# **TWINNING INTERIM QUARTERLY REPORT**

## No. 4

## Strengthening the surveillance and control of Communicable Diseases

Member State Partners

The Netherlands Ministry of Health, Welfare and Sport, The Netherlands School of Public and Occupational Health (NSPOH)

**Beneficiary Country Partners** 

Ministry of Health of the Slovak Republic Public Health Authority of the Slovak Republic

March 2006

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## Section 1. Project data

Twinning Contract No.	SK03/IB/SO/01
Project title	Strengthening the surveillance and control of communicable diseases
Twinning partners	Ministry of Health, Welfare and Sport (NL) Ministry of Health (SK)
Report No.	4
Period covered by the report	14 November 2005 – 13 February 2006
Duration of the project	21 months
Rapporteur Member	State Rapporteur Beneficiary Country

Mr Geert van Etten, project leader

Ms Zuzana Škublová, project leader

## Section 2. Content

## Background

## **Policy development**

The new Act of Public Health including a list of mandatory reported infectious diseases was adopted by National Council of the Slovak Republic in January 2006 with validity as of the 1<sup>st</sup> of June 2006. By acceptance of this act, the number of Regional Public Health Authorities will not change. Therefore the new act will neither have any impact on the number of work-places nor on the job content of RPHAs related to surveillance and control of communicable diseases. The draft of a new Decree of the Government of the SR on further details on prevention and control of communicable diseases has been prepared and should be adopted by June 2006.

At the end of February 2006 Mr. Valašek started his work at the Public Health Authority of the Slovak Republic as the new Chief Hygienist.

## Achievements of mandatory results

The following **Benchmarks** were achieved in the reporting period:

Component I

- Document on the specification of the information system for the surveillance and control of CD. ToR for TA as a service contract.
- Document on the technical framework for the information system concerning the surveillance and control of CD. Technical specification developed.

Component II

 As part of the training programme, the 3<sup>rd</sup> specialist of 4 specialists of NRC's undertook a two weeks internship in Dutch or German institute with focus on quality control systems and one employee undertook one week training more.

This benchmark was partly achieved, because one specialist still has been unable to undertake the internship. The internship of this specialist will take place between the 27<sup>th</sup> of March and the 14<sup>th</sup> of April 2006. Hence, this Benchmark will be completed by the middle of April 2006.

Component III

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The following **Mandatory Result** was completed in the reporting period: *Component I* 

 The basic concept for the future information and reporting system, which is central to the Slovak monitoring system of communicable diseases harmonised with EU standards. The basic concept for the future information and reporting system is a partial result of the project.

Component II

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Component III

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## Activities in the reporting period

On 19 December 2005, the 3<sup>rd</sup> Meeting of the Steering Committee took place at the Ministry of Health of the Slovak Republic. See annex 1 for the minutes of this meeting for which a draft was first circulated to all members for comments which then have been integrated into this new version.

On the 17<sup>th</sup> of January a meeting was held between the BC project leader Mrs. Škublová, the BC project manager, Mrs. Krištúfková, RTA, Mrs. Aalders and RTA assistant Mrs. Ráčková at the Ministry of Health. Topics discussed were a.o.: Possibilities for the extra money left from the RTA budget, Consultation day and involvement of STE prof. Galama, Mrs. Waijboer's (un)availability for future missions.

These meetings will be held regularly. The next meeting will take place on the 1st of March.

On the 23<sup>rd</sup> of January a meeting was held between the BC project manager, Mrs. Krištúfková, the Coordinators for component I and II, Mrs. Bosá and , Mrs. Avdičová, RTA, Mrs Aalders and RTA assistant Mrs. Ráčková. Prof. Nikš, coordinator for Component III was absent. Topics discussed were a.o.: Restart of project and update by RTA, updates of different components by coordinators, Consultation day, proposals for RTA budget, 4<sup>th</sup> Steering Committee.

