



VAST

Reveal the value of your projects!

VALUE ASSESSMENT TOOL GUIDELINES

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INTRODUCTION

Overview

These guidelines are designed to follow the questions as set out in the Excel document. You can directly refer to the question that needs further clarification. It is therefore not necessary to read the whole document.

You will find in this section a brief overview of the Value ASsessment Tool (VAST), its purpose and some of the assumptions made for its current version. It is structured as questions and answers.

What is VAST?

The aim of VAST is to evaluate and communicate the qualitative and quantitative value of an information system (IS) or an IT project. It analyses five perspectives: Value for the European Union (Value for EU), Value for the European Commission (Value for EC), Risks, Necessity and Financial costs and Benefits.

What are the VAST benefits?

The tool can:

- Demonstrate the value of your information systems and IT projects
- Enhance the collaboration between the System Owner and the Systems Supplier team
- Give complete and concise presentation and enhance communication from staff members to senior management
- Provide direct focus on fundamental IT Governance principles
- Provide a strong basis for portfolio management, comparison and prioritization of new projects.

When should VAST be used?

The questionnaire should be completed early in the inception phase of the project (before or during the completion of the vision document). Ideally the project should be assessed again at the end of the transition phase and the two values compared. The Results chapter in the current document is giving insight on the various scenarios to use the tool.

Who should use VAST?

Ideally, the System owner and the System supplier should collaborate to fill out the questionnaire. The tool is suitable for both the business and the IT side.

How long it will take to complete VAST?

You will need less than 1 hour to complete the questions asked in the tool.

How is VAST structured?

VAST is an Excel document composed of seven worksheets:

- The **Index** sheet contains an ID card of the project being assessed and also shortcuts to the other worksheets in the document.
- The worksheets that assess the qualitative perspective (**Value for EU, Value for EC, Risks, and Necessity**) are split into a number of sections & sub-sections, in order to clarify what subject is being evaluated.
- The **Financial Costs and Benefits** worksheet (the sixth tab of the tool) deals with the quantitative perspective of VAST (some financial information is required here).
- Finally, once all the questions have been answered and all requested information has been provided, the assessment can be seen on the **Results** sheet.

These guidelines have been designed to provide support to the users about each question. This document lists and numbers the questions at the exact same way as the Excel tool. This way, users can directly refer to the question that needs further clarification.

How should questions in VAST be answered?

For the multiple choice questions, they should be answered by adding "X" (or "x") into the cell below the chosen answer.

Other questions have open fields and can be answered freely. Note that open questions appear only in the Financial Costs and Benefits area.

What should you know about the questions in VAST?

The Value Assessment Tool mainly consists of multi-choice questions. Here are some general remarks about the questions:

- Some answers encompass several different weighted answers. For example: What type of help does the IS provide?
 - a) No Help is provided
 - b) User manual/guidelines
 - c) User manual/guidelines AND regularly updated FAQ section (the answer c being equal to b plus extra information)
- When there is an answer "EC" (European commission), it implies involvement of all DGs (EC = all DGs).
- Certain questions have a sub-question which is used to clarify the concept. Note that if you answer positively to the main question you may be also required to answer a sub-question. The two questions (the question and its sub-question) are evaluated as one. For example, the question "Does the IS support processes which already existed?" is followed by the related question "Have the already existing processes been simplified or redesigned?"

Should all questions be answered?

If your information system or IT project DOES NOT have external users (outside of the European Commission) you DO NOT need to fill the Value for EU perspective. If you don't have external users of the system and you were still to fill these questions, your answers would be negative ("No / Irrelevant"). Question 0) in Value for EU perspective indicates this and thus saves your time.

However, in order to have complete and meaningful results all questions in the appropriate sections of VAST should be answered. Be aware that in the very beginning of a project it is not always easy to have precise answers. Therefore it is recommended to choose the closest possible answer valid for the current status of the project. However, if the user feels that the question is not suitable for his/her project, he/she has the possibility to answer "Irrelevant" in most of the question. VAST can be used again to reassess the project at later stages and thus the evolution of the project can be monitored.

Should a project have good results?

A project **DOES NOT NEED** to have high scores for each section. Moreover it is not possible as this is a general tool applicable to many different kinds of project.

Should a project have positive financial benefits?

A project **DOES NOT NEED** to have positive financial benefits. VAST can distinguish between qualitative and quantitative value and thus a costly project from the financial perspective could be beneficial from the qualitative point of view.

What should you know for the current version of VAST?

This is the third iteration of the tool which continues to evolve.

Further questions

For any further questions about the tool and the guidelines you can contact:

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Glossary

Term	Description
Administrative (or bureaucratic) burden	Administrative (or bureaucratic) burden describes an unnecessary or excessive demand on individuals to provide information, or to do tasks, that can be done in less time or using fewer resources.
APS	Annual Policy Strategy
BCP	Business Continuity Plan (BCP) is an interdisciplinary concept used to create and validate a practiced logistical plan for how an organisation will recover and restore partially or completely interrupted critical (urgent) function(s) within a predetermined time after a disaster or extended disruption. In plain language, BCP is working out how to stay in business in the event of disaster
COTS	The term Commercial Off-The-Shelf product (hardware or software) refers to readily available products that can be acquired from the market (instead of being developed in-house).
Data Protection Co-ordinator (DPC)	The Data Protection Co-ordinator (DPC) is nominated by the DG and assures a coherent implementation of Regulation 45/2001 in the DG. He or she provides advice and assistance to all responsible persons and specifically assists Controllers in the DG in their Notifications to the Data Protection Officer (DPO). He or she sets up the inventory of applications for the processing of personal data in the DG, liaises and co-operates with the DPO. He or she also represents the DG in the network of co-ordinators which is chaired by the DPO.
Data Protection Officers (DPO)	Each institution has one or more Data Protection Officers (DPO) to ensure the application of the principles of personal data protection in the institution. Each DPO keeps a register of all personal data processing operations in his/her institution. He/she also provides advice and makes recommendations on rights and obligations. He/she notifies risky processing of personal data to the European Data Protection Supervisor and responds to requests from the European Data Protection Supervisor. In critical situations he/she may investigate matters and incidents on request or on his/her own initiative.
Digital divide	The term digital divide refers to the gap between those people with effective access to digital and information technology and those without access to it. It includes the imbalances in physical access to technology as well as the imbalances in resources and skills needed to effectively participate as a digital citizen. In other words, it's the unequal access by some members of the society to information and communications technology, and the unequal acquisition of related skills
EC	European Commission
ECAS	ECAS (European Commission Authentication Services) is SSO mechanism adopted in the commission.
FLOSS	Free Libre Open Source Software (also F/OSS or FOSS) is software which is liberally licensed to grant the right of users to study, change, and improve its design through the availability of its source code. It is an inclusive term generally synonymous with both free software and open source software.

FTE	Full-Time Equivalent. One FTE indicates the equivalent work of one full-time person. A half FTE indicates the equivalent work of a half-time person, and so on.
GUI	Graphical User Interface
KSFs	Key Success Factors (KSFs) are those few critical or strategic factors that make the difference between success and failure of a project
IS	Information system (IS) is a system, whether automated or manual, that comprises people, machines, and/or methods organised to collect, process, transmit, and disseminate data that represent user information
Interoperability	Interoperability is a property referring to the ability of diverse systems and organisations to work together (inter-operate). The term is often used in a technical systems engineering sense, or alternatively in a broad sense, taking into account social, political, and organisational factors that impact system to system performance.
MS	Member State
Non-proprietary data formats	Non-proprietary or open data formats are such that do not require a licensed software application to access it and are free of legal restrictions on use
Programme	The term Programme often refers to the collection of projects aimed towards the same goal (e.g. the ABAC programme which comprised many projects to realise the introduction of an accrual based accounting in the Commission).
Project	Projects are performed by people, constrained by limited resources, and planned, executed, and controlled. A project is a temporary endeavour undertaken to create a unique product or service. Temporary means that every project has a definite beginning and a definite ending. Unique means that the product or service is different in some distinguishing way from all similar products and services. Projects are often critical components of the performing organisations' business strategy.
Red tape	"Red tape" is a derisive term for excessive regulation or rigid conformity to formal rules that is considered redundant or bureaucratic and hinders or prevents action or decision-making. It is usually applied to government, but can also be applied to other organisations like corporations.
Regulatory compliance	Regulatory compliance refers to systems or departments at corporations and public agencies to ensure that stakeholders/personnel are aware of and take steps to comply with relevant laws and regulations.
Single Sign-On (SSO) mechanism	Single Sign-On (SSO) mechanism enables user to be identified (authentication) and gain access to resources (authorization) to multiple software applications
SLA	SLA (Service Level Agreement) is formal agreement between two parties (client/customer and service provider). It may specify level of availability and performance of the IS. The SLA should reflect and comply with the external users' needs, however it should be transferred to technical specifications and managed by the system supplier
SOA	Service Oriented Architecture (SOA) provides methods for systems development and

	integration where systems group functionality around business processes and package these as interoperable services.
Software vendor	Software vendor is a company that provides software or software services
Stakeholder	An individual who is materially affected by the outcome of the information system. Stakeholders of an information system (amongst others) are : the business units, the users of the system, the supplier of the system, etc.
SWAT analysis	An analysis whereby the (internal) Strengths, (internal) Weaknesses, (external) Opportunities and (external) Threats involved in a project are being evaluated.
TCO	Total Cost of Ownership. The TCO of an information system defines the total estimated cost to develop the system, to put it into production, to operate it, to support it, to maintain it, to phase it out at the end, etc. The cost estimation is as comprehensive as possible and should include all costs from the very inception of the system until its phase out.
Transparency	Transparency is the open availability of information.
WAI standard	WAI stems for Web Accessibility Initiative of The World Wide Web Consortium (W3C). It is an effort to improve the accessibility of the World Wide Web (WWW or Web) for people with special needs, ageing, using mobile devices, not just standard web browsers. This is especially important for people with physical disabilities which require such devices to access the Web. http://www.w3.org/WAI/ http://en.wikipedia.org/wiki/Web_Accessibility_Initiative

VALUE FOR THE EUROPEAN UNION

This section of the tool looks at the assessment of the external value of an information system or an IT project. External value a project is considered to be any benefit which is delivered outside the Commission itself. This external aspect has been divided into two parts: society (**Social Value**); and individuals (**External Users Value**). The questions referring to 'society' have been sub-divided into **Government to Citizen, Government to Businesses, and Government to Government**. For the 'individual' the questions are divided into **User Population, User Friendliness, Quality and Effectiveness of the service, Data and Information Quality and User Support**.

