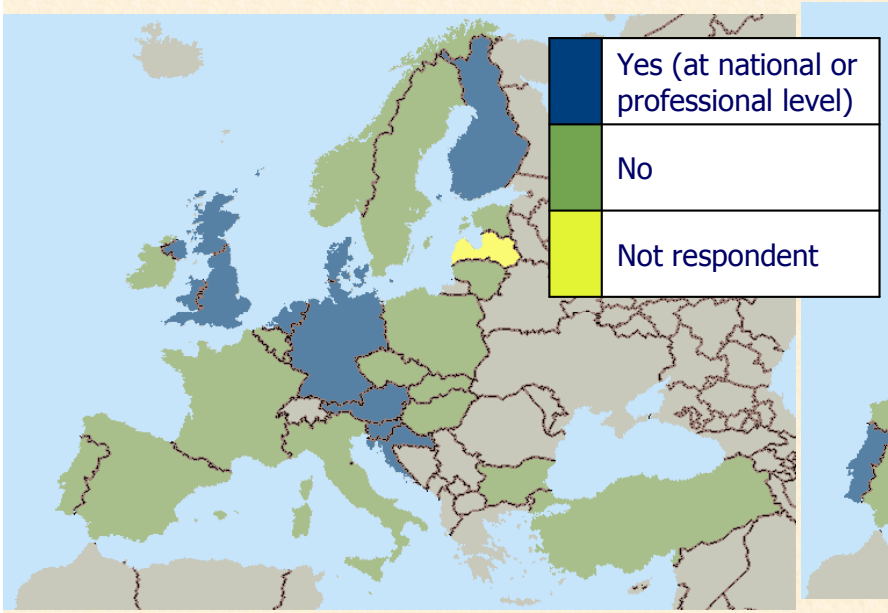




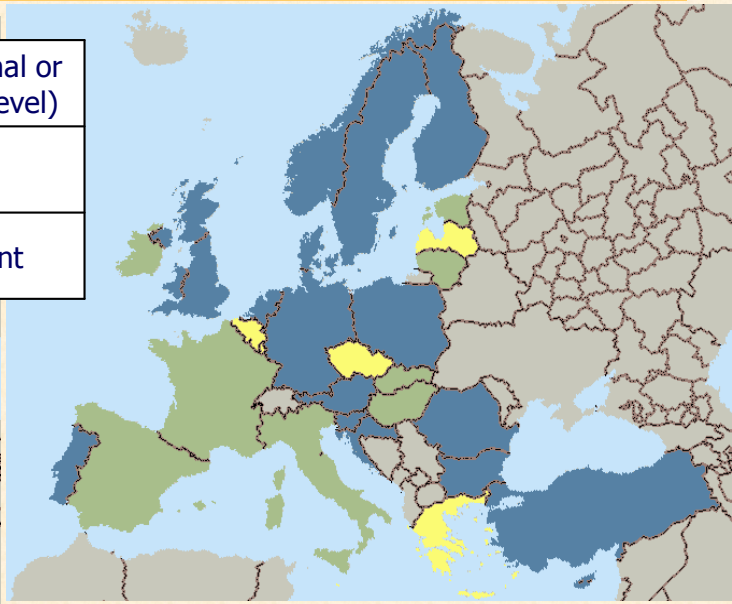
TRICE project

Attention to training IC/HH professionals is increasing in Europe

Presence of National Curriculum or Programme for training IC/HH Doctors



(IPSE 2006)



(TRICE 2010)

32.6% (10/31)	57.6% (19/33)

TRaining Infection Control Europe

Strengths

- To rely on the wealth of previous experience and on a lively network of professionals and scientists working 'in the field' and 'on the ground'. Effective communication with national institutions.
- To balance scientific relevance and practical feasibility. To make an effort to make available tools for field data collection and web communication.
- The impressive number of different projects included in HAI-net is evidence of a dynamic ECDC in this area.

Weaknesses

- Relying too much on previous experience could exclude other innovative strategies. Limited contribution to risk management (root analysis) and quality improvement.
- Validity, reproducibility and cost-effectiveness did not receive enough attention.
- Failure to foster a reactive alert system linked to surveillance activities and accessible to professionals.
- The HAI-net package does not yet offer a completely integrated and coherent approach responding to the needs of healthcare systems and facilities.

Perspectives (1)

- Expertise: participation to be constantly renewed and opened to new approaches, and to healthcare professionals.
- To assess and assure the quality and reproducibility of the data, and the cost-effectiveness of data collection. Encourage the integration of surveillance in existing healthcare information systems.
- To allow rapid and open communication on new and threatening nosocomial events.

Perspectives (2)

- Consider new issues for HAI surveillance when the first four (SSI, ICU, HALT, CD) will be stabilized.
- Try to tie up surveillance with quality improvement and risk management activities.

- Communication: Present the different ECDC initiatives as a joined up and seamless package allowing healthcare organisations to develop their strategy to improve patient safety.