These meetings will be held regularly. The next meeting will take place on the 2<sup>nd</sup> of March.

Concerning the issue of the savings of the period of RTA absence, mentioned in the previous Quarterly Report, the Component Coordinators came up with a list of proposals. These were sent to the Dutch partners who commented on them and they were then forwarded to the Slovak Project leader, Mrs. Škublová, who at the moment is in the process of discussing them with the CFCU.

## Component I

By the end of November 2005 the tender procedure was closed and the contract of development of SW was made with the company SOFTEC.

After the contract was signed, the activities 1.8 and 1.9 could take place.

Activity 1.8 Development of a specification of the information system(s), including the mechanisms for generating, distributing, updating and evaluating information within the identified areas and taking SOP, QA/QC principles into account. Defining the links between laboratory data from NRC's and CD database. Preparation of ToR for TA & training (Service contract).

Mr Matthias Otto (NSPOH / KinderUmwelt Germany) was involved in this activity on behalf of the Member State-partner.

The following experts from the Slovak Republic participated in meetings with Mr Otto:

- Ms Z. Krištúfková, Head Department of Infectious Diseases Control, Public Health Authority of Slovak Republic / Project Manager
- Ms M. Avdičová, Head Section of Epidemiology, Regional Public Health Authority Banská Bystrica / Co-ordinator component I
- Ms F. Hrubá, Head Section of Informatics and Health Statistics, Regional Public Health Authority Banská Bystrica / Deputy Co-ordinator component I
- Mr K. Accipiter, IT manager Section of Informatics and Health Statistics, Regional Public Health Authority Banská Bystrica
- Ing. J. Mackay, Dr. L. Sesera, Mgr. M. Nemcova 3 representatives of SOFTEC Slovakia
- Ms J. Bosá, Head Section of Medical Microbiology, Public Health Authority of Slovak Republic / Co-ordinator component II
- Dr. Darina Lopušná, Chief Hygienist of the Slovak Republic, Public Health Authority of Slovak Republic Bratislava
- Participants of the workshop (December 15, 2005)
- Participants of the workshop (December 16, 2005)

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The visit took place from 11 – 17 December 2005 at the Regional Public Health Authority in Banská Bystrica.

Activity 1.8 was focussed on contacts and discussions with SOFTEC Slovakia, the successful candidate in the tender for software development.

On December 12, 2005 a meeting between Dr. Avdicova, Dr. Hruba, Ing. Accipiter and the STE with 3 representatives of SOFTEC Slovakia (Ing. J. Mackay, Dr. L. Sesera, Mgr. M. Nemcova) took place.

The present way of reporting infectious diseases at the local, regional and national level was discussed both from a conceptual and a technical (EPIS-System) point of view. Also, the data field structure of the paper-based "File of epidemiological investigation" (LEV) as well as of the "File of nosocomial infections" was analysed.

Other issues which were discussed comprise a classification of cases into 3 categories (suspected/probable/confirmed case) and the handling of related cases (e.g. related by their etiology). The identification of reporting subjects should be based on the National Register of Physicians and Hospitals (including hospital departments) etc.

On December 13, 2005 a meeting between Dr. Z. Kristufkova, Dr. Bosa (UVZ, Bratislava), Dr. F. Hruba (RUVZ, Banska Bystrica), Dr. Hierweg, Dr. Sesera, Ing. Franzova (SOFTEC Slovakia) and Dr. M. Otto (STE, Osnabrück) at the Institute of Public Health Bratislava took place.

Issues discussed comprise the bulk reporting of influenza and flu-like diseases as well as the presently used ISHEM data base which was presented to SOFTEC. The basic functionalities of ISHEM comprise the processing of bulk influenza reports at the local, regional and national level, a check for completeness of reports and certain predefined graphic representations.

The web portal of the Early Warning System will comprise both early warning messages and scientific publications.

A system notifying/alerting key persons via e-mail or short messages will be developed.

