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STORK 2.0 D5.3.2 eGov4Business Go Live Planning

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Abstract: This document describes the planning of the activities needed to achieve the launch of the eGov4Business pilot services, "Go Live". It is based upon the individual plans of each MS for the connection to the common infrastructure and adaptation of services to accommodate end-users authenticated and verified through STORK 2.0 cross-border services.

The deliverable contains milestones for each partner, testing plans and go-live preparation activities including the activation and engagement of end-users and main public stakeholders.

History

Version	*Date*	*Modification reason*	*Modified by*
0.1		Initial draft	
0.7	23/10/2013	Rough Draft	LU, NL, AT, SI, IT, FR
0.75	21/11/2013	Almost mature draft	InfoCamere + NL, SI
0.76	01/12/2013	Review of almost mature draft	ATOS
0.77-79	09/12/2013	Revised integrated/harmonised workplan; Chap. 5	IC + AT, BE, EE, IS, IT, LU, NL, SK, SI, ATOS
0.79	16/12/2013	Revised integrated/harmonised workplan; Chap. 5	IC + AT, FR, GR, LT, PT
0.8	24/01/2014	final draft	InfoCamere, ATOS
0.82	30/01/2014	Final Draft – minor corrections	InfoCamere, ATOS
0.83	03/02/2014	Final Draft – minor corrections	InfoCamere, ATOS
0.9	06/02/2014	Quality check	ATOS
FINAL	10/02/2014	Final reviewed deliverable	

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A-PEPS	The logical PEPS module/functionality which interfaces the AP
AP	Attribute Provider
AUB	Authentication on Behalf of (STORK 2.0 process)
AQAA	Attribute Quality Authentication Assurance (for non-eID attributes)
B-PEPS(*)	The logical PEPS module/functionality which interfaces the B-IDP
C-PEPS	The logical PEPS module/functionality which interfaces the IDP
CFUC	common functional use cases
eID	Electronic Identity
eIDAS	Regulation on Electronic identification and trust services for electronic transactions in the internal market
e-SENS	Electronic Simple European Networked Services
EUGO	Network of PSCs coordinated by the Directorate General Internal Market of the European Commission
IDP	Identity Provider for natural person authentication
B-IDP(*)	Identity Provider for legal person validation (usually the official, national Business or Mercantile Register)
Min.	Ministry
MOA-ID	Modules for online applications-Identification; Austrian eID system
MOU	Memorandum of Understanding
MS	STORK 2.0 Member State
MW	Middleware
NASES	Slovak national agency for networking and electronic services
PA	Public Administration
PEPS	Pan European Proxy Server:
PV	Powers Verification (STORK 2.0 process)
S-PEPS	The logical PEPS module/functionality which interfaces the SP
PSC	Point of Single Contact
QAA	Quality Authentication Assurance (for eID attributes)
SAML	Security Assertion Markup Language
SCAP	Professional Attributes Certification System, the Portuguese SP

(*) Abbreviation still in the proposal phase.

SP	Service Provider
STORK 2.0	Secure idenTity acrOss boRders linKed 2.0
USP	Unternehmensserviceportal, Austrian SP, a one-stop Business Portal
ÚPVS	Ústrednom portáli verejnej správy, Slovak central PA portal
V-IDP	Virtual Identity Provider

Executive summary

This document presents an overview of the planning for the main activities leading to the roll-out of the thirteen Public Services for Business, or ***eGov4Business***, Pilot services; activities include service development, integration and testing with related actions for end-user engagement, focus-group feedback and design of pilot evaluation criteria. The document describes the general tasks needed for the launching of the services and a summary of some specific planning issues that arise in each country participating in the ***eGov4Business*** pilot. These issues relate to service-specific features or constraints as well as to the different national implementations of the STORK 2.0 infrastructure as developed in the common specifications and building blocks work package (WP4). In general, Pilot planning has been performed in close coordination with the WP4 plans for development of the entire STORK 2.0 international interoperability layers and the joint approach with the pilots for an integrated testing approach and strategy [1].

While the overall planning fully respects the original goals and terms set out in the STORK 2.0 Description of Work, there naturally occur a range of variations to be expected in a coordinated effort of thirteen national infrastructures. Deviations from the "harmonised norm" will be highlighted in this document in order to facilitate monitoring during the execution of the planned activities, as well as later in the active piloting phase, taking into account terms of reference for pilot governance common to all STORK 2.0 pilots [3].

The document highlights three particularly important and inter-related activities, testing, end-user engagement and the determination of the pilot success criteria which will be further developed to provide the metrics to be used to measure real project impact and success. Since all of the eGov4Business pilot services build on existing eGovernment portals or procedures, the scope of testing will focus on the verification and validation of integrated national infrastructures and on the cross-border interoperability of these infrastructures and related services. End-users will be drawn from current and potential new pools of service users and success criteria will focus on the real benefits to these users as well as the MS administrations responsible for and running the services.

Actors in the Pilot will involve the providers of the common STORK 2.0 infrastructure (PEPS or MW/V-IDP), Identity Providers (IDP), Attribute Providers (AP)[1] – of particular importance for the eGov4Business Pilot are the Business Registers, Mercantile Registers and other authorities – and administrative Service Providers (SP), including the "one-stop eGovernment portals", such as the Points of Single Contact of the EC Services Directive [7], which "join-up" - i.e., aggregate and integrate - services from different agencies or departments.

The individual services chosen for piloting represent a variety of administrative procedures which promote or otherwise regulate cross-border commerce and business development. The main information handled by the STORK 2.0 infrastructure includes personal eID credentials, official company information and descriptions of the powers of natural persons to represent legal entities, and the main objectives of the STORK 2.0 services are to facilitate cross-border access to the pilot services by foreign businesses and business persons.

[1] These are STORK 2.0 actors, but they are engaged through WP4 so they are not directly under the pilots' responsibility.

1 Introduction

The objective of the eGov4Business pilot is to enable legal entities subject to administrative procedures and regulations in other countries to access and use online public services via their legal representatives or delegated persons/entities, thus avoiding the exclusion or unfavourable treatment with respect to domestic enterprises and other legal entities. The pilot will demonstrate that online services offered can be accessed with eID credentials issued in another MS and that attributes provided by company information Attribute Providers, APs, can be used by applications supporting the e-services for companies and other legal entities.

At this point in time the pilot's technical and business objectives and specifications have been defined and approved by the EC (in the deliverable D5.3.1).

1.1 Scope and objectives of the deliverable

The objective of this deliverable is to document the planning of the activities required to implement, integrate and deploy public services for business within the STORK 2.0 cross-border network of interoperable eID management services. This is in preparation for the year-long period of active service piloting which will begin in April 2014.
Objectives discussed include:

1. Service implementation: the planning of the necessary modifications to enable existing public services to accept foreign users; tasks, dependencies, timing concerning connection of services to the common STORK 2.0 interoperability layer via the national services layer

2. Testing: general Pilot test strategy (see [1]) and preparation including the different phases and general scope of testing and specific MS test plans (that includes detailed test criteria and test cases) guided by acceptance criteria; test scripts to conduct cross-border testing based on prepared test cases; test credentials exchange; support and Change Control (see [2]) at Pilot Level (consistent with Common Specifications & Building Blocks Work Package (WP4) approach for this); test reporting and analysis of test results in relation to acceptance criteria

3. Validation: User engagement plans to try to ensure sufficient users to validate the pilot through participation in pre-launch focus groups and throughout the pilot phase; this document further develops the criteria which will be used to measure Pilot success, in particular emphasizing the achievement of valid business goals.

Service Providers taking part in the eGov4Business Pilot will deliver their services to users who are primarily legal representatives of foreign businesses. We recall that the main service scenarios are described by two common functional use cases defined in D5.3.1:

1. Common functional use case #1: "Authentication and authorisation to access service on behalf of a legal entity"

2. Common functional use case #2: "Nomination of a natural person for powers or company role".

More details on these service scenarios will be given in chapter 2.

1.2 Planning Methodology

Participation of partners in the elaboration of Deliverable D.5.3.2 has been based on the roles played by each one of the organizations and their direct involvement in one of the use

cases. The table below summarizes the roles of the partners and other actors in the pilot. It will be used for reference throughout this document.

Member State	SP - a Public service for business	IDP - authentication and personal eID attributes	AP - Business (Legal Entity) information	AP - Mandate info (powers to represent)
Austria	Business Service Portal : business related services	SourcePIN Register Authority: Bürgerkarte, Handy-Signatur A-Trust: Handy-Signatur (service provision)	Company Register (UR)	Online Vollmachten
Belgium	NSSO: Limosa employee activity declaration	FEDICT - Service Publique Federal Technologie De L'information Et De La Communication: BELPIC National ID card Department of Federal Immigration: Foreign Residence Card	CBE – Cross Roads Bank for Companies	To be determined.
Estonia	RIK: Company registration by legal representative of foreign companies	AS Sertifitseerimiskeskus: ID-kaart, National ID card	RIK - Centre of Registers and Information Systems	RIK - Centre of Registers and Information Systems
France	Guichet-Entreprises.fr	Guichet-Entreprises.fr	Guichet-Entreprises.fr	To be determined.
Greece	HMI: Apply to offer service in Greece / General Secretariat of Commerce / eprocurement.	Hellenic Ministry of Administrative Reform and E-Governance: Digital Signature-Authentication Card	Commercial business registry	To be determined.
Iceland	SKRA: apply to offer service in Iceland	Island.is, the Government identity provider (HBB), innskraning.island.is	Register of Enterprises	Register of Enterprises
Italy	impresa.gov eGov portal (InfoCamere) gateway to Min. of Health and Min. Environ. company registers	CNSD – Ministry of Interior: National ID card AGID - Agenzia per l'Italia Digital: National Services Card	Chamber of Commerce Business Register - IC	Chamber of Commerce Business Register - IC
Lithuania	LT-IS: apply to offer services in Lithuania, application for additional permits and licenses.	NSC - Ministry of Interior: National ID card	IS_LT - Registers of Lithuania	IS_LT - Registers of Lithuania
Luxembourg	TUDOR: Request for Criminal record certificate	LuxTrust: Smartcard eID Social security administration	Ministry of Small and Medium-Sized Businesses	To be determined.

Member State	SP - a Public service for business	IDP - authentication and personal eID attributes	AP - Business (Legal Entity) information	AP - Mandate info (powers to represent)
Netherlands	NL-MEAI: farmer registration services	Ministry of Interior and Kingdom Relations: National citizen eID DigID MEAI - Ministry of Economy, Innovation and agriculture: company eID eHerkenning	To be determined.	To be determined.
Portugal	AMA: company role management in business registers	AMA: Portuguese Citizen Card	Fornecedor de Autenticação	Fornecedor de Autenticação
Slovakia	Ministry of Interior, PSC: notification of service activity	Ministry of Interior: National eID	Ministry of Justice – Business register	Ministry of Justice – Business register
Slovenia	SI-MIPA; company registration of limited liability company (d.o.o.)	SIGOV-CA (Slovenian GOVernmental Certification Authority): Qualified Certificate SIGOV-CA Pošta Slovenije: Qualified Certificate POŠTArCA Halcom-CA: Qualified Certificate HALCOM-CA NLB - Nova Ljubljanska banka: Qualified Certificate AC NLB	AJPES - Agency of the Republic of Slovenia for Public Legal Records and Related Services	To be determined.

Table 1: Summary of the roles of partners and other actors in the pilot

The methodology used for the elaboration of the document has followed the steps outlined below:

1. Identification of tasks
    a. General tasks (i.e. relationships with other work packages, links to EU policies, test planning, conclusions…)
    b. Tasks linked to individual partners (i.e. service implementation, provision of attributes, test realisation…)
2. Definition of the structure and contents of the deliverable (pre-running phase tasks, management plans, integrated plan, test planning).
    a. Initial proposal from pilot's coordination and subsequent guidance;
    b. STORK 2.0 Test Strategy and Approach (see [1]);
    c. STORK 2.0 Change Control and Support (see [2]);
    d. WP5 Pilots Governance Terms of Reference (see [3]);
3. Development of the contents of each chapter
    a. Distribution of tasks among partners and initial proposal;
    b. Review and agreement by all partners;
    c. Partner specific development of contents;
4. Review and quality control

Concrete tasks have been assigned through periodic audio meetings and in the face to face meeting held during the General Assembly that took place in Reykjavik in June 2013.

The planning of the Go Live of the pilot is intimately linked to the development of the common infrastructure. The Common Specifications & Building Blocks Work Package, WP4, produces and updates an integrated planning for the different phases of the project that contains all necessary activities of MS to bring the national infrastructures (including IDPs and APs connected to common STORK 2.0 interoperability infrastructure components) to production level. Pilot services connection to the common infrastructure, dependencies between WP4 and the Public Services for Business Pilot Work Package, WP5.3 or simply the eGov4Business Pilot, and the progress to reach all planned milestones is monitored continuously, also for deployment of major version releases. STORK 2.0 partners from the different participating countries also produce specific plans at WP4 and WP5 levels, reporting progress, alerting of deviations with sufficient anticipation to WP4 or Pilot Leaders. MS progress and status template examples from STORK1 are used.

Different types of *testing* cycles at WP4 and WP5 levels (i.e. development unit/component integration tests, system functional testing, national integration tests and cross-border integration tests) follow a clear methodology described in the following sections consistent with [1]. This includes the definition of test cases and scripts to be shared by groups of partners (i.e. per service and use case) and the definition in each required case of how positive testing (exercising system functionalities to prove that they are behaving as expected in normal situations) and negative testing (testing functionalities under preconditions that normally should not happen or with incorrect input) are to be carried out. Testing with different types of credentials and of different levels of trust (including test credentials for the pre-production environment) is of particular importance, including revoked and other types of invalid credentials.

Testing phases will end with a brief internal report stating what is tested (each test case), under what conditions, when, by whom, who is involved and what the results are. Tests are iterated a number of times and also as problems are identified and corrected. Beforehand, minimum criteria are agreed to establish what essential test cases need to have a positive test result (exit criteria), for instance, for those WP4 interoperability tests that need to be successful before pilot testing starts or WP5 service testing. Exit criteria established for negative results or "defects" (classified in a scale of categories of severity) exactly how many of them from each category are acceptable to pass the test.

Particular mention should be made regarding the extension of interoperability testing and later on of service piloting to STORK 2.0 MS that are not direct participants of WP5.3 (i.e., that do not provide any SP). In theory, eGov4Business Pilot services may be used by any business person representing a company from a STORK 2.0 MS whose national infrastructure includes an IDP and an AP for business and mandates information[2]. Each pilot SP must decide if there are particular reasons for not accepting end-users from non-pilot member states.

In summary, for each test (phase):

1. Pre-conditions have to be met;

Tests have to be performed according to detailed test cases in a test plan;

[2] A proposal has been made to denote these APs by the name "Business Identity Provider", B-IDP, to highlight their special importance in validating the identities of businesses and the powers of legal representatives. Analogously, the software architecture of the PEPS might be structured and named to identify the component which interfaces the B-IDP as B-PEPS. We note that in the first implementation of STORK 2.0 common software this function is part of the C-PEPS.

Results must be recorded, analysed and reported and fulfilment of exit criteria confirmed;

A strategy for follow up of defects will be addressed.

The partner hosting the public service (the service provider) is leading in executing of pilot test cases. The public services tested are existing services; no new services are introduced as part of this pilot. The service provider is in charge of timely connection to the STORK 2.0 national infrastructure which itself connects via the cross-border interoperability layer to other (i.e., foreign) national infrastructures including their IDPs and APs (as agreed between those pilot countries). Each IDP and AP is responsible for testing its integration with the STORK 2.0 national infrastructure according to WP4 plans. Before the final Go Live, Pilot services will be tested in the production environments by Focus Groups of real end-users using real eID credentials.

1.3 Quality Management

This document has been agreed by all participants. A preliminary draft was proposed with the contributions of the different partners involved in the pilot and electronically submitted to the whole group for revision.

Besides the overall project planning, the pilot keeps and maintains a specific detailed planning and progress aligned to satisfy dependencies and focused on its particular goals. Pilot Leader has regularly reported to STORK 2.0 Executive Board the progress of work according to plans, thus allowing to measure if the execution of tasks and subtasks take place according to previously defined plans. Ultimately, it is also being assessed as part of execution of pre-running phase activities, if actual results match foreseen ones, and where not, the necessary actions are undertaken to resynchronise as needed other WPs and the pilots , usually through the Pilot Management Group (see [3]) audio meetings. This will be reported in D5.3.4 Pilot Progress Report.