Note! It should be kept in mind that all of the following questions are from external point of view.

0) Does your IS or IT project have external users (outside of the EC)?

If your information system or IT project DOES NOT have external users (outside of the European Commission) you DO NOT need to fill the Value for EU perspective. If you don't have external users of the system and you are still to fill these questions, your answers would be negative ("No / Irrelevant"). Question 0) in Value for EU perspective indicates this and thus saves your time.

Social Value

General

1) Will the IS contribute to reducing red tape for external stakeholders?

"Red tape" is a derisive term for excessive regulation or rigid conformity to formal rules that is considered redundant or bureaucratic and hinders or prevents action or decision-making. It is usually applied to government, but can also be applied to other organisations or corporations.

2) Will the IS reduce the administrative burden for external stakeholders?

Administrative (or bureaucratic) burden describes an unnecessary or excessive demand on individuals to provide information or to do tasks that can be done in less time, using fewer resources.

Note! It is not the information system itself that is reducing legal obligations imposed on the user, but the process that the IS supports.

In general, the notions "red tape" and "administrative burden" seem to be quite similar and indeed they are often used as synonyms. To distinguish the two, "red tape" concerns rigid

regulations while "administrative burden" concerns unnecessary demand for information, performance of tasks, etc. For example:

- When a company applies for funding, it can be sometime asked to provide tons of information (not directly related to this procedure, but required by specific regulation). This case should be considered as "**red tape**", since this is triggered by the regulation.
- When a company applied for several funding options, it can be sometime asked to provide several times the same information due to lack of internal synchronization. This case should be considered as "**administrative burden**", since this is not triggered by regulations.

Government to Citizen

Government to citizen questions aim to evaluate whether the discussed IS project is going to contribute to the citizen involvement and participation in the commission's procedures or decision-making. Three criteria are considered:

3) Will the IS contribute to closing the “digital divide”?

The term digital divide refers to the gap between those people with effective access to digital and information technology and those without access to it. It includes the imbalances in physical access to technology as well as the imbalances in resources and skills needed to effectively participate as a digital citizen. In other words, it's the unequal access by some members of the society to information and communications technology, and the unequal acquisition of related skills. Sometime it is not only the IS helps closing the digital divide, but also the processes that have been automated.

4) Will the IS ease the interactions between citizens and authorities (MS or EC)?

The question assesses how much the IS will contribute to the citizens involvement and ability for participation in the authorities procedures or decision-making. As an example an IS allowing increased interactions between citizens and EC is such providing online services for call for proposals or research funding.

5) Will the IS lead to increased participation in the political process?

The question assesses whether the IS will contribute to an increased involvement of citizens in political decision-making.

Government to Business

6) Will the IS ease the interactions between enterprises (or enterprises and citizens)?

The question assess how much the IS will contribute to eased interactions (like information sharing, exchange, collaboration) between enterprises or between enterprises and citizens. For example, the IS could provide a platform, which can serve as a common medium for a certain community, like the collaborative workspace dedicated to European Commission's partners (<http://circa.europa.eu/>). The IS could provide also only service(s), like VAT

Information Exchange System (http://ec.europa.eu/taxation_customs/vies/). Example for service, which eases interaction between enterprises and citizens, is the European Job Mobility Portal (<http://www.europa.eu.int/eures/>)

7) Will the IS ease the interactions between enterprises and EC?

The question assess how much the IS will contribute to the enterprises involvement and ability for participation in the authorities processes or decision-making.

For example ECOLABEL e-Catalogue (www.eco-label.com), will allow enterprises to apply online for "Green label" for their products. The IS behind will support the application processes and at the same time will distribute information to the public for the successful applicants.

8) Will the IS improve monitoring of regulatory compliance?

The question assess the possibility offered by the IS to businesses to get awareness and insights on regulations. In general, compliance means conforming to a specification or policy, standard or law that has been clearly defined.

The third possible answer of the question (self-assessment is available online) stands for the opportunity to check online (by questionnaire, some kind of interaction, etc.) whether the company complies with a certain regulation.

Note that this could be just a feature of the IS and not its sole purpose.

Government to Government

9) Will the IS Improve sharing of information between authorities (between MS only or between MS and EC)?

The question evaluates the adequate exchanging of data and information used in working methods.

10) Will the IS improve collaboration between authorities (between MS only or between MS and EC)?

The question evaluates the joint effort for achieving results and thus achieving synchronization of working methods.

External Users' Value

User population

The user population subsection encompasses questions that aim to estimate what the potential user base of an IS will be and how often the IS will be used. The following criteria are included:

11) What is the external users population size of the IS?

The question assesses an approximate estimation of the external users base, which the IS will serve. Pay attention that the answer of the question can be adjusted over the evolution of the project.

12) What is the targeted population?

The question identifies the specific user group that the IS will target.

13) What is the frequency of use of the service?

The question comprises criteria related to the frequency of the usage of the IS.

14) What is the obligation to use the services?

The question comprises criteria related to the obligation to use the IS.

Note! It is not necessary for an IS to score high on the population size and targeted groups questions in order to bring greater value and to express its importance. However, when comparing similar systems, the one able to serve more user groups or being frequently or compulsorily used should be favoured.

User Friendliness

This subsection deals with questions about the user interface and the presentation of information. It includes the following questions:

15) Will the IS use SSO (Single Sign-On) mechanism?

This mechanism enables users to be identified (authentication) and gain access to resources (authorization) to multiple software applications. Not all applications will need to have such a mechanism, however if there is a need the user to be authenticated and/or authorised, the possibility to use the SSO should be exploited.

16) Will the IS comply with a common look and feel?

These criteria are important for the perception of the user interface. As there is a high number of external EC related projects (networks, portals, etc.) it is good practice to keep the interface similar to related applications.

17) What languages will be supported by the IS?

This is to indicate the number of the official languages that the application will cover. Again, as this is the external user perspective the most desirable level is an application to cover all EU official languages. Nevertheless, the three main languages (English, French and German) might be sufficient in particular circumstances.

18) Will the IS allow intuitive access to information?

The question addresses the structure of the information and the ease of finding information.

Note that the "information structure" corresponds to the way the information is presented to the users.

Quality and effectiveness of the service

19) Will the IS enrich the service(s) offered?

The question assesses which of the two possible ways to deliver service – 'bricks and mortar' (traditional) or 'digital' - will be used? 'Bricks and mortar' is a service provided in a traditional way (no usage of electronic means), while a digital service benefits from new (electronic) channels of delivery and it is partly or fully automated.

20) Will the IS increase the responsiveness of the service offered?

This refers to the extent to which a service responds to the users' needs (in comparison to what was previously available).

21) Will the IS services be presented in a user centric way?

This question highlights the context of the IS. Presenting related information and services together could be essential to promote visibility and use of the system (i.e. it might not be known that the service exists at all or at least difficult to find.) One solution could be to publish the service via a portal.

A practical example is when you buy flight tickets, the flight company will offer you to rent a car and to book a hotel (the main service "buy a flight ticket" is presented together with the related "rent a car" and "book a hotel", all of them subject of "traveling").

Data and information quality

This subsection is concerned with the characteristics of the data and the information that the IS is going to process. These characteristics may affect not only the work process and the decision making processes of senior management, but also the results of the work. The consequences for the external users may vary from not useful information up to a complex and confusing process.

22) Will the business process guarantee the availability of up-to-date information for the external users of the IS?

The question refers to the pertinence of the information. Frequent updates result in reliable and useful information for the external users. Event-driven updates are those updates that happen immediately after a particular event. Such updates are usually automated.

23) Will the IS guarantee the appropriateness of the information for its external users?

The question refers to the level of access and thus to the transparency of the information related to the IS. Sometimes the "privacy of data" is of high importance therefore it is not

always possible to have full transparency. This should not raise any problems as it is a normal result when information needs to be restricted.

24) Apart from the criteria already mentioned, will the IS improve data quality of the information provided to the external users?

