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**SOFTWARE AND  
DATABASE  
DEVELOPMENT  
PROJECTS**

# Transition Facility

**Thematic Evaluation of  
the European Union  
Transition Facility**

**The Slovak Republic**

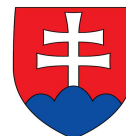
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This report has been prepared as a result of an independent evaluation by the DISTINCT, a.s. being contracted under the Transition Facility programme. **The views expressed are those of the DISTINCT, a.s. and do not necessarily reflect those of the Government Office of the Slovak Republic.**

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## EXECUTIVE SUMMARY

### A) Scope and Objectives

This thematic evaluation covers 2005 and 2006 Transition Facility projects focused on Software and Databases development and has been prepared for the Aid Co-ordination Unit at the Office of the Government of the Slovak Republic according to the Terms of Reference for the Technical Assistance project covered from the 2006 Transition Facility.

The aim of the Report is to assess effective use of the financial resources used for development of Software applications and Databases, analysis of sustainability with regard to lack of finances for their maintenance and upgrade.

### B) Evaluation Findings and Results

*Compliance of the project objectives with programming documents and needs of activities' Beneficiaries* within the assessed Software and Database development projects is evaluated as **relevant**. The Transition Facility projects are in line with strategic EU and national documents. At the same time interventions fully correspond to the transposed European legislation, such as the animal welfare, reporting on national accounts to Eurostat or the Water Framework Directive. The reviewed assistance is also in line with the national implementing rules derived from the international conventions and conforms with the national Strategy of Informatisation of Public Administration and derived sectoral strategies.

*Efficiency of software/database applications development is evaluated vastly as sufficient.* Beneficiaries expressed satisfaction with the performance of Contractors, especially due to their flexibility and willingness to fulfil needs of the Beneficiaries. In some cases Contractors even exceeded the planned billable days in the effort to deliver a quality product (2005 Environmental Quality Standards for Water). In addition, smooth co-operation of stakeholders contributed to the efficiency of the reviewed projects. On the other hand, deficiencies to be reported with regard to the lack of the professionally carried out market research or analysis of market environment and assessment of efficiency of software development versus its purchase by Beneficiaries. However, due to special characteristics of the evaluated software applications, their development appeared the best solution and more efficient than purchase on open markets and further adjustment, and thus brought the desired value added.

*The incurred undesired events did not affect the smooth project implementation, in general.* Software and Database projects have previously suffered from delays caused by many reasons, such as revision procedures (prior the amendment of the Public Procurement Law in 2006); the need for all software projects to be checked for conformity by the Section of Informatisation of the Society at the Ministry of Finance of the Slovak Republic; the extensions of the analytical phase caused by its complexity and importance (the 2006 Animal Protection); disputes about the form of the public procurement procedure to be applied (the 2005 Radioactive Waste) or delays in building the technical environment for introduction of the supported Information System and lack of ownership of some of data to be used by the system. (the Slovak Hydrometeorological Institute) However, the delays did not threaten the projects' implementation as a whole.

*Software development appears the project value added in comparison with other alternative possibilities of acquiring (purchasing) the software.* However, *ex-post* evaluating ‘to buy or develop’ alternatives without having for disposal any *ex-ante*/pre-tendering professional analysis of marketed products is rather difficult. The developed Transition Facility Software applications represent very unique national solutions for a very limited number of beneficiaries/users, ordered by the central government, and therefore unsuitable for further marketing. In this respect, the customisation of market accessible ready-to-use products (if any on the markets) would have significantly exceeded the costs of the Software applications development, what would have not showed the expected project value added.

*Contribution of the Section for Informatisation of the Society at the Ministry of Finance to the successful project implementation is rather unclear,* when checking for conformity of the Transitional Facility Software and Database development projects, with the valid legislation and the respective national strategic documents. Although the work of the Section seems to be valuable, especially with regard to projects’ relevance, however, the applied checking procedures were not standardised (rather *ad hoc*) and, moreover, driven mostly by one employee of the Section, though provided within the acceptable period of time. In addition, other external experts were also used by the Central Finance and Contracting Unit to provide their specialist opinions on the Transition Facility software/database development projects. Acceptance of all provided comments stayed finally with the Central Finance and Contracting Unit.

*Sustainability of software applications developed within the Transitional Facility projects is sufficiently assured.* The forecasts of sustainability have improved compared to the previous evaluations. Activities securing sustainability are often present in Project Fiches, such as provision of methodological materials and a broad reach of complementary training. In addition, provision of software documentation including user’s, administrator’s and operating manuals, licences of developed or purchased software and source codes was also assured in the evaluated. In most cases sustainability had been supported by availability of the Providers’ staff until the projects were closed and by strong commitment of Beneficiary’s management and executive staff. Moreover, connection to the existing information systems was mostly required by the relevant Terms of Reference or covered contractually. Flexibility of some systems to adjust for the legislation changes improves their sustainability as well (the 2006 Animal Protection in 2010 and 2012, the 2006 European Standards of Account 95 in minimum 4 years). On the other hand, though Beneficiaries include resources for the post-warranty period into their budget lines, this money is often a lump sum for the whole institution, difficult to track the individual budget lines. Moreover, as for some projects, no clear ideas were present for the upgrade of the complementary Hardware or the multiannual budgeting was not taken into account when making budget forecasts.

## **Recommendations**

1. The market research in the project design stage to be supported by involving the Information Technologies experts should be required in order to assure the most economically advantageous price estimation for the envisaged Software product. As for the Information Technology experts, the same can be applied for the composition of the project Evaluation Committee.

2. When drafting Terms of Reference for the Software or Database development interventions, the Beneficiary should secure interlinkages with the existing systems, especially when the chances exist for different private companies being involved in Software and Database assistance projects. The previous Contractor should provide all the necessary information about the developed product for his/her successor (for instance, in the Final Report) to be able to smoothly proceed with the development and interlinking of the relevant Software/Database.
3. If a unit or an institution is responsible for checking the conformity of the Software project with a roof document or legislation (in Slovakia it was the Section for Informatisation of the Society of the Ministry of Finance), the scope of work and deadlines should be agreed, (taking into account also the procurement procedures and their deadlines). The process should be standardised through introduction of clearly defined criteria for conformity assessment.
4. The Slovak Public Sector seems to be rather fragmented in terms of quantity of Information Systems and Databases at place, administrators and technical solutions employed. In order to increase efficiency and effectiveness, institutions of the public administrations should continue in the process of integration and consolidation of the relevant Information Systems (i.e. decreasing their number and linking them) according to the agreed standards in the relevant legislation. The Government in close co-operation with the Ministry of Finance has taken important steps towards creating appropriate legislative framework and developing common standards for information systems in the Public Sector. In next phase, the Public Sector organisations, state administration, regional and local self-government, should enhance the quality of their Information Systems. For this purpose, assistance from the Structural Funds represents a unique opportunity to enhance the quality of Information Systems in the sector. Experience with development of Information Systems under the Phare and Transition Facility can provide a valuable input.

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## PREFACE

This Thematic Evaluation Report was prepared at the request of the Office of the Government of the Slovak Republic (Aid Co-ordination Unit), under the Technical Assistance contract funded from the 2006 Transition Facility.

The Thematic Evaluation Report has been prepared by the Distinct, a.s.<sup>1</sup> during the period from March to September 2009 and reflects the situation as at 31 August 2009, the cut-off date for the purposes of the Report. The factual basis is provided by the monitoring reports and the implementation status reports. Other findings are based on analysis of the Financing Memoranda, formal Programme documentation (projects, Terms of Reference, Technical Specifications, Providers/Suppliers' bids and Reports and previous evaluation reports, including thematic ones, interviews with the main parties/stakeholders and the published material.

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## GLOSSARY OF ACRONYMS

ACU	Aid Co-ordination Unit
CEHZ	the Farm Animals' Central Evidence database system
CESKO	the central evidence system for Animal Protection Control during Transport
CFCU	Central Finance and Contracting Unit
Coll.	Collection of Laws
DB	Database
DWD	Council Directive 98/83/EC on the Quality of Water Intended for Human Consumption (the Drinking Water Directive)
EC	European Commission
EC	European Communities
EEA	European Economic Area
EN	English
ENV	Environment
EQS	Environmental Quality Standards
ESA	European System of National and Regional Accounts
EU	European Union
FB	Final Beneficiary
HC	Human Consumption
HR	Human Resources
HW	Hardware
IA	Indicator of Achievement
IACS	the Integrated Administration and Control System
IB	Institutional Building
IE	Interim Evaluation
INT	Internal Market Development
IO	Immediate Objective
IS	Information System
IT	Information Technology
JAVYS	Nuclear and Decommissioning Joint Stock Company
LEA	Law Enforcement Agency
MoEnv	Ministry of Environment
MoF	Ministry of Finance
MoH	Ministry of Health
MoI	Ministry of Interior
MS	Member State
OoG	Office of the Government of the Slovak Republic
OP	Operation Programme
ORIPES	Department for Management and Implementation of EC Assistance
PF	Project Fiche
PHARE	Poland and Hungary: Assistance for Restructuring their Economies
RDO	Regional District Offices
SC	Steering Committee
SE	Slovak Electric Power Plant Joint Stock Company
SEA	Slovak Environmental Agency
SEW IS 2.0	Summary Evidence on Waters Information System
SF	Structural Funds
SHMI	Slovak Hydrometeorological Institute
SK	Slovakia
SNRA	Slovak Nuclear Regulatory Authority of the Slovak Republic
SNARWM	Slovak National Agency on Radioactive Waste Management
SOSR	Statistical Office of the SR
SPO	Senior Programme Officer
SR	Slovak Republic
STE	Short-term Expert
SVFA	Slovak Veterinary and Food Administration of the SR
SW	Software

TA	Technical Assistance
TF	Transition Facility
ToR	Terms of Reference
TP	Transition Programme
TRACES	the Veterinary Information System of the European Communities
TS	Technical Specifications
TW	Twinning
UIBF	Unallocated Institution Building Facility
VIS	Veterinary Information System
WFD	Water Framework Directive
WG	Working Group
WHO	World Health Organisation
WISE	Water Information System for Europe
WO	Wider Objective
WRI	Water Research Institute



## MAIN REPORT

### 1. INTRODUCTION

#### 1.1 Background and Scope of Evaluation

1. This Thematic Report is the last from the series of 3 Thematic Reports produced under the contracts 2006/018-175.06.02-01 and 02 within 2 parts of the project Interim Evaluation (IE) of Transition Facility (TF) projects. According to the Terms of Reference (ToR)s for the purpose of this evaluation a cluster of 2005 and 2006 projects was selected (see also Annex 3), together with the key evaluation questions (see part 1.3 and Annex 4).

2. For the purpose of this evaluation 5 projects for Software (SW) and Databases (DB)s development were chosen by the Office of the Government (OoG) - Department for Management and Implementation of EC Assistance (ORIPES), all from the monitoring sector Internal Market Development (INT).

3. Historically, taking into account also the Phare projects, the SW and DB development projects have become rather popular, after the period of projects aimed at Hardware (HW) provision, however, being rather scattered around several institutions of the Slovak public administration. Under the pre-accession assistance, several interventions were focused on the so called Law Enforcement Agencies (LEA)s I-III exercise, trying to link electronically the triangle Police-Prosecutor-Judge, with the Ministry of Interior (MoI) being the most problematic one. In the non-evaluated Justice, Home and Social Affairs Sector also SW and DB development projects were awarded to other institutions, such as the Slovak Health University or the National Labour Inspectorate.