The contents of this deliverable have been checked iteratively by:

a. All partners;

b. IC, as pilot leader;

c. ATOS, as partner in charge of Quality Management;

A first version of the document was also submitted to ATOS for initial quality assessment and several review remarks were issued by the ATOS team and incorporated to the final document before undergoing the formal review.

Besides standard quality assurance mechanisms, another crucial aspect of the planning of the pilot is the management of threats that may compromise the success of its development or limit the outcomes obtained during the piloting phase. Risk management is a continuous process associated to the pilot and run in parallel with its development.

2 Pre-Running Phase Tasks and Pilot Updates

As indicated in Section1.1, above, the eGov4Business pilot distinguishes two main common functional use cases (CFUC):

1. **CFUC #1: "authentication and authorisation to access service on behalf of legal entity"**: A legitimate representative of a foreign business or other legal entity wishes to access an eGov4Business Pilot service in order to act on behalf of that business or entity. The main flow of events involves a basic authentication of the end-user via the indicated C-PEPS and IDP followed by a collection of machine-processable and textual powers attributes from the same PEPS as defined by the national STORK 2.0 infrastructure. The user is granted or denied access to the SP in real-time. This scenario has five variations, each discussed with WP4, which represent additional features to the basic scenario and also workarounds for cases in which machine-processable data is not available or not sufficient for full automatic verification of powers:
    a. Two-step authorisation with back-office process for interpreting mandates
    b. Validating a chain of mandates or joint mandates
    c. Simplify the end user interaction by presenting a drop-down list of companies to represent (as opposed to the request of a specific national code to indicate the represented entity)
    d. No re-authenticating if the representing person is already authenticated and wants to represent another company.
    e. Authorisation on behalf of a legal entity registered in a country different from the end-user's country for personal ID authentication. This situation will therefore involve three different PEPS: S-PEPS, C-PEPS, A-PEPS.

2. **CFUC #2: "Nomination of a natural person for powers or company role":** A previously authenticated legal representative of a foreign business accesses a pilot service and in using the service or its accessory functions must submit to the SP certain sensitive or reserved identity information regarding another natural person not physically present, for example, to delegate company representation powers or to otherwise specify the role or relation of another person to the company being represented. Since for legal reasons STORK 2.0 does not support data entry and validation of identity attributes of a person not present, a two-step nomination procedure has been implemented in which the person whose powers are nominated identifies himself and is authenticated by STORK 2.0.
   Variations on this scenario do not involve procedure variations, just changes in the application context and the types of roles or qualifications involved.

Not all common functional use cases and their variations are relevant for each Member State. The next table shows which application scenarios will be implemented and tested by each Member State. "Y" indicates the scenario *will* be implemented as part of the Go Live service release, "M" indicates the scenario *might* be implemented as an added feature during the year of piloting (and blank cells indicate that the scenario or feature will not be implemented).

	Austria	Belgium	Estonia	France	Greece	Iceland	Italy	Lithuania	Luxembourg	Netherlands	Portugal	Slovakia	Slovenia
use case 1 ***authentication and validation of authorisation to access service on behalf of legal entity***													
primary scenario	Y	M	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
variation 1: Two-step authorisation with back-office process for interpreting mandates			M		M		M	M				M	
variation 2: Validating a chain of mandates or joint mandates	M		M					M		M			
variation 3: Simplify the end user interaction by presenting a drop-down list of companies to represent	Y		Y				M	M		M		M	
variation 4: No re-authenticating if the representing person is already authenticated and wants to represent another company.			M				Y	Y		Y			
variation 5: Authorization when the country of registration of the represented legal entity is different from the end-user's country for personal ID authentication	Y		Y				Y	M		M			
use case 2 ***Nomination of a natural person for powers or company role***													
primary scenario						Y	Y				Y		
variation 1: other services													

Table 2: Implementation of Common Functional Use Cases in MS pilots

2.1 Confirmation of eID tokens and e-Services to be used

All WP5.3 pilot services will require the use of physical persons' eID tokens and additionally legal representatives of legal entities will be required to provide evidence of their representation powers through mandates. The required QAA for eID authentication ranges from 1 to 4. As the (max) provided QAA in all but one country is 4, legal entities can apply for

business services in almost all of the member states. For each of the participating countries the following table shows the QAA required for authentication by the pilot SP as well as the QAA provided by the country's IDP. It updates the information presented in Table 28 of D5.3.1[4].

Country	Authentication Quality levels required by SPs	Authentication Quality levels Provided by IDPs and APs
Austria	4	4
Belgium	1	4
Estonia	4	4
France	1	1
Greece	4	1,2,3,4
Iceland	4	2,3,4
Italy	4	4
Lithuania	3	4
Luxembourg	4	4
Netherlands	2	1,2,3,4
Portugal	4	4
Slovakia	2	4
Slovenia	3	3,4

Table 3: Values of QAA required by SPs and provided by IDPs

2.2 Common Technical Environment for Integration with the STORK 2.0 Building Blocks

The Common Specifications & Building Blocks work package (WP4) confirmed during the joint workshop with pilot leaders that SVN will be used to publish versions of STORK 2.0 software artefacts. Developers are expected to use frozen versions, not hot versions (which are subject to continuing development). Access to SVN will be granted to SP integrators as well as manuals useful for the integration and testing. Pilot partners will assist those SPs that are not direct partners for integration and testing work. As bug tracking environment, the common Jira environment will also be used.

A process for the exchange of testing credentials, agreed with WP4, was launched by ATOS to ensure that project partners had examples of foreign physical credentials (e.g. smartcards, USB tokens, etc.) with fake data for use in testing. It had been previously identified that some countries have specific physical authentication tokens for representatives of legal persons. ATOS created a special repository in the restricted area of the project website to store software credentials and the instructions for their use. These are generally preferred to physical tokens as they may be downloaded as many times as needed and are also suitable for countries that don't have QAA4 but QAA4 equivalents implemented as software certificates. The aim has been for every MS to provide credential sets at least to those MS which are their partners in pilots they participate in. Sets of test

credentials include at least a valid and revoked credential and inclusion of other invalid credentials (suspended, expired…) was recommended. Sets are for identifying physical persons, for legal persons representatives and possibly for persons with limited powers. Clear instructions in English were requested along with the physical test credentials for installation which explain installation procedure steps (if necessary with screenshots) and any pre-requisites regarding download instructions for any local SW that needs to be installed to access the physical credential, any specific HW needed, need to install CA/root certificates, passwords/PIN's of the card sets, access to any required OCSP services, etc. The test credential will be used first at WP4 level for different phases of pre-production testing and then facilitated to WP5 SPs. ATOS has been closely monitoring the credentials exchange process, asking receiving MS to sign receipt and providing MS to indicate the number and type of credential sets provided.

WP4 will provide a Demo SP and a Demo AP that will facilitate the integration of SPs and APs to the STORK 2.0 infrastructure. The Demo SP and AP have been released from WP4 in November 2013. The SP Demo package will support the retrieval of business attributes. The first version of the Demo SP and AP packages are generic and implemented on Java. Subsequently, additional versions may be offered by the MSs, tailored to each MS and supporting additional technologies (e.g. .NET, PHP).

SPs can use the Demo SP integration package in order to facilitate the integration to the STORK 2.0 infrastructure; more specifically in order to quickly prepare and interpret Authentication Requests and Responses. The package will include the necessary libraries with well-defined APIs for the preparation of Authentication Requests, and the extraction of information from Authentication Responses.

Similarly, APs can use the Demo AP integration package in order to facilitate the integration to the STORK 2.0 infrastructure; more specifically in order to quickly interpret and prepare Attribute Requests and Responses. The package will include the necessary libraries with well-defined APIs for the extraction of information from Attribute Requests, and the preparation of Attribute Responses.

2.3 Integration of eGov4Business services

Piloting of national eGov4Business service will require SPs to be connected to their national STORK 2.0 infrastructures and that the STORK 2.0 common infrastructure includes at least one foreign MS with IDP and a STORK 2.0-enabled company information AP (i.e., a source of company and powers information integrated with the national STORK 2.0 infrastructure). The basic integration scheme based on a simple PEPS-PEPS architecture is given in Figure 1, below. Just for simplicity we omit the analogous schemes for architectures involving MW/VIDP components.

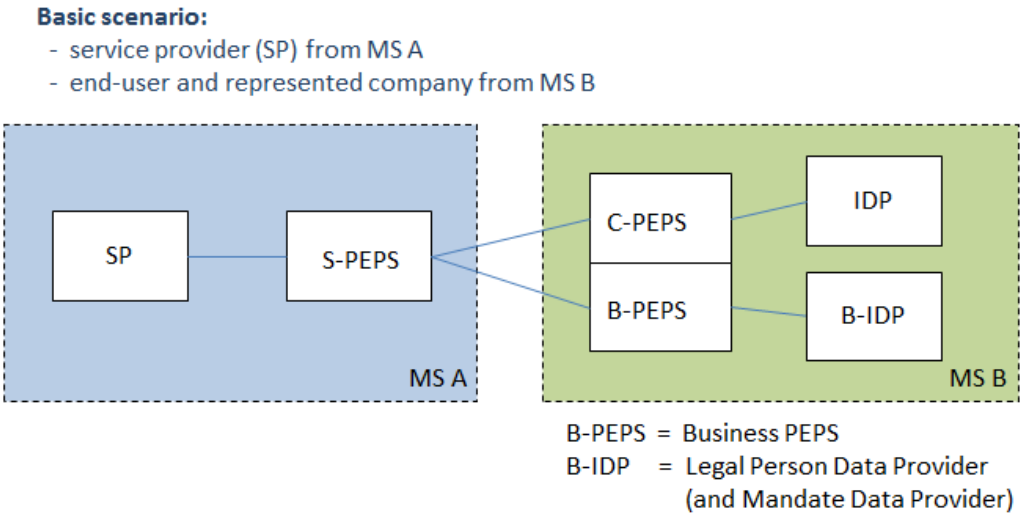

Figure 1: basic assumptions on integration of actors for piloting

More advanced pilot scenarios may involve the integration of STORK 2.0 infrastructures from more than two MS, as illustrated in the following figure:

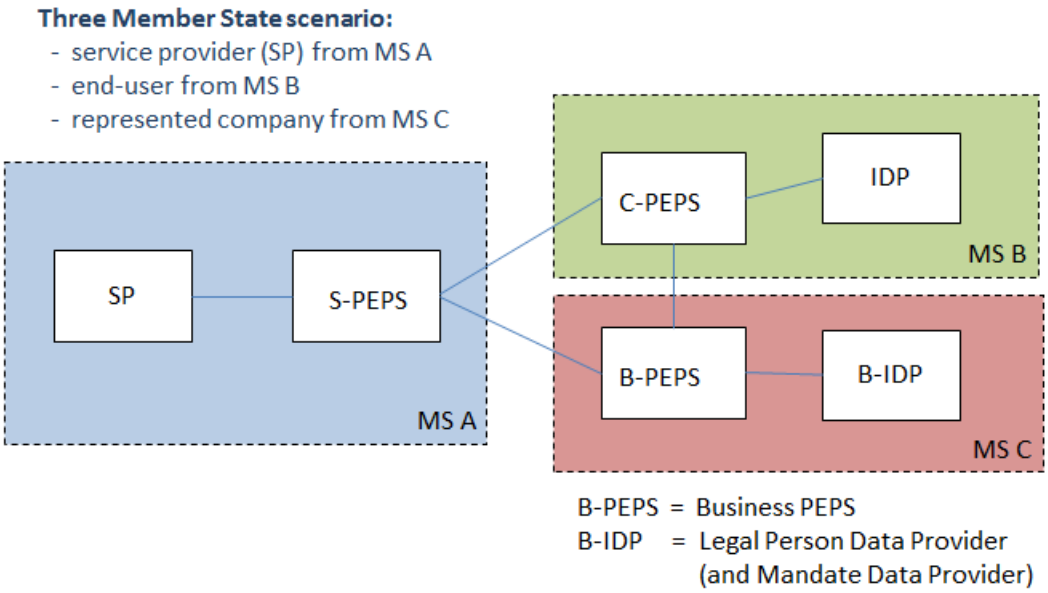

Figure 2: Scenario of STORK 2.0 service integration across three MS

We recall from Table 1 the nine eGov4Business Pilot MS that have successfully enrolled a Business and Mandate AP to participate in the STORK 2.0 network: AT, EE, FR, IS, IT, LT, PT, SK, SI; the remaining four eGov4Business Pilot partners, BE, GR, LU, NL, are uncertain about the possibility of integrating with the business register. So far, only one non- eGov4Business pilot MS, Spain, has confirmed the capability of furnishing a business information AP, the national Mercantile Register.

The integration of each service to the STORK 2.0 infrastructure is a detailed process that may be affected by local or national implementation details or constraints (legal, technical, organizational, economic, etc.). The following sections provide the important details and constraints for each of MS participating in the pilot.

2.3.1 Austria

In Austria, the STORK 2.0 solutions will be tested with the one-stop-shop Business Service Portal, USP (Unternehmensserviceportal, www.usp.gv.at), which offers a wide set of services to businesses. STORK 2.0 interoperability will allow representatives of non-Austrian companies to use their national eIDs to authenticate to the USP portal and gain access to the electronic services. The first service offered with STORK 2.0 will be notification of cross-border services. This is a notification that foreign service providers in certain sectors/professions need to carry out and that needs to be renewed annually.

The STORK 2.0 countries which have the largest number of companies that currently use this notification service (either offline or through prior registration of local, Austrian eID) are the neighboring countries Slovenia (840), Slovak Republic (458) and Italy (49).

The figures in brackets have been taken from the Service Provider Register related to notification of services. Non-STORK 2.0 eGov4Business piloting countries with a significant number of companies in the Service Provider Register are Hungary (948), Germany (661), Czech Republic (311), or Poland (109) – this gives an outlook to the cross-border potential of the chosen pilot service, once eIDAS is in place. The top 10 countries amount to about 3 ½ thousand registered service providers.

While a significant number of foreign companies are registered in the Service Provider Register and, thus, create a promising user base for the piloted service, some of the top-countries are either not in STORK 2.0 (Hungary, Germany, Czech Republic), or are not yet covered by the existing Austrian legal basis for eID recognition (e.g., Slovak Republic).

The STORK 2.0 countries which have the largest number of companies that currently use these services are Slovenia (840), Italy (49), Portugal (8), and Lithuania (5). Austrian pilot promotion therefore will mainly be with Slovenia and Italy, being the countries where the expected impact is highest.

Other MS-specific details and constraints include:

- A constraint is that little experience exists with legal acceptance of foreign electronic representation. As the Austrian eID system gives a legal basis with specific requirements in bylaws on representation content needed to enroll, the admissibility of foreign electronic representation records might need to be examined on a case-by-case (i.e. country by country) basis.
- Similarly, the internal business service portal assumes enrolled companies to enable services access, like having a tax identifier. For foreign companies an assessment is ongoing how this can be overcome.

2.3.2 Belgium

The *Belgian LIMOSA-project (www.limosa.be)* was implemented following a decision of the Belgian government to monitor all foreign employees, self-employed persons or trainees, sent to work temporarily or partially on Belgian territory.

Ultimately, the LIMOSA project aims to set up an international and multilingual portal site (available in in Dutch, French, English and German) where employers and self-employed people who are going to work in another country, can enter all their declarations or file their applications through a single point of contact.

The STORK 2.0 countries which have the largest number of companies that currently use these services (either offline or through prior registration of local eID) are the Netherlands, France, Luxemburg and Portugal.

Other MS-specific details and constraints include:

- Belgian law forbids public exchange of individual Citizen numbers. This means that the STORK ID-pseudonym must be used for identification of end-users.
- Due to national budget constraints NSSO - Belgium will limit its implementation of STORK 2.0. The precise implementation plan will be determined in the first weeks of 2014.

2.3.3 Estonia

In Estonia STORK 2.0 will be tested in *Company Registration Portal (ettevotjaportaal.rik.ee)*. This portal makes it possible to establish a company within 18 minutes without leaving your home. As a result of integration with STORK 2.0 foreign legal entities can use the Company Registration Portal as Estonian legal entities, when their legal representative authenticates to the system. STORK 2.0 will allow legal representatives of foreign companies to establish a presence in Estonia through direct, remote access to the portal. STORK 2.0 will also allow legal representatives of foreign companies to get access to information of Estonian companies involved with that specific foreign company.

The STORK 2.0 countries which have the largest number of companies that currently use these services (either offline or through prior registration of local eID) are Lithuania, Luxembourg, Austria, France and Italy.

Other MS-specific details and constraints include:

- In Estonia registration documents can either be digitally signed or certified by notary.
- If one can sign documents digitally, there is no need to visit notary´s office. Only in case of registration of public limited company or merger or division of companies one is obligated to use notary´s services.