Incoming messages from the European Early Warning System will be stored and displayed in a way, that their priority text, commands and message history become visible.

A "semaphore" or "traffic light" indicator will provide a quick overview on the actual status for a given disease

On December 15, 2005, a workshop on the menue-structure on the forthcoming register of infectious diseases took place at the RUVZ Banská Bystrica. Participants came from the Regional Public Health Offices at Banska Bystrica, Trencin, Liptovsky Mikulas, Bratislava, from the Institute of Public Health of the Slovak Republic Bratislava, and from SOFTEC and Kinderumwelt Ltd. Three work groups established in August 2005 were represented, i.e. work groups on zoonoses, STD and nosocomial infections.

Three systems were presented: The Dutch ISIS/OSIRIS System

The German SurvNet System

The EPIS Slovakia System

The following agreements were made:

• Dutch system: it is advisable to seek information on the module used at the GGD for the local case management

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- The (informal) offer of RIVM to share ISIS/OSIRIS software and know-how with their Slovak colleagues should be kept in mind.
- German system: if considered to be necessary, a contact to the SurvNet Developer Team can be established.

This workshop continued on December 16, 2005.

Mr Otto's full mission report can be found in annex 2.

Activity 1.9 Development of a technical framework, including recommendations on hardware (Technical specifications for Supply contract), software, data-format, issues of security, accessibility, access control, availability and technical management

Specific requirements from component co-ordinator:

- To check the analysis made by SOFTEC company.
- To prepare proposal of analytical outputs from program according to example of German analysis.

Mr Matthias Otto (NSPOH / KinderUmwelt Germany) was involved in this activity on behalf of the Member State-partner.

The following experts from the Slovak Republic participated in meetings with Mr Otto:

- Ms Z. Krištúfková, Head Department of Infectious Diseases Control, Public Health Authority of Slovak Republic / Project Manager
- Ms M. Avdičová, Head Section of Epidemiology, Regional Public Health Authority Banská Bystrica / Co-ordinator component I
- Ms F. Hrubá, Head Section of Informatics and Health Statistics, Regional Public Health Authority Banská Bystrica / Deputy Co-ordinator component I
- Mr K. Accipiter, IT manager Section of Informatics and Health Statistics, Regional Public Health Authority Banská Bystrica
- Ing. L. Sesera, representative of SOFTEC company
- Ing. M. Nemcova, representative of SOFTEC company

The visit took place from 29 January – 3 February 2006 at the Public Health Authority of the Slovak Republic in Bratislava and the Regional Public Health Authority in Banská Bystrica.

Specific expected results from component co-ordinator:

• Finalizing the final version of terms of reference for the program including analytical outputs for company developing the software.

This mission concentrated mainly on the analysis made by SOFTEC Company of

- functional requirements
- data flows
- collection, storage and evaluation of data
- requirements on performance, accessibility, security and management

of the forthcoming information system ("new EPIS") on communicable diseases.

On January 31, 2006, SOFTEC (L. Sesera, M. Nemcova) presented an introduction into the results of the analysis phase to M. Avdicova, F. Hruba, K. Accipiter and the STE. Both a hardcopy and an electronic version of their report were handed over. The working group mentioned above was asked to critically read the report while paying special attention to chapters 4,7,12, 13 and appendix A. Comments and requests for modifications were requested till Feb. 03, 2006.

February 1, 2006: M. The members of the working group mentioned above agreed to individually read the report (165 pages) and to discuss all personal comments together on the following day. Quite a large number of remarks and requests for modifications were made.

Conclusions that can be drawn from this discussion are the following:

The SOFTEC report on the analysis of data flows and functional requirements for the new EPIS (version of January 27, 2006) is a comprehensive description both of the status quo and of the envisaged new information system with respect to its architecture, changes in workflow, functional requirements and examples of screens for typical applications. It also includes basic information on the technical realization, on data migration, security aspects and a risk analysis.