Data quality includes accuracy, correctness, circulation, completeness and relevance. An IS should ensure that the information produced by its functions complies with these. The proposed answers cover different ways of monitoring the data quality. It can be simply providing the users with some guidelines or improving the business process that the IS supports. Finally, the IS could implement a process dedicated to data quality monitoring that will provide constant checks on agreed criteria. Therefore the level of data quality can be indicated and attention raised if a discrepancy occurs.

User support

This subsection addresses the means and the level of support provided to the end users. The following criteria are covered:

25) How is the technical help (setup manuals, configuration, etc.) provided to the external users?

This question refers to the different ways of providing technical help. Technical help is the one directly related to the execution and usage of the IS.

The possible answers range from simple manuals, guidelines or even tutorials (tutorials may consist of set of videos or animations) to regularly updated FAQ sections (consisting of the most common problems that the users are experiencing) and context sensitive help (help that is available at the place where the problems may occur).

26) How will the technical support for the IS be provided to the external user?

The question refers to the different ways of providing the user technical support (when the technical help does not answer your question and you need interactions with someone to resolve the problem).

27) How is the business help (work procedures, business processes, etc.) provided to the external users?

This question refers to the different ways of providing business help. Business help is the one related to the processes, which the IS supports, its purpose, the business domain that it serves, etc.

The possible answers range from simple manuals, guidelines or even tutorials (tutorials may consist of set of videos or animations) to regularly updated FAQ sections (consisting of the most common problems that the users are experiencing) and context sensitive help (help that is available at the place where the problems may occur).

28) How will the business support for the IS be provided to the external user?

The question refers to the different ways of providing the user business support (when the business help does not answer your question and you need interactions with someone to resolve the problem).

29) Do you have a formally defined service level agreement (SLA) between the system owner and the external users of the system?

An SLA is drawn up between the client/customer and the service provider. It may specify levels of availability and performance of the IS. The SLA should reflect and comply with the external users' needs, and it should lead to the definition of the required technical specifications which should be managed by the system supplier.

VALUE FOR THE EUROPEAN COMMISSION

The Value for EC perspective of the Value Assessment Tool encompasses criteria through which the internal value of an IT project can be assessed. All factors that can contribute to the improvement of the EC performance should be considered as delivering an internal value. Four major sections address the internal value perspective. The **Political Value** questions aim to estimate whether the IS contributes to achieving the strategic objectives of the EC and improve its overall image. The **Administrative Value** questions look at whether the IS will contribute to the efficiency and effectiveness of work performed by the EC. The **IT Governance** section tries to estimate whether the IS will comply with IT governance principles and contribute to, or follow, best practices in the EC. Finally, the questions in the section of **Internal Users' Value** are similar to the questions in the related section for external users, however from the Value for EC perspective they address the users within the Commission that have to interact with and rely on the IS in their everyday activities and responsibilities.

Political Value

Alignment with the political objectives

1) What is the legal basis of this IS?

Legal basis is related to the fact that an IS might be created in order to respond to an audit, internal regulation, autonomous act or a legislative act.

An audit or internal regulations is concerning the Commission only internally. Autonomous act refers to Commission Communication, which has a legal existence and impacts external stakeholders. For example the "Small Business Act" for Europe is such autonomous act. Information about it can be found here:

http://ec.europa.eu/enterprise/entrepreneurship/sba_en.htm

The same question also appears in the Risks perspective

2) What is the sponsorship level?

Sponsorship level is related to the level of political support that a project may possess.

3) At which level has the IS been identified as an action?

The identification of an IS as an action gives an indication of the level of the support for the IS in the hierarchy as well as its level of importance. This identification is directly connected to the alignment of the IS with the EC's strategic objectives (business and IT) or the extent to which an IS serves the political goals of the EC.

The same question also appears in the Necessity perspective.

Improvement of the EC's public image

4) Will the IS improve communication towards citizens?

Improved communication towards citizens refers to the fact that an IS may contribute to better, faster, easier, moving from traditional to online, etc. communication with citizens. The IS can: improve some features of an existing channel (for example a feature of support system for a face-to-face communication or call centre, or feature(s) of the GUI, thus making minor improvements); support entirely an existing communication channel (considerable improvements); or the IS can deliver a new channel for communication (e.g. replacement of e-mail interactions with a digital service). The communication channels with citizens are face-to-face; call centre; mail; internet; mobile telecommunication technologies.

5) Will the IS support the free choice of IT solutions to access information?

This concerns the respect of the choice of the external user to select proprietary or non-proprietary Web clients/OS, etc. Here, an application should perform equally well using proprietary and non-proprietary web clients and OS and the published information should use non-proprietary data formats. Non-proprietary or open data formats are such that do not require a licensed software application to access it and are free of legal restrictions on use. For example, the open document format (odf) is such open data format.

For more information: <http://ec.europa.eu/idabc/servlets/Doc?id=26971>

6) Will the IS improve trust in the specific service provided by the EC?

Trust in the EC services refers to having an adequate level of technical security as well as well communicated privacy and security policies.

7) Will the IS increase citizens and/or enterprises participation in policy making?

High-level policy making benefits from the citizens and enterprises engagement. Such engagement can be achieved by regular providing of information concerning the policy area and/or the status of the policy work itself. In addition, a public consultation can be performed to gather new ideas and proposals.

Note! This can be not the sole purpose if your IS, but complementary functionality.

8) Will the IS increase the transparency of EC processes?

Transparency of a process refers to the amount of information that somebody can get about this process. An IS can improve the transparency of a process by providing related information about it. Ideally, the process should have the possibility to be monitored on a real-time basis by all parties.

Administrative Value

Efficiency and Effectiveness of the EC

9) Will the IS enable improvement of work procedures and processes?

If an IS enables improvement to work procedures and processes, it makes them faster, easier to perform, reduce unnecessary activities, expose information, etc... This improvement can be a direct result of the usage of the IS or it might be due to the improvement of some steps in the process or a complete re-design of the process behind the IS.

10) At which level will the process be standardised?

These criteria look at the extent to which the IS will align formerly differing work procedures with uniform standards. This can be by having up-to-date access to data with uniform structures or by the harmonization of work procedures at both organisational and IT level.

11) Will the IS contribute to time-saving?

Time-saving relates to the fact that ICT can improve work quality by speeding up work procedures and processes. Such time-saving may be due to automation, better communication (by electronic means), elimination of media inconsistency, and access to up-to-date database, etc...

12) Will the IS support performance monitoring?

Support of performance monitoring is concerned with the ability of the IS to produce information that can give overview of the activities enabled by the IS and statistical information about their execution. Such information will facilitate coordination of the decision making processes.

Note! It should not be considered that the IS only purpose is performance monitoring, but rather that the IS possess capabilities for performance monitoring. For example, producing of reports may serve the need for performance monitoring.

13) Will the IS streamline collaboration?

Collaboration refers to the joint effort for achieving results and thus achieving synchronization of working methods.

IT Governance

The IT governance section aims at assessing whether the project will follow the IT governance rules adopted by the EC.

Methodology and Interoperability

14) Will the project follow a project management methodology?

The question assesses the involvement of suitable methodology in the execution of the project. The software engineering methodology adopted by the EC is RUP@EC.

More information about it can be found here: <http://www.cc.cec/CITnet/methodo/> and <http://www.cc.cec/wikis/display/RUPATEC/Implementing+RUPatEC>

Another project management methodology tailored for the needs of EC is the PM² initiative. It goes beyond the software development and can be applied to project in various domains. Information about it can be found here:

<http://www.cc.cec/wikis/display/RUPATEC/Project+Management>

15) Will the project use tools supporting the project methodology?

This question assesses the use of tools supporting the project management methodology. For example, the toolset supporting RUP@EC can be explored here:

http://www.cc.cec/CITnet/methodo/manuals/intro/tools_v7.html

Note! Project management methodology can be used without specific toolset and vice-versa.

16) Will the IS reuse services from other IS?

Reusing of services offered by other IS relates to the possibility for different systems to use part of each others functionality in order to be more efficient. For example, if there is already an existing system that stores information about SMEs, there is no need for another IS to collect and store the same information. It can be simply requested from the first IS.

Ideally, an information system should be structured only as services, which come from other systems or services that are specifically build for the new purposes (but still can be also offered to other IS).

These principles come from the concepts behind Service Oriented Architecture (SOA). More information can be found here:

http://en.wikipedia.org/wiki/Service-oriented_architecture

17) Will the IS offer/publish services to other IS?

Publishing of services is a concept similar to the reusing of services criteria. The question has the opposite meaning and it is about whether some of the IS functionality will be available for re-use.

18) What is the level of the interoperability that the IS will have with the other IS?

Interoperability is a property referring to the ability of diverse systems and organisations to work together (inter-operate).

Technical interoperability is in place when a communication infrastructure is established allowing systems to exchange bits and bytes, and the underlying networks and protocols are unambiguously defined.

Syntactical interoperability is required for any attempts of further interoperability. If a system is capable of communicating and exchanging data, it is syntactically interoperable. In other words, the exchanged data is structured.

Semantic interoperability is achieved when the exchanged data is done in order to produce useful results for at least one of the involved information systems. In other words, the exchanged data have "meaning" for one or more of the systems.

A stand-alone system (autonomous system) is not interoperable.

More information can be found here: <http://en.wikipedia.org/wiki/Interoperability>

19) Will the services provided by the IS be crossing organisational borders?