4. Fragmentation of the SW projects, both funded from the state budget and EU funds, has been criticised broadly in several previous IE reports. The situation has improved after the enforcement of the 275/2006 Law on Information Systems (IS) for Public Administration mid 2007, followed by the Strategy and the Concept of Informatisation of Public Administration of 2008, however, with limited impact on the 2005 and 2006 TF projects, taking into account the timing of the designing stage, which was already completed at that time.

#### 1.2. Objective of the Report

5. The aim of this Report is **to make a review** of SW TF projects and **to asses** a value added of SW and DBs developed within 2005 and 2006 programmes in respect to implementation of EU Directives, covering various areas of progressive technologies.

6. The objective of this Report is to asses the following:

- Efficiency of funds spent for SW and DBs development within the TF, in respect to results achieved their sustainability (availability or unavailability of funds for SW and DB maintenance or update).
- A value added derived from operation of the Section for Informatisation of the Society at the Ministry of Finance (MoF) of the Slovak Republic (SR) (currently responsible for conformity of the developed SW with the eGovernment Policy in Slovakia) within the projects pre-implementation period.

- To which extent the development of SW contributed to the achievement of priorities/*acquis*.
- To which extent the SW is the tool for improving the level of quality of the chronological processes.

### **1.3. Key Evaluation Questions**

7. The Report seeks to answer the following questions:

#### ***Relevance***

- To which extent are the project objectives in compliance with programming documents and needs of activities' Beneficiaries?

#### ***Thriftiness and Efficiency***

- To which extent does the SW/DB development appear efficient in respect of funds spent for it?
- To which extent did the undesired events affect the smooth project implementation?
- To which extent does the SW development appear the project value added in comparison with other alternative possibilities of acquiring (purchasing) the SW?
- To which extent did the procedures of the Section for Informatisation of the Society at the MoF of the SR contribute to the successful project implementation?

#### ***Sustainability***

- To which extent is sustainability of the SW developed within the project assured?

8. For details see Annex 4 of this Report.

### **1.4 Methodology**

9. To prepare this Thematic Report, the evaluators have used the following sources of information:

- Analyses of available documents such as previous evaluation reports, country summary reports, thematic reports, monitoring reports, etc.
- Interviews with Final Beneficiaries (FB), Senior Programme Officers (SPO)s and other stakeholders.

## 2. EVALUATION RESULTS

### 2.1 Relevance

10. *The reviewed SW and DB development projects are relevant*, as they are closely linked to strategic EU and national documents. The SW for the Slovak Veterinary and Food Authority (SVFA) under the 2006 Unallocated Institutional Building Facility (UIBF) Animal Protection should be able to control the compliance with the legislation, summarise and generate the data for statistical and reporting purposes that would be unified with the EU official control requirements. It is fully in line with the European Parliament and Council Regulation on official control of compliance with feed and food law, and especially animal welfare rules and the related statistical and reporting requirements towards Brussels. Moreover, the project follows the previous Phare 2003 assistance to the SVFA on protection of animals during transportation (CESKO 1), during which also the HW was provided to 40 regional offices to be used by the SVFA inspectors (notebooks). CESKO 1 and 2 to be ideally interlinked into the Veterinary Information System (VIS).

11. The new SW at the Statistical Office of the Slovak Republic (SOSR) called StatGen developed under the 2006 UIBF European System of National and Regional Accounts (ESA) 95 project enables automatically compile the output tables on national accounts for Eurostat, and thus the SW ensures compliance of the Beneficiary with the requirements of the ESA 95 Transition Program (TP) and the Council Regulation (EC) No 2223/96 on the ESA 95 and the Council Regulation (EC) No 1392/2007. In terms of linkages to the national strategic documents, the project fully reflects one of the strategic goals of the Slovak Government in the field of informatisation of public administration, i.e. transition to the electronic way of communication with other public institutions abroad. The operation of the SW is also expected to materialise the benefits of informatisation, such as increased efficiency and reduced workload of the staff, as stated in the Strategy of Informatisation of Public Administration. Detailed specification of the Strategy is contained in the Strategy of the SOSR. The internal organizational units, including the Section of Macroeconomic Statistics, responsible for Eurostat reports, have further elaborated their own strategies, including the action plans until 2012, according to which the Section is committed to automatic compilation of tables on national accounts for Eurostat.

12. The 2005 Radioactive Waste SW development project applies the legislative requirements of the Order 53/2006 of the Slovak Nuclear Regulatory Authority (SNRA). The Order sets up implementing rules for the Act 541/2004 Coll. on Peaceful Utilisation of Nuclear Energy as amended (the Nuclear Law), mainly in the field of disposal of radioactive waste and spent nuclear fuel, nuclear safety and state nuclear supervision. The EU nuclear safety and other legislation in the related field has not been yet unified and is still under development, therefore the national legislation preferably enforces and implements relevant international covenants and agreements. The national legislation subordinates the national rules to the international covenants and agreements binding for the SR, such as the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (published in the Coll. of Laws under 125/2002) and the Convention on Nuclear Safety. The developed IS incorporates all information subsystems operating in the SR in the area of nuclear waste and spent fuel tracking and gives the SNRA and the Nuclear and Decommissioning Joint Stock Company (JAVYS) a complex overview of movement and disposal of all nuclear waste and spent fuel located in the SR what, in fact, fulfils the internationally adopted requirements for the nuclear safety.

13. The Ministry of Environment (MoEnv) and the Ministry of Health (MoH) are responsible for the full implementation of the Water Framework Directive (WFD) in the SR. The SW to be developed under the 2006 UIBF Information System on Water for Human Consumption (HC) reflects the provisions of the WFD, particularly those related to reporting obligations of Member States (MS)s. It well addresses the need to effectively integrate existing subsystems and information sources into a single IS, capable of providing relevant, reliable and consistent data on quality of waters for HC. Additionally, the project responds to the requirement to make the information on Environment (ENV) available to public, as set in the European Parliament and Council Directive 2003/4/EC. The project can be considered as a follow up of recently completed projects, such as Environmental and Health Indicators financed by the World Health Organisation (WHO), Establishment of the Environmental and Health Information System Supporting Policy Making implemented in the period November 2005-October 2007, co-financed from the EU, the 2003 Twinning (TW) Institutional and Capacity Building in the Environmental Sector No SK/03/IB/EN/01, and 2004 TF Execution of Data Flow Provision on Slovak Lakes and Water Reservoirs Quality of Water in Relation to the European Economic Area (EEA) and European Communities (EC), and Strengthening of Bathing Water DB System in the SR by Means of SW. Moreover, the project was developed during 2006-2007, which collided with the adoption of key legislation in the area of public administration ISs. Following the Act No 275/2006 Coll. on ISs in Public Administration, the MoEnv, together with the Slovak Environmental Agency (SEA), in 2008, elaborated the Concept of Information Systems Development in the sector of ENV. Participation of the SEA in drafting the Concept ensured that the new IS complies with the standards defined in the Concept, although the project was designed before.

14. The Slovak Hydrometeorological Institute (SHMI) was in charge of management of the Technical Assistance (TA) Component of the 2005 Environmental Quality Standards (EQS) for Water. The project aimed at improvement of capacities, particularly technical ones of the SHMI, as well as Regional and District Offices (RDO)s of ENV. The project responded to obligations stemming from the WFD 60/2000/EC, Directive 76/464/EEC and national legislation, specifically provision of the Act No 245/2003 Coll. on Integrated Prevention and Control of Polluting Environment, related to the IS of sources of pollution. Correctly, the capacities of Beneficiaries to effectively perform assigned tasks were supposed to be increased through development of the upgraded version of the IS on Summary Register on Waters. The new IS is not only a higher version of the existing IS on Summary Register on Waters 1.0, but integrates various ISs and DBs into a single management tool as well. The design of the project preceded the adoption of legislation regulating the development of ISs in public administration. Moreover, the Concept of ISs Development in the sector of ENV was elaborated only in September 2008, after the completion of the project (July 2008). Due to this, the ex-ante verification of compliance of the new IS with the Concept of Information Systems Development in the sector of ENV did not take place.

15. *The assistance for SW and DB development takes a form of the TA*, often complementing other parts of the project, such as TW, whereas ToRs are frequently prepared under the TW. The above mentioned split of activities between the TA and the TW could be praised, however, requires good timing for the procurement process to be executed smoothly. The TA is often delivered as a local one with some sector-focused companies, which could be evaluated positively due to good knowledge of the relevant sector and Contractor's flexibility (such as Providers for the 2005 Radioactive Waste TA project). In addition, foreign expertise often comes from the Czech Republic, due to the historical

vicinity of the 2 countries and often common problems to be solved in the concrete field of assistance.

16. The new IS was developed under the 2006 IS on Water for HC through provision of the TA, which seems to be an appropriate form. The development of the system was ensured through procurement of services. Timing of public procurement process was suitable, leaving sufficient time in case of complaints of unsuccessful bidders, as well as unexpected events during the implementation phase. Expertise in Information Technologies (IT) and monitoring of waters for HC with thorough knowledge of relevant EU and national legislation was necessary for successful attainment of the project objectives. This fact indirectly reduced a range of potential bidders and the contract was finally awarded to a local company.

17. The TA Component was implemented in parallel with the TW and Supply Components of the 2005 EQS for Water. All Components were interrelated and interconnected. Delivery of Supplies to the RDOs of ENV was a pre-condition for effective utilisation of the new IS in practice. Moreover, the outcomes of the TA Component were used by the TW project. The integrated character was a positive feature of the project, however, delays in development of the IS postponed progress in execution of some tasks of the TW Component. Provision of services in form of the TA was the right choice. It offered higher flexibility in execution of the Contract compared to the TW, moreover, the expertise needed could be hardly offered by any MS, as certain knowledge of national environment and sector characteristics was necessary. Therefore, the local company was awarded the Contract.

18. ***Architecture of the reviewed projects is often identical***, with logical sequence of activities starting with the analytical part, followed by the actual SW development, testing and full operation. The key activities are as a rule complemented by training of the key staff (users, administrators) and provision of methodological documents, such as user's and operating manuals. The most important part of the SW development is the product ownership (see also part on '*efficiency*', para 42), which shall be, according to the EU funding rules, transferred to the Beneficiary, once the project is completed. The transfer of ownership (including taking over contractually agreed installation media, licences and source codes) had not been always consistently solved under the pre-accession EU funded projects, what later caused several problems in procuring the follow-up SW development/upgrade activities to be delivered by another successful Provider under TF. Such problem arose, for instance, in relation to procurement for 2005 Radioactive Waste tracking SW, causing (among others) prolongations in the pre-tendering phase.

19. The most demanding seems to be the analytical part, where the detailed analysis of the environment usually occupies more time as envisaged, for instance for the 2006 UIBF Animal Protection project (see also part on '*efficiency*', para 32). The implementation of the 2006 UIBF ESA 95 project went through its standard phases with defined outputs for each phase. The analytical phase of the SW development was also prolonged due to the need to unify the format of input data, however, did not negatively impact other project tasks. While some SW development projects represent a separate SW application, which does not form a superstructure of existing SW applications, the others are the follow-up of already running application(s), such as the 2005 Radioactive Waste project. Taking into account the fact that this project was implemented by the same Provider who developed the SW applications on which the 2005 Radioactive Waste application was built, the analytical

phase should have been proportionally shorter comparing to other projects of this evaluation.

20. The actual design of the ENV project and sequencing of its phases was determined by its character, services to be delivered and interconnection of activities and outputs. Main activities of the 2006 UIBF IS on Waters for HC consisted of the following logical phases: (i) complex analysis of needs including information sources, flows and technicalities, (ii) development of the actual IS. Finally, the comprehensive testing of the system is to ensure proper functioning of the system and its practical utilisation. Introduction of the IS will be supported by organisation and delivery of training courses for end users and administrators. Technical documentation should ensure effective maintenance and possible upgrades in future. The most extensive, in terms of time and Human Resources (HR)s was the design, development, testing and introduction of the system carried under the activity 2. Although, due to unexpected problems with consistency and quality of data collected within the existing system called Zbervak, the analytical works were more demanding than planned<sup>2</sup>.