2.3.4 France

STORK 2.0 solutions will be tested to allow foreign companies to use online services offered by the Business Register, particularly sending data and documents for registration of a company branch and for fulfilling the various administrative obligations during the life of the branch. The registration of new entities can be done electronically on the Guichet Entreprise website (www.guichet-entreprise.fr).

The STORK 2.0 countries which have the largest number of companies that currently use these services (either offline or through prior registration of local eID) will be determined in the beginning of 2014.

Other MS-specific details and constraints include:

- As indicated in Table 3, access to the Guichet Entreprise portal requires only QAA1 authentication

2.3.5 Greece

In Greece, the STORK 2.0 solutions will be tested with the *Hellenic Point of Single Contact*[3] *(www.ermis.gov.gr) and/or the e-procurement system (www.eprocurement.gov.gr/) the General Business Registry Services (https://www.businessregistry.gr/).*

Since several steps in the administrative procedures of the responsible agencies are not offered online, STORK 2.0 will simplify access to online procedures and stimulate the required legislative changes at national level to broaden the scope of the eGovernment service portals.

The STORK 2.0 countries which, in the last 15 months, have expressed the most interest in using the service, as measured by the number of requests from companies received by the Athens Chamber of Commerce and Industry, are Turkey (105), Portugal (13), United Kingdom (7), Slovakia (3), Spain (3), Czech republic (3). These countries currently use these services mainly offline.

Other MS-specific details and constraints include:

- The full business registration must be done by physical presence in a one stop shop service. Other licensing, especially for sole person companies, can be done electronically through the Point of single contact or by submitting additional supporting documents.
- In e-procurement prior registration to the e-procurement system or to the www.taxisnet.gr system is necessary.

2.3.6 Iceland

In Iceland, the STORK 2.0 solutions will be tested with the one–stop-shop Business Service Portal (psc.island.is). STORK 2.0 integration will allow foreign citizens and businesspeople to access the administrative services offered at the portal, in particular the processing and sending - with the official Iceland eDelivery system - of forms related to the Services Directive.

The countries with the largest number of companies currently using these services (either offline or through prior registration of local eID, or through local representatives) are Denmark and Norway.

Other MS-specific details and constraints include:

- The SP will implement a new business portal platform by the middle of next year. This portal will be connected to the STORK 2.0 interoperability layer.
- At present we can only offer eID for national users holding a national identifier (kennitala) and therefore we can only use QAA1 identification for foreign citizens.
- At present the eDelivery System is not able to read or validate powers of the users. We plan to integrate mandate system to the services offered on the PSC. This will be done through Company Register.
- Selected services will require powers of legal representation.

[3] To mitigate the delays caused by the renewal of the contract providing third-party support to the point of single contact, STORK 2.0 Partner HMI, the Hellenic Ministry of Administrative Reform and E-governance, has identified an additional SP pilot service, the cross-border services of the national e-procurement system run by the General Secretariat of Commerce of the Ministry of Development, already responsible for the Legal Entity Attribute Provider.

- The PSC offers information and procedures for all specific needs to start a company, to run it and to close a company.

2.3.7 Italy

To operate in the Italian market, European and Italian legislation requires all medical device manufacturers to subscribe to a special Registry managed by the Italian Ministry of Health. STORK 2.0 will give foreign businessmen the same easy access to the online Registry services as used by Italian companies, simplifying the current procedure specific to foreign end-users and providing enhanced security and additional capabilities to manage "local, ad hoc" mandates whose validity extends to all eGovernment services offered at the impresa.gov portal.

Similarly, manufacturers of electrical equipment, batteries and accumulators will gain access to the "Registry of electrical and electronic wastes" and the "Registry of battery producers" managed by the Chambers of Commerce and Industry for the Ministry of the Environment.

The STORK 2.0 countries with the largest number of companies currently using these services (either offline or through prior registration of local eID, or through local representatives) are France, The Netherlands and Austria.

Other MS-specific details and constraints include:

- Legal constraints (IT and EU) require foreign clients of Min. Environment SP application to have an Italian representative.
- All Legal Representatives will be required to make an online statement accepting full responsibility for their actions "on behalf of" to cover any imprecisions in powers verification.
- STORK 2.0 digital signature will be used for submitting certain documents; otherwise online declarations made under strong authentication (QAA4) will have legal value.

2.3.8 Lithuania

In Lithuania, the STORK 2.0 solutions will be tested with the *Business Gateway (www.verslovartai.lt)* which is the national Point of Single Contact. STORK 2.0 authentication will provide foreign customers access to all PSC services allowing them to carry on service operations and also to submit documents to the Lithuanian authorities when applying for permits and licenses required to pursue certain activities in Lithuania.

The STORK 2.0 countries with the largest number of companies currently using these services (either offline or through prior registration of local eID) are Estonia and The Netherlands.

Other MS-specific details and constraints include:

- Message Box is a secure e-mail system that enables users to exchange digital messages with Lithuanian government agencies at national and municipal level. Message Box is intended for use by entrepreneurs based in the European Economic Area (EEA) - including Lithuania - who provide their services in Lithuania.
- E-signing of documents will be required by the competent authorities in order to apply for permits or licenses.
- There is a discussion if accept other countries e-documents and in which formats.

2.3.9 Luxembourg

In Luxembourg, the STORK 2.0 solutions will be tested with the One-stop-shop Business Service Portal known as *"Le Guichet" (www.guichet.lu).* In particular, the Request for Criminal record certificate service will be made available to STORK 2.0 pilot users as well as the portal utilities for safely storing and transmitting application forms and other documents.

The STORK 2.0 countries with the largest number of companies currently using these services (either offline or through prior registration of local eID) are Belgium, France and Portugal.

Other MS-specific details and constraints include:

- Luxembourg has limited business attributes (mainly the name of the society that is given by certificate, if existing). Since Luxembourg has no other certified accessible attributes, self-declarations of responsibility will be used to gather attributes.

2.3.10 Netherlands

In the Netherlands, the Agencies of the Ministry of Economic Affairs, Agriculture and Innovation provide online services to about 80.000 farmers through the portal *www.DR-loket.nl* (operated by the National Service for the Implementations of Regulations). Integration with STORK 2.0 will enable non-Dutch legal persons to use hundreds of online services already available in the Netherlands with the same rights and obligations as Dutch entrepreneurs. These services include the application for subsidies, export permits and registration of cows and other animals.

The STORK 2.0 countries with the largest number of companies currently using these services (either offline or through prior registration of local eID) are Belgium, Germany. The Dutch pilot deals with Belgian cross-border farmers since Germany is not participating in the STORK 2.0 project.

Other MS-specific details and constraints include:

- SP will implement a new business portal by end of 2013. This portal must be connected to the STORK 2.0 interoperability layer, but resource provisioning constraints will delay the NL Go live by about four months (end of July 2014 rather than end of March 2014).
- Dutch mandate management systems are built around powers to apply for business services instead of the role a person has as in STORK 2.0. Therefore SP currently only supports 'full powers' of a representative representing a legal entity.
- SP currently supports legal entities representing other legal entities (chain of powers). This is foreseen in the STORK 2.0 data model, but must be experimented.
- SP needs a procedure for linking foreign eID's to local (SP specific) identifiers.
- SP needs a procedure for online and realtime registration of new identities.

2.3.11 Portugal

In Portugal, the STORK 2.0 solutions will be tested with Portuguese PSC, *Portal da Empresa (www.portaldaempresa.pt)*. This service will create an electronic service that facilitates the access of Portuguese and foreign citizens who hold a Citizen Card (foreign equivalent) and perform duties of administrators/managers of Portuguese companies. The pilot will offer a company role management service that integrates services of the Commercial Companies

Register, under the direct responsibility of Ministry of Justice, with the Professional Attributes Certification and Management System (SCAP) being developed by the Agency for the Public Services Reform (AMA), under the Presidency of the Minister Council.

Portugal is at the present moment developing the SCAP solution that will support the Portuguese objectives towards the centralization of authentication and qualified signature with Professional Attributes in the National Citizen Card. The diagram below presents a high-level view of the use cases of SCAP:

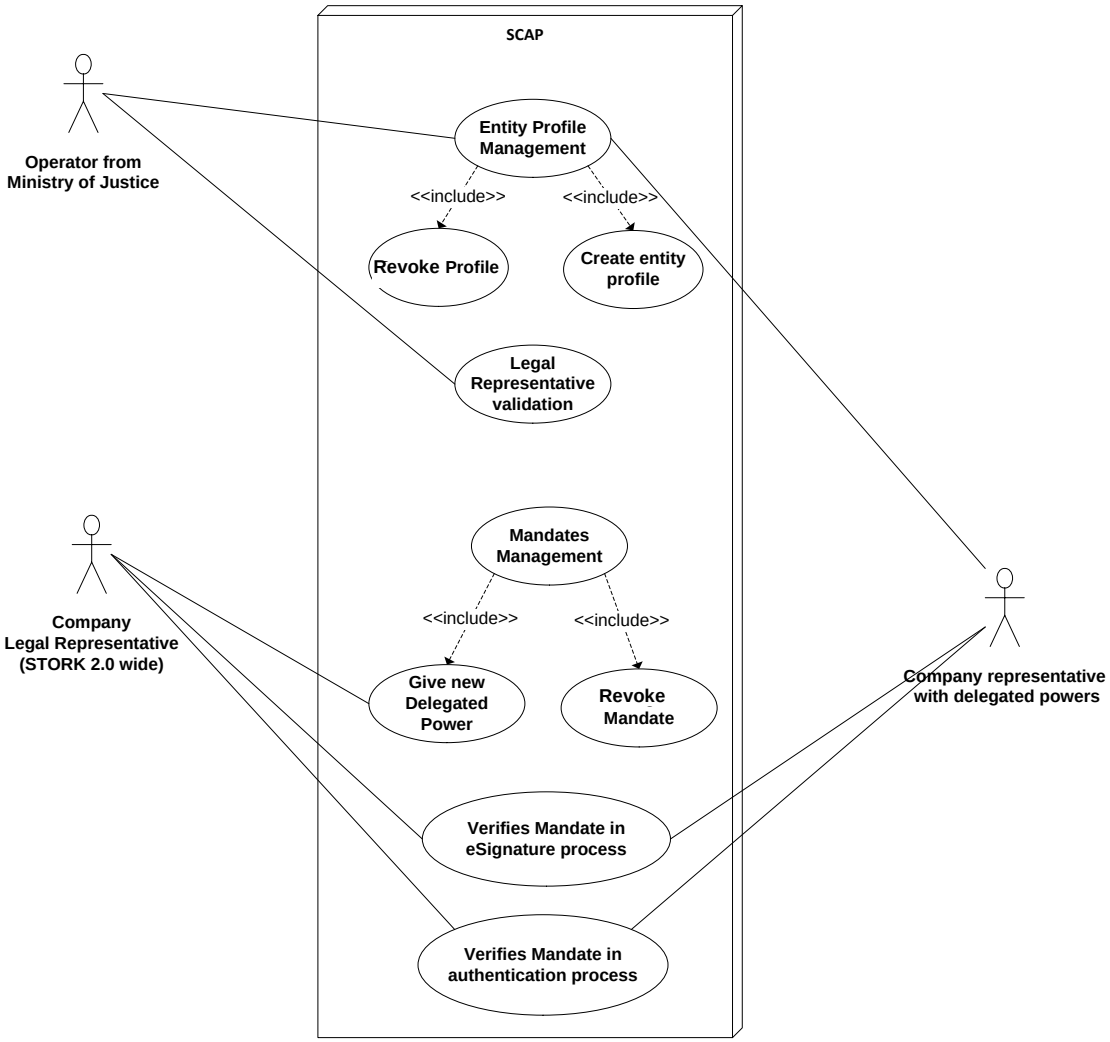

Figure 3: Detailed mappings of Step 2 in the Benefits Logic method

The development of the SCAP started in the beginning of 2.nd Quarter of 2012 and is expected to be in piloting phase during the 1st quarter of 2014. Although the integration with the Mandates System under the Ministry of Justice is yet to start (delayed due to reasons external to the project), it is expected to be fully integrated and fully operational for the piloting phase.

Other MS-specific details and constraints include:

- The analysis of the most promising target countries for the STORK 2.0 pilot is still being performed, and will be completed in the beginning of 2014 in order to better target the piloting countries.

2.3.12 Slovakia

The STORK 2.0 solutions will be tested both for natural and legal persons to allow foreign businesses to use the online service "Notification of cross-border services provision" offered by national Point of Single Contact in accordance with the EC Services Directive. The central public administration portal *ÚPVS (Ústrednom portáli verejnej správy, www.slovensko.sk/sk/e-sluzby)* provides unified access to PSC information sources and services. ÚPVS is administered by NASES, the Slovak national agency for networking and electronic services established under the Government Office of the Slovak Republic.

The STORK 2.0 country with the potentially largest number of companies using these services (either offline or through prior registration of local eID) is Austria.

Other MS-specific details and constraints include:

- Non-persistent user accounts will be used for the foreign users at the UPVS.
- The detailed technical specification of the integration of the UPVS (SP) with the SK PEPS needs to be approved by NASES.
- Due to very recent national budget constraints partner SKMoF, the Ministry of Finance of the Slovak Republic, will be delayed in its procurement of external resources for the STORK 2.0 project. All planned activities will be delayed at least six months, as compared to the original plan, and piloting activity in Slovakia will be proportionally reduced.

2.3.13 Slovenia

The STORK 2.0 integration of the *Slovenian Business Portal (www.evem.si/www.eugo.gov.si)* will facilitate access to all information, forms and e-procedures related to the Services Directive. In particular, the pilot will allow foreign citizens and business people to register a limited liability company (d.o.o.) in Slovenia through the Business portal.

The STORK 2.0 countries with the largest number of companies currently using these services (either offline or through prior registration of the local eID) are Italy, Austria and UK.

Other MS-specific details and constraints include:

- At present the services related to the company registration are available only for the Slovenian residents and companies, who are holding the Slovenian e-identity and Slovenian tax number. During the pilot analysis we investigated the possibilities to acquire the Slovenian tax number on-line and register a company based on STORK authentication. The tax number cannot be acquired synchronously due to the procedural limitations. It will be incorporated as part of the company registration process to respect the one-stop-shop principle.

2.4 Coordination and Testing

The Gov4Business pilot involves 13 different countries. Clearly, a broad test plan is needed to guarantee interoperability and the smooth running of the pilot. The presence of Legal Person APs is essential for a full testing of STORK 2.0 processes involving mandates and representation of legal entities such as "Authentication on Behalf of" and the 11 MS which have confirmed integration of business information APs (see section2.3) should guarantee an adequate supply of foreign companies as SP end-users. However, it will *not* be required, nor would it be possible, to have a full "All-to-All" - "19x13" nor even a "13x13" - service testing, since in fact this would not even be economically reasonable since not all SP services are equally interesting to all MS. Thus, each SP will identify one or two primary MS to

perform tests with and to target in the User Engagement Strategy based on real current cross-border usage of services as indicated in the previous section. This information is reported in the Testing Partners Table 28: Testing partners. in Appendix I.

Pilot testing is the last part of STORK 2.0 testing and is split into the following testing phases (only the last phase is conducted in the production environment):

- Service Provider – national STORK 2.0 infrastructure testing (Phase 2 in [1])
- Service Provider national testing of national test credentials acceptance (Phase 5 in [1])
- Cross-border Service Provider testing of foreign test credentials acceptance (Phase 10 in [1])
- Service Provider testing against the national STORK 2.0 infrastructure in the production environment with real credentials ("Production tests" in [1]) just after going live. This is the testing that needs to take place immediately after STORK 2.0 has been migrated to the production environment. In order to verify correct behaviour of services, testers (i.e. focus group users) guidance will be offered to them in English on correct navigation of portal services using screenshots in a brief manual.

Additionally, testing of the pilot services requires close coordination with WP4 activities, in particular, internal coordination with MS partners involved in setting up and running the national STORK 2.0 infrastructure. The testing associated with the Pilot implementation will be performed in several phases. In order to move testing from one phase to the next, certain specific acceptance criteria will need to be met. These acceptance criteria will also define the level of quality that the pilot testing has to surpass in order for the pilot to be migrated to production. A detailed description of pilot test strategy, phases, tasks, acceptance criteria, organization, etc. will be covered in Chapter 5.

2.5 Other changes and updates with respect to information in D5.3.1 / DoW

This section contains some changes to the original planning as indicated in the Project DoW or additional information to that gathered in D5.3.1.

Belgium: Due to national budget constraints NSSO - Belgium will limit its implementation of STORK 2.0. The precise implementation plan will be determined in the first weeks of 2014.