Mr Otto's full mission report can be found in annex 3.

Due to lack of availability of the STE Dr Timen, activity 1.10 has been postponed and will take place from February the 13<sup>th</sup> until February 17<sup>th</sup>. The report on this mission will follow in the 5<sup>th</sup> Quarterly Report.

## Other activities

New activity introduced under activity 1.8 Two-day internship on automated surveillance systems for two BC experts

From 4-7 December 2005 the internship of Ms Hrubá - Head Section of Informatics & Health Statistics, RPHA in Banská Bystrica and Ms Maslenová - Head Section of Epidemiology, RPHA in Liptovský Mikuláš took place at the RIVM. The aim of this internship was to study the ISSIS reporting system on communicable diseases. Conclusions

- OSIRIS is a very flexible system, able to be customized for any public health environment.
- Dr. Bosman mentioned an option to deliver the OSIRIS system to Slovak public health network, as the government institution.

#### Evaulation

Even a short visit, it was helpful to clarify technical issues, which were not clear from the first study visit.

• We did not understand how to continue with a possible use of the OSIRIS in the Slovak environment of the infectious diseases surveillance.

See following annexes for detailed information on this internship:

Annex 4 – Side letter No. 3 (sent to CFCU on 29<sup>th</sup> of November and approved)

- Annex 5 Draft programme
- Annex 6 Itinerary
- Annex 7 Mission report

As part of *activity 1.7* a questionnaire survey among physicians and laboratories has been completed and evaluated in this reporting period.

Results of questionnaire's study are as follows:

466 questionnaires from 30 Regional Public Health Authorities in Slovakia were processed.

Fundamental determinations:

- More than 3/4 of general practitioners report infectious diseases according with legislation.
- 2/3 of general practitioners have connection to Internet.
- 60% of general practitioners think that free message management system can simplify and improve reporting. 16% of general practitioners think that arranging of their SW can simplify and improve reporting.
- 67% of general practitioners for children and 73% of general practitioners for adults, but only 25% of specialists and 50% of general practitioners in hospitals get plenty of information about the occurrence of infectious diseases.
- 97.1 100% of general practitioners are interested in backward information.

Conclusions:

- 1. Building of interface for reporting of infectious diseases through connection to the website seems to be legitimate and useful.
- 2. Opening of information about the occurrence of infectious diseases on website EPIS will be probably effective.

Graphs related to this questionnaire survey could be found in annex 8.

## Component II

By the end of November 2005 the tender procedure was closed and the contract for the supply of HW was signed with company TEMPEST. The contract of supply of laboratory equipment was signed with the Czech company VITRUM, which is in Slovakia represented by Mr Šimovič. Laboratory equipment delivery at PHA SR in Bratislava, Regional PHA in Banská Bystrica and Regional PHA in Košice was divided into three phases. First phase has been fulfilled partly; second phase will be finished in week 11 of 2006 (complete delivery for Košice and Banská Bystrica and partly for Bratislava in new reconstructed area). Half of the area still needs to be reconstructed therefore delivery into this part will be realised after its reconstruction. Estimated delivery finalization is in August 2006.

No activities took place during this reporting period, which was also the case during the previous quarter.

Activity 2.5, scheduled for September-November, has not been taken up as yet. Firstly because it was not convenient for the component coordinator who was very busy with the documentation for the accreditation process. Secondly because the expert was not available in December. This activity is now scheduled for one expert, Mr. Galama, from the 27<sup>th</sup> of February till the 1<sup>st</sup> of March 2006. The mission report will follow in the 5<sup>th</sup> Quarterly Report.

The second expert for activity 2.5, Mr. Melchers, who will replace Mr. van Soolingen for activities 2.5 and 2.6, (Side letter No. 5, will follow in 5<sup>th</sup> Quarterly Report) will come in April 2006 to carry out activity 2.5.