21. The implementation phases of the TA Component of the 2005 EQS for Water and their sequencing reflected the nature and objectives of the project. In the initial phase, the existing ISs and relevant DBs were analysed, including functionalities, data models and process models. Based on the analytical phase, the Contractor proposed an upgraded version of the IS on the Summary Register on Waters 2.0, which integrated and consolidated the existing systems. The design of the IS must comply with specific requirements of the SHMI in terms of functionalities, technological solutions and non-functionalities (e.g. language). The next phase served for the actual development, testing and implementation of the IS. Afterwards, administrators and end users were trained after successful testing and introduction of the system. The Contractor was obliged to deliver the full documentation for programming and administration of the new IS to the SHMI. The needs of the Beneficiary were rather complex, as the Contractor declared the overall input of 1,800 working days allocated to 17 mobilised experts. The most demanding in terms of human and financial resources was the actual development of the system (approximately 60 percent). The project was implemented according to PRINCE 2 methodology<sup>3</sup> and supported by extensive communication between the Beneficiary and Contractor, which can be evaluated positively.

22. ***The quality of Indicators of Achievement (IA)s included in the logframes varies.*** Though vast majority of IAs is usable and measurable (see also Annex 5), some of them are not well-defined, such as for the 2006 UIBF Animal Protection, where for the 2<sup>nd</sup> indicator on the purpose level measuring statistical reporting to Brussels, timeline is missing. In addition, the indicators for the overall objective are not ideally defined, with missing benchmarks. The same can be reported for the 2005 Radioactive Waste, where the indicators on the project purpose and overall objective levels '*computerised system that will enable the tracking of all kinds of radioactive waste and spent fuel developed by the end of the project*' do not well correspond to or cover the pre-defined project purposes and objectives and represent rather qualitative (repeating) indicator value providing very general '*measurement*' of the progress achieved (see also Annex 5). On the other hand, understanding the role of IAs at the purpose and overall objective levels can be reported for the 2006 UIBF ESA 95 project (see Annex 5).

<sup>2</sup> The deficiencies of the Zbervak system were in more details described in the Interim Evaluation Report of the Transition Facility (Distinct a.s, June 2009) and recommendation for improvement was formulated.

<sup>3</sup> Standard methodology for management of IT projects.

23. In general, the IAs defined for the 2006 UIBF IS on Waters for HC are of satisfactory quality and serve as a good basis for effective project monitoring. The indicators at overall objective and purpose level related to quality of data collected and availability of information on quality of waters to public are so similar, almost interchangeable. In this respect, indicators concerned would need a more precise definition. This would allow more accurate monitoring of achievement of the objectives. The indicators at the result level are directly linked to the individual activities of the project, e.g. Analysis of users' requirements for the IS on drinking water elaborated in the Summary Report (see Annex 5).

24. The 2005 EQS for Water project consists of 3 Components: the TW, the TA and the Supply. The subject of this evaluation report is the TA Component of the 2005 EQS for Water, under which the new IS on Summary Register on Waters 2.0 was developed. However, the IAs were defined for the whole project, not for the particular Component. The IAs relevant for the TA Component (3<sup>rd</sup> and 4<sup>th</sup> indicators on the purpose level) are usable for monitoring purposes, but not quantifiable. When elaborating the Evaluation Report, the corresponding objectives were accomplished (see Annex 5).

25. *Steering Committees (SC) and Working Groups (WG) worked well* with regular meetings and balanced representation of members, allowing to make the necessary decisions and approve the key projects' outputs, which was also the case of the 2006 UIBF Animal Protection project.

26. In addition to formal communication in projects, frequent and regular informal communication and reporting contributed significantly to a smooth delivery of the required outputs and managing the more time consuming tasks that would otherwise caused delays in the project. An example of excellent regular operational communication on the bi-weekly meeting periodicity (supported by brief regular written reporting) is presented by the 2006 UIBF ESA 95 project. The operational communication approach preventing any project delays and/or implementation problems was also provided by the 2005 Radioactive Waste, mainly thanks to the long-term co-operation and working relations of the Beneficiary and the Provider.

27. SC meetings within the 2006 UIBF IS on Waters for HC are in principle organised after submission of project monitoring reports (including Inception and Final Reports), on a quarterly basis. The forum serves primarily for addressing the administrative issues and approval of the reports. The vast majority of technical issues were discussed and handled by the project WG. The project manager highly appreciated involvement of partners in the WG and its effective functioning, which significantly contributed to solving problems identified during the analytical phase. On the other hand, in some cases transfer of information between and even within organisational units of the MoEnv has not been smooth enough. On the other hand, the representatives of the MoEnv included in the WG could not take decisions on strategic issues, what, in some cases hindered the flexibility and operability of the Group.

28. Composition of the SC for the TA Component of the 2005 EQS for Water was appropriate and balanced. The work of the SC was satisfactory. The participation of higher managers in the SC allowed prompt decision making and supported smooth implementation of the project. It approved the extension of the implementation period by 1 month to enable the Contractor to complete all tasks. On the other hand, technical and operational issues were discussed almost exclusively at the WG. There were appointed leaders of individual

modules and the composition of the Groups flexibly reflected the topics discussed. Therefore, functioning of the WG could be praised.

29. *Absorption capacities were sufficient* to implement TF assistance, with minor problems, such as fluctuation of employees, with no major impact, however, on the final delivery of projects' outcomes (2006 UIBF Animal Protection). Similar could be concluded for the 2006 UIBF ESA 95 project, where the fluctuation of staff had only minor impact on the number of trained employees that was slightly lower than originally planned. However, it was complemented by the additional SW administrators being also trained as future trainees of the Beneficiary's staff. Absorption capacities can be evaluated as sufficient to implement the project and ensure its full operation. The 2005 Radioactive Waste project management and implementation enjoyed stable and committed staff and the top management of the SNRA and the JAVYS. The HRs stability and commitment is mainly based on the specific (unique) scope of activities and professional orientation of those institutions, as well as possibilities and perspectives of the professional growth.

30. Despite institutional and personal changes in the sector of ENV, the TF projects have not been seriously affected. The allocated HRs for management of the TF projects including the SW projects seem to be sufficient; however, longer time was needed for designing and tendering of the projects. Beneficiary institutions, administrators of the IS and other users involved in the 2006 UIBF IS on Waters for HC have sufficient technical capacities to fully utilise developed systems.

31. Besides the above mentioned changes in the structures responsible for implementation of the TF assistance in the ENV sector, the SHMI had stable and sufficient HR to effectively manage the TA Component of the 2005 EQS for Water and utilise its outcomes.

## 2.2 Efficiency and Thriftiness

32. *SW and DB projects have suffered from delays*, caused by several reasons. Historically, before the Amendment of the Public Procurement Law in 2006 at the pre-implementation stage, the SW projects suffered from delays caused by revision procedures applied by the unsuccessful bidders a lot; where claims were used by mostly local companies as a form of the competition fight. However, after applying financial down payments for companies intended to submit a request for a revision procedure, which has been relevant for 2005 and 2006 projects as well, the number of claims decreased dramatically. Some delays were also caused by the need for all SW projects to be checked for conformity by the Section of Informatisation of the Society at the MoF of the SR, which will be explained also later (see para 41). During the implementation we can report on delays, especially during the analytical phase, usually due to its complexity and importance for other parts of the project. This was also the case of the Detailed Analysis provided later for the 2006 UIBF Animal Protection project, not jeopardizing the originally planned end of the TF assistance (shortly after the cut-off date of this Report). Moreover, the Provider knew, in details, the Beneficiary's HW and SW structure and existing ISs, thus the analytical phase should have not delayed and should have been shorter accordingly. The 2006 UIBF ESA 95 project was closed according to the schedule and was not interrupted by any unexpected events or prolongation of project phases. Unexpected delays have been caused due to the disputes about the public procurement procedure to be applied between the SNRA and the Central Finance and Contracting Unit (CFCU), where the Beneficiary tended to continue developing the new superstructure SW application with the original Supplier of the previous SW applications. Unclear copyrights ownership of the previous



Supplier of the SW (ARSOZ<sup>4</sup>) jeopardised the whole 2005 Radioactive Waste project, including its Supply part, which had been contracted prior to the TA part. Finally, the previous Supplier provided an official statement regarding the co-operation based on contractual relations with any successful Provider derived from the 2005 Radioactive Waste open tender.

33. Preparation (design) of the 2006 IS on Water for HC and its tendering were carried out in timely manner, what provided the project with some flexibility in the implementation phase. There were no revision procedures raised during the procurement process. On the other hand, the analysis of existing ISs and data sources to be integrated within the new IS revealed serious deficiencies (the Zbervak system). It required not only modification of the original architecture of the IS. Obviously, the unexpected changes in the project and defining the alternative scenario that would ensure the achievement of the objectives increased needs in terms of resources mobilized without additional increase in project budget. In this respect, the project showed high flexibility and efficiency.

34. The implementation of the TA Component of the 2005 EQS on Water started in October 2007. In principle, the execution of the project and individual tasks were in line with the original time schedule, however, delays occurred from the very beginning. The delays accumulated and resulted in a need to extend the execution of the contract (from 8 to 9 months), but the objectives and deliverables remained the same. There was number of factors, which contributed to slight delays in the implementation, that could not be fully overcome by the Contractor and Beneficiary. First of all, the assignment was rather complex. Additionally, there were delays in preparation of HW and SW environment in the SHMI, functionalities of the new IS were defined only during the analytical phase (not sufficiently defined in the ToRs), moreover, the SHMI did not own some DB structures needed for the system.

35. *Beneficiaries usually expressed satisfaction with the performance of Contractors*, delivering the SW and DB development projects, representing often local companies, as explained under the relevance criterion. Contractors were praised for their flexibility and willingness to adapt to needs of the Beneficiaries (2006 Animal Protection). The weak point of the procurement process and its pre-procurement analytical phase was caused by the lack of professional capacities or ‘a mandatory step’ at the level of the Beneficiary and/or the Contracting Authority (the central procurement body), in terms of a professional preliminary market research, including the analysis of the market environment, focused on the existence of similar SW/DB applications or assessment of efficiency of SW development versus its purchase. In some cases the Beneficiary/CFCU conducted some market research prior to the procurement process, but it was rather focused on potential Providers and their relevant experience than the existence of the SW/DB application as such. However, the special characteristics of the SW/DB applications under the evaluated TF projects proved that their development appeared to be better and more efficient solution than the purchase on open markets and their further adjustment. This fact can be justified by the special Beneficiaries’ environment and special requirements on the SW/DB applications. Thus, the projects brought the required value added (more details see in para 42 and foll.).

36. The 2006 UIBF ESA 95 project benefited from the high quality and timing of the outputs and a very high quality of project documentation submitted by the Provider. The

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<sup>4</sup> ARSOZ – a software application developed for the JAVYS, a.s., tracking the disposal of nuclear waste.

procurement process to select the SW Provider was conducted smoothly, without any delays. The Beneficiary managed to select the local company, which was competent and experienced enough to fulfil the contract requirements. The prior market research was conducted to find out whether any of the potential Contractors – SW companies - already developed a similar SW product and to explore their general product portfolio. However, the Beneficiary did not conduct any market research in terms of survey for similar SW application existing on the markets and related analysis of other possibilities how to acquire the requested SW (see also para 35). The Beneficiary expressed high satisfaction with the quality and volume of activities performed by the Provider. There were additional, unplanned, outputs produced by the Provider, such as elaboration of the Strategy for Implementation and Testing of the StatGen and Setting up the System for Euro Currency. Moreover, the Provider regularly reported on the project activities beyond the ToRs and contractual requirements.