France: As indicated in Table 3, access to the Guichet portal will require only QAA1 authentication.

Luxembourg: The previously planned Business permit application service requires the submission of a Criminal records certificate, obtainable online through the same MyGuichet portal. Since this certificate is also required for several different eGovernment applications it is a more useful service to pilot test in STORK 2.0.

Slovakia: Due to new (January 2014) national budget constraints all planned activities will be delayed at least six months, as compared to the original plan, and piloting activity in Slovakia will be proportionally reduced.

Slovenia: The previously planned registration of branch office at present is not available on-line to end users. The decision was taken to pilot registration a limited liability company (d.o.o.) to offer foreign citizen and business people to access those services on-line via STORK 2.0. Integration of the service with the national Tax office (eDavki) for the registration

of a Slovenian tax number will also be available to improve the service and simplify the procedure.

There are no changes to indicate for the other MS: AT, EE, GR, IS, IT, LT, NL, PT, SK.

2.5.1 List of specific MS eGovernment services for Businesses to be connected to the pilot

The eGov4Business Pilot connects existing e-services for businesses to the STORK 2.0 national infrastructure. Typically, the pilot services are published in eGovernment portals that handle the user authentication operation and other end-user profiling services. Thus the eGov4Business Pilot will usually not give direct access to the final administrative procedure, rather it will integrate the general portal environment with the local (national) STORK 2.0 infrastructure allowing foreign users to access the offered services.

The following table lists the access portals and specific services that will be made available to STORK 2.0 users. Its purpose is to clarify when STORK 2.0 access is enabled for specific services within a broader portal.

Country	Portal	Specific of business services connected
Austria	one-stop-shop Business Service Portal (www.usp.gv.at)	Notification of cross-border services. Registration to the Supplementary Register of other Persons (ERsB) for seamless integration into the Austrian eGovernment environment. This may allow for further services in the course of the pilot.
Belgium	LIMOSA (www.limosa.be)	Registration of foreign workers and the companies they represent.
Estonia	Company registration portal ((ettevotjaportaal.rik.ee))	Company Registration Portal offers services to everyone and enables to: • Register a company; • Change registered information; • Submit annual report; Get access to registered information.
France	Guichet Entreprise web site (www.guichet-entreprise.fr)	Online business creation formalities, and transmission to one of the 6 authorities : • Chambers of business and industry (CCI), • Agriculture Chambers (CA), • Chambers of Activities and Artworks (CMA), • Social Welfare Funds (URSSAF), • Registrars of the commercial courts, • Chamber of inland waterway transport
Greece	Hellenic Point of Single Contact (www.ermis.gov.gr) and/or e-procurement service	The service of the point of single contact that will be connected is addressed to business for announcing cross-border service provision. The e-procurement service is also being examined for integration as additional SP.
Iceland	one–stop-shop Business Service Portal (psc.island.is)	One stop shop for companies to access all permits registered under the Services Directive.
Italy	eGovernment for business portal (www.impresa.gov.it)	• Environmental Ministry Registers of Electronic Equipment and batteries; • Health Ministry registry of Medical Devices

Country	Portal	Specific of business services connected
Lithuania	the Point of Single Contact for Services and Products (PSCSP): Business Gateway (www.verslovartai.lt)	Under European Service Directive, the PSC provides: • Distribution services (including wholesale and retail trade) • Construction services and handicrafts • Professional activities (e. g., architects, legal consultants, etc.) • With the trade related services (e. g. advertising, employment, etc.) • Information services (e. g., publishing, etc.) • Tourism and leisure activities (e. g., travel agencies, tour guides, etc.) • Lodging and food services (e. g., restaurants, hotels, etc.) • Education and training services (e.g. private universities, language schools) • Household support services (e. g., for cleaning, nanny, etc.) • Rent services • Real estate services
Luxembourg	One-stop-shop Business Service Portals known as "Le Guichet" (www.guichet.lu)	Criminal record certificate service
Netherlands	Farmers portal (www.DR-loket.nl)	STORK 2.0 grants end user access to all the services of the Dutch farmers portal, including: • Online registration of crops and parcels • Online application for income support under the common agricultural policy (CAP) • Online application for an export permit • Online registration of animals We note that authorisation is handled by the Dutch farmers portal and not by the individual business services available in the portal.
Portugal	PSC, Portal da Empresa (www.portaldaempresa.pt)	STORK 2.0 will grant access to the management system to the Company Legal Representative, allowing him to delegate powers. It will also allow STORK 2.0 authentication in accessing services that require mandate validation to perform actions on behalf of a company. We note that authorisation to access and use the service is under the responsibility of Ministry of Justice, responsible for all Company Related services/ registries/ information.
Slovakia	National Portal of Public Administration (www.portal.gov.sk)	Notification of cross-border services provision (PSC)
Slovenia	Slovenian Business Portal (www.eugo.gov.si, www.evem.si)	• One stop shop for companies: Registration of limited liability company (d.o.o.) • Tax office (eDavki) – registration of Slovenian tax number

Table 4: Specific administrative procedures in eGov4Business Pilot services

2.6 Benefits Logic Refinement

The Benefits Logic Method introduced in D5.3.1 [4] incorporates the analysis of perceived benefits with the measured progress achieved, combining the results provided from different sources. The method is aimed at maximizing the value of lessons learned and of the overall pilot conclusions for all the different identified stakeholders who will receive the report. Besides that it will boost the Pilots' chances for long-term sustainability of STORK 2.0 results beyond the end of the project, in alignment with other project work packages efforts and with initiatives already agreed or being defined with the EC and the Member States. The stakeholders include general public, European public administrations including the European Commission, service providers and eID experts.

The Benefits Logic Method helps to:

- Define, measure and show success in a convincing way, by covering the parameters needed to prove STORK 2.0 to be a success;
- Provide guidance for benefit quantification as a key instrument: relate pilot/WP goals & success criteria to common criteria that can be assessed with SMART metrics which can be understood easily;
- Facilitate the creation of evidence for the gathering, measuring and consolidation of both Pilot Results and Pilot Progress;
- Re-use concepts (for example the test strategy) already used in the WP's and Pilot's work;
- Gather, measure and consolidate both results and progress in view of benefits realization, in alignment with previous Pilot Evaluation cycles recommendations and Ex-Post Evaluation expectations;
- Establish the logical links between success criteria, objectives and results using standardized common criteria

2.6.1 Pilot-Specific Definition of Common Functional Criteria

The Benefit Logic method has already been used to translate each pilot‘s main goal into the underlying goals and smart results that have to be achieved. By doing this in a structured way it gives a clear insight in how the measurable results will contibute to the main goal.

An important step in the Benefits Logic approach is the connection of Succes Criteria to Common Criteria which are related to the Pilot's Use, Value and Learn. From these Common Criteria (like Functionality, Security and Maintainability) the measurable results are derived. The criteria of success are supported by common criteria for all pilots solutions focused on specific dimensions. Common Pilot Criteria are used to support and assess the achievement of success criteria along three basic dimensions: Use, Learn and Value.

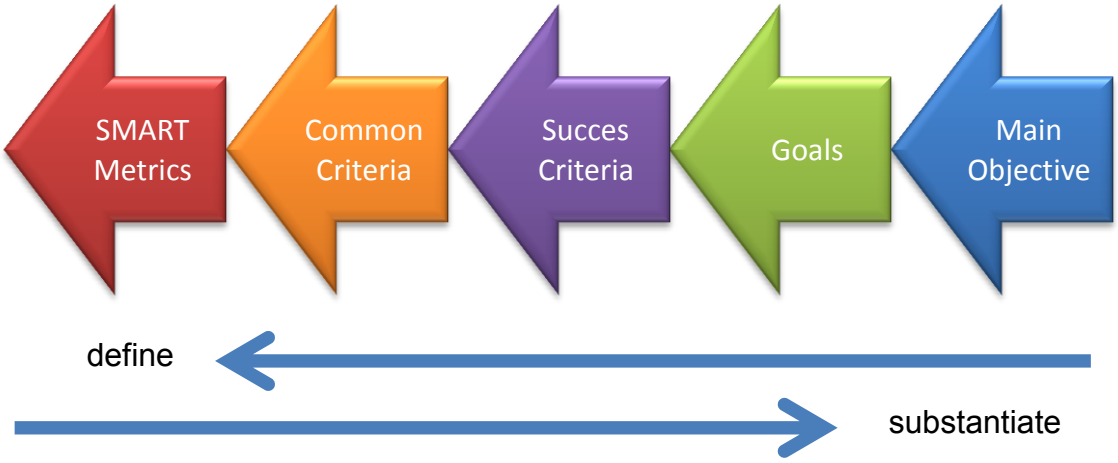

Figure 4 : Benefits Logic Steps

The following is a list of generic common criteria, or test attributes, to be used for all pilots, based on the ISO/IEC 9126 standard. Scalability and business value are not present in ISO/IEC 9126 but have been added to meet the Pilot's requirements. For each criterion, considerations adapted to the specific context of the eGov4Business Pilot have been added *in Italics* indicating what the criterion means for the eGov4Business Pilot and providing relevant examples as appropriate.

Common Criterion	***Definition (derived from ISO 9126)***
Functionality	The capability to provide functions which meet stated and implied needs when the software is used under specific conditions. It encompasses the fundaments of STORK 2.0: the common functionalities. The services must provide the required functionality. Attributes must be correctly retrieved through the STORK 2.0 infrastructure and they must be put at the disposal of the service provider that will treat them in order to provide the service to the final user. The whole development must fit the functional requirements discussed throughout the project's development. *The registration of foreign companies in national eGovernment portals and their services will fully test the extension of STORK to legal persons, namely the authentication of a representative of legal person, the verification of mandates and the use of legal person attributes. This means that the main components (identity and attribute providers) of the STORK-platform will have to function according to specifications.*

Common Criterion	***Definition (derived from ISO 9126)***
Interoperability	The capability to interact with one or more specified systems. It encompasses the main goal of STORK 2.0: functionality of the pilots aimed at validating interoperability of eID credentials across borders providing support both for physical and legal persons and their representatives as well as trouble-free interaction between involved systems. *This pilot will need to integrate data from business registries/attribute providers and service providers from different countries thus proving that interoperability for information about physical and legal persons is possible. Attention must be paid to distinguish technical interoperability from semantic interoperability, in particular when the latter represents a barrier to successful completion of STORK 2.0 functionality. For example, if the Authorisation of a Legal Representative is denied because of difficulty in interpreting the meaning of a successfully transmitted SAML attribute the problem may lie outside the scope of the project.*
Security	The capability to protect information and data so that unauthorised persons or systems cannot read or modify them and authorised persons or systems are not denied access to them. This includes the protection of the electronic identity of the pilot's users against theft and misuse. Availability, integrity and confidentiality of data exchanged through the common infrastructure must be guaranteed. It is extremely important for the success of the pilot the "feeling" of the user on this aspect and assurance given to SPs on security properties of the STORK 2.0 integral components. (see, also, [1] and [6]) *The STORK 2.0 platform will provide the main building blocks for the authenticity and integrity of the distributed information via signed SAML messages. The QAA and AQAA levels will provide an additional measure to assess the level of trust one can put in the obtained information. These trust levels will be set in order to maximize security and have strong value of trust as required by eGovernment services dealing with official business information and permits.*

Common Criterion	***Definition (derived from ISO 9126)***
Maintainability	The capability of the STORK 2.0 infrastructure to be modified (enhanced and managed). Modifications may include corrections, improvements or adaption of the software to changes in the environment, and in requirements and functional specifications. The services and the infrastructure required to run them must be maintainable without incurring "non-reasonable" costs. (see, also, [2]) *As consumers of the STORK 2.0 platform, the MS-specific interfaces between the STORK 2.0 national infrastructures and the SP's will have to allow smooth changes when changes occur on the platform. The decoupling of the interfaces and separation of the internal MS services and procedures from the common STORK 2.0 approach should facilitate higher level of SP protection from the impact of STORK 2.0 platform revisions. The maintainability of the services and infrastructures should be further facilitated through the usage of established technologies and well-documented, open-source source systems, where feasible. The goal of the Pilot and its implemented components and services should be to provide detailed and clear documentation, which should support its further integration, re-usage and long-term applicability.*
Flexibility/-Scalability	The capability to scale the use and the capacity of the system as part of the design. The capability of the system to react and adapt to changes; services and STORK 2.0 infrastructure must be designed in a way that allows future development and adaptation: implementation of new services, integration, etc. This includes the capability to use different types of login methods and tokens and concerns the variety of services that can be connected to the STORK 2.0 infrastructure. The addition of new Service Providers, Attribute Providers and users must be easily dealt with by the system designed. *In this Pilot not all MS SP require the same QAA Level, in fact all levels (1-4) are covered, on the supply side most countries offer level 4 although some countries offer* several *levels.* *The offered services also vary from one MS to another, going from simple notifications to full registrations of newly formed businesses in national registers.* *The usage of this Pilot's services in the terms of flexibility and authentication relies on general STORK 2.0 infrastructure. As a result of that, many different authentication methods will be supported as long as they meet minimal QAA requirements on the SP side. The usage of different authentication methods is transparent for the SP and does not impact its operation, as long as QAA requirements are meet. The addition of APs is done in the STORK 2.0 context. As this is an transparent process, not impacting SPs operation, it should be ensured that new SP and APs: (1) can be integrated in optimal time, (2) their integration is visible for the other actors, (3) as well as they are able to interconnect with other actors, send and receive messages which are accepted and recognized by the adjacent party.*

Common Criterion	***Definition (derived from ISO 9126)***
Reliability/-Maturity	The capability to maintain a specified level of performance (not only in terms of speed) when used under specified conditions. The capability to avoid failure as a result of faults in the software. The aim of the pilot is to run real-life services, the user of the services run within the pilot must perceive them as reliable. *Existing live services will be adapted to make use of STORK 2.0. In that respect, a reliable infrastructure will be paramount and a prerequisite for the success of this pilot. The maturity of the system will be ensured through wide test coverage, extensive testing and fair inclusion of all stakeholder and relevant subjects through development and piloting phase.*
Portability	The capability of the STORK 2.0 infrastructure components to be transferred from one environment to another. The solutions adopted should, as far as possible, be portable to different platforms and environments. *Analogously, the MS-specific interface to the PEPS/MW should be platform independent to facilitate the connection of multiple SP's to the same STORK 2.0 components. The eGov4Business pilot will follow the STORK 2.0 approach in the terms of portability, enabling all of its components to be portable on different computing platforms and systems, being able to communicate using established and standardized approach.*

Common Criterion	***Definition (derived from ISO 9126)***
Business Value	The capability to deliver business value. This is always to be understood in the context of piloting conditions and scoping which may be more limited than a production system, but should nonetheless serve to entice future adoption by other SPs and countries. . *The "eGov4Business" pilot will deliver business value for both parties taking advantage of the STORK 2.0 infrastructure, namely foreign companies (end-users) and national public administrations (Service Providers and Attribute Providers). On the one hand the barriers for companies to do business in another MS will be lowered by allowing certain administrative obligations to be performed electronically, e.g. starting a branch office, sending personnel or simply providing services in another MS. By limiting paper procedures and avoiding physical presence, the company will be able to execute its business quicker and more economically, and will be stimulated to increasing business volumes.* *On the other hand, public administrations will be able to reduce time and costs (no more long, resource-intensive paper processes, and reduced administrative overhead) while also improving quality of the obtained information. Improved and enhanced service quality and online execution of procedures; reliance on trusted eID infrastructure and attributes through cross-border interoperability will also increase the capability of SPs to get structured and reliable information, thus combating fraud and misuse. The existence of online services will additionally push implementation of the EU Services Directive in the terms of equal treatment of foreign subjects, and make the local market and services more appealing for foreign legal subjects.*
Usability/-Understand-ability	The capability to be understood, learned, used and attractive to the user, when used under specified conditions. The capability to enable the user to understand whether software is suitable, and how it can be used for particular tasks and conditions of use. STORK 2.0 services must offer an acceptable degree of usability and, preferably, they should comply with commonly accepted standards (for example, ISO 9241-151:2008). *Most of the existing services are national portals that need to take into account all aspects of usability and achieve adequate understandability. In order to be understandable by foreign companies it is desirable (but not mandatory for the piloting phase) that these portals support languages other than their national language (English as a first choice).*

Common Criterion	***Definition (derived from ISO 9126)***
Data Protection	Meet the requirements for personal data protection (Data Protection Directive) by implementing the technical and organisational measures (security requirements above, as well as requirements and suggestions by Art. 29 WP and DPAs / national data protection legislations) *Despite the fact that the main attributes required by the eGov4Business pilot services consist in publicly available information, the pilot explores use-cases which involve identification attributes of a third party (e.g. person appointed by a representative, an employee declared by a representative) thus actively pushing the reflection about data protection and looking for solutions and measures that need to be put into place suitable for all the different legal frameworks of the participating MS.*

Table 5 : Common Pilot Criteria

To reach the required level of quality and coherence, the metrics need to be aligned, focusing not on the Benefit Logic method itself, but on coherence between the pilots and the quality of the metrics. This approach with the generic measurable results helps define the SMART results at the right level for the Pilot, supplemented by the Pilot-specific results. Quantitative and qualitative metrics (SMART results: Specific, Measurable, Attainable, Relevant, Time-bound) that close the benefits logic loop to substantiate over time how well the pilot meets the pre-defined success criteria have started to be discussed and will be delivered in D5.x.3 Running Phase Planning.