This question refers to the level of the organizational interoperability of the IS. If the system spans over several organisational units, their processes are able to inter-operate.

Building Block

20) Will the IS use ECAS to manage users' login?

ECAS (European Commission Authentication Services) is the Single Sign-On (SSO) mechanism adopted in the Commission. It deals with user identification (authentication).

For more information you can refer to the following link:

http://www.cc.cec/home/dgserv/digit/corporate_ict/infrastruct/corp_systems/ecas/index_en.htm

21) Will the IS use a building block allowing efficient search?

Building blocks for efficient search deals with implementing search capabilities in the IS. Such blocks already exist and can be simply reused.

22) Will the IS use a common GUI library?

A common GUI library contributes to the user friendliness of the IS. Again there are already such libraries, which can be simply reused.

23) Will the IS be based on other reusable building blocks?

Other reusable building blocks refer to every other reusable part of already existing IS, which are shared within the EC IT community. Both technical and business building block should be taken into account.

24) If the IS is going to generate building block(s), at which level will it/they be reusable?

The question assesses at what level the shared building block can be reused.

25) Will the improvements made to the reusable building blocks be shared with the IT community?

The last criteria in this section deal with the sharing of any improvements of reused building blocks back to the IT community in the EC. For example, such improvements can be shared through CITnet site: <http://www.cc.cec/CITnet/>

IS portfolio management and synergy

26) Have the following alternative solutions been evaluated? (I) already existing IS, (II) COTS, (III) FLOSS?

Alternative solutions question deals with any IS/projects implemented in other administrations, COTS or FLOSS that might be successfully applied in the EC environment. Such usage of proven solutions contributes not only to efficiency and effectiveness (saving time, money, resources), but it minimizes potential risks. Rigorous assessment of the market is needed in order to justify the choice for developing the IS in-house. The chosen solution DOES NOT have an impact on the weighting. But the solution should be chosen after a true SWOT analysis.

27) At what level synergies with other IS have been explored?

Synergies with other systems occur when two or more systems deal with the same (or partly) the same business area. If they remain unexplored, overlapping of activities or doubling the work may happen. As the EC is a large organisation, it is important to assess what already exists at as high level as possible. It is responsibility of the System owner and the System supplier to explore what is already in place, whether joint effort can be applied or what can be reused.

For example, many DG can have internally developed IS for registration, keeping contact information and field of work for i.e. scientific experts. Therefore, it will be useful to study if one of the existing systems is possible to be customised and used as a new instance.

28) Is there a similar existing system in the EC?

The question assesses whether there is a similar system (dealing with the same business area) that already exists in the EC.

29) Will the similar existing system be used?

The question refers to the fact that if there is a similar existing system, it should be assessed and possibly reused. It is not of high importance whether or not there is a similar existing system. However if there is similar system, it should be studied and analyzed to see to what it can be used in the development of the new one. The assessment may not always lead to positive answer, but in many cases the system can be re-used at conceptual level (i.e. business case, process modelling, architecture, analysis etc.) or at the best possible way some functionality (whole modules, code, design, technical documentation) can be reused.

Such reuse saves resources and promotes standardization and thus easier implementation. Rigorous assessment of the existing systems in the EC is needed in order to justify the choice for developing an entirely new IS. Again, both the technical and business perspectives should be taken into account.

Note! Question 28) and 29) are linked and evaluated as one. If you answer positively to question 28) you need to answer also question 29).

30) How many business domains will the IS address?

The question assesses whether the IS will span over several business domains.

A system can be built to solve only a specific business problem or to automate a whole business process. Business process can be defined as an organised and repetitive sequence of actions involving resources which aim at producing a result to satisfy a client's needs. There is also (but not very often) an information system that automates a whole business domain. As for business domain think of a whole business area of activity like "budget execution", "resource management", etc. An IS can as well addresses business functions across different business domains.

For example, if a system deals with i.e. storage of contracts, it deals only with one business problem. If the system deals with the preparation of contracts (end to end), it deals with the whole business process. If the system deals with contract management, it addresses the whole business domain. If there is one system which deals with a call for tenders and the same (or another one, but the two inter-operate), the solution span over multiple business domain.

31) Does the IS possess the capability to replace other IS?

The question assess whether the IS will allow the phasing out of other systems. After the development of the new systems, other IS may need to be phased-out or replaced.

32) At what level does the IS possess the capability to replace IS functionality or other IS?

Question 32) complement the previous one as it assesses at what possible level the new system will replace other system(s).

Note! Question 31) and 32) are linked and evaluated as one. If you answer positively to question 31) you need to answer also question 32).

Data Management

This subsection looks at some data management practices used in the evaluated project. The consequences of bad data management for the internal and external users may result in repetitive actions up to a complex processes.

33) Will the IS reuse existing external data?

The question assesses whether the IS will use external data and at which level (Unit, DG, EC). The criteria rely on the concept that if a piece of information (data) is collected once it should not be requested and stored again. If this concept is not applied, the consequences will be repetitive actions from the side of the user and lengthy and/or heavy work procedures. Both the internal and the external data to the IS should be considered.

34) How will the reused data be treated?

This question is further clarifying the previous one (**33**). It assesses how exactly the reused data is treated. For example simple duplication (the data extracting (one time or regularly) from one IS and it importing to the other one) will bring little or almost no value, while a more sophisticated approach could be to provide data through web-services.

Note! Question 33) and 34) are linked and evaluated as one. If you answer positively to question 33) you need to answer also question 34).

35) Will the data stored by the IS be re-used by other IS?

This question complements the previous two in the way that once information is collected it should be made available for other IS. Both the internal and the external data to the IS should be considered.

Internal Users' Value

This is the value delivered by the IS to the user base, which is in the EC (all the personnel that have to interact with and rely on the IS in their everyday activities and/or responsibilities).

Most of the questions here are the same as the one in the respective section "External Users' Value" in the Value for EU perspective. Keep in mind that if the IS provides the same set of functionalities to the external and the internal users then your answers should be the same in both sections in the two perspectives. However, if the IS provides different set of functionalities for the internal and external users, then your answers will be a different. Simple example is IS for submission and evaluation of projects. The external users will use it to submit their projects, while the internal users will use it to do the evaluation.

User Population

The user population subsection encompasses questions that aim to estimate what will be the potential user base of an IS within the commission. The following criteria are included:

36) What is the population size of the IS?

The question assesses an approximate estimation of the internal user base, which the IS will serve. Pay attention that the answer of the question can be adjusted over the evolution of the project.

37) What is the targeted population?

The question identifies the specific user group that the IS will target.

38) What is the frequency of use of the service?

The question comprises criteria related to the frequency of the usage of the IS.

39) What is the obligation to use the services?

The question comprises criteria related to the obligation to use the IS.

Note! It is not necessary for an IS to score high on the population size and targeted groups questions in order to bring greater value and to express its importance. However, when comparing similar systems, the one able to serve more user groups or being frequently or compulsorily used should be favoured.

User Friendliness

This subsection deals with questions about the user interface and the presentation of information. It includes the following questions:

40) Will the IS use a SSO (Single Sign-On) mechanism?

Single Sign-On (SSO) mechanism enables the user to be identified (authentication) and gain access to resources (authorization) to multiple software applications. Not all applications will need to have such a mechanism, however if there is a need the user to be authenticated and/or authorised, the possibility to use the SSO should be exploited. Moreover, such a mechanism is already available for internal users of the EC. It is called ECAS (European Commission Authentication Services).

For more information you can refer to the following link:

http://www.cc.cec/home/dgserv/digit/corporate_ict/infrastruct/corp_systems/ecas/index_en.htm

41) Will the IS comply with a common look and feel?

Common look and feel criteria are important for the perception of the interface by the users. As there is a high number of projects (networks, portals, etc.) it is good practice to keep the interface similar for related applications.

42) Will the IS allow intuitive access to information?

Intuitive access to information addresses the structure of the information and the ease of finding information.

Note that the "information structure" corresponds to the way the information is presented to the users.

Data and information quality

This subsection looks at the characteristics of the data and the information that the IS is going to process. These characteristics may affect not only the work process and the decision making processes of senior management, but also the results of the work. The consequences for the internal users may vary from not useful information up to a complex and confusing process.

43) Will the IS guarantee the availability of up-to-date information for the internal users of the IS?

Up-to-date information refers to the pertinence of the information. Frequent updates result in reliable and useful information for the internal users.

Event-driven updates are those updates that happen immediately after a particular event. Such updates are usually automated.

44) Will the IS guarantee the appropriateness of the information for its internal users?

The question refers to the level of access and thus to the transparency of the information related to the IS. Sometime the "privacy of data" is of high importance therefore it is not

always possible to have full transparency. This should not raise any problems as it is a normal result when information needs to be restricted.

Note! If the IS is developed by the EC, but distributed to other organisations to use then it is not EC responsibility to keep the appropriateness of the information at the desired level

45) Apart from the already mentioned criteria, will the IS improve the data quality of the information provided to the internal users?

Data quality includes accuracy, correctness, circulation, completeness and relevance. An IS should ensure that the information produced by its functions complies with these. The proposed answers cover different ways of monitoring the data quality. It can be simply providing the users with some guidelines or improving the business process that the IS supports. Finally, the IS could implement a process dedicated to data quality monitoring that will provide constant checks on agreed criteria. Therefore the level of data quality can be indicated and attention raised if discrepancies occur.