37. Within the 2005 Radioactive Waste the continued co-operation with the previous Provider of SW applications for the Beneficiary significantly contributed to the high quality of the outputs and final results. The Provider's performance was highly appraised by the Beneficiary. Upon agreement with the Beneficiary, the CFCU opted for an open tender procedure, where the Provider was selected. Within the pre-tendering period the Beneficiary representatives conducted an informal survey of existing SW applications which would fit to the special requirements set up for the envisaged SW application. The survey was conducted during study trips to similar institutions within the EU but it did not have any standard form of a written integrated analysis focused on pre-defined terms (e.g. efficiency of possibilities 'to develop or to buy', etc.). Finally, the special national conditions and unique nuclear processing characteristics in Slovakia, as well as the related or visited countries supported the Beneficiary's decision to procure the development of the desired SW. The Beneficiary delivered all the required outputs in the required quality and volume. At the time being, the limited external access to the fully operational application is fine-tuned.

38. The Contractor in close cooperation with the Beneficiary was able to swiftly respond to problems identified in the analytical phase of the 2006 UIBF IS on Waters for HC. The solution proposed by the Contractor did not affect the desired functionality of the system. Additionally, the Contractor was able to formulate concrete recommendations and steps to be taken to address the identified problems in consistency and quality of data. Good cooperation of relevant stakeholders (the MoH, the MoEnv and the Water Research Institute (WRI)) seems also positively contribute to overall efficiency of the project implementation.

39. The ISs in the ENV sector were built without common standards and are administered by wide range of institutions according to their competences. The system developed under the 2006 UIBF IS on Waters for HC is expected to bring efficiency to a higher level by integrating existing systems into a single one, capable of meeting the requirements exposed by the WFD. The Slovak administrative set up and structure of institutions performing relevant activities is so specific that purchase of the ready made SW would not be possible. Buying an existing IS from other MSs would demand substantial modifications and related costs would be most probably higher than developing the new IS. Therefore, producing of the IS instead of buying it was the only option.

40. The Beneficiary of the TA Component of the 2005 EQS for Water was more than satisfied with the quality of services provided by the Contractor. It appreciated professional and solution oriented approach supported by close cooperation with the representatives of

the SHMI. The number of working days actually spent on development of the new IS most probably exceeded planned engagement of work force. Activities were fully concentrated on delivery of quality product that meets expectations of the Beneficiary. The engagement of the Contractor and Beneficiary materialized in formulation of new ideas and improvements of the system outside of the scope of the ToRs.

41. ***Contribution of the Section for Informatisation of the Society at the MoF to the successful project implementation is rather unclear***, when checking for conformity of the TF SW and DB development tendering documents, mostly 2005 and 2006 with the valid legislation – Law 275/2006 Coll. and the respective Strategy and Concept (as mentioned in para 4). The Section commented on the projects' tendering documents, as submitted by the CFCU, looking for the interoperability of ISs, whether they were in line with the valid standards, interconnection of systems, avoiding duplicity of DBs (and the number of necessary administrators); conformity of projects with the valid legislation, such as Law on Personal Data, security of the systems (access to information); even value for money criterion. Though the activities of the Section seem to be valuable, especially on projects' increased relevance, they were driven mostly by one employee of the Section, having also other responsibilities, in addition, the procedures were not standardised or planned properly (they were rather ad hoc). The delays caused by the checking procedures usually took 1-2 weeks, which was acceptable. It was then up to the CFCU to accept these technical comments, though in majority of cases the tendering documents were adjusted accordingly. Moreover, another external experts were used to provide their specialist opinions on the TF SW and DB developments projects.

42. ***Efficiency of the SW/DB applications development*** and herewith evaluating 'to buy or develop' alternatives, *ex-post*, without having for disposal any *ex-ante*/pre-tendering professional analysis of marketed products is rather difficult, as the evaluators miss the solid reference basis for their findings and conclusions. As already mentioned above, all procured applications have been developed and adapted to the special needs and requirements of the Beneficiaries. Even if some Beneficiaries devoted attention to the prior (but incorrectly focused) market research (see also para 35), the others rather focused on setting up requirements for new SW application itself. All SW applications developed under evaluated projects are based on and conditioned by using the existing and specific internal Beneficiaries' environment (specific data, processes and information flows; involvement of different users; SW solutions and HW equipment; etc.). This aspect appeared as a limited condition in using the market-accessible standardised ready-to-use SW applications. Moreover, licence policy (ownership of source codes, etc.) on both sides (Beneficiaries, Providers) appears as another limited aspect. In general, SW applications, such as those developed under the projects evaluated hereto, represent very unique IT solutions for an extremely limited number of Beneficiaries/users, and therefore unsuitable for further marketing. They generally represent national IT solutions ordered by central governments (and funded from national budgets) what is, in fact, connected with taking over the product ownership by a Customer and further impossibility to commercially market such product. Taking into account the Beneficiaries requirements for the SW applications and related environments, the customisation of market accessible ready-to-use products (if any on the markets) would have significantly exceeded the costs related to the SW applications development.

43. The SW developed under the 2006 UIBF Animal Protection has to communicate with the already developed IT structure of the SVFA and with the ISs such as the VIS and the System for Animal Protection Control during Transport (CESKO). The both systems

communicate with the Farm Animals' Central Evidence DB (CEHZ) and the EC Veterinary IS (TRACES). The project ToRs provide for very broad specifications like '*The best solution would be the entire interconnection/connection of the already existing SVFA systems, minimally with the CESKO system, which is the basic module of the entire planned solution for development of the animal protection control IS.*' Similarly, the ToRs' project objective, as well as, description of activities (mainly activity 1) do not provide for more detailed IS specifications, functionalities and purpose. As the precise specification basis for comparing similar potential products at the markets is missing, the evaluation in this respect is impossible. On the other hand, meeting the above '*best solution would be*' specification requires involvement of any SW or Provider, which/who is able to establish interconnections and incorporate all linked issues, such as interface customisation, source codes provision and ownership, etc. In this respect, the position of the current Provider of the given SW application can be evaluated positively. The Provider is very familiar with the Client's HW and SW structure, participated or implemented the CESKO system with its interconnection to the CEHZ and TRACES and analysed the Farm Register for the Integrated Administration and Control System (IACS) with its connection to the CEHZ. He/she implements the analytical works on cross compliance and has deep knowledge of the scope of the tender. In respect of work efficiency, his involvement appears as the project value added comparing to the customised solutions of the ready market products. However, cost efficiency of the purchased market product and its customisation comparing to the costs incurred in respect of the products/works delivered by the Provider is, at that time and without any *ex-ante* market specialised analysis, impossible.

44. Within the 2006 UIBF ESA 95, the identical requirements for the content and format of statistical output tables for all MSs do not justify the possibility of using the same SW product. Statistical offices in MSs use their own ISs and most of the SW products are customized. Therefore, the '*buy or develop*' analysis was not conducted by the Beneficiary prior procurement. In addition, at the time of the ToR preparation, there were only 15 MSs and the probability of a standardized SW product being available on the market was very low. The StatGen enables the Beneficiary to automatically convert spreadsheet tables into GESMES, which is the standardized format of the output tables required by Eurostat and being used by all MSs. Finally, it can be concluded that due to the special Beneficiary's environment of information flows, data requirements and data processing the possibility to buy any suitable existing IT application was not considered and if any, its adaptation to the Beneficiary's special internal conditions appears costly and inefficient in comparison to the development of the unique one.

45. As already mentioned above (see para 12 and 37), the 2005 Radioactive Waste SW application is primarily based on the national legislation. The special national conditions related to nuclear processing and monitoring nuclear waste and spent fuel, national institutional set-up in the given area (including supervision) and the existing ISs used by the JAVYS and Slovak Electric Power Plant Joint Stock Company (SE) and the IS developed under the 2004 project must be taken into account. Considering those facts, the development of a new SW application built up on the existing ARSOZ (see para 32) and other ISs appears as the most rational and effective approach. Moreover, the initial problems with the ARSOZ ownership and using the technical capacity of the previous IS's Supplier (the winner of the current 2005 Radioactive Waste tender) confirmed the SW development project value added comparing to procuring any existing application, which customisation appears rather impossible than cost ineffective.

46. The Council Directive 98/83/EC on the Quality of Water Intended for HC (the Drinking Water Directive (DWD)) obliges the MSs to regular monitoring of drinking water quality and to provide to consumers adequate and up-to-date information on their drinking water quality. However, the MSs can include additional requirements e.g. regulate additional substances that are relevant within their territory or set higher standards while translating the DWD into their own national legislation. This is also the case of Slovakia. Therefore, the 2006 UIBF IS on Waters for HC project envisaged detailed analysis of data flows required by the national legislation, the DWD, the Water Information System for Europe (WISE) and the 2003/4/EC Directive. The scope of reporting as set out in Commission Decision 95/337/EEC and implemented by a Guidance Document on Reporting Under the DWD (8 May 2007) provides the uniform reporting basis for all MSs. However, the special domestic data and information source environment (spreading of data within various institutions, incompatible DBs to be integrated, etc.) and institutional set up pre-determined developing a unique national SW application customised to the concrete national environment. The required data are to be provided by the MoH and the MoEnv. Moreover, the IS shall be developed so that it will be able to process data regardless the localization of source DBs (e.g. import and export of relevant DBs of different institutions). All these require special customization and tailor-made extension of the sole reporting tool to the Commission based on the DWD. From this aspect the development of the given SW application appears as the project value added.

47. Similarly like 2006 UIBF IS on Waters for HC, the 2005 TA Component of the EQS for Water project aims at fulfilling the monitoring and reporting requirements of the WFD and Council Directive 76/464/EEC, by using proper communication and information exchange. Even though the scope of the tender is implementation of the target Summary Evidence on Waters IS (SEW IS 2.0), the ToRs do not explicitly involve basic requirements for a new IS neither any supporting information about why it is necessary to implement such IS by the SHMI. The basic question occurs whether the objective is to integrate all SHMI's ISs in one system or integration of part of the existing ISs' functionality would be sufficient. Activity 2 of the ToRs defines that *'the SEW IS 2.0 integrates and consolidates the given existing ISs related to hydrology at the level of DBs and application logic by migration or by individual development..... they have to be integrated and consolidated at the adequate levels...'*, however, such definition of IS requirements is not sufficient and very broad. On the other hand, the ToRs provide for the IS technical requirements in sufficient details. As for the IS development as such, the given SW application represents a special SW to be built up on (4) different existing applications (DB, application superstructures and processes). Any market accessible ready-to-use SW fulfilling the requirements of the WFD and Council Directive 76/464/EEC (if any on the markets) would only represent the reporting tool as one of many other functions of the required integrated IS. It would minimally require permission for customisation and related customisation of interfaces with the existing IS (including the provision of source codes of the existing IS, etc.). Whereas the integration of the existing ISs in order to summarise evidence on waters for decision making processes at the national level is the main idea of the new IS, it seems to be impossible to find out any standardised SW product matching this requirement on the market. Considering the broader purpose/use of the new IS (except sole reporting to the Commission) and support of the Beneficiary provided in the form of secured participation of the previous IS Suppliers (if necessary) and electronic ISs description and platforms, the development of the new IS appears as the project value added comparing to other alternatives of acquiring such SW.