2.6.2 Final Version of Success Criteria and Connection to Common Pilot Criteria

The Success Criteria play a key role in the evaluation of the STORK 2.0 Pilot's success. They must bridge the gap between the metrics used to measure the degree to which concrete SP or MS specific business goals are obtained and a set of Common Criteria related to the Pilot's goals and main objectives. These success criteria have been revised to improve their suitability to enable the realization of real business goals and achievement of real, specific benefits for the pilot end-users and other pilot stakeholders. The following diagrams depict this update and the assignment of common criteria to Use, Value and Learning benefits groups.

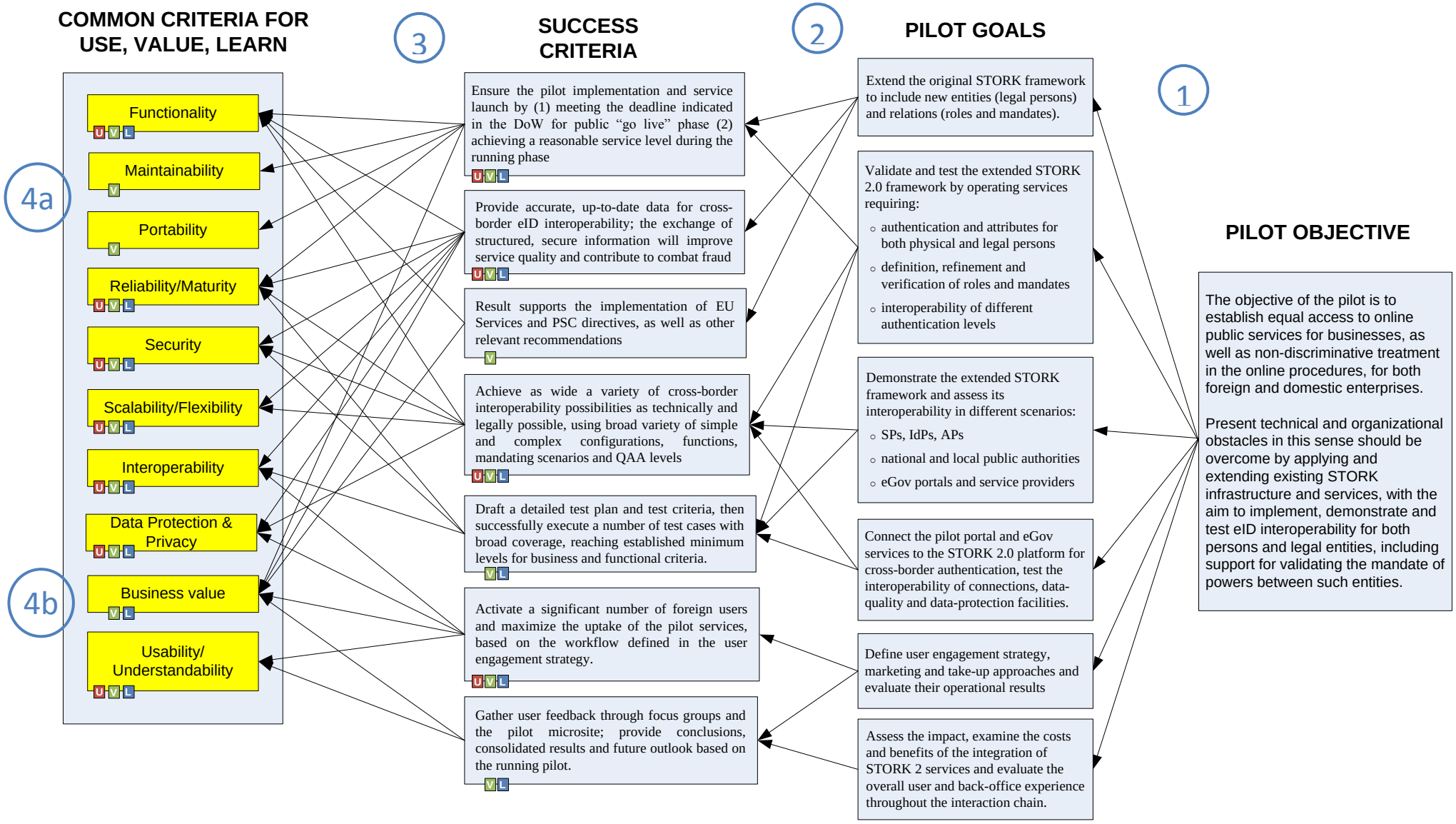

Figure 5: Detailed mappings of the four steps in the Benefits Logic method

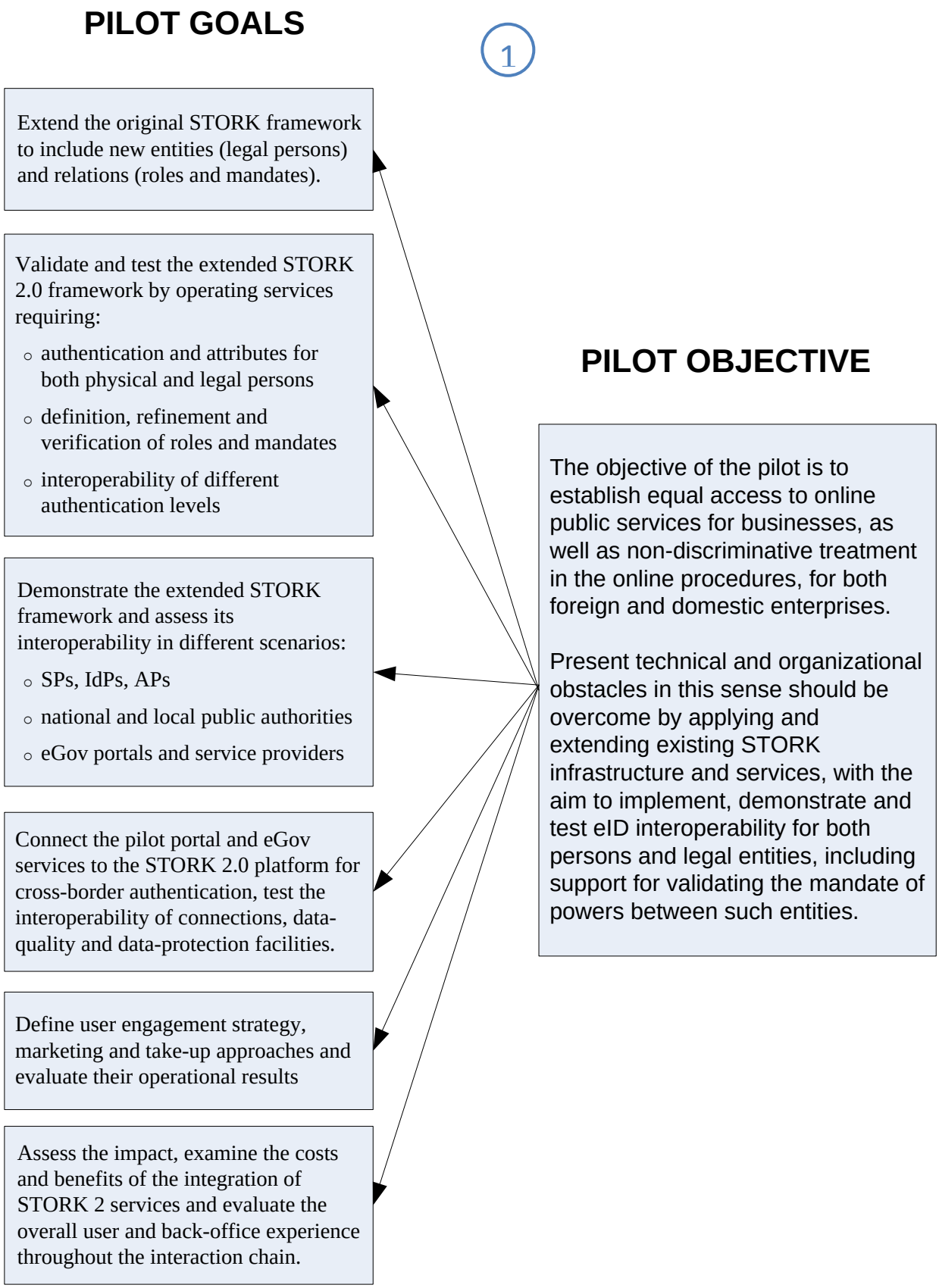

Figure 6: Detailed mappings of Step 1 in the Benefits Logic method

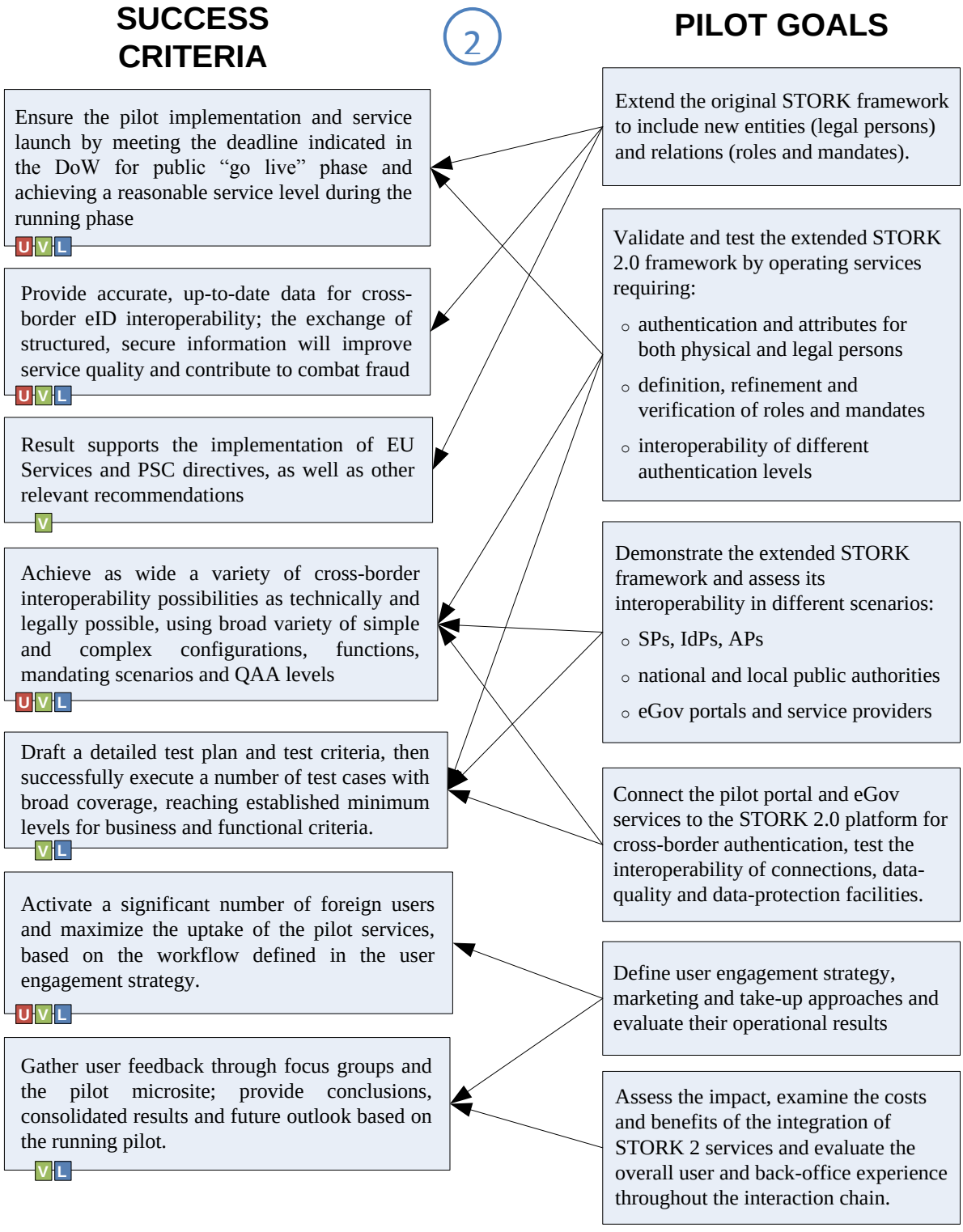

Figure 7: Detailed mappings of Step 2 in the Benefits Logic method

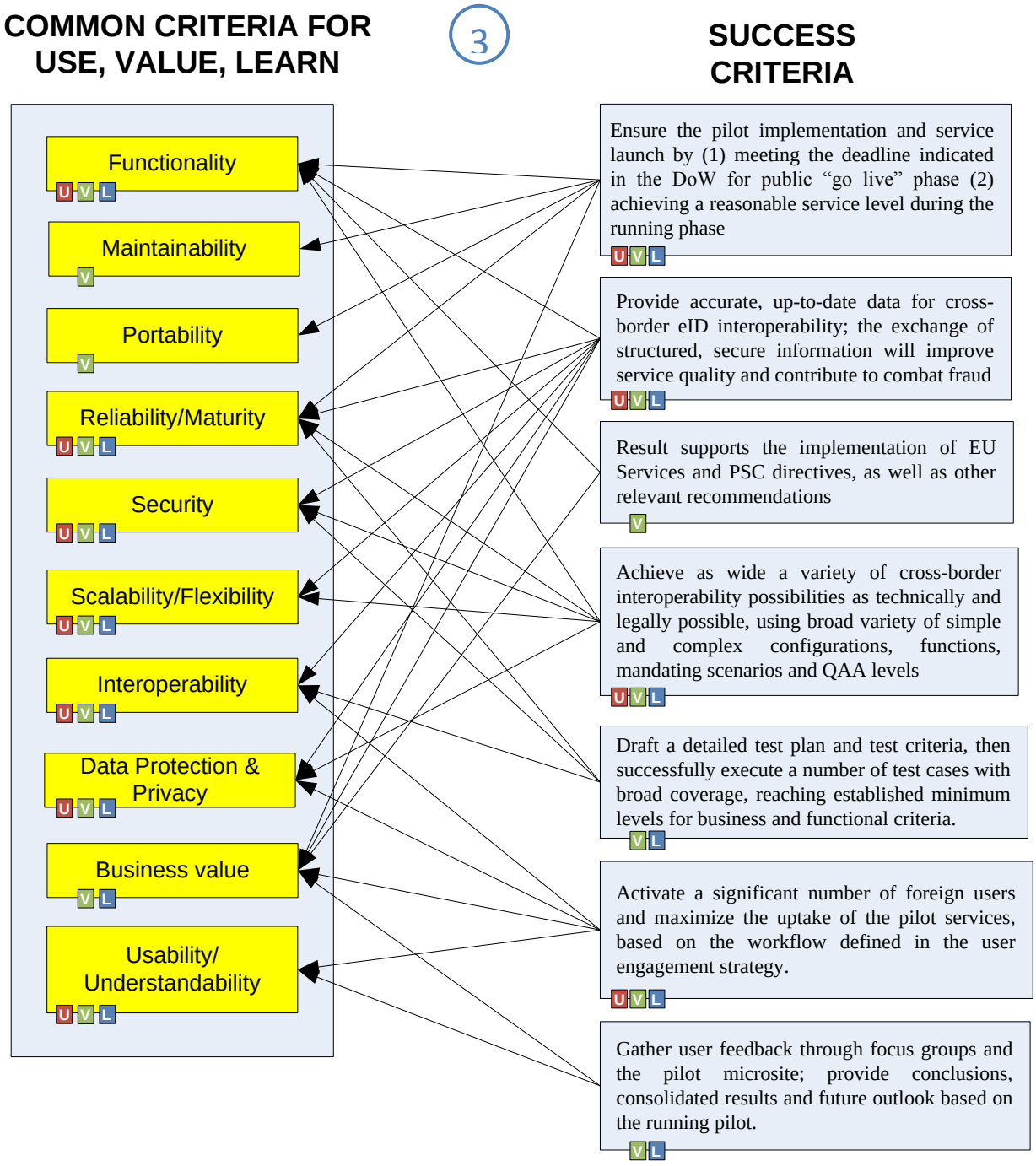

Figure 8: Detailed mappings of Step 3 in the Benefits Logic method

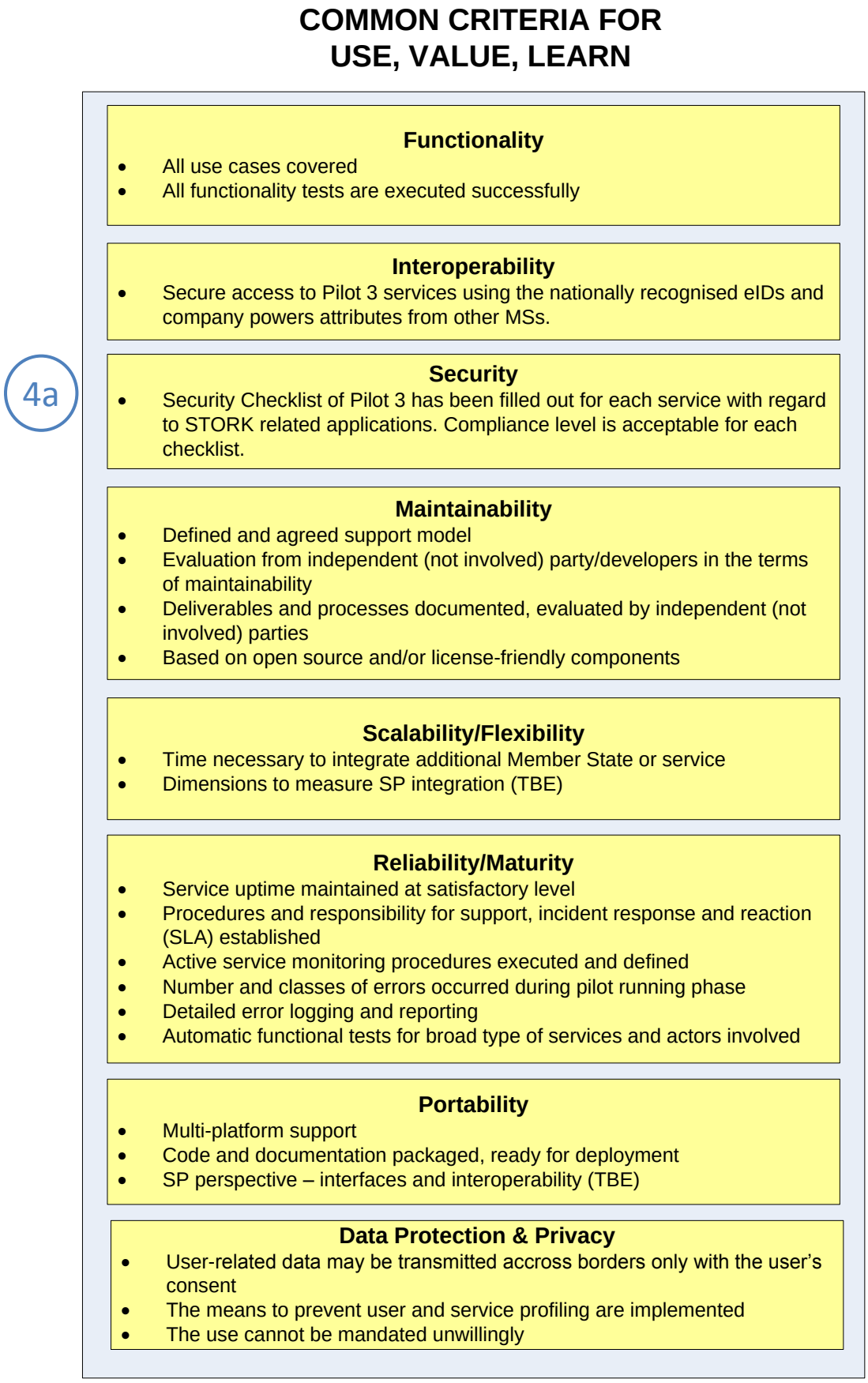

Figure 9: Detailed mappings of Step 4 in the Benefits Logic method, first part

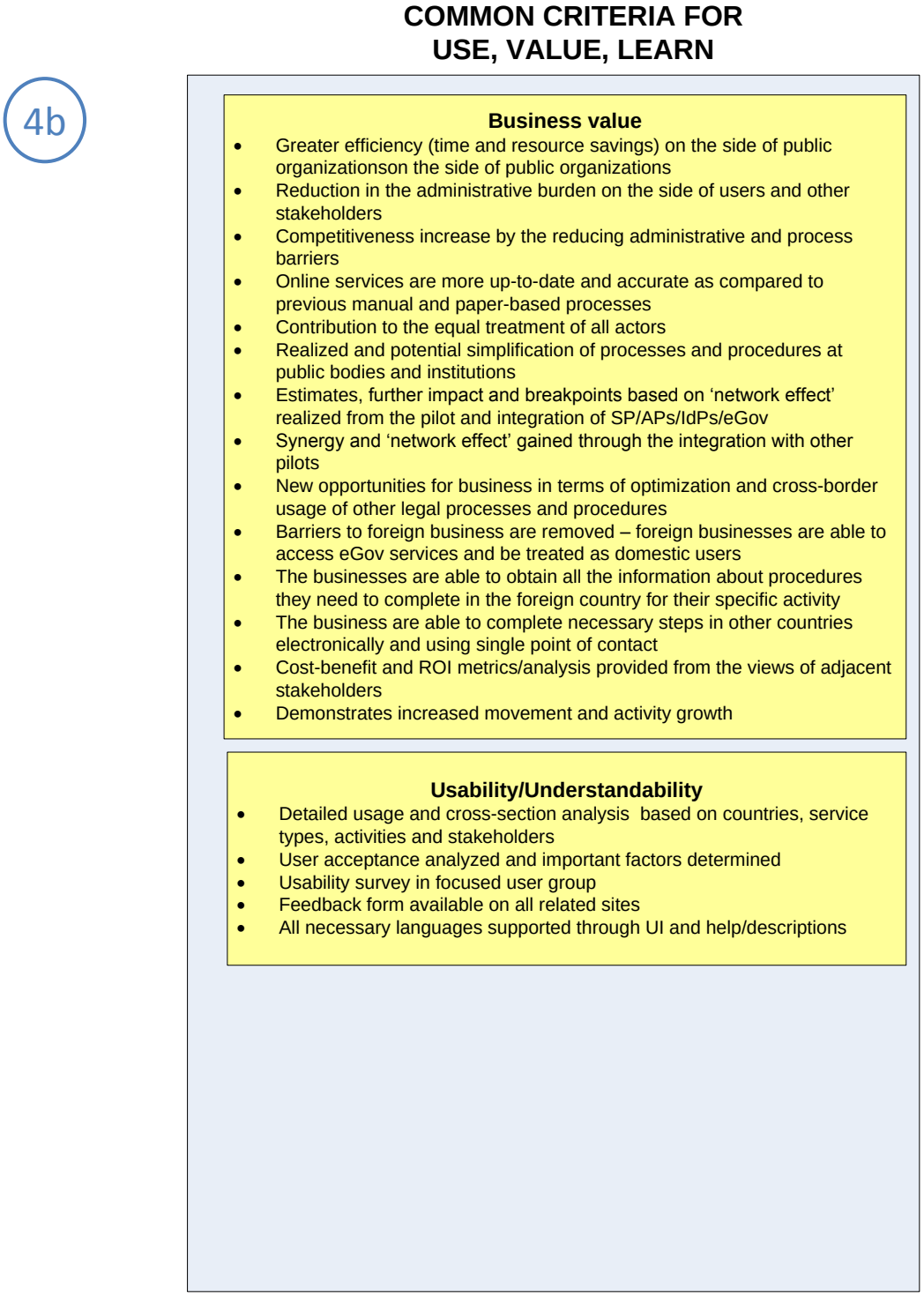

Figure 10: Detailed mappings of Step 4 in the Benefits Logic method, second part

3 Integrated Pilot Plan (Task Definitions)

Go live planning needs to take place across the work packages implementing the STORK 2.0 building blocks (WP4) – common and MS-specific layers – and the pilot service implementations (WP5). This is because the migration to production will include the cross-border interoperability layer, the national components of the STORK 2.0 infrastructure and the national connections to production systems of the pilots and other MS-specific features. The following sections provide a joint project management plan harmonised across a majority of the Member States in the WP5.3 work package. This will specifically allow the coordination of interoperability testing. An integrated plan of all eGov4Business Pilot MS is presented in Appendix II

Pilot delivery includes integration of the service applications to the interoperability layer, testing and activities around the Go Live pilot launch for the Running Phase. Each service application needs to be connected to the national STORK 2.0 infrastructure so that it can be accessed from foreign countries participating in the pilot. The pilots will be run from national production systems from each participating country. This implies that the associated nonfunctional testing must take place as per the requirements in each member state including Application Vulnerability Testing and Penetration Testing as defined by the security team of the common specifications and building blocks work package.

The project management for the pre-running phase is described in more detail in the sections below. It includes the identified tasks to be carried out for each partner in the pilot to complete the pre-running phase, the milestones achieved and an estimated planning for each of these.

3.1 Implementation planning for connection to the STORK 2.0 Infrastructure

Each eGov4Business pilot service will be connected as a Service Provider (SP) to the corresponding national STORK 2.0 infrastructure. To implement this connection it will be necessary to:

- Adapt each service to process information on foreign persons (both natural and legal) coming from foreign Attribute Providers: the information regards user authentication and validation of powers information.
- Integrate each service with the national STORK 2.0 infrastructure to request and accept such information using STORK 2.0 SAML tokens.