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This question refers to the different ways of providing technical help. Technical help is the one directly related to the execution and usage of the IS.

The possible answers range from simple manuals, guidelines or even tutorials (tutorials may consist of set of videos or animations) to regularly updated FAQ sections (consisting of the most common problems that the users are facing) and context sensitive help (help that is available at the place where the problems may occur).

47) How will the technical support of the IS be provided to the internal users?

The question refers to the different ways of providing the user technical support (when the technical help does not answer your question and you need interactions with someone to resolve the problem).

48) How is the business help (setup manuals, configuration, etc.) provided to the internal users?

This question refers to the different ways of providing business help. Business help is the one related to the processes, which the IS supports, its purpose, the business domain that it serves, etc.

The possible answers range from simple manuals, guidelines or even tutorials (tutorials may consist of set of videos or animations) to regularly updated FAQ sections (consisting of the most common problems that the users are facing) and context sensitive help (help that is available at the place where the problems may occur).

49) How will the business support of the IS be provided to the internal user?

The question refers to the different ways of providing the user business support (when the business help does not answer your question and you need interactions with someone to resolve the problem).

50) Do you have a formally defined service level agreement (SLA) between the system owner and the internal users of the system?

An SLA is drawn up between the client/customer and the service provider. It may specify levels of availability and performance of the IS. The SLA should reflect and comply with the external users' needs, and it should lead to the definition of the required technical specifications which should be managed by the system supplier.

RISKS

The risk perspective assesses the risks involved during the delivery and acceptance of the IS. It consists of four sections. An approach to indicate risks related to the objectives, the sponsorship, the dependences in the environment and the resources is made in the **Project Management Risks** section. It is followed by sections related to **Technical, Security, Business, Legal** and **Acceptance** related risks.

Note! At the very beginning of the project some risks could not yet be satisfactorily assessed. A good practice is to reassess risks during the life-cycle of the project.

Project Management Risks

The Project Management Risks section looks at risks related to the definition of the project, its stakeholders, the management of the risk inside the project and the allocated resources.

Objectives, Scope, Visibility, Roadmap

The Objectives, Scope, Visibility, Roadmap subsection aims at assessing if the definition of the project is clear since its beginning. The following criteria are included:

1) Have the objectives of the IS been identified?

The objectives of a project should be identified at the very beginning of a project as they define the reasons why the project is being launched. The compliance of the project with those objectives can be assessed during the lifecycle of the project in order to verify that the project is still on the right track. The objectives can be technical, business, political or a mixture of the afore-mentioned.

2) Has the scope of the IS been defined?

The scope of a project should define what the project will cover and what it will not cover. The more precise is the scope, the lower the risks associated are (features > needs > general objectives). The scope needs to be in line with the business expectations.

3) Have the key success factors (KSFs) of the IS been identified?

The Key Success Factors (KSFs) are those few critical or strategic factors that make the difference between success and failure of a project. Those KSFs should address both the technical and business perspective.

4) Where does the demand for the IS come from?

The question identifies who is behind the request for the project.

5) What is the targeted audience?

The target audience impacts both the visibility of the project and the difficulty to fulfil the expectations of the users. Similar question also appears in the Value for EC perspective. Nevertheless, it brings important information in the Risks area as well.

Roles & Responsibilities

The Roles & Responsibilities subsection aims at assessing if every stakeholder on the project has been clearly identified and if the related responsibilities have assigned. More information on the Roles & Responsibilities theme can be found here:

<http://www.cc.cec/wikis/pages/viewpage.action?pageId=2654432>.

The following criteria are included:

6) Is the System Owner clearly identified?

The System Owner is the person responsible for the IS/project on the business side. He/She is typically a Head of Unit or Director from the user DG.

More information:

<http://www.cc.cec/wikis/display/RUPATEC/System+Owner+%28SO%29>

7) Is there a Sponsor?

The Sponsor is the person who supports the information system or the project. Usually he/she will be involved in more high political level and will steer the project when difficulties occur (for example when there is tension between the stakeholders) or when the project needs to be promoted. The project sponsor is appointed at a less detailed level than the System Owner. Not every project benefits from the support of a sponsor. This is in contrast to the System Owner which is a must-have stakeholder. The existence of a sponsor can be considered as a major advantage.

For instance, V.P Kallas is the sponsor of the Corporate Portal whereas Alain Scriban (HoU ADMIN A) is the System Owner. The Sponsor's responsibilities go beyond the project management aspect.

8) Is the Project Steering Committee clearly identified?

The Project Steering Committee is a governance structure where both Business and IT stakeholders are represented.

More information:

<http://www.cc.cec/wikis/display/RUPATEC/Project+Steering+Committee+%28PSC%29>

Note! It is not always the Steering Committee which is the greatest governance structure of a project. For example, a Working Group (external to the Commission) with representatives of all stakeholders may have better ability to take decisions than the official internal Steering committee of the project. In both cases there is governance structure for the project. In such situation the structure having the greatest governance mandate should be understand as the Steering Committee.

9) Are all user representatives clearly identified?

The user representatives belong to the business side and represent the interests of the users. Each category of users should be represented (i.e. external and internal users).

More information:

<http://www.cc.cec/wikis/display/RUPATEC/User+Representatives+%28UR%29>

10) Apart from the stakeholders mentioned above, are all roles and responsibilities clearly identified?

The list of stakeholders should be completed according to the needs of the project. The role & responsibilities document provides a list of potential stakeholders:

<http://www.cc.cec/wikis/pages/viewpage.action?pageId=2654432>

11) Is there a formally defined service level agreement (SLA) between the system owner and the system supplier?

An SLA is drawn up between the client/customer and the service provider. It may specify levels of availability and performance of the IS. The SLA should reflect and comply with the users' needs, and it should lead to the definition of the required technical specifications which should be managed by the system supplier

12) What is the degree of collaboration between the System Owner and the System Supplier?

The question assesses the joint efforts on the project between the system owner and the system supplier. To assure the success of their endeavour, the two parties should not only regularly communicate and meet, but also work together on key parts of the project (i.e. like setting up the vision (vision document), approve together (or on both sides) results, etc.).

Methodology

The objective of this subsection is to assess whether a methodology will be followed in order to ensure the success of the project. The following criteria are included:

13) Will the project follow a project management methodology?

The question assesses the use of a suitable methodology in the execution of the project. The software engineering methodology adopted by the EC is RUP@EC.

More information about it can be found here: <http://www.cc.cec/CITnet/methodo/> and <http://www.cc.cec/wikis/display/RUPATEC/Implementing+RUPatEC>

Another project management methodology tailored for the needs of EC is the PM² initiative. It goes beyond the software development and can be applied to project in various domains. Information about it can be found here:

<http://www.cc.cec/wikis/display/RUPATEC/Project+Management>

14) Have metrics been established to verify the successful completion of the project?

The metrics criteria evaluate how thoroughly the results of the project will be assessed. Ideally, metrics should be established for the whole project (each of its phases). The more phases are covered, the better the metrics will reflect to the real situation. They need to be identified early in the project (adjusted if needed in later stages) and monitored in order to track deviations.

As an analogy of metrics, think about the criteria that a doctor might use to monitor health.

Dependencies and Risks Management

This subsection considers whether the dependencies and the risks of the project are anticipated and managed throughout the project's lifecycle. The following criteria are included:

15) Are dependencies managed?

The question assesses whether the information system or the project is dependant on other system, process, procedure or simply decision, which is out of the scope and the responsibilities of the stakeholders. For example the successful existence of one IS may depend on the proper execution of another one, which will provide key data.

16) Are risks managed?

The question assesses whether the risks are identified and under control.

Resources

The **Resources** subsection checks if all resources (human, financial, logistical) are planned and available. The following criteria are included:

17) Does the project benefit from adequate staffing (both in terms of skills and number of people) on the System Owner side?

The question assesses whether the project possesses already the necessary staff on the system owner side to properly perform its activities.

18) Does the project benefit from adequate staffing (both in terms of skills and number of people) on the System Supplier side?

The question assesses whether the project has the necessary staff on the system supplier side to properly perform its activities.

19) Does the project benefit from adequate funding?

The question assesses whether the project possesses adequate funding to be executed. It takes into account both System owner and System supplier side.

20) Does the project benefit from adequate logistical resources?

The question assesses whether the project possesses adequate logistic resources to be executed. It takes into account both System owner and System supplier side.

Logistics resources are everything related to software, hardware, space, etc... or all items that need to be acquired (or allocated) to be able to perform work smoothly.

21) Will subcontracting be used for the execution of the project?

The question assesses whether the project will subcontract the project execution to an external party.

22) How the quality of the third party deliverables will be assured?

It is not important whether or not subcontracting will be used. However if subcontracting is in place, it is important to be managed properly.

More information about contracting practices in EC can be found here:

<http://www.cc.cec/wikis/display/RUPATEC/Contracting+Practices>

Note! Question 22) and 23) are linked and evaluated as one. If you answer positively to question 22) you need to answer also question 23).

Technical & Security risks

The Technical & Security risks section looks at the challenges of the project from a technical and security point of view.

Technical risks

The Technical risks subsection addresses the experience of the project team concerning the chosen technical solution.

23) Does the project represent a technical challenge?