## 2.3 Sustainability

48. *The forecasts of sustainability have improved*, when previously being criticized due to lack of re-resources for the post-warranty service and upgrade. The institutions/Beneficiaries now include into their budgets lines resources for the post-warranty period to cover the necessary costs, however, often this money is a lump sum for the whole institution, difficult to track the individual budget lines for a specific SW (SVFA- Animal Protection). Moreover, no clear ideas were present for the upgrade of the complementary HW. In addition, the multiannual budgeting in Slovakia was often not taken into account when making budget forecasts. The mandatory post-warranty service period of minimum 24 months was contractually stipulated for the 2005 Radioactive Waste, while the possible SW upgrade can be funded from the internal resources of the JAVYS, if necessary. As for the 2006 UIBF ESA 95, the Beneficiary does not envisage any SW upgrade for minimum next 4 years, depending on the regular updates of the Transmission Programme under the ESA 95. The previously occurring problems with copyrights/ownership (the 2005 Radioactive Waste) (see also part on ‘*efficiency*’, para 32) were eliminated through the related contractual terms. However, the issue could persist as some contracts do not specify the terms of copyrights in sufficient details. While the 2005 Radioactive Waste contract refers to the ‘*final transfer of licence documentation including installation media, licences and sources codes*’ to the Beneficiary, the 2006 UIBF ESA 95 provides for ‘*transfer of the final version of the complete SW product to the Beneficiary, including source codes and installation version of completely developed SW....as well as the developed SW licence and all used commercial SW licences*’. From this point of view, sustainability is clearer financially than technically for both of the above mentioned projects.

49. The key instrument for sustainability of the 2006 UIBF IS on Waters for HC outcomes is the warranty service for minimum of 2-year period after the project completion (acceptance of the IS by the Beneficiary). The Contractor is contractually bound to address all deficiencies related to the Contract and provide technical support of the system. After this period, the Beneficiary will have to do modifications of the system using internal resources or hire an external support.

50. Emphasis was put on the security of the data collected and processed by the IS developed under the TA Component of the 2005 EQS for Water as the IS will run 2 years parallel with the existing systems. Moreover, the IS will be in ‘*pilot*’ mode for a period of 3 years, which is identical with the warranty period. According to the contract, all deficiencies and failures of the system identified during this pilot period will have to be addressed by the Contractor.

51. *Activities securing sustainability are often present in Project Fiches (PF)s*, such as provision of methodological materials (often training manuals) and broad reach of complementary training, including in the case of the 2006 UIBF Animal Protection administrators, methodologists and terminal users. The requirements of EU regulations must be observed by each MS, which encourages the Beneficiary under the 2006 UIBF ESA 95 project to ensure sustainability of the use of the developed SW product StatGen at the same time. The Contractor was available for consultation after completion of the pilot phase until the project was closed on 5 June 2009. The user manual was updated based on the user experience from the pilot phase and solutions to identified problems were added to the manual for future reference. The Contractor provided a standard 2-year warranty service during which possible defects will be corrected and the SW documentation fine-tuned if required. So far, there was no such requirement as of the end of the project. Sustainability of

the project is supported by having trained the internal administrators to operate the SW and to train the Beneficiary's staff. The newly hired staff benefits from on-the-job training by an assigned administrator responsible for the particular set of output tables. There is a strong managerial commitment to sustainability of the project, which is declared also in the strategy of the Section of Macroeconomic Statistics using the SW product, in which utilisation of the SW product is planned at least until 2011. Under the 2005 Radioactive Waste the PF also paid attention to sustainability through well-defined testing, training and SW documentary activities, as well as maintenance of the whole system (for 2 years), as already mentioned above. The training activities were provided for the SW modules' users (15). As for the system sustainability, the most important was training on the 'System Administration' (2 administrators), the following 2-year maintenance and delivery of the User's and Administrator's Manuals in the hard copy and the electronic form.

52. Another provisions contributing to overall sustainability of the 2006 UIBF IS on Waters for HC and its outcomes include development of technical documents and training of relevant target groups. By the end of the project, the Contractor is obliged to deliver to the Beneficiary the following documents: User's Guidelines, Programming documentation consisting of Analytical and Design part, and Source Code. 40 end users of the newly developed IS will be trained in order to obtain theoretical information and acquire practical skills for utilisation of the system. This seems to be sufficient to sustain the project outcomes.

53. General cuts in budgets and HRs of state administration have had impact also on the SHMI as well. According to the project manager of the TA Component of the 2005 EQS for Water, the financial resources for development and maintenance of the ISs and DBs have been reduced. Potentially, this can have negative effects on sustainability of the project outcomes in medium term. Capacities of the SHMI to maintain and administer its ISs are rather limited (3 programmers), however, just able to cope with current workloads. By completion of the project, the Contractor officially submitted the Programming Documentation and Administrating Documentation including the source code and installation version to the Beneficiary. Additionally, the Contractor in co-operation with the SHMI organised the pilot training for 12 key users and 4 administrators. The training of other end users from the RDOs of ENV has been delivered by the SHMI itself.

54. **Connection to existing ISs is crucial** for positive prospects of sustainability (and also impact) of projects. Following also the national strategic documents on the IS for Public Administration, the TF supported SWs, always in the form of modules, should be interconnected with the existing ISs. In the case of the SVFA (Animal Protection) plans exist to connect CESKO 1 and 2 to the VIS, however, pending also on the negotiations between the 2 different private companies developing CESKO 1 and 2. Though the PF for 2006 includes such a provision of interconnection, it is beyond the scope of competencies of the SVFA to interfere into competition interests of private companies. In the 2006 UIBF ESA 95, the new SW product StatGen is interlinked with the internal statistical system called AŠIS and no other IT projects are envisaged in relation to its operation. The operation of StatGen required the upgrade to the Microsoft Office 2003 but did not require the acquisition of new or additional HW. Potential problems with connection of the existing IS were avoided within the 2005 Radioactive Waste project as the IS Provider delivered the previous IS and was familiar with the internal SW and HW environment. However, establishing the communication interface with the ARSOZ<sup>5</sup>, the MBA<sup>6</sup> and the IS

<sup>5</sup> ARSOZ – a SW application developed for the JAVYS, a.s., tracking the disposal of nuclear waste.

developed under the project 2004/016-764.07.01 was strictly required. Implementation of the new SW was based on the Oracle DB environment supporting the Beneficiary IS environment prior the given project. Finally, the newly developed SW (for tracking the disposal of radioactive waste (RAP)) is compatible with the systems operating at the Beneficiary so that they represent an integrated system for tracing the radioactive waste and spent nuclear fuel in all processes of their monitoring.

55. The system being developed under the 2006 UIBF IS on Waters for HC effectively connects and integrates the existing ISs in the sector of ENV and Health and various sources of data. It should enable online access, exchange and monitoring of relevant data, and its processing for purposes of reporting to the EC in requested form.

56. The IS on Summary Register on Water developed within the TA Component of the 2005 EQS for Water integrated and harmonise number of existing systems and DBs. However, there are tendencies for consolidation and integration of the ISs. Positive are intentions to unify the IS environment and use only one platform. The further integration and interconnection of the ISs is conditional to sufficient financial resources. Number of initiatives should be financed from the Structural Funds (SF) within the Operational Programme (OP) Environment (National Register of Pollution).

57. *Flexibility of the systems to adjust for the legislation changes improves their sustainability.* For instance, the 2006 UIBF Animal Protection CESKO 2 is adjustable for the foreseen new relevant EC regulations to be enforced in 2010 and 2012. The same can be stated for the 2006 UIBF ESA 95 project, where the developed SW product StatGen facilitates incorporation of the methodological changes, and thus supports Beneficiary's compliance once the legislative amendments are introduced. Revision of the ESA 95, planned in the near future, will subsequently require a new TP but it will take few years to become effective for the MSs. Nevertheless, the StatGen can be adjusted to new legislative changes; however, attention should be paid by the Beneficiary to budgeting for potential requirements for SW upgrade, as these will have to be covered by its own resources if external services are required. The 2005 Radioactive Waste project does not expect any specific legislative changes, which could substantially influence the SW design. The requirement for monitoring disposal of radioactive waste and spent nuclear fuel is the long-term task supervised by the SNRA. The only part of the developed SW, which could be touched by any legislative changes, relates to the reporting requirements on records stored and archived in the IS. The Beneficiary is prepared for this task, once it is relevant and will cover the update or upgrade from its own resources, again under the SNRA supervision.

58. No substantial changes in EU and national legislation are foreseen in the medium term perspective that would require modification of the IS developed under the 2006 UIBF IS on Waters for HC. The Centre for Development of ITs (Informatisation) of the SEA has despite of cuts in HRs capacities to administer the newly developed system. However, for possible upgrades of the system developed under the 2006 UIBF IS on Waters for HC the SEA would opt for external Providers.

59. The Beneficiary of the TA Component of the 2005 EQS for Water seems to be capable of minor modifications of the IS. On the other hand, in case of significant changes of EU or national legislation, it will need an external assistance for major intervention in the IS.

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<sup>6</sup> MBA - a SW local application for tracking the spent nuclear fuel.



## 2.4 Other Criteria

### *Effectiveness*

60. *Effectiveness of the reviewed projects measured via the fulfilment of the Immediate Objectives (IO) shows vastly good results.* However, as mentioned elsewhere, the definition of some IAs prevents us to use them fully for the evaluation purposes (see also Annex 5). For the 2006 UIBF Animal Protection project, we are pretty confident that due to the vicinity of the completion date of the SW development and testing (early September 2009), the SW interconnection of unified results of control of the state veterinary activities on the regional and district veterinary and food administrations in accordance with the EC Decision requirements will be provided and the veterinary controls will be executed and the results processed in accordance with the EU requirements. Thus, efficiency of veterinary controls should be improved and the IO, *to strengthen and unify veterinary controls in the field of animal protection in accordance with the EU Regulation*, should be achieved at the same time. However, the deadline, as originally presented in the respective IA – 2008 will clearly not be reached.

61. The 2006 UIBF ESA 95 project was closed according to the project plan. The IO requiring creating central output DB of statistical data for national accounts and governmental financial statistics within the TP according to ESA 95 methodology has been achieved, when measured through the respective IA as stated in Annex 5 of this Report. The StatGen automatically compiles output tables on national accounts in the format required by the Eurostat and additional reports on financial and non-financial accounts and on the state debt that are regulated by EU and national legislation. All required tables are generated in due time (as already performed in the first submission in June 2009). Besides legislative compliance, additional added value generated by the project is increased of internal capacities for complex analytical and methodological tasks related to national accounts preparation.

62. Within the 2005 Radioactive Waste project all project outputs and results were delivered in the required quality and in time and substantially influenced the achievement of the project purpose. Measuring it using the IA, computerized system that will enable the tracking of all kinds of radioactive waste and spent fuel developed by the end of the project, it can be highly satisfactory reported that the IO, i.e. establishment of a reliable and user-friendly IS for all kinds of radioactive waste generated or to be generated during operation, decommissioning and dismantling of nuclear installations in Slovakia and development of a computerised IS enabling tracking all kinds of radioactive waste and spent fuel was fully met. Thus, the newly developed IS strengthens the JAVYS position provided by the law, contributes to the fulfilment of one of the main tasks of the future national Slovak Agency on Radioactive Waste Management (SNARWM) and supports reporting of the SNARWM to supervision authorities and other organisations on waste management and spent fuel inventories. In fact, the SNARWM functions, including the respective reporting functions, are currently and temporarily executed by the JAVYS. This modus operandi shall remain until 1 January 2012, when the SNARWM shall operate as a sole institution subject to the Act 238/2006 Coll. as amended and undertake all related functions, currently executed by the JAVYS. Moreover, beyond the PF design, the Provider contractually committed himself/herself to provide access to the developed IS also for the pre-defined external users (e.g. the SNRA as the supervision body), using the separately procured CITRIX application. The related access was made operational, but is still fine-tuned at some external users, what in fact does not anyhow affect the related SW design, functionality and/or operation.