Although all pilot services are already implemented in existing public portals, the above adaptions may require considerable feature modification to make functions and database structure compatible with STORK 2.0 user authentication and attribute collection and validation. This will depend, in part, on the software architecture currently used for end-user authentication and profiling. Many pilots already have a multi-tiered architecture which separates end-user authentication management from the other service fulfilment functions. In many MS, access to a family of public services is realised through a common portal environment with single sign-on capability. Several different agencies may be involved in the running of these portals: for example, specialized web security agencies for handling the end-user authentication, web application integrators for publishing the general portal environment and individual technical support agencies serving different Ministries or government institutions. In other words, the logical STORK 2.0 actor or software component denoted by SP may really comprise several different software systems and public agencies or their external suppliers. The following figure presents a general scheme of how such a family of SPs can connect to the STORK 2.0 infrastructure.

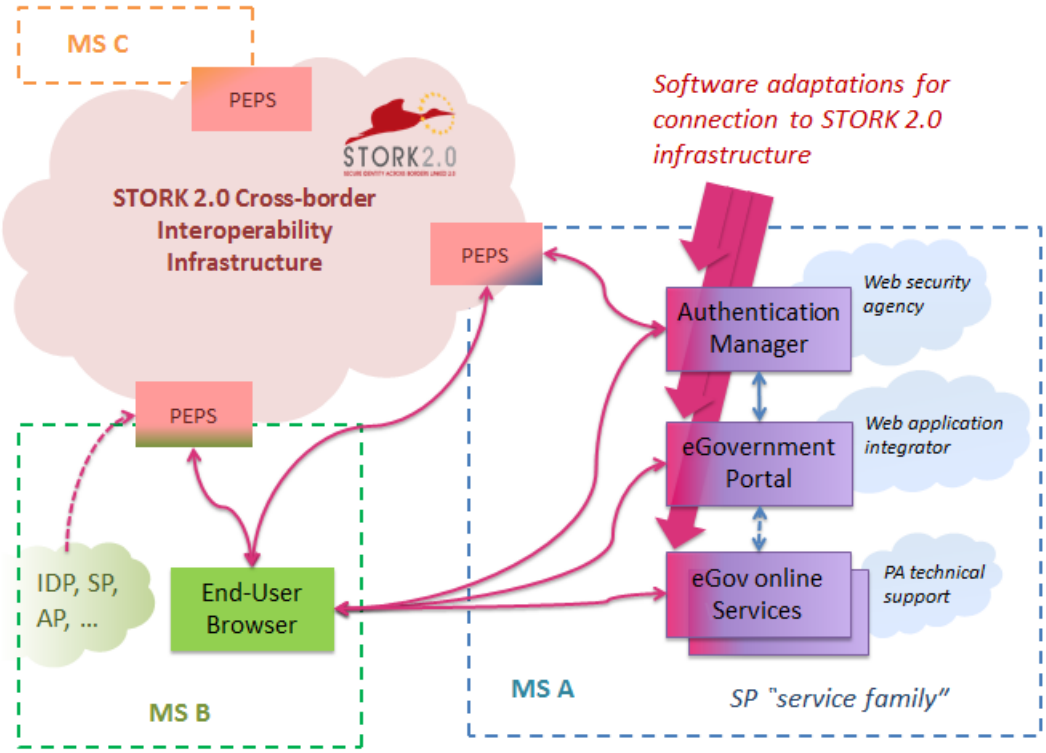

Figure 11: Adapting a "family" of public services to connect to STORK 2.0 infrastructure

The STORK 2.0 partners and their collaborating ministries and agencies representing the thirteen eGov4Business piloting countries cover many of the different combinations of these actors. This makes deployment and testing of pilot services a complex task. All MS should be connected to the national STORK 2.0 infrastructure by the end of February 2014.

3.2 WP5 High Level Milestones

The pre-running period of the pilots is split into four phases which have been harmonised with WP4 (in particular, at the May 2013 General Assembly in Reykjavik) and with the other STORK 2.0 Pilots:

- Phase 1 – Initial activities / design and development of pilot systems

  In this phase each MS will analyse the current service applications existing in its MS. The design and specifications for the integrations of the service to the national STORK 2.0 infrastructure will be also done during this phase as well as the implementation of the needed modifications to the service and for the integrations with the national STORK 2.0 infrastructure.

- Phase 2 – Pilot integration and national testing in preproduction environment

  In this phase the SPs of each MS will be integrated to work with the national STORK 2.0 infrastructure. After the integration, several testing tasks have been planned to validate this integration.

- Phase 3 – Cross-border interoperability testing in preproduction environment

  This phase comprises the cross-border testing among partners located in different MS. This testing is limited by the number of available testing credentials.

- Phase 4 – Deployment and testing in production environment

Finally, the deployment and test of the SPs and APs will be done in production. In this phase, the processes for authentication and authorisation using both, IDPs and APs will be tested using real credentials.

The overall planning of these tasks is indicated in the following figure. We note that the end dates of all phases take into account a one month extension with respect to the true target completion dates which most partners are expected to respect. This is to accommodate partners who have experienced delays in the organization of pilot development, the reality of not being able to perfectly synchronise pilot developments in thirteen different Member States and the delays in the development of the common STORK 2.0 building blocks (WP4). More detailed, MS-specific plans are presented in Chapter 4, below, where individual deviations from the overall plan can be seen.

Additionally, we remark that the overall planning refers to a target first release of STORK 2.0-enabled Pilot services. Several partners have planned more than one release of service application software in order to allow incremental development of more advanced (optional) features. These successive releases are not indicated in the general planning, and will sometimes depend on the outcome and end-user evaluation of the first releases.

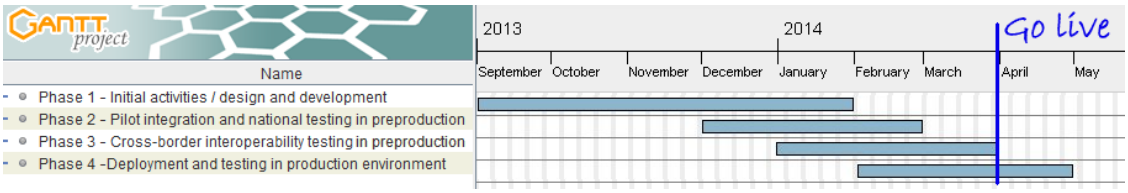

Figure 12: General planning of phases of pre-running period

Each of the above four phases can be subdivided into high-level tasks as indicated in Table 6, below. More detailed descriptions of these tasks will be given in the sections that follow, but they are introduced here in order to better indicate the interdependencies between activities and the individual Milestones common to all pilots.