The question assess whether the information system or the project will be difficult to execute due to its technical complexity. If technical complexity is present, there will be need for experts which can assure the smooth execution.

24) How will the sustainability of the web services and/or interfaces used by the IS be assured?

The question assess the dependency of the IS on the proper performance of other systems, which are used through web services and/or interfaces. Adequate SLA in place, can guarantee smooth work.

25) To what extent the IT solution is software vendor independent?

The question assess the dependency on software vendors and thus the freedom of future development of the IS (after its transition and deployment). Software vendor is a company providing software products and services to other companies. Dependencies and restrictions

from such nature may occur, if for example specific software is used, which needs new licenses for new requirements, if a new contract should be established with the third party for modifications, etc.

26) Will a technical documentation accompany the IS?

Technical documentation (software documentation or source code documentation) is written text that accompanies computer software (information system). It explains how it operates or how to use it.

Different types of such documentation include Architecture/Design (Overview of software, which includes relations to an environment and construction principles to be used in design of software components); documentation of code, algorithms, interfaces, and APIs. manuals for the end-user, system administrators and support staff.

More information can be found here: http://en.wikipedia.org/wiki/Software_documentation

Security risks

The Security risks subsection mainly scrutinises the security requirements of the application. The questions refer to the classification in the Information System Security Policy (Standard on Asset Management) and decision C(2006)3602. The subsection includes the following criteria:

27) Is the IS (or the processed information) classified?

The question is pre-assessing whether the information processed by the IS is classified.

An information system or information can be **EU classified** or **EU unclassified**.

The **EU classified** information system or information is reserved for a limited number of persons on a need to know basis and whose disclosure to unauthorised persons would be prejudicial to the Commission, other Institutions, Member States or other parties. There are four categories

28) If the IS (or the processed information) is classified, what is its level of confidentiality?

The level of confidentiality is obtained by assessing the level of harm to the organisation that would result from unauthorised disclosure of the information asset.

An information system or information can be **EU classified** or **EU unclassified**.

The **EU classified** information system or information is reserved for a limited number of persons on a need to know basis and whose disclosure to unauthorised persons would be prejudicial to the Commission, other Institutions, Member States or other parties. There are four categories

- TOP SECRET UE/EU TOP SECRET: this classification shall only be applied to an asset or information related to an asset the unauthorised disclosure of which could cause exceptionally grave prejudice to the essential interests of the European Union or of one or more of its Member States;

- SECRET UE: this classification shall only be applied to an asset or information related to an asset the unauthorised disclosure of which could seriously harm the essential interests of the European Union or of one or more of its Member States
- CONFIDENTIEL UE: this classification shall be applied to an asset or information related to an asset the unauthorised disclosure of which could harm the essential interests of the European Union or of one or more of its Member States;
- RESTREINT UE: this classification shall be applied to an asset or information related to an asset the unauthorised disclosure of which could be disadvantageous to the interests of the European Union or of one or more of its Member States.

29) If the IS (or the processed information) is not classified, what is its level of confidentiality?

The level of confidentiality is obtained by assessing the level of harm to the organisation that would result from unauthorised disclosure of the information asset.

An information system or information can be **EU classified** or **EU unclassified**.

EU unclassified categories:

- LIMITED: an information system or information reserved for a limited number of persons on a need to know basis and whose disclosure to unauthorised persons would be prejudicial to the Commission, other Institutions, Member States or other parties, but not to an extent serious enough to merit Classified status. However, as the scope of this definition is large we define 2 sub-categories which would correspond to two levels of prejudice: LIMITED and LIMITED (STRICTLY).
- PUBLIC: an information system or information whose public disclosure would not damage the interests of the Commission, the other Institutions, the Member States or other parties.

30) What is the IS (or the processed information) level of integrity?

The level of integrity is obtained by assessing the level of harm to the organisation that would result from partial loss, corruption or unauthorised modification of the information asset.

There are three integrity categories (named according to decision C(2006) 3602):

- MODERATE: this "Low" classification shall apply to an asset or information related to an asset the loss of integrity of which might threaten the internal working of the Commission
- CRITICAL: this "Medium" classification shall apply to an asset or information related to an asset the loss of integrity of which might threaten the position of the Commission with regard to other Institutions, Member States or other parties.
- STRATEGIC: this "High" classification shall apply to an asset or information related to an asset the loss of integrity of which would be unacceptable to the Commission, other Institutions, Member States or other parties

31) What is the IS (or the processed information) level of availability?

The level of availability is obtained by assessing the time-criticality of the recovery mechanisms that must be applied if the information asset is unavailable, i.e. assessing the maximum period of outage of the asset that is acceptable for the business:

There are three availability categories (identified in decision C(2006) 3602):

- MODERATE: this "Not-Time critical" classification shall apply to an asset or information related to an asset for which an outage or recovery time can be more than 2 days or the availability (criticality) criteria is not relevant
- CRITICAL: this "Time-critical" classification shall apply to an asset or information related to an asset for which an outage or recovery time must be less than 2 days but more than 4 hours
- STRATEGIC: this "Highly time-critical" classification shall apply to an asset or information related to an asset for which an outage or recovery time must be less than or equal to 4 hours

32) What is the overall security classification of the IS?

The classification results along the three dimensions of confidentiality, integrity and availability allow an overall rating of the importance of the information and related systems and assets. This overall rating is named the "overall security classification".

The three levels of "overall security classification" are **High, Medium and Low**. They are used to determine how to define the security requirements.

Rules to define the overall security classification

The rules to define the overall security classification are:

- The overall classification is set to **High** if at least one of the following conditions are met:
 - the confidentiality classification is EU TOP SECRET or SECRET UE or CONFIDENTIEL UE
 - the integrity classification is Strategic or Critical
 - the critical time is "less than or equal to 4 hours"
- The overall classification is set to **Low** if all the following conditions are met:
 - the confidentiality classification is public or limited
 - the integrity classification is Moderate
 - the critical time is more than 2 days
- The overall classification is set to **Medium**: in all other cases

For more information refer to DG ADMIN.DS.5

Business, Legal and Acceptance risks

The Business, Legal and Acceptance risks section looks at the challenge of the project from a technical and security point of view

Business risks

The Business risks subsection aims at assessing the strategic aspect and the complexity of the business process being automated

33) Is it a strategic IS?

An IS can be considered as a strategic IS if it directly serves strategic objectives of the EC.

34) Is the project tackling a particularly complex functional domain requiring specific expertise?

The specific expertise criteria assess the risk involved with delivering the chosen business solution. If the business domain represents high complexity, there will be need for experts which can assure the smooth execution.

35) What is the criticality of the IS from a business perspective?

The criticality criteria here assess the depth of the need from the business for the IS to be delivered. The answers vary from not dependency on the IT solution at all, to affecting core business functions.

This question appears also in the Necessity perspective as it also indicates business needs.

If a system is critical to the business there should be well established Business Continuity Plan (BCP), which can assure the smooth work.

BCP is an interdisciplinary concept used to create and validate a practiced logistical plan for how an organisation will recover and restore partially or completely interrupted critical (urgent) function(s) within a predetermined time after a disaster or extended disruption. In plain language, BCP is working out how to stay in business in the event of disaster. As more and more business activities relies solely to an IT solution, if a system is critical to the business, the business operations should be assured even after its malfunctioning.

More information can be found here:

http://en.wikipedia.org/wiki/Business_continuity_planning

Legal risks

The Legal risks subsection aims at assessing legal type risks such as the legal basis of the IS and the data protection

36) Does the IS deal with data covered by data protection regulations? (Involvement of the DPO/DPC)

This question asks whether the IS will deal with personal information and at what level. Thus, the need for the involvement of the DPO/DPC can be indicated as well.

37) What is the legal basis of this IS?

Legal basis is related to the fact that an IS might be created in order to respond to an audit, internal regulation, autonomous act or a legislative act.

An audit or internal regulations is concerning the Commission only internally. Autonomous act refers to Commission Communication, which has a legal existence and impacts external stakeholders. For example the "Small Business Act" for Europe is such autonomous act. Information about it can be found here:

http://ec.europa.eu/enterprise/entrepreneurship/sba_en.htm

The question also appears in the Value for EC perspective

Acceptances risks

This subsection aims at assessing risks related to change management, deployment and the purpose of the IS.

38) Is there an accompanying change management project defined?

Change Management is a structured approach to transitioning individuals, teams, and organisations from a current state to a desired future state. In technical context, the objectives of change management project are to ensure the smooth transition to the new IS, in order to minimise the number and impact of any related incidents upon the service. Both sides of this notion should be considered to assure the smooth transition of staff and working environment to the new system.

More information can be found here:

http://en.wikipedia.org/wiki/Change_management

39) Is there an acceptance plan for ensuring that deliverables meet the need of the user?

The acceptance plan is needed to establish formal review and acceptance of the project deliverables. It establishes acceptance criteria, test cases, etc. It can be specified for a product or software. Such an acceptance plan will avoid misunderstandings for the delivery of the results in both the business and the IT side.

40) Does the defined deployment plan involve all stakeholders?

The deployment of a system is its actual implementation in the working environment. Users need to need to be consulted in order to avoid the smooth continuity of the work processes.

41) Will the deployment have a large impact?

The question assesses whether the system deployment will have large impact. The larger the impact is the higher the risks are.