63. Extension of the 2006 UIBF IS on Waters for HC has implications also on actual achievement of the IOs set for the project. By the cut-off date, the IS was up and running and the web portal with information on quality of waters for HC is available to public. Therefore, the objectives: (i) *to support fulfilling of obligations resulting from the Directive 98/83/EC in relation to rationalization of national drinking water data flows and strengthening of reporting process toward EC under Directive 98/83/EC in SR*, (ii) *to update the existing out of date national drinking water data flows and their adjustment towards new aims resulting from EU legislation transposed to national legislation and to improve co-operation among institutions of environmental and health sectors in the field of implementation of the Directive 98/83/EC*; (iii) *to support the dissemination of environmental information in compliance with Directive 2003/4/EC on public access to environmental information* were achieved.

64. For reasons presented in the previous parts of the Report, the execution period of the TA Component of the 2005 EQS for Water was extended till July 2008. The IS on Aggregate Evidence on Waters 2.0 was developed and is running in a ‘pilot’ mode. The relevant actors were able to *fulfil the requirements of the WFD 60/2000/EC and Council Directive 76/464/EEC, by using proper communication and information exchange for relevant decision making process* (the 2<sup>nd</sup> IA).

### **Impact**

65. ***The forecasts of impact are vastly positive***, especially for projects, where the Wider Objectives (WO)s could be monitored and evaluated fairly shortly after the project completion. The above mentioned is also the case of the 2006 UIBF Animal Protection assistance to the SVFA, asking for *development of the software for strengthening of the veterinary controls in the field of animal protection on farm and at the time of slaughter or killing*. Though we can have reservations to the definition of this WO, once the new SW is up and running, the respective staff trained and equipped with the methodological materials, it should have positive impact on increased efficiency of the veterinary controls of farms, as well as controls during the animal slaughter. However, pending at the same time on the interconnection of CESKO 1 and 2 into the VIS.

66. Planned impact of the 2006 UIBF ESA 95 project of meeting the requirements of Regulation (EC) No 2223/96 on the ESA 95 as amended by a new legal act related to transmission of data on national accounts has been achieved. The SW product also ensures compliance with EC Regulation 1392/2007. Reduced workload was already reported when compiling automatically the first quarterly output tables in June 2009, however, the ‘*real test*’ of the SW functionalities and staff workload will be in shortly after the cut off. Controls of output data were pre-defined and embedded in to the system during the testing phase. These ensure that the data is correct and error rate of the compilation process is reduced to a minimum. This will result also in time savings and, as mentioned under relevance, gaining additional capacities of the staff for complex analytical and methodological tasks related to national accounts preparation.

67. Another example of highly positive impact is the 2005 Radioactive Waste project contributing to the safe management of radioactive waste and spent fuel in Slovakia through establishment of a radioactive waste and spent fuel IS (WO). The delivered fully operational IS significantly contributes to building and maintaining a high level of the nuclear safety in the SR and supports meeting the international standards (through the detailed and accurate monitoring of disposal and location of radioactive waste and spent fuel at the Slovak

territory). It has also indirectly effected improvement of technical/professional capacities of the SNRA and the JAVYS staff through a training programme and regular WG sessions. Finally, as referred to above (see part on ‘relevance’, para 22), the defined IA, which was fully met, is not able cover desired impact of the project in its broad extent in relation to its WO.

68. As a matter of fact, the WOs of the 2006 UIBF IS on Waters for HC were partially achieved at the moment of elaboration of the report. The information on quality of water intended for HC is available to wider public, while the data will be collected according to the Council Directive 98/83/EC only after the project completion (September 2009). However, the effective collection and processing of relevant data will be still conditional to enhancement of quality of data provided by subsystems, particularly Zbervak run by the WRI.

69. For the assessment of achievement of the project WO the TA Component of the 2005 EQS for Water we considered only the second indicator at overall objective level, since the first one was not measurable. By ensuring compliance with the WFD and the Council Directive 76/464/EEC, the project contributed to *strengthening and enhancing the capacity of the central administration and of the District Offices responsible for water quality to implement the national legislation and the EU acquis on water quality* (WO).

## 2.5 Performance Rating

INT	Relevance	Efficiency	Effectiveness	Sustainability	Impact	Verbal Rating
<b>Internal Market</b>						
2006/018-175.06-01.01-0005 UIBF Animal Protection	2	1	1	1	1	S
2006/018-175.06-01.01-0006 UIBF ESA 95	2	2	2	1	2	HS
2005/017-464.07-02.01-0002 Radioactive Waste	2	1	2	2	2	HS
2006/18-175.06-01.01-0002 UIBF IS on Waters for HC	2	1	1	1	0	S
2005/17-464.06-01.01-0003 TA Component of the EQS for Water	2	1	1	1	1	S

Unacceptable	Poor	Sufficient/ adequate or no rating possible	Good	Excellent
-2	-1	0	+1	+2

Highly Unsatisfactory	Unsatisfactory	No rating possible	Satisfactory	Highly satisfactory
HU	U	N/A	S	HS

### 3. CONCLUSIONS AND RECOMMENDATIONS

#### 3.1 Conclusions

70. *Compliance of the project objectives with programming documents and needs of activities' Beneficiaries within the reviewed SW and DB development projects is evaluated as relevant*, as the TF assistance projects are closely linked to strategic EU and national documents. The projects fully correspond to the transposed European legislation, such as the animal welfare, reporting on national accounts to Eurostat or the WFD. The reviewed interventions are also in line with the national implementing rules derived from the international conventions, when the European legislation transposition is not sufficient, such as in the area of nuclear safety and state nuclear supervision. Moreover, all the evaluated projects are in conformity with the national Strategy of Informatisation of Public Administration and derived sectoral strategies.

71. *The quality of IAs included in the logframes varies*, some of them are not well-defined and/or do not well correspond to or cover the pre-defined project purposes For the WOs, the indicators are not ideally defined, with missing benchmarks or they are not able to cover the objectives in their full scope (the 2006 Animal Protection, the 2005 Radioactive Waste). On the other hand, some projects report well-defined and structured indicators reflecting the objectives structure (2006 European Standards of Accounts 95).

72. *SCs and WGs worked well*, with regular meetings and balanced representation of members, allowing making the necessary decisions and approving the key projects' outputs. Absorption capacities were sufficient, with minor problems related to fluctuation of employees, however, without any significant impact on the project implementation (the 2006 Animal Protection, the 2006 European Standards of Accounts 95).

73. *Efficiency of SW/DB applications development is evaluated vastly as sufficient*. Beneficiaries usually expressed satisfaction with the performance of Contractors, who were praised for their flexibility and willingness to adapt to needs of the Beneficiaries some Contractors even exceeded the planned billable days in the effort to deliver a quality product that meets expectations of the Beneficiary (2005 EQS for Water). In addition, good co-operation of relevant stakeholders contributed to efficiency of the reviewed projects. On the other hand, deficiencies to be reported with regard to the lack of the professionally carried out market research or analysis of market environment and assessment of efficiency of software development versus its purchase, before the tender was launched or even at the project design stage. However, due to special characteristics of the evaluated software applications, their development appeared the best solution and more efficient than purchase on open markets and further adjustment, and thus brought the desired value added. This fact can be justified by the special Beneficiaries' environment and special requirements on the software applications.

74. *The incurred undesired events did not affect the smooth project implementation, in general*. SW and DB projects have historically suffered from delays caused by several reasons, such as free of charge revision procedures applied by unsuccessful bidders prior the amendment of the Public Procurement Law (until 2006); the need for all SW projects to be checked for conformity by the Section of Informatisation of the Society at the Ministry of Finance of the Slovak Republic; analytical phase extension caused by its complexity and importance for other parts of the project (the 2006 Animal Protection); disputes about the

public procurement procedure to be applied when the Beneficiary tended to continue the project implementation with the previous Supplier (the 2005 Radioactive Waste) or delays in building the technical environment for introduction of the supported ISs and lack of ownership of some of data to be used by the system. (the SHMI) However, the delays did not jeopardise the projects' implementation as a whole.

75. *Software development appears the project value added in comparison with other alternative possibilities of acquiring (purchasing) the software.* However, *ex-post* evaluating 'to buy or develop' alternatives without having, for disposal, any *ex-ante*/pre-tendering professional analysis of marketed products is rather difficult. The evaluators miss the solid reference basis for their findings and conclusions. The specific internal Beneficiaries' environment and licence policy appears as a limited condition in using the market-accessible standardised ready-to-use SW applications. The developed SW applications represent very unique national IT solutions for an extremely limited number of beneficiaries/users, ordered by the central government, and therefore unsuitable for further marketing. In this respect, the customisation of market accessible ready-to-use products (if any on the markets) would have significantly exceeded the costs related to the SW applications development, what would have not showed the expected project value added.

76. *Contribution of the Section for Informatisation of the Society at the MoF to the successful project implementation is rather unclear,* when checking for conformity of the TF SW and DB development projects, mostly 2005 and 2006 ones with the valid legislation and the respective national Strategy and the Concept. The Section commented on the projects' documents, as submitted by the CFCU. Although these activities of the Section seem to be valuable, especially on projects' relevance, however, the applied checking procedures were not standardised (rather *ad hoc*) and, moreover, driven mostly by one employee of the Section, but provided within the acceptable period of time. Moreover, other external experts were also used to provide their specialist opinions on the TF SW/DB development projects. Acceptance of all provided comments stayed finally with the CFCU.

77. *Sustainability of software applications developed within the Transitional Facility projects is sufficiently assured.* The forecasts of sustainability are mostly positive. Activities securing sustainability are often present in PFs, such as provision of methodological materials (often training manuals) and broad reach of complementary training, including administrators, methodologists and terminal users as well as provision of software documentation including user's, administrator's and operating manuals, licences of developed or purchased SW and source codes. In most cases sustainability had been supported by availability of the Providers' staff until the projects were closed and by strong commitment of Beneficiary's management and executive staff. Moreover, connection to the existing IS as a positive prospect of sustainability of projects was mostly required by the relevant ToRs or covered contractually. Flexibility of some systems to adjust for the legislation changes improves their sustainability as well (the 2006 Animal Protection in 2010 and 2012, the 2006 European Standards of Account 95 in minimum 4 years). On the other hand, though Beneficiaries include resources for the post-warranty period into their budget lines, this money is often a lump sum for the whole institution, difficult to track the individual budget lines. Moreover, as for some projects, no clear ideas were present for the upgrade of the complementary HW. In addition, the multiannual budgeting in Slovakia was often not taken into account when making budget forecasts. The mandatory 2-year post-warranty service period (except the 2006 European Standards of Accounts 95), as well as copyrights transfer, is finally covered contractually. However, the copyrights terms are often not precise enough to fully eliminate potential disputes.

78. *Effectiveness of the reviewed projects measured via the fulfilment of the IOs shows vastly good results.* However, some indicators at the project purpose and WO levels are not well defined or do not correspond to the set up project objectives, thus they are not measurable or usable to assess the project progress or its impact.

79. *The forecasts of impact are vastly positive,* especially for projects, where the WOs could be monitored and evaluated fairly shortly after the project completion (the 2006 Animal Protection, the 2006 European Standards of Accounts 95, the 2005 Radioactive Waste). However, the projects significantly affected the improved professional capacity, eliminated workload and improving the quality of technical procedures.

## **3.2. Lessons Learnt and Recommendations**

### ***3.2.1 Lessons Learnt***

80. EU funded projects into the SW and DB development, to avoid their fragmentation should be supported by the national and EU strategic documents or concepts, following the sectoral priorities. Embedment of the EU interventions in the relevant legal documents is welcome as well. These strategic documents should be present during the design stage of the project to assure good relevance of the projects, such as PFs.