Phase/Task			Start date	End date
Phase 1 – Initial activities / design and development of pilot systems			**01/09/13**	**31/01/14**
Task 1	Analyse, design and adapt SP application for foreign end-users		01/09/13	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure		01/10/13	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment			**01/12/13**	**28/02/14**
Task 3	Data provisioning and test definition		01/12/13	31/01/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure		01/12/13	28/02/14
	Task 4.1	testing SP integration with national infrastructure (using DemoIDP)[4]	01/12/13	21/02/14
	Task 4.2	Testing SP acceptance of national test credentials for authentication and	01/01/14	28/02/14

[4] This (sub)task corresponds to Phase 2 in the overall STORK 2.0 Test Strategy and Approach, see [1]

Phase/Task			Start date	End date
		powers (using IDP and B-IDP)[5]		
Phase 3 – Cross-border interoperability testing in preproduction environment			**01/01/14**	**31/03/14**
Task 5	Cross-border test planning		01/01/14	28/02/14
Task 6	Cross-border interoperability testing at the SP[6]		01/02/14	31/03/14
Phase 4 – Deployment and testing in production environment			**01/02/14**	**30/04/14**
Task 7	Pilot 5.3 service deployment		03/02/14	31/03/14
Task 8	Tests of cross-border services deployed in production environment[7]		01/03/14	30/04/14

Table 6: General Phase/Task planning

The eGov4Business Pilot goal is to have at least one SP with a partner MS live, tested in the production environment and having passed the Go-live acceptance criteria by March 2014 to kick off the piloting period. The Go-live launching criteria are described in greater detail in 5.1.

The common building blocks of the STORK 2.0 cross-border interoperability layer - the PEPS, V-IDP, transversal functions, IDP and business information and mandate AP - are built, tested and implemented in each MS as part of WP4. Figure 12 indicates dependencies between WP4 and WP5 go live activities.

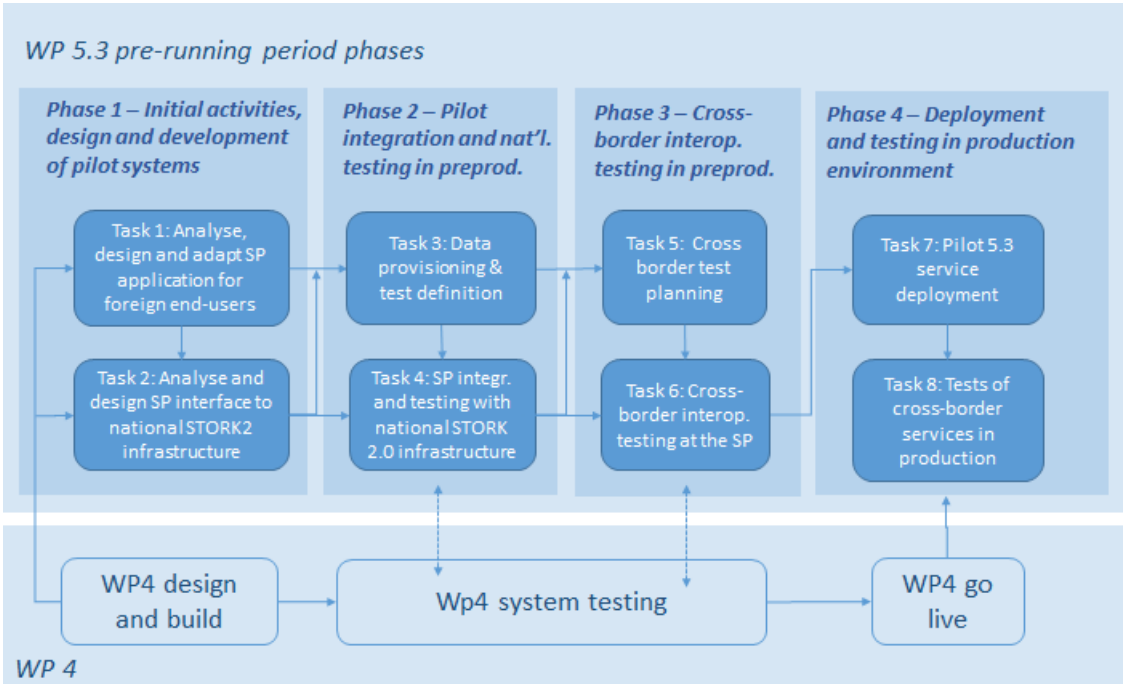

Figure 13: High-level go-live tasks and their dependencies and relations to WP4

[5] This (sub)task corresponds to Phase 5 in the overall STORK 2.0 Test Strategy and Approach, see [1]

[6] This (sub)task corresponds to Phase 10 in the overall STORK 2.0 Test Strategy and Approach, see [1]

[7] This (sub)task corresponds to "Production tests" in the overall STORK 2.0 Test Strategy and Approach, see [1]

The following table represents the correspondence between the above tasks and the milestones that will be achieved by those tasks as discussed at the General Assembly of May 2013. This information will be used in the following section to provide MS-specific planning of tasks and milestones.

Task	No[8]	Key Milestones	Date
Task 1 - Analyse, design and adapt SP applic. for foreign end-users	M-12	Agreement of user interface details at SP level	31/01/14
Task 2 - Analyse and design SP interface to national STORK 2.0 infrastructure	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Task 3 - Data provisioning and test definition	M-06	Acceptance criteria. Testing levels.	31/01/14
	M-07a	MS Test Planning, STORK 2.0 Test Strategy and Approach for pilots	31/01/14
Task 4.1 – testing SP integration with national infrastructure (DemoIDP)	M-13	Service Modifications to integrate to common layer	21/02/14
Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (IDP and B-IDP)	M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	28/02/14
Task 5 - Cross-border test planning	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14
	M-11	Define minimum position to be able to go operational	28/02/14
Task 6 - Cross-border interoperability testing at the SP	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/03/14
	M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/03/14
Task 7 - Pilot 5.3 service deployment	M-19	Connection of all the services to the production interoperability layer	31/03/14
	M-18	Identify and manage risks, Review before going live, MS Decisions	31/03/14
Task 8 - Tests of cross-border services deployed in production environment	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
	M-21	verification of Go-live criteria, Pilot Go Live Announcement	31/03/14

Table 7: Key Milestones per Task

[8] Milestone numbers refer to the overall milestone plan maintained by ATOS and discussed at the May 2013 General Assembly.

3.3 Phase 1 - Initial activities / design and development of pilot systems

In this phase each MS will analyse the current service applications existing in its MS. The design and specifications for the integrations of the service to the national STORK 2.0 infrastructure will be performed as well as the implementation of the needed modifications to the service to accommodate the access and use by foreign end-users authenticated and with powers credentials gathered through STORK 2.0.

Task #	***Begin***	***End***	***Name***
Task 1	01/09/2013	31/01/2014	Analyse, design and adapt SP application for foreign end-users
Explanation			
In this task the software of the service provider is analysed to identify the modifications needed to accept foreign end-users. The administrative procedures making up the pilot services must be modified to exchange STORK 2.0 identification and attribute tokens and with appropriate modifications to the end-user interface. This task includes all relevant unit and integration tests.			
Preceding Activities (Dependencies)		***Comments***	
Task 1 depends on the WP4 design of the STORK 2.0 process flows and data models for authentication and powers verification.		The analysis also builds on the eGov4Business pilot requirements expressed in D5.3.1 (see [4]).	

Task #	***Begin***	***End***	***Name***
Task 2	01/10/2013	31/01/2014	Analyse and design SP interface to national STORK 2.0 infrastructure
Explanation			
This task will design the software module which will interface and integrate the Service Provider with the national STORK infrastructure. In particular, SAML token handling and communication capabilities are designed based on the DemoSP application and SAML Engine to be delivered by WP4			
Preceding Activities (Dependencies)		***Comments***	
Task 2 depends on Task 1 and on the WP4 design of the national STORK 2.0 infrastructure, in particular the specifications and software for interfacing the S-PEPS component and any national enhancements of the common module			

Table 8: Detailed description of Phase 1 tasks with dependencies on previous activities

3.4 Phase 2 – Pilot integration and national testing in preproduction environment

This phase consists of all activities required to implement and test (on the national level) the pilot-specific components needed to connect to the national STORK 2.0 infrastructure.

Task #	*Begin*	*End*	*Name*
Task 3	01/12/2013	28/02/2014	Data provisioning & test definition
Explanation			
In this task each SP defines and specifies detailed test scripts for execution of national, integration and preproduction tests. Given the different types of tests that are needed in the pilot and the several actors involved a careful planning of the test scripts must be performed. This task also handles data provisioning for testing purposes and verifies that all needed credentials are available for preproduction testing. Finally, each SP staffs an internal testing group for future preproduction testing.			
Preceding Activities (Dependencies)		***Comments***	
Task 3 depends on Task 1 and Task 2			

Task #	*Begin*	*End*	*Name*
Task 4	01/12/2013	28/02/2014	SP integration and testing with national STORK 2.0 infrastructure
Explanation			
This task implements the SP-STORK 2.0 interface module designed in task 2. Testing is performed in two subTasks: • Task 4.1 to verify the integration with the STORK 2.0 infrastructure using "dummy" credentials and the DemoIDP modules • Task 4.2 to test the full national integration and the acceptance by the SP of national credentials from the IDP and B-IDP. The planning for this task has to be performed in line with WP4 planning for delivering the needed common STORK 2.0 functionalities.			
Preceding Activities (Dependencies)		***Comments***	
Task 4 depends on Tasks 1 and 2 and on the WP4 implementation of the national STORK 2.0 infrastructure, in particular the S-PEPS component and national enhancements of the common sw.		This task includes testing both basic integration testing with demo credentials and attribute providers (Phase 2 in [1]) and full validation of SP acceptance of national test credentials provided by the IDP and B-IDP (Phase 5 in [1]).	

Table 9: Detailed description of Phase 2 tasks with dependencies on previous activities

3.5 Phase 3 – Cross-border interoperability testing in preproduction environment

This phase involves the cross-border testing of eGov4Business Pilot services. We note that cross-border connectivity and correct functioning of the STORK 2.0 interoperability layer will already have been accomplished by the common building blocks work package (WP4). This testing will be concerned with verifying the organizational and semantic interoperability enabled by the STORK 2.0 infrastructure in the context of the 13 different eGov4Business Pilot portals.

Task #	*Begin*	*End*	*Name*
Task 5	01/01/2014	28/02/2014	Cross-border test planning
		Explanation	
Cross-border testing focuses on interoperability testing of the use cases defined in D5.3.1. The planning for this task has to be carefully aligned between pairs of WP5.3 member states to ensure appropriate national infrastructures are in place. In particular each SP should recruit simulated end-users for basic interoperability testing as well as a real end-user focus group for the final stage of service verification and validation in the production environment. Acceptance criteria must also be determined in order to establish the "go live" level of service acceptability.			
Preceding Activities (Dependencies)			***Comments***
Task 5 depends on the results of the national testing (Task 4) and on the preparatory Task 3.			

Task #	*Begin*	*End*	*Name*
Task 6	01/02/2014	31/03/2014	Cross-border interoperability testing at the SP
Explanation			
This task will coordinate, execute, report and evaluate the results of the cross-border interoperability tests. This task ends with a statement of acceptance and compliance from the process owners of the member states (owner of the business service/portal, IDP and AP) attesting to the fact that all blocking errors have been fixed.			
Preceding Activities (Dependencies)			***Comments***
Task 6 depends on Tasks 4 and 5 and on the completion of the integration and testing of the cross-border infrastructure of WP4.			Interoperability testing includes acceptance of foreign test credentials at the SP (Phase 10 in [1])

Table 10: Detailed description of Phase 3 tasks with dependencies on previous activities

3.6 Phase 4 – Deployment and testing in production environment

In this phase each MS will analyse the current service applications existing in its MS. The design and specifications for the integrations of the service to the national STORK 2.0 infrastructure will be performed as well as the implementation of the needed modifications to the service to accommodate the access and use by foreign end-users authenticated and with powers credentials gathered through STORK 2.0.

Task #	*Begin*	*End*	*Name*
Task 7	03/02/2014	31/03/2014	Pilot 5.3 service deployment
		Explanation	
After successful cross-border testing this task implements the Pilot 5.3 services in the production			

environments. As a precondition all WP4 building blocks have to be deployed to the production environment first.	
Preceding Activities (Dependencies)	***Comments***
Task 7 depends on Task 6 and on the production environment STORK 2.0 platform.	

Task #	***Begin***	***End***	***Name***
Task 8	01/03/2014	30/04/2014	Tests of cross-border services deployed in production environment
Explanation			
After the passage in production, some final service verification need to be performed. Verification takes place with real credentials. These tests have to be carefully prepared not to disturb real live service fulfilment. Real end-users should be used and service validation and initial evaluation feedback should be gathered in addition to basic verification of functionality. Final evaluation of "go live" acceptability will be made leading to the milestone . "Pilot Go Live Announcement" (31/03/2014)			
Preceding Activities (Dependencies)			***Comments***
Task 8 depends on Task 7.			Cross-border production testing corresponds to one of the steps foreseen in the overall STORK 2.0 Test Strategy and Approach (see [1])

Table 11: Detailed description of Phase 4 tasks with dependencies on previous activities

4 Member State Project Management Plan

4.1 Member States Milestone Plans

The following sections show the planning for the individual tasks and key milestones for each Member State to deliver in WP 5.3 in the pre-running period. All partners share the overall tasks indicated in Table 6 of Sect. 3.2 and to these may have added additional (sub)tasks or activities of particular importance for national pilot development. MS-specific tasks will be indicated using the abbreviation "TCC-m.n" where "CC" is the 2-letter country code for the corresponding MS and "m.n" indicates sequentially numbered subtasks of the basic task "Tn". MS-Specific milestones are numbered sequentially "MCC-nn", where once again "CC" is the 2-letter country code and nn is a 2-digit sequential numbering of the MS-specific milestones. The purpose of capturing these added tasks and milestones is to track Member States variations and deviations from the general plan in order to better monitor progress towards the delivery of the pilot services in WP 5.3.

The milestone plans are focused on the dates at which the services in the MS would be effectively enabled to connect to the interoperability layer. Other key dates are the internal MS testing dates and the dates that each MS plans to be available for cross-border testing. The high level milestone plans for each MS are shown below with completion dates included where relevant.

4.1.1 Austria

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**28/02/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	02/09/13	28/02/14	M-12	Agreement of user interface details at SP level	31/01/14
	TAT-1.1 Analysis of service integration at the SP Unternehmensserviceportal (USP)	02/09/13	15/10/13	MAT-01	Analysis of service modifications to integrate to common layer	15/10/13
	TAT-1.2 Technical concept USP for foreign companies	02/09/13	30/10/13	MAT-02	Analysis of user interface details at SP level	30/10/13

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	TAT-1.3 Foreign company notification implementation	04/11/13	28/02/14	MAT-03	Service modifications to integrate to common layer	28/02/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/10/13	28/02/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14 (test) 28/02/14 (prod)
	TAT-2.1 Analysis of overcoming USP internal tax number constraint (overcome enrolment)	01/10/13	15/01/13	MAT-04	Solution to USP enrolment constraint for internal tax number	15/01/13
	TAT-2.2 Alternative solution if tax number constraint cannot be overcome	10/01/14	28/02/13	MAT-05	Workaround in case no solution (8b) is found	28/02/13
	TAT-2.3 registration with Supplementary register, Ergänzungsregister für sonstige Betroffene	01/10/13	30/01/14	MAT-06	Integration with Supplementary register	31/01/14
	TAT-2.4 Legal issue identification with competent authorities	01/10/13	30/11/13	MAT-07	Solution of legal issues with competent authorities	30/11/13
	TAT-2.5 Legal assessment of foreign electronic representation	01/12/13	28/02/14	MAT-08	Evaluation of legal validity of foreign mandates	28/02/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/12/13**	**28/02/14**	-	-	-
Task 3	Data provisioning & test definition	02/12/13	31/01/14	M-06	Acceptance criteria. Testing levels.	20/12/13
				M-07a	MS Test Planning, Test Strategy for WP 5	31/01/14
	TAT-3.1 Test case specification	02/12/13	20/12/13	M-06	Acceptance criteria. Testing levels.	20/12/13