42) Is there a risk that the IS purpose be negatively interpreted?

The system acceptance can be challenged due to an escalation of misunderstandings, negatively interpreted scope, overlapping of business area, etc. There should be awareness if such difficulties may occur.

NECESSITY

The Necessity perspective of the VAST tool assesses the need for supporting or developing a project or IS. This perspective tries to answer to a question such as "Do we really need to undertake this project?" and "Why we need to support it?". There are four major sections. The first two concentrate on the **External Demand** and the **Internal Demand** of the information system or the IT project. The following two justify the **Business needs** and the **IT needs** of the endeavour.

External Demand

External demand section tries to assess the demand for the IS coming from outside of the EC boundaries.

1) What are the external demand triggers?

The external demand triggers are those big groups of stakeholders outside the Commission, whose needs the IS will serve. They are respectively divided to citizens, enterprises /industry and MS.

2) How can the external demand be estimated?

The external demand estimation varies from none, foreseeable increasing, increasing, to high. It is an indicator for how urgent the IS/project delivery is.

Internal Demand

The internal demand section tries to assess the demand for the IS coming from within the EC.

3) What are the internal demand triggers?

The internal demand triggers are those big groups of stakeholders within the commission, whose needs the IS will serve. They are respectively divided to DG, multi-DG and EC.

4) How can the internal demand be estimated?

The internal demand estimation varies from none, foreseeable increasing, increasing, to high. It is an indicator for how urgent the IS/project delivery is.

Business Needs

The business needs section attempts to estimate the needs for the IS that come from the business side

5) Which business opportunities lead to the creation of a new IS?

The Business opportunity question clarifies the major business reasons which initiated the project.

6) At which level has the IS been identified as an action?

The identification of an IS as an action brings insight on the level of the support for the IS as well as its level of importance.

The same question appears in the Value for EC perspective.

7) Does the IS support processes which already existed?

The question assesses whether or not the processes behind the IS are already in place.

8) Have the already existing processes been simplified or redesigned?

The simplification of processes criteria stem from the need to analyse and redesign (if needed) a process before its automation by an IS. The IS should support processes that have already been optimized. One of the main reasons why IT does not always achieve the desired results is because of weak business processes. If such step is overlooked, the IS risks supporting old business solutions and thus failing to perform as expected.

Note! Question 7) and 8) are linked and evaluated as one. If you answer positively to question 7) you need to answer also question 8).

9) Does the IS support processes which have been newly designed?

The question assesses whether or not the processes behind the IS are new.

10) How the newly designed processes have been treated?

When designing the new processes, the stakeholders (the users or the people that are going to execute them) should be involved. The design of the new processes could be IT driven, so it fits best with the solutions already in place, but thus some business needs might be neglected. The IT solution can be also mainly business driven, but thus not optimal from its IT side (i.e. synergies not exploit, generic solutions not used, etc...). This may result in high expenses, which might have been avoided. Ideally the new system should be designed in established partnership between the business and the IT.

11) How much is the business automated by the IS?

The question assesses the extent to which the business is supported by the IS. The answers vary from simple support to the business, to automated processes steps or whole processes. In certain cases, the business will not be able to run without the system.

12) What is the criticality of the IS from a business perspective?

The criticality criteria assess the depth of the need from the business for the IS to be delivered. The answers vary from not dependency on the IT solution at all, to affecting core business functions.

This question appears also in the Risks perspective as it also indicates certain risk.

13) Will the IS enable the evolution of the business?

The question assesses whether the IT solution will enable growth, innovation, positive large impact on the business. The new IS could only partly contribute to the evolution of the business with sophisticatedly handled business problem (i.e. by "clever", state-of-the-art, innovative use of technology) or it can deliver completely new solution, which overcomes previous obstacles and thus enable new opportunities.

IT Needs

The IT needs section tries to estimate the technological needs for the IS.

14) Which IT reasons lead to the creation of a new IS?

The IT opportunity question points out the major IT reasons which initiated the project.

15) Would other systems benefit from the development?

The development of one system can on one side save development for other systems (i.e. by providing solution to a problem and no need for other development, generic solutions, etc.) and on the other side can enable development of other systems (i.e. by publishing building blocks, web-services, computed data, etc.)

16) What is the criticality of the IS from an IT perspective?

The criticality criteria assess the depth of the need from the IT side for the IS to be delivered.

The IT environment is the composite of infrastructure, building blocks, common IT systems, electronic data... or the collection of software, hardware, network, services, documents, processes and facilities associated with these.

17) Will the IS enable the use of innovative technology?

The question assess whether the IT solution will enable growth, innovation, positive large impact on other IT solutions.

FINANCIAL COSTS AND BENEFITS

The objective of the "Costs & Benefits" perspective is to quantify the costs & benefits of the IS (i.e. from a financial point of view). The proposed approach consists of identifying every cost (development, maintenance, support, training, and infrastructure) and the benefits (saved time, reduction in direct operation costs, and reduction in IT costs) brought by this IS. Exact numbers could be difficult to obtain in the early stages of a project, however the figures indicated should be as accurate as possible. This analysis should not only focus on the development phase but on the complete lifespan¹ of the IS. As a result the lifespan of the IS should be identified when starting to fill in this part of the tool. Even if the default IS lifespan has been arbitrarily set to 5 years, the user is invited to adapt this value to the context of this project. The IS roll out date is also requested since it represents a key date to interpret the provided data. For the same reason, if the proposed IS will replace an already existing IS (so called old IS), the phase out date of the old IS should be identified.

For the cost analysis, it should be noted that the resources should be identified in each domain (development, maintenance, support, etc.) in terms of:

- *Resources in k€ (except EC staff)*. The expressed resources should consider every type of expense (human, software, hardware, etc.) except that which will be covered by the "EC staff" category. Even if this figure differs from one DG to another, it's worth mentioning that the average cost of one FTE external staff is considered to be around 110 k€per year.
- *EC staff in FTE, i.e. internal staff like officials, contractual agents, temporary agents*. Figures should be expressed in man/days (FTE). Inside this category, the distinction is made between staff from the System Supplier's team and staff from the System Owner's team. This category should not be neglected as it could represent an important part of the development cost.

Costs

Development Costs

The development costs include all the costs related to building the IS, it could either be (1) a pure development, (2) the acquisition of a product or (2) the purchase and customisation of a product.

Depending on the context, the development costs could encompass the costs related to analysis and process (re)-engineering activity, the coding activity, the project management activity (related to the development), the test activity, the configuration & change management activity, deployment activity, etc.

Specific attention should be given to the IT environment (hardware and software) dedicated to development, test and acceptance phases. The cost of the production environment is considered in the infrastructure cost and should therefore not be taken into

¹ It should be noted that the approach aimed at identifying the TCO of the IS across the years is in line with the cost section (§ 5.3.1) proposed in the Vision Document template

account in this section. Following the same idea, software costs should be taken into account in this section only if they refer to costs not taken into account in the infrastructure cost (e.g.: costs of the software use for coding, for managing requirements, etc.). NB: Hardware and software provided “by default” to every member of the EC staff should not be considered in this cost analysis.

Maintenance Costs

The maintenance includes the activities related to both corrective maintenance and evolving maintenance as defined in GovIS. Costs should be evaluated following the same approach as described in the development costs. However, if the hardware and software used are the same as the ones already taken into account in the development costs, they should not be counted again.

Support Costs

The support costs encompass the cost related to the assistance provided to the users. As for other costs, it could be expressed in monetary terms if handled by external staff or in man/days if handled by internal staff (or both).

Training Costs

The training domain encompasses the training costs related to:

- users,
- members of the project team (i.e. training in use of a specific technology, training in project management, certification, ...),
- members of the support team (NB: When the support is managed centrally, the training costs are generally already included in the overall support cost. In this case training costs should not be mentioned to avoid taking them into account twice),
- members of the infrastructure team (NB: When the infrastructure is managed centrally, the training costs are generally already included in the overall infrastructure cost. In this case training costs should not be mentioned to avoid taking them into account twice).

Note: It has been decided to include the cost of training for the members of the project team, the support team and/or the infrastructure team in the training costs rather than identifying them respectively in the development, support or infrastructure costs because this may correspond to a specific budget line.

From a general point of view, training paid by contractors for their staff should not be referenced.

Concerning training paid by the EC, several aspects should be taken into account:

1) the time spent by the people trained. It means that the time spent in training by external staff should be converted to the equivalent amount of money depending on his daily rate whereas the time spent in training by internal staff should be converted in man/days.

2) the cost of the training. When the training is managed centrally (course referenced in Syslog), the cost should refer to the "cost per day/participant" indicated in Syslog. If the training is not managed centrally and provided by an external company, costs should refer to the cost negotiated with the company

responsible for the training. And finally, if the training is not managed centrally but provided by staff, both the time used to create the training and to give the training should be converted to either man/days (if provided by internal staff) or in k€(if provided by external staff).

Infrastructure Costs

These costs correspond to the costs of hosting. Theoretically, these costs should take into account the costs related to people, hardware (network, server, etc.), software (applications, libraries, etc.), space, energy, air conditioning... and take into account the notions of availability, backup, recovery, etc. If the service is managed externally by a contractor, the cost of this service should be provided by the supplier.