The third expert for activity 2.5, Mrs. Wendy Waijboer, is not able to come anymore, because she is now working at another institute that does not allow her to work abroad.

This was discussed with the coordinator component II and it was decided that this mission can be combined together with the other activities in which Mrs. Waijboer is involved (activities 2.6, 2.7 and 3.3, 3.4) and as such can be scheduled later.

The component coordinator has suggested another Dutch expert in quality systems, mrs .de Schipper-Visser from the University of Leiden to come instead of Mrs. Waijboer. This person will be contacted as soon as possible by NSPOH.

Due to the postponement of activity 2.5 the second phase (development) of Component II could not be completed.

Activity 2.6, scheduled for the period October-January, has not been taken up as yet (see above).

As part of the training programme within activity 2.3, NSPOH together with RTA office prepared an internship of Dr. Gavačová. The internship took place from 15-26 November at RIVM in Bilthoven (BSL3/4 labs, microbiological labs), the laboratory on campylobacter in Lelystad and the microbiological lab in Nijmegen.

The study visit was focused on the following learning objectives:

- PFGE (Pulsed-field gel electrophoresis).
- EHEC/VTEC: Direct detection in stool samples
  - Serotyping
  - Verotoxin production testing by Vero-cell assay
  - Virulence typing by the DNA dot- blot hybridization technique
    - Virulence factors detection
  - PFGE.

- Salmonella spp: Serotyping, genotyping methods.
- Campylobacter spp: Direct detection in stool samples, serotyping, PFGE.
- BSL 3 / 4 Laboratory: lab design and facilities, lab equipment, lab protective personnel equipment, staff education, health and medical surveillance, training in lab procedures, detection of biological agents in environmental and biological samples (screening methods, culture, RT-PCR diagnostics).

Mrs. Gavačová's conclusions and evaluation on her internship are not only positive. Due to limitation of available time on the Dutch side and other reasons it was not possible to realize the whole programe.

However, participation in this internship enabled her to get an overview about the realization of detection methods used for surveillance of pathogens causing enteric infections.

The possibility to compare equipment and facilities of laboratories visited with laboratories in the Slovak Republic was felt by her as very valuable, aswell as getting knowledge on new diagnostic techniques and professional contacts.

See the following annexes for detailed information: Annex 9 – Programme Study visit Mrs. Gavačová Annex 10 - Mission report Study visit Mrs. Gavačová

The internship of Ms Adamčáková is still in the phase of waiting for a signal from the respective visiting institution (Virology laboratory of prof Osterhaus in Rotterdam) when the best time for internship is. The purpose is to organize an internship during the high influenza season (end of the winter / early spring). It is agreed that NSPOH will announce once the preparations will start, at the latest 3 weeks in advance in order to properly arrange leave and flight ticket of Mrs. Adamčáková by PHA SR and RTA office.

Note: At the time of finalizing this report it was clear that the study visit will take place between the 27<sup>th</sup> of March and the 14 th of April. As mentioned above, Mr. Melchers, a molecular microbiologist from The University of Nijmegen, The Netherlands, will replace Mr. van Soolingen for the activities 2.5 and 2.6. (Side letter and mission report will follow in 5<sup>th</sup> Quarterly report). Although Mrs. Bosá in the previous Steering Committee meeting said that she wanted to wait with a request for a molecular microbiologist until the accreditation process was finished, she now expressed the need for such an expert to come earlier.

## Component III

No activities took place during this reporting period, which was also the case during the previous quarter.

Activity 3.3, which was planned to be completed by August, has not been taken up and for this reason the second phase (development) of component III has not been finalised.

As mentioned above, due to Mrs. Waijboer unavailability to work for the project, activities 3.3 and 3.4 are again postponed. At this moment it is not clear yet who will replace Mrs. Waijboer.

According to the component coordinator the above does not pose a problem and it does not have an impact on the realisation of the project. The activities can and will take place anyway, also without an STE.