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	TAT-3.2 Test data and test scripts	07/01/14	31/01/14	M-07a	MS Test Planning, Test Strategy for WP 5	31/01/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/12/13	28/02/14	M-13	Service Modifications to integrate to common layer	31/01/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	28/02/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/12/13	21/02/14	M-13	Service Modifications to integrate to common layer	31/01/14
	TAT-4.1.1 MOA-ID+STORK 2.0 Release (security evaluation start)	n/a (WP4)	15/01/14	MAT-09	Software release passes security evaluation	15/01/14
	TAT-4.1.2 MOA-ID+STORK 2.0 integration in USP test system	15/01/14	31/01/14	MAT-10	Integration test in test environment	31/01/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/01/14	28/02/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	28/02/14
	TAT-4.2.1 MOA-ID+STORK 2.0 integration in USP production system	10/02/14	28/02/14	MAT-11	Integration test in production	28/02/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**07/01/14**	**31/03/14**	-	-	-
Task 5	Cross-border test planning	07/01/14	28/02/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	15/01/14
				M-11	Define minimum position to be able to go operational	28/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	TAT-5.1 Test planning with 1st priority users (SI, IT)	07/01/14	15/01/14	MAT-12	Interoperability Test plan and Test Cases for Slovenian and Italian end-users	15/01/14
	TAT-5.2 Test planning with other users	15/01/14	15/01/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	
Task 6	Cross-border interoperability testing at the SP	27/01/14	31/03/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/03/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/03/14
	TAT-6.1 Authentication tests at USP test system	27/01/14	14/02/14	MAT-13	Authentication tests in test environment	14/02/14
	TAT-6.2 Authentication tests at USP production system	21/02/14	07/03/14	MAT-14	Authentication tests in prod environment	07/03/14
	TAT-6.3 Services notification tests (business process tests)	08/03/14	31/03/14	MAT-15	Services notification tests	31/03/14
Phase 4 – Deployment and testing in production environment		**21/02/14**	**30/04/14**	-	-	-
Task 7	Pilot 5.3 service deployment	21/02/14	31/03/14	M-19	Connection of all the services to the production interoperability layer	31/03/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	31/03/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	TAT-7.1 Priority country (SI, IT) tests	21/02/14	14/03/14 *	MAT-16	Priority country (SI, IT) tests	14/03/14
	TAT-7.2 Other country tests	16/03/14	31/03/14 *	MAT-17	Other country tests	31/03/14
Task 8	Tests of cross-border services deployed in production environment	02/03/14	30/04/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	31/03/14
	TAT-8.1 Priority country (SI, IT) test result evaluation	14/03/14	28/03/14 *	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
	TAT-8.2 Other country test evaluation	14/03/14	28/03/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
	TAT-8.3 Go-live decision	31/03/14	31/03/14	M-21	verification of Go-live criteria, Pilot Go Live Announcement	28/03/14
	TAT-8.4 Post launch monitoring (1st critical month)	31/03/14	30/04/14	MAT-18	Preliminary (1-month) evaluation	30/04/14

Table 12: Phase, task and milestone planning – AT

* Acceptance of electronic evidence for foreign representation of legal entities needs to be assessed by the Austrian competent authority against the requirements of the Austrian E-Government Act and its bylaws. This and the technical integration might take about three to four weeks. The indicative dates given are pending timely receipt of the necessary data by the respective countries (starts in Phase 1, task 2 "Legal assessment of foreign electronic representation")

4.1.2 Belgium

Due to national budget constraints NSSO - Belgium will limit its implementation of STORK 2.0. Planning and milestones will be redefined accordingly at a later stage.

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems				-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users			M-12	Agreement of user interface details at SP level	
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure			M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	
Phase 2 – Pilot integration and national testing in preproduction environment				-	-	-
Task 3	Data provisioning & test definition			M-06	Acceptance criteria. Testing levels.	
				M-07a	MS Test Planning, Test Strategy for WP 5	
Task 4	SP integration and testing with national STORK 2.0 infrastructure			M-13	Service Modifications to integrate to common layer	
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)			M-13	Service Modifications to integrate to common layer	

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)			M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	
Phase 3 – Cross-border interoperability testing in preproduction environment				-	-	-
Task 5	Cross-border test planning			M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	
				M-11	Define minimum position to be able to go operational	
Task 6	Cross-border interoperability testing at the SP			M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	
Phase 4 – Deployment and testing in production environment				-	-	-
Task 7	Pilot 5.3 service deployment			M-19	Connection of all the services to the production interoperability layer	
				M-18	Identify and manage risks, Review before going live, MS Decisions	
Task 8	Tests of cross-border services deployed in production environment			M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	

Table 13: Phase, task and milestone planning – BE

4.1.3 Estonia

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**31/01/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/09/13	31/01/14	M-12	Agreement of user interface details at SP level	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/10/13	31/01/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/02/14**	**30/04/14**	-	-	-
Task 3	Data provisioning & test definition	01/02/14	31/03/14	M-06	Acceptance criteria. Testing levels.	31/03/14
				M-07a	MS Test Planning, Test Strategy for WP 5	31/03/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/02/14	30/04/14	M-13	Service Modifications to integrate to common layer	15/04/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	30/04/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/02/14	15/04/14	M-13	Service Modifications to integrate to common layer	15/04/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/03/14	30/04/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	30/04/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/03/14**	**31/05/14**	-	-	-
Task 5	Cross-border test planning	01/03/14	30/04/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	30/04/14
				M-11	Define minimum position to be able to go operational	30/04/14
Task 6	Cross-border interoperability testing at the SP	01/04/14	31/05/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/05/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/05/14
Phase 4 – Deployment and testing in production environment		**01/06/14**	**30/06/14**	-	-	-
Task 7	Pilot 5.3 service deployment	01/06/14	30/06/14	M-19	Connection of all the services to the production interoperability layer	30/06/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	30/06/14
Task 8	Tests of cross-border services deployed in production environment	01/06/14	30/06/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/06/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	30/06/14

Table 14: Phase, task and milestone planning – EE

4.1.4 France, Iceland, Lithuania, Luxembourg

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**31/01/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/09/13	31/01/14	M-12	Agreement of user interface details at SP level	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/10/13	31/01/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/12/13**	**28/02/14**	-	-	-
Task 3	Data provisioning & test definition	01/12/13	31/01/14	M-06	Acceptance criteria. Testing levels.	31/01/14
				M-07a	MS Test Planning, Test Strategy for WP 5	31/01/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/12/13	28/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	28/02/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/12/13	21/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/01/14	28/02/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	28/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/01/14**	**31/03/14**	-	-	-
Task 5	Cross-border test planning	01/01/14	28/02/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14
				M-11	Define minimum position to be able to go operational	28/02/14
Task 6	Cross-border interoperability testing at the SP	01/02/14	31/03/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/03/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/03/14
Phase 4 – Deployment and testing in production environment		**01/02/14**	**30/04/14**	-	-	-
Task 7	Pilot 5.3 service deployment	03/02/14	31/03/14	M-19	Connection of all the services to the production interoperability layer	31/03/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	31/03/14
Task 8	Tests of cross-border services deployed in production environment	01/03/14	30/04/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	31/03/14

Table 15: Phase, task and milestone planning – FR, IS, LT and LU

4.1.5 Greece

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**28/02/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/09/13	28/02/14	M-12	Agreement of user interface details at SP level	31/01/14
	TGR-1.1 Discussion with the General secretariat of Commerce and the Central Union of Chambers for the operational design of the service for foreign companies	01/09/13	15/01/14	MGR-01	Operational design of the service for foreign companies	15/01/14
	TGR-1.2 Legal assessment of the service provision for electronic representation	15/01/14	31/01/14	MGR-02	Legal assessment of the service provision f	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	15/01/13	15/02/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	15/02/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/12/13**	**15/03/14**	-	-	-
Task 3	Data provisioning & test definition	01/12/13	15/03/14	M-06	Acceptance criteria. Testing levels.	28/02/14
				M-07a	MS Test Planning, Test Strategy for WP 5	15/03/14
	TGR-3.1 Definition of the test scenario	31/01/14	28/02/14	MGR-03	Definition of the test scenario	28/02/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/12/13	15/03/14	M-13	Service Modifications to integrate to common layer	28/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	15/03/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/12/13	28/02/14	M-13	Service Modifications to integrate to common layer	28/02/14
	TGR-4.1.1 Development of Prototype for proof of concept	31/01/14	28/02/14	MGR-04	Prototype for proof of concept	28/02/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/12/13	15/03/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	15/03/14
	TGR-4.2.1 Testing of the service for specific companies	28/02/14	15/03/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	15/03/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/01/14**	**15/04/14**	-	-	-
Task 5	Cross-border test planning	01/02/14	15/03/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14
				M-11	Define minimum position to be able to go operational	15/03/14
	TGR-5.1 Test schedule with selected countries of greatest interest for Greek pilot services.	01/02/14	10/03/14	MGR-05	Priority country tests	28/02/14
	TGR-5.2 Test planning with other countries	01/03/14	10/03/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Task 6	Cross-border interoperability testing at the SP	01/03/14	15/04/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	15/04/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	15/04/14
Phase 4 – Deployment and testing in production environment		**01/03/14**	**30/04/14**	-	-	-
Task 7	01/03/14	01/03/14	30/04/14	M-19	Connection of all the services to the production interoperability layer	30/04/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	30/04/14
Task 8	Tests of cross-border services deployed in production environment	01/05/14	31/05/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	31/05/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	15/05/14

Table 16: Phase, task and milestone planning – GR

4.1.6 Italy

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**31/01/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/09/13	31/01/14	M-12	Agreement of user interface details at SP level	31/01/14
	TIT-1.1 National e-government Portal (impresa.gov) adaptations as SP.	01/09/13	31/01/14	MIT-01	STORK 2.0 adaptations to end-user "desktop" of SP services	31/01/14
	TIT-1.2 Adapt Min. Health SP application	01/10/13	31/01/14	MIT-02	STORK 2.0 adaptations to main SP services	31/01/14
	TIT-1.3 Adapt Min. Environment SP application	01/10/13	31/01/14	MIT-03	STORK 2.0 adaptations to main SP services	31/01/14
	TIT-1.4 Interface National e-government Portal with Min. SP applications.	01/11/13	31/01/14	MIT-04	STORK 2.0 adaptations of SAML tokens exchanged between SP portal and Min. SPs	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/10/13	31/01/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/12/13**	**28/02/14**	-	-	-
Task 3	Data provisioning & test definition	01/12/13	31/01/14	M-06	Acceptance criteria. Testing levels.	31/01/14
				M-07a	MS Test Planning, Test Strategy for WP 5	31/01/14
	TIT-3.1 National Test scripts definition	01/12/13	31/01/14	MIT-05	National Test scripts definition	31/01/14
	TIT-3.2 Data Provisioning for testing purposes	01/12/13	31/01/14	MIT-06	Data Provisioning for testing purposes	31/01/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/12/13	28/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	28/02/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/12/13	21/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
	TIT-4.1.1 National testing of SPEPS with e-government portal (SP)	01/12/13	21/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/01/14	28/02/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	28/02/14
	TIT-4.2.1 Testing of eGovernment portal with Min. Health SP	01/01/14	28/02/14	MIT-07	Individual SP testing - Min. Health	28/02/14
	TIT-4.2.2 Testing of eGovernment portal with Min. Environment SP	01/01/14	28/02/14	MIT-09	Individual SP testing - Min. Environment	28/02/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/01/14**	**31/03/14**	-	-	-
Task 5	Cross-border test planning	01/01/14	28/02/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14
				M-11	Define minimum position to be able to go operational	28/02/14
	TIT-5.1 End-User Focus Group plan	01/01/14	28/02/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	TIT-5.2 Cross-border Test Plans with Acceptance Criteria	01/01/14	28/02/14	M-11	Define minimum position to be able to go operational	28/02/14
Task 6	Cross-border interoperability testing at the SP	01/02/14	31/03/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/03/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/03/14
Phase 4 – Deployment and testing in production environment		**01/02/14**	**30/04/14**	-	-	-
Task 7	Pilot 5.3 service deployment	03/02/14	31/03/14	M-19	Connection of all the services to the production interoperability layer	31/03/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	31/03/14
Task 8	Tests of cross-border services deployed in production environment	01/03/14	30/04/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	31/03/14

Table 17: Phase, task and milestone planning – IT

4.1.7 Netherlands

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/01/14**	**30/04/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/01/14	31/03/14	M-12	Agreement of user interface details at SP level	31/03/14
	TNL-1.1 Analyse, design and adapt SP appl. for linking foreign identities to local identities	01/01/14	31/03/14	MNL-01	Adaptations of SP appl. for linking foreign identities to local identities	31/03/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/02/14	30/04/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	30/04/14
	TNL-1.2 Analyse, design and adapt SP login webpage	01/02/14	30/04/14	MNL-02	Integration of the SP login to the common layer of STORK 2.0.	30/04/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/04/14**	**31/05/14**	-	-	-
Task 3	Data provisioning & test definition	01/04/14	30/04/14	M-06	Acceptance criteria. Testing levels.	30/04/14
				M-07a	MS Test Planning, Test Strategy for WP 5	30/04/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/05/14	31/05/14	M-13	Service Modifications to integrate to common layer	21/05/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment	31/05/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/05/14	21/05/14	M-13	Service Modifications to integrate to common layer	21/05/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	01/05/14	31/05/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	31/05/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/05/14**	**31/07/14**	-	-	-
Task 5	Cross-border test planning	01/05/14	30/05/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	30/05/14
				M-11	Define minimum position to be able to go operational	30/05/14
Task 6	Cross-border interoperability testing at the SP	01/06/14	31/07/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/07/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/07/14
Phase 4 – Deployment and testing in production environment		**31/07/14**	**15/08/14**	-	-	-
Task 7	Pilot 5.3 service deployment	31/07/14	31/07/14	M-19	Connection of all the services to the production interoperability layer	31/07/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	31/07/14
Task 8	Tests of cross-border services deployed in production environment	31/07/14	15/08/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	15/08/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	15/08/14

Table 18: Phase, task and milestone planning – NL

4.1.8 Portugal

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/10/13**	**15/02/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/10/13	15/02/14	M-12	Agreement of user interface details at SP level	15/02/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/11/13	30/01/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/02/14**	**31/03/14**	-	-	-
Task 3	Data provisioning & test definition	01/02/14	15/03/14	M-06	Acceptance criteria. Testing levels.	15/03/14
				M-07a	MS Test Planning, Test Strategy for WP 5	15/03/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	16/03/14	31/03/14	M-13	Service Modifications to integrate to common layer	21/03/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	31/03/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	16/03/14	21/03/14	M-13	Service Modifications to integrate to common layer	21/03/14
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	16/03/14	31/03/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	31/03/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/02/14**	**15/04/14**	-	-	-
Task 5	Cross-border test planning	01/02/14	15/03/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	15/03/14
				M-11	Define minimum position to be able to go operational	15/03/14
Task 6	Cross-border interoperability testing at the SP	01/04/14	15/04/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	15/04/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	15/04/14
Phase 4 – Deployment and testing in production environment		**01/05/14**	**31/05/14**	-	-	-
Task 7	Pilot 5.3 service deployment	01/05/14	01/05/14	M-19	Connection of all the services to the production interoperability layer	01/05/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	01/05/14
Task 8	Tests of cross-border services deployed in production environment	01/05/14	31/05/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	31/05/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	15/05/14

Table 19: Phase, task and milestone planning – PT

4.1.9 Slovakia

Due to national budget constraints, partner SK MoF, the Ministry of Finance of the Slovak Republic, will be delayed in its procurement of external resources for the STORK 2.0 project, and all planned activities will be delayed at least six months. We report the following plan for reference purposes only.

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/02/14**	**14/03/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/02/14	14/03/14	M-12	Agreement of user interface details at SP level	14/03/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/02/14	14/03/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	14/03/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/02/14**	**11/04/14**	-	-	-
Task 3	Data provisioning & test definition	01/02/14	15/02/14	M-06	Acceptance criteria. Testing levels.	15/02/14
				M-07a	MS Test Planning, Test Strategy for WP 5	15/02/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	15/02/14	11/04/14	M-13	Service Modifications to integrate to common layer	01/04/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	11/04/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	15/02/14	01/04/14	M-13	Service Modifications to integrate to common layer	01/04/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	Task 4.2 – Testing SP acceptance of national test credentials for authentication and powers (using IDP and B-IDP)	15/03/14	11/04/14	M-15	Individual SP testing against interoperability layer (Testing Environment) Coordinated at national level	11/04/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/01/14**	**31/03/14**	-	-	-
Task 5	Cross-border test planning	28/02/14	12/04/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	12/04/14
				M-11	Define minimum position to be able to go operational	12/04/14
Task 6	Cross-border interoperability testing at the SP	12/04/14	16/05/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	16/05/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	16/05/14
Phase 4 – Deployment and testing in production environment		**16/05/14**	**31/05/14**	-	-	-
Task 7	Pilot 5.3 service deployment	16/05/14	16/05/14	M-19	Connection of all the services to the production interoperability layer	16/05/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	16/05/14
Task 8	Tests of cross-border services deployed in production environment	16/05/14	31/05/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	31/05/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	16/05/14

Table 20: Phase, task and milestone planning – SK

4.1.10 Slovenia

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
Phase 1 – Initial activities / design and