Benefit

Monetary benefits brought by the IS are divided in 3 categories: (1) saved time, (2) reduction in IT costs, (3) reduction in direct operating costs. Generally speaking those benefits appear only after the roll-out of the new system.

NB: When a benefit can only be described in qualitative terms, it isn't necessary to try assessing its monetary value.

Saved time

The saved time refers to the workload saved per year thanks to the new IS. E.g.: The deployment of a new grant management tool will simplify the business processes enabling the saving of 200 man/days per year.

Those benefits should be expressed (1) in man/days when the IS has an impact on EC staff or (2) in k€when the IS has an impact on external staff.

It should be underlined that each user should be taken into account to identify saved time:

- users considered as clients of the service provided by the IS (only if they work for the European Commission)
- users considered as provider of the service (back-office and front-office staff)

It should be noted that such benefits can only be identified if the targeted activity existed before (either in a manual or in an automated way).

Reduction in direct operation costs

The reduction in direct operating costs refers to the material expenditure saved per year thanks to the new IS. It refers to savings related to publication & dissemination, office space, etc. For instance: a new IS that will allow companies to electronically access information which was previously sent to them in paper format by mail, might give a saving of say 50 k€

Reduction in IT Costs

The reduction in IT costs identifies the human and material expenditures saved thanks to the new IS. They address IT cost saving related to maintenance, support and infrastructure (*but not development*) as described above, e.g. the development of the new IS could enable the phasing-out of a IS based on legacy technology thus allowing a significant saving in IT costs. These costs can only be assessed if the developed IS will replace an

already existing IS. Such benefit should be expressed both in monetary terms (k€) and in human resources terms (man/days).

Overview

After completing the Costs and Benefits sections, you can find a summary of the presented figures in a table, giving you a synthesised overview of the registered financial information.

In the overview table, you can see one figure for the cost of resources (in k€) and for the cost of EC staff (in FTE) for each year. Subsequently, one figure is presented for the resource cost savings except EC staff (in k€) and for the resource cost savings of EC staff (in FTE). The overview also provided total and average costs and benefits of the whole period (i.e. all years together).

Additionally, you can convert the FTE of EC staff into k€ and thus you can obtain figures only in k€. The table makes automatically the necessary transformation of the information once you have indicated the conversion (i.e. tick "yes" in the question above the table). Further there is a possibility to adjust the value of 1 FTE in euros (the default given value is 1FTE = 100 k€).

RESULTS

The Results part of the VAST tool presents in concise way the assessment of your information system or IT project. It consists of only one page (printed) and it is self explanatory. There are four sections, which give the results: **ID card of the project**; **Qualitative Synthesis**; **Risk & Necessity** and **Quantitative synthesis**.

ID card of the project

The ID card of the project does not contribute to the actual assessment of the project. It is rather information oriented and presented to complete the Results page and to make it self consistent.

You are expected to fill out four sections:

Executive summary

The executive summary gives you the possibility to describe your project in several sentences.

Business domain

The business domain section describes the business area that the IS or the project is dealing with. In line with the e-Commission roadmap categories, you need to specify whether the project is tackling the **external dimension** (concerning the services supplied by the Commission to citizens, businesses and partner administration to support its policies) or with **internal dimension** (concerning the achievement of a best-practice e-administration offering improved services to support Commission processes).

If dealing within the external dimension, you should indicate whether it supports:

- specific policy or domain in which actions will typically consists of building high-quality information systems in response to legal obligation, internal agreements or policy challenges;
- horizontal action or actions like transparency or communication;

If dealing within internal dimension, you should specify whether it support:

- specific domain or actions aim at providing the necessary IT support so as to streamline Commission processes;
- corporate system or domains in which the Commission equips itself with the information systems needed by a modern, cost-effective organisation so as to efficiently manage it s assets (human resources, budget and information)

Finally, you can describe in a few words the domain of your project

Stakeholders

The Stakeholders section indicates the main stakeholders of the project: system owner, business manager, system supplier, project manager and specific person for further contacts. If needed, you can add other stakeholders.

Time Frame

The Time Frame indicates the provisional project start, project end and duration. It also states the evaluation date of the project (the date of the assessment with VAST).

Qualitative Synthesis

The qualitative synthesis section summarizes the results from the first two perspectives of VAST (Value for EU and Value for EC). Each section of each perspective is represented together with its weight in scale of up to 10 (namely: Social value, External users' value; Political value; Administrative value; IT governance value; Internal users' value). The spider chart on the right side compares together the weight of the sections from both perspectives.

As this approach mixes together the criteria for both externally oriented systems and internally oriented systems, it is not possible to have the spider chart full. It will rather indicate clearly the orientation of your system. Therefore you will normally have one or two sides of the chart with high value.

Risk and Necessity

The risk and necessity section follows the same approach as the qualitative synthesis section. It displays the weight if your project for each section in the Risks and Necessity perspective (namely: Project management risk; Technical and Security Risks; Business, Legal and Acceptance Risk; External Demand; Internal Demand; Business Needs; IT Needs).

Quantitative Synthesis

The Quantitative Synthesis section presents the financial overview of the project. It indicates again some important timing and the total and average costs and benefits in terms of resources in k€ and EC staff in FTE. Additionally, the figures of the resources in k€ are presented in a graphical way according to the life-span of the project. This allows you to visually compare the costs versus the benefits of the project.

If you have chosen to convert the FTE into k€ in the Costs and Benefits perspective, the information here will be also automatically adjusted. Bear in mind, that if you have done so, the value of the converted FTEs will be included in the graphical representation.

Exploitation of the results

The usage of VAST and the exploitation of its results can vary greatly and can fulfil different needs. Nevertheless, several scenarios can be suggested:

Demonstration of value and benefits

Usually, it is rather difficult to express in a concise manner what the benefits of an information system or IT project are. Moreover, the visibility is often focused on only one perspective of the project. Using VAST you can explicitly show not only the major area of contribution of your project, but also the areas of secondary importance.

Take for example a project, which fulfils external user needs. The spot light would usually go to the satisfaction of these needs. However, the project might be using innovative technology, or reusing existing building block, or be sharing and producing reusable modules, etc. All of these options additionally increase the value of your endeavour and VAST can demonstrate this.

Note that the answers to the questions in the tool may change during the project lifecycle consequently the results may also change over the time.

Enhanced collaboration

The use of this tool should facilitate collaboration between the System Owner and the System Supplier team.

Established practice from DG SANCO is to have VAST filled in by representatives from the System Owner side and System Supplier side at the very beginning of the project. Going together through each question, discussions will normally appear at the areas of the project, which needs further elaboration. Nevertheless, at the end many concepts of the project will be clarified for the two parties. The meeting would usually take approximately 1 hour.

Enhanced communication and presentation

The results of VAST comprise of one self explanatory page, which gives an overview of the project intangible value (internal, external benefits; business and IT needs, etc) and tangible value (cost and benefits). Additionally, it raises awareness as to how well risks are managed and what are the needs for the project.

Thus, the result summary page can be attached to other documentation of the project, can be a slide for a presentation or can be a subject of a specific dedicated meeting, etc. Overall it can be used to engage and obtain attention of the senior management and various stakeholders of the project.

IT governance focus

IT governance is subset discipline of Corporate Governance focused on information technology systems and project, their performance and management. Nowadays, IT governance is

increasingly critical due to the higher and higher reliance on IT by the business and the complexity of IT projects. In the Commission context, the IT governance aims at improving transparency, relevance and cost-effectiveness of the information systems investment.

VAST encompass main areas of IT governance (IT Strategic alignment, IT value delivery, Risk Management, Performance Measurement). Moreover, it adapts existing IT governance frameworks for the public sector (WiBe [Germany], Mareva [France], Value assessment [Australia], Value Measuring Methodology [US]) and is well adapted to the EC environment. The usage of the tool can help in the very beginning of the project to check whether the necessary governance fields of the project are addressed. It also facilitates the compliance with the established IT governance rules in the EC.

For example, several of the DGs evaluating the tool stated that the usage of the tool helps to write the project Vision Document.

More on the subject of the IT governance can be found here:

http://www.itgi.org/Template_ITGI.cfm?Section=ITGI&CONTENTID=6658&TEMPLATE=/ContentManagement/ContentDisplay.cfm

Portfolio management

IT portfolio management is the application of systematic management to the IT systems, projects and initiatives within one organisation. In the context of EC it can be applied both at DG level (run by the IT unit in the DG) or at corporate level (run by the Corporate Project Office (CPO) in DG DIGIT). The promise of IT portfolio management is the quantification of the IT efforts, enabling measurement and objective evaluation of investment scenarios.

VAST supports portfolio management as it is delivering a base to which different projects can be compared and prioritised, spending justified etc, The results of VAST can give useful insight for decision making whether one project should be funded, whether its start should be postponed or whether it should be further elaborated and considered later.

Communicating the results

After the assessment of your project, there will be some perspectives with considerable high value and others with average or low value. In order to justify and communicate properly these differences, simply look at which questions your answered are at the very beginning or at the very end of the scale and think what are the reasons to choose these answers.

For example, an IS serving a specific restricted community would normally not have a high social value. At the same time it can still have very high external users value if it is delivering considerable improvement of major interaction between this community and the EC. A project that serves multiple user groups, external stakeholders and has big population size could be of high political value, but at the same time would normally have a high business, legal and acceptance risk and so on...