81. For the technical part of the SW projects' design stage, the most important is involvement of the topic-related experts, i.e. IT people. As for the quality of the ToR/Technical Specifications (TS)s, it is inevitable to combine inputs of experts in the topic to be supported by the designed SW and IT specialists for defining the related technical solution. Such work must be inseparably supported by the relevant market research already at the project design stage in order to assure relevance of the designed ToR/TSs and/or the project itself. The market research shall accompany the project design documentation to be submitted to the Contracting Authority; however it does not hinder it to carry out the market survey again directly prior launching the tender.

82. Projects aiming at development of the ISs through integration and consolidation of existing systems require thorough analysis to be carried out by the Beneficiary. Only detailed knowledge of functionalities and technical solutions of the ISs enables the Beneficiary to define scope and type of services precisely. In turn, the potential Contractor can plan and mobilise its resources more effectively. As a matter of fact, implementation of number of TF projects was extended as a result of insufficient analysis of existing ISs and DBs, both in pre-tendering period and analytical stage of the implemented projects.

83. Existence of the complementary HW is conditional for the SW and DB development projects to be viable and feasible. At the same time timing of the provision of the HW and development of the SW is key to avoid the obsolescence of the former.

84. Efficiency of the projects strongly depends on the level of cooperation and involvement of the Beneficiary representatives in tracking and directing the project activities. Representation of relevant stakeholders in SCs has proved to be beneficial for smooth execution of the SW projects. Members of the SC should be in management positions in order to be able to promptly respond to identified problems and make decisions. The experience shows that WGs created under individual projects were the main platform for addressing technical aspects of the IS and DB to be developed. Regular and frequent WGs, briefings, reporting by the Providers, monitoring visits/meetings, etc. evidently supports the

quality and timeliness of projects' outputs and results and finally meeting the IOs. Indirectly, it also affects the Beneficiary's professional capacities.

85. For satisfactory sustainability of the SW and DB projects, financial resources for the post-warranty service should be assured, taking into account multi-annual budgeting of the state budget; also finances should be planned for the upgrade of the complementary HW.

86. Systems should be open to legislative changes, as envisaged in the future. Information about the prepared legislative changes should be provided by the Beneficiary institutions via the work of their representatives, such as various WGs on the relevant topic on the EU level.

### ***3.2.2 Recommendations***

1. The market research in the project design stage to be supported by involving the IT experts should be required in order to assure the most economically advantageous price estimation for the envisaged SW product. As for the IT experts, the same can be applied for the composition of the project Evaluation Committee.
2. When drafting Terms of Reference for the Software or Database development interventions, the Beneficiary should secure interlinkages with the existing systems, especially when the chances exist for different private companies being involved in Software and Database assistance projects. The previous Contractor should provide all the necessary information about the developed product for his/her successor (for instance, in the Final Report) to be able to smoothly proceed with the development and interlinking of the relevant Software/Database.
3. If a unit or an institution is responsible for checking the conformity of the Software project with a roof document or legislation (in Slovakia it was the Section for Informatisation of the Society), the scope of work and deadlines should be agreed, (taking into account also the procurement procedures and their deadlines).
4. The Slovak Public Sector seems to be rather fragmented in terms of quantity of Information Systems and Databases at place, administrators and technical solutions employed. In order to increase their efficiency and effectiveness, institutions of the public administrations should continue in the process of integration and consolidation of the relevant Information Systems ( i.e. decreasing their number and linking them) according to the agreed standards stated in the relevant legislation. For this purpose, assistance from the Structural Funds represents a unique opportunity to enhance the quality of Information Systems in the sector. Experience with development of Information Systems under the Phare and Transition Facility can provide a valuable input.

**ANNEXES**



## ANNEX 1 List of Interviews

Institution	Interviewee	Date
<b>Ministry of Finance SR</b> Section of Informatisation of the Society Stefanovicova 5 SK-813 08 Bratislava	<b>Mr. Jan Hochmann*</b>	2 June 2009
<b>Ministry of Finance SR</b> CFCU Stefanovicova 5 SK-813 08 Bratislava	<b>Mr. Miroslav Skvarka*</b>	2 June 2009
<b>State Veterinary and Food Authority of the SR</b> Botanicka 17 SK Bratislava	<b>Mr. Dalibor Polak</b> Director of Animal Welfare Dpt.	3 June 2009
<b>State Veterinary and Food Authority of the SR</b> Botanicka 17 SK Bratislava	<b>Ms Daniela Bucshazyova</b> Animal Welfare Dpt.	3 June 2009
<b>Slovak Environmental Agency</b> Tajovskeho 28 SK-975 90 Bratislava	<b>Ms. Renata Grofova</b> Specialist for reporting standardisation	11 June 2009
<b>Slovak Hydrometeorological Institute</b> Jeseniova 17 SK-833 15 Bratislava	<b>Ms. Daniela Durkovicova</b> Project Manager	12 June 2009
<b>Ministry of Finance SR</b> Central Finance and Contracting Unit Stefanovicova 5 SK-813 08 Bratislava	<b>Ms. Zora Paulikova*, **</b> Financial Manager	12 June 2009 17 June 2009
<b>Nuclear Regulatory Authority SR</b> Bajkalska 27 SK-820 07 Bratislava 27	<b>Mr. Mikulas Turner</b> Director of the International Relations Division / SPO	2 July 2009
<b>Nuclear Regulatory Authority SR</b> Bajkalska 27 SK-820 07 Bratislava 27	<b>Ms. Jarmila Racova</b> International Relations Division / SCM	2 July 2009
<b>Nuclear and Decommissioning Joint Stock Company</b> P. O. Box 41 SK-935 39 Mochovce	<b>Ing. Ladislav Ehn</b> Division Director/ Project Manager of the Beneficiary	2 July 2009
<b>AITEN, a.s.</b> Sibirska 1 SK-917 00 Trnava	<b>RNDr. Jan Ulicky</b> Project Manager of the Provider	2 July 2009
<b>Office of the Government of the SR</b> Aid Co-ordination Unit Nam. Slobody 29 SK-813 70 Bratislava	<b>Ms. Sona Gabcova</b> Programme Manager	3 July 2009
<b>Office of the Government of the SR</b> Aid Co-ordination Unit Nam. Slobody 29 SK-813 70 Bratislava	<b>Ms. Marianna Macaskova</b> Programme Manager	3 July 2009
<b>Office of the Government of the SR</b> Aid Co-ordination Unit Nam. Slobody 29 SK-813 70 Bratislava	<b>Mrs. Denisa Vasarabova-Kutyova*</b> Director	6 July 2009

Institution	Interviewee	Date
<b>Statistical Office of the Slovak Republic</b> Miletičova 1 SK Bratislava	<b>Mr. Stefan Condik</b> Vice President <b>Ms. Alena Illitova</b> Head of the Department/Project Leader <b>Ms. Elena Benkova</b> Head of Unit	6 July 2009
<b>Ministry of Finance SR</b> Central Finance and Contracting Unit Stefanovicova 5 SK-813 08 Bratislava	<b>Ms. Zora Paulikova*</b> , ** Financial Manager	7 July 2009 13 July 2009
<b>CFCU, s.r.o.</b> Karadzicova 8/A Sk-821 08 Bratislava	<b>Mr. Lubomir Pucek</b> *, ** Konzultant former Project Manager at the Central Finance and Contracting Unit at the MoF SR	8 July 2009
<b>Ministry of Finance SR</b> Central Finance and Contracting Unit Stefanovicova 5 SK-813 08 Bratislava	<b>Ms. Daniela Migrova</b> Project Manager	17 July 2009 29 July 2009*

\* Telephone interview

\*\* E-mail interview

## ANNEX 2 List of Documents

### LIST OF DOCUMENTS REFERRED TO IN THE THEMATIC EVALUATION

Name of Originator	Date	Title of Document
European Commission	December 2003	Programming and Implementation Guide – Transition Facility
European Commission, DG Enlargement	November 2003	Comprehensive monitoring report on Slovakia's preparations for membership
European Commission	2004	Planning Document Transition Facility 2004-2006, Slovak Republic
European Commission/Office of the Government SR	2004-2005	Project Fiches for TF Programmes 2004 - 2006
European Commission/MWH Consortium	2006	Phare Ex-Post Evaluation. Phase 1, Multibeneficiary Programmes: Statistics
European Commission/MWH Consortium	2007	Phare Ex-Post Evaluation. Phase 1, Multibeneficiary Programmes: Small and Medium-Sized Enterprise Finance Facility
European Commission/MWH Consortium	2007	Phare Ex-Post Evaluation. Phase 1, Multibeneficiary Programmes: TAIEX
European Commission/MWH Consortium	2007	Phare Ex-Post Evaluation. Phase 1, Multibeneficiary Programmes: SIGMA
European Commission	2004	Commission Decision of Financial Contribution of Transition Facility for Strengthening Institutional Capacity to the Slovak Republic
European Commission/Office of the Government SR	August 2004	Memorandum of Understanding on the Implementation of the TF 2004 – 2006 (in Slovak only)
European Commission/Office of the Government	July 2006	Financial Proposal on the Implementation of the TF 2006
Office of the Government SR	April 2008	Update of logframes 2005-2006 TF projects
Office of the Government SR	1 July 2009	Implementation Status Report
DISTINCT/OCTIGON	June 2008	Country Evaluation Report R/SK/TF/CER/08.001
DISTINCT	December 2008	Country Evaluation Report R/SK/TF/CER/08.002
DISTINCT	June 2009	Country Evaluation Report R/SK/TF/CER/09.002
State Veterinary and Food Authority of the SR	December 2008	IR 2006/018-175.06.01
State Veterinary and Food Authority of the SR	March 2009	First interim report 2006/018-175.06.01/05
Asseco Slovakia, a.s.	28 April 2009	Minutes of the meeting No. 19 – final workshop/training on StatGen
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	4 July 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Project Inception Report
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	10 July 2008	TF Project No. UIBF :2006/018-175.06.01/06 – Report on Analysis
Statistical Office of the Slovak Republic	4 September 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Minutes of the Monitoring Committee meeting

<b>Name of Originator</b>	<b>Date</b>	<b>Title of Document</b>
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	25 September 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Project Interim Report
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	25 September 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Project Interim Report No 1 (reporting period: 10.7..2008 – 25.9.2008)
Statistical Office of the Slovak Republic	May 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Terms of Reference
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	24 June 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Kick-off meeting presentation document
Statistical Office of the Slovak Republic	1 October 2008	TF Project No. UIBF :2006/018-175.06.01/06 - Minutes of the Monitoring Committee meeting
Asseco Slovakia, a.s.	6 November 2008	UIBF 2006/018-175.06.01/06 – Installation Manual for the StatGen product
Statistical Office of the Slovak Republic / Office of SR Government	12 November 2007	TF Project No. UIBF :2006/018-175.06.01/06 - logframe planning matrix
Statistical Office of the Slovak Republic / Asseco Slovakia, a.s.	13 November 2008	TF Project No. UIBF :2006/018-175.06.01/06 – Installation manual for StatGen
Nuclear Regulatory Authority SR	June 2007	TF Project No. 2005/017-464.07.02 - Terms of Reference
AITEN, a.s.	1 August 2007	TF Project No. 2005/017-464.07.02 - Statement to the cooperation of AITEN, a.s. with the potential Provider for this project
Nuclear Regulatory Authority SR/ AITEN, a.s. / VUJE, a.s.	15 October 2008	TF Project No. 2005/017-464.07.02 – Final Report Ev. No.:RAOaVJP-2007-UJD-D.XX-ZSP-01.00
Nuclear Regulatory Authority SR/ AITEN, a.s. / VUJE, a.s.	3 November 2008	TF Project No. 2005/017-464.07.02 – Monthly Report for October 2008 Ev. No. : RAOaVJP-2007-UJD-D.XX-MSP-11.00
AITEN, a.s. / VUJE, a.s.	2 July 2009	TF Project No. 2005/017-464.07.02 - Presentation on the RAP system for purpose of this Evaluation
Ministry of Finance of the Slovak Republic, CFCU / Asseco Slovakia	6 June 2008	Service Contract - Licence Contract No. 0601817506-0101-0006 – “Software Solution Development for Output Products of the Transmission Programme under the ESA 95” Terms of Reference
Ministry of Finance of the Slovak Republic, CFCU / AITEN, a.s.	15 November 2007	Service Contract - Licence Contract No. 200501746407-0201-0002 – “Development of an Information and Tracking System for Radioactive Waste and Spent Fuel in Slovakia” Terms of Reference
Ministry of Finance of the Slovak Republic, CFCU / RADELA, s.r.o.	6 November 2008	Service Contract - Licence Contract No. 0601817506-0101-0005 – “Strengthening of the Veterinary Controls in the Field of Animal Protection on Farm and at the Time of Slaughter or Killing” Terms of Reference
Ministry of Finance of the Slovak Republic, CFCU / DEKONTA, s.r.o.	8 July 2008	Service Contract - Licence Contract No. 200601817506-0101-002 – “Information System on Waters Intended for Human Consumptions” Terms of Reference
Ministry of Finance of the Slovak Republic, CFCU / Goldmann Systems, a.s.	15 October 2007	Service Contract - Licence Contract No. 200501746406-0101-0003 – “Establishment of the Environmental Quality Standards for Water and Strengthening of Regional and District Offices for Implementation of Water Controls and Monitoring” Detailed Project Fiche and Terms of Reference
Ministry of Environment	September 2008	Concept of Development of Information Systems in the Sector of Environment

<b>Name of Originator</b>	<b>Date</b>	<b>Title of Document</b>
Ministry of Finance SR	June 2007	Tender Dossier (Terms of Reference) for the Service contract “Development of management and communication information system for summary register on waters”
Goldman Systems, a.s.	October 2007	Project Initialisation Documents for 2005/17-464.06.01 (TA)
Goldman Systems, a.s.	November 2007 – May 2008	Highlight Report 1-4 2005/17-464.06.01 (TA)
Goldman Systems, a.s.	July 2008	Project Final Report 2005/17-464.06.01 (TA)
Ministry of Finance, Central Financing and Coordination Unit	May 2008	Tender Dossier (Terms of Reference) for UIBF 2006/18-175.06.01 IS on Water for Human Consumption
Dekonta, s.r.o.	August 2008	Inception Report of the 2006/18-175.06.01 IS on Water for Human Consumption
Dekonta, s.r.o.	October 2008	1st Interim Report of the 2006/18-175.06.01 IS on Water for Human Consumption
Dekonta, s.r.o.	January 2009	2nd Interim Report of the 2006/18-175.06.01 IS on Water for Human Consumption
Ministry of Finance, Central Financing and Coordination Unit	April 2008	Approval of Extension of the Implementation Period of the 2006/18-175.06.01 IS on Water for Human Consumption
Dekonta, s.r.o.	May 2009	3rd Interim Report of the 2006/18-175.06.01 IS on Water for Human Consumption

**Documents requested but not made available (with reasons): none**

### ANNEX 3 List of Selected Projects Included in the Evaluation

Project No.	Project Name	Allocated Budget (EUR)	Beneficiary
2006/018-175.06-01.01-0005	Strengthening of the Veterinary Controls in the Field of Animal Protection on Farm and at the Time of Slaughter or Killing	190,000	Ministry of Agriculture
2006/018-175.06-01.01-0006	Software Solution Development for Output Products of the Transmission Programme under the ESA 95	250,000	SOSR
2005/017-464.07-02.01-0002	Development of an Information and Tracking System for Radioactive Waste and Spent Fuel in Slovakia	500,000	SNRA
2006/18-175.06-01.01-0002	Information System on Waters Intended for Human Consumptions	150,000	MoEnv
2005/17-464.06-01.01-0003	Establishment of the Environmental Quality Standards for Water and Strengthening of Regional and District Offices for Implementation of Water Controls and Monitoring	500,000 (TA part)	MoEnv

## ANNEX 4 List of Evaluation Questions

### THEMATIC EVALUATION REPORT 2 EVALUATION QUESTIONS

Evaluation Criterion	Question	Proof of Evidence
<b>Relevance</b>	To which extent are the project objectives in compliance with Programming documents and needs of activities' Beneficiaries?	Available documentation related to the needs of the Slovak Republic and available strategic documentation.
<b>Thriftiness and Efficiency</b>	To which extent does the software/database development appear efficient in respect of funds spent for it?	
	To which extent did the undesired events affect the smooth project implementation?	Problems with public procurement of goods or other difficulties related to the description of Technical Specifications, identified and described in the Thematic Report.
	To which extent does the software development appear the project value added in comparison with other alternative possibilities of acquiring (purchasing) the software?	Analysis of other possibilities of acquiring the software.
	To which extent did the procedures of the Section for Informatisation of the Society at the Ministry of Finance of the Slovak Republic contribute to the successful project implementation?	Analysis of procedures included in the Thematic Report.
<b>Sustainability</b>	To which extent is sustainability of the software developed within the project assured?	Funds for updates are available (when it is not included in the Contract). Allocation of funds for after-warranty period is assured by the Final Beneficiary.

## ANNEX 5 List of Indicators

### INDICATORS OF ACHIEVEMENT

Immediate Objectives (Project Purpose)	Indicators of Achievement (Objectively Verifiable Indicators)	State of Achievement
<i>2006/018-175.06-01.01-0005 UIBF Strengthening of the Veterinary Controls in the Field of Animal Protection on Farm and at the Time of Slaughter or Killing</i>		
Strengthening and unification of veterinary controls in the field of animal protection in the SR in accordance with Regulation of the European Parliament (EP) and Council No. 882/2004 on official control performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules	<ul style="list-style-type: none"> <li>▪ Veterinary controls executed and the results processed in accordance with the Commission Decision 2006/778/EC and relevant Directives (98/58/ES, 91/629/EEC, 91/630/EEC, 99/74/EC) and Council Directive 93/119 EEC requirements within the project implementation and during 2008</li> </ul>	After the implementation of the SW in September 2009, the system to be fully used in 2010
Unification of the results of the official controls required for the statistical and reporting purposes and for the prioritisation of the control targets	<ul style="list-style-type: none"> <li>▪ SW interconnection of unified results of control of the state veterinary activities on the regional and district veterinary and food administration in accordance with the Commission Decision requirements</li> </ul>	The system to be fully operational in 2010
<i>2006/018-175.06-01.01-0006 UIBF Software Solution Development for Output Products of the Transmission Programme under the ESA 95</i>		
Creation of central output DB of statistical data for national accounts and governmental financial statistics within the TP according to the ESA95 methodology	<ul style="list-style-type: none"> <li>▪ File of 21 automatic compiled output tables in requested deadlines according to new TP under ESA95</li> <li>▪ Developed DB containing approximately 13 000 indicators by the end of the project</li> </ul>	The system is fully operational using the database of indicators. All required output tables are compiled automatically.
<i>2005/017-464.07-02.01-0002 Development of an Information and Tracking System for Radioactive Waste and Spent Fuel in Slovakia</i>		



Immediate Objectives (Project Purpose)	Indicators of Achievement (Objectively Verifiable Indicators)	State of Achievement
<ul style="list-style-type: none"> <li>▪ To establish a reliable and user-friendly information system (recordkeeping) for all kinds of radioactive waste generated or to be generated during operation, decommissioning and dismantling of nuclear installations in Slovakia.</li> <li>▪ To develop a computerized system that would enable tracking of all kinds of radioactive waste and spent fuel.</li> <li>▪ To fulfil one of the main tasks of the future national Slovak agency on radioactive waste management.</li> <li>▪ To support the reporting of the institution (Agency) to safety authorities and other organisations on waste management and spent fuel inventories</li> </ul>	<ul style="list-style-type: none"> <li>▪ Computerized system that will enable the tracking of all kinds of radioactive waste and spent fuel developed by the end of the project.</li> </ul>	<p>The detailed design of IS with function description and specification of each object and attributes in detail developed and in place. Components of detailed function descriptions are algorithms of data processing and selection requirements. Training sessions for users and administrators provided and the system security solved (using CITRIX), but fine-tuned at time of this evaluation.</p> <p>The IS is operating and in place.</p>
<i>2006/18-175.06-01.01-0002 UIBF Information System on Waters Intended for Human Consumptions</i>		
<p>To support fulfilling of obligations resulting from the EU legislations, the Council Directive 98/83/EC on the quality of water intended for human consumption (next Drinking Water Directive, DWD) and to support the achievement of Directive 2003/4/EC of the European Parliament and of the Council on public access to environmental information objectives in Slovak Republic (next SR)</p>	<ul style="list-style-type: none"> <li>▪ Data about water intended for human consumption are collected according to the Council Directive 98/83/EC after the project completion</li> <li>▪ Drinking water data are accessible for public by means of the IS after the project completion</li> </ul>	<p>Data about water intended for human consumption collected.</p> <p>Drinking water data accessible for public.</p>
<p>To support fulfilling of obligations resulting from the Directive 98/83/EC in relation to rationalization of national drinking water data flows and strengthening of reporting process toward EC under Directive 98/83/EC in SR.</p>	<ul style="list-style-type: none"> <li>▪ 1 Report on drinking water quality in SR elaborated in line with Art 13 (2) of DWD and submitted to EC in required deadline (i.e. 28.3.2009)</li> </ul>	<p>Because of the discrepancies between deadline for reporting towards European Commission (in February 2009) and planned deadline for information systems development (planned for May 2009, prolonged to October 2009) the Report for reporting deadline in 2009 was prepared <i>'manually'</i> based on bilateral communication between three institutions involved in drinking water data collection and reporting. The Report was sent to EC in March 2009. Next Report, with reporting deadline in 2012 will be prepared by using Information System on Drinking Water (IS DW) which is intended to streamline the reporting processes. IS DW is under development on the present.</p>
<p>To support the dissemination of environmental information in compliance with Directive 2003/4/EC on public access to environmental information.</p>	<ul style="list-style-type: none"> <li>▪ IS on drinking water quality in SR and its appropriate databases developed for collection and handling of data necessary for DWD implementation by the end of the project</li> </ul>	<p>The information system on Water for Human Consumption developed.</p>

Immediate Objectives (Project Purpose)	Indicators of Achievement (Objectively Verifiable Indicators)	State of Achievement
<p>To support the dissemination of environmental information in compliance with Directive 2003/4/EC on public access to environmental information.</p>	<ul style="list-style-type: none"> <li>▪ Public access to environmental information on drinking water quality presented on Web Portal on Drinking Water is created by the end of project</li> </ul>	<p>The web portal with public access available.</p>
<p><i>2005/17-464.06-01.01-0003 Establishment of the Environmental Quality Standards for Water and Strengthening of Regional and District Offices for Implementation of Water Controls and Monitoring</i></p>		
<p>To fulfill the requirements of the Water Framework Directive 60/2000/EC and Council Directive 76/464/EEC, by using proper communication and information exchange for relevant decision making process.</p>	<ul style="list-style-type: none"> <li>▪ State administration offices provide relevant information for reporting and for the decision making process (end of project)</li> <li>▪ Authorisation regime in compliance with Directive WFD and functioning and enforcement system in practice (end of project)</li> </ul>	<p>The system is implemented and functioning</p>