On 11 November a meeting took place with component coordinators II and III, the project manager and the heads of the NRCs to discuss the situation and to decide what should be done with component III. An action plan was formulated consisting of four items with dead-lines. The following is an update of these items:

1. Preparation SOPs for each part of external quality assurance

Fulfilment: SOP for organisation and structure of PHA SR EQAS (Public Health Authority of the Slovak Republic External Quality Assurance System) has been prepared by Doc. Nikš (English version, see Annex 11).

Preparation of SOPs for target NRCs have been done partially (Dr. Gavačová, Dr. Tietzová finalize their SOPs in correlation of comments) Estimated date of finalization: 30.3.2006.

2. Controlling SOPs and its finalising

SOPs have been controlled by the quality manager. Dr. Gavačová and Dr. Tietzová will finalize their SOPs according to these comments. Deadline: 30.3.2006.

3. Preparation estimated financial ensuring of pilot project

The following was put as a proposal for extra money for component III:

Preparation of proficiency panel for external quality within the pilot project requires purchase and preparing of transport media, transport boxes and courier service.

However, financing of such a proposal, i.e. the purchasing of goods, is not possible within a Twinning project.

The coordinator mentioned that the transport is already sent and financed with money from the PHA.

4. Preparation of documents for the possibility of ensuring workplaces at RPHA in Banská Bystrica and RPHA in Košice by cell cultures: PHA SR Bratislava (Laboratory for preparing cell culture – Section of medical microbiology) has started to ensure workplaces at RPHA in Banská Bystrica and Košice by cell culture since January 2006.

## Timing & Delays

## Adherence to time schedule<sup>1</sup>

The adherence to the time schedule is expressed in the following table:

1

Activity planned Activity implemented Activity delayed by more than 3 months

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Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Activity Component 1																					
Activity 1.1																					
Activity 1.2																					
Activity 1.3																					
Activity 1.4																					
Activity 1.5																					
Activity 1.6																					
Activity 1.7																					
Activity 1.8									1		1										
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Activity 1.10																					
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Activity 1.13																					
Activity 1.14																					

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Component	2																				
Activity 2.1																					
Activity 2.2																					
Activity 2.3											1										
Activity 2.4																					
Activity 2.5																					
Activity 2.6																					
Activity 2.7																					
Activity 2.8																					

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
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	1	1 2	1 2 3						1 2 3 4 5 6 7 8 9	1  2  3  4  5  6  7  8  9  10	1 2 3 4 5 6 7 8 9 10 11	1  2  3  4  5  6  7  8  9  10  11  12	1  2  3  4  5  6  7  8  9  10  11  12  13	1  2  3  4  5  6  7  8  9  10  11  12  13  14	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19    .  <	1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20

## **Recuperation of delays**

There are delays in implementing activities in Components II and III: activities 2.5 and 2.6, and activities 3.3 (more than three months) and 3.4.

An overview of the missions of the experts as originally planned is attached as annex 12.

## Assessment

#### **Overall assessment of progress**

There have been delays in implementing activities in all three components: in component I because it was felt to be better to wait for the selection of the supply company, in component II because of the lack of capacity on the Slovak side due to the preparation of the accreditations process and because of unavailability of some Dutch experts, and in component III because of the lack of clarity about how to organize the external quality and because of unavailability of the Dutch expert.

#### Component I

There has been no negative impact caused by delays of activities within this component because these were made by purpose. The reason was to adjust missions in order to wait for the tendering procedure to be completed and subsequently to work on developing the software with selected company Softec. Involved short-term expert was a useful help for discussion on first Softec outputs and analysis for assessment of planned steps.

#### Component II

The accreditation process runs according to rules and policy of the Slovak National Accreditation Service. Delays in implementing activities or exchanging related short-term experts have no negative impact on running of this component.

#### Component III

Organizing of external quality runs according to agreements and conclusions made with the working group. This component will finish with the pilot project as planned in the project schedule. No negative impact caused by delays of activities or exchanging related short-term expert.

#### Issues

On the 14<sup>th</sup> of September 2005 Ms Škublová announced to all relevant institutions the selection of Ms Aalders as the new RTA.

The notification of the Addendum concerning the inclusion of a new RTA to the project was agreed upon on the 5<sup>th</sup> of December 2005 (Annex 13 – Addendum no. 1). Due to the Christmas holidays and commitments in her home country, Mrs. Aalders could not immediately, as from the date of notification, start her work as RTA in Bratislava. Therefore she commenced on the 6<sup>th</sup> of January 2006.

#### Recommendations

#### Component I

The specific recommendations from the mission report of Mr. Otto for activity 1.8 are as follows:

The following conclusions related to the forthcoming register of communicable diseases have been obtained:

 The data in the now outdated EPIS-System are of high quality. Thus they should be preserved and made available in the new system, e.g. for future analyses of long term trends.

- The envisaged architecture of a central data base accessed via a web module will overcome shortcomings of the present EPIS-System which relies on (numerous) distributed local data bases.
- The data fields in the forthcoming electronic register of communicable diseases should correspond as closely as possible to the data fields used in the paper-based blanks (e.g. name of responsible official, measures taken, contact, case management/version).
- A web-based flexible analysis and presentation of data according to different criteria, e.g. disease, etiology, age and gender distribution as well as spatial (GIS) and temporal patterns is a top priority matter. To the general public, only aggregated data should be made available.
- The register should be flexible enough to accommodate new medical knowledge. Appropriately qualified operators should up to a certain extent be able to modify menues and/or static information.
- The system should enable a flexible data export to EU-networks

Other issues which were discussed comprise a classification of cases into 3 categories (suspected/probable/confirmed case) and the handling of related cases (e.g. related by their etiology). The identification of reporting subjects should be based on the National Register of Physicians and Hospitals (including hospital departments) etc.

For activity 1.9, Mr. Otto presented the following recommendations:

## Concerning the SOFTEC report:

The report should be revised, e.g. with respect to some work flows, functionalities, ROLES and FUNCTIONS. The purpose of the NRC information system is not clear yet and should be re-defined.

Other recommendations:

- Involve a broad(er) group of future users in the revision of the analysis report and later also in the pilot testing phase
- In addition to criteria for the "lean client technology" web design criteria from the viewpoint of computer workplace ergonomics should be observed, too (i.e. usability, accessibility, didactics)
- A reliable internet connection of sufficient bandwidth is crucial for the success of the project!
- RÚVZ Banská Bystrica: here the internet connectivity (minimum bandwidth 512 kBit/s, better 2 MBit/s) should be improved. Switch from radio-based connectivity to cable/dsl connectivity.
- All RÚVZ's should agree preferentially on one and the same Internet provider. This would facilitate the construction of a Virtual Private Network and thus enable also remote diagnosis and maintenance.
- With respect to the expected server housing at RUVZ Banská Bystrica, *location-specific* guidelines (in Slovak language) for access control, operation, safety, updates, backup procedures and emergency training should be developed, taking discussions with the STE and own experience into account.
- Start preparing a training *concept* (i.e. a train-the-trainer approach) for the future users of EPIS – in line with the progress of the project and in close collaboration with SOFTEC.

## **Section 3. Expenditure**

According to the Twinning manual (revision 2004), the total figures of disbursement for key groups of costs are described in this section of the quarterly report. A detailed financial report following the format for financial invoice report is enclosed as annex 14.

Total figures of disbursement for key groups of costs

€ 16.254,50
€ 13.472,03
€ 4.363,80
€ 0,00
€ 505.816,95
€ 98.563,43
€ 54.458,57
€ 12.799,05
€ 34.090,33
€ 199.911,38

It is expected that all activities will be completed within the duration of the project and within the approved project budget. Moreover, it is expected that a very substantial part of the total budget will have been used by the end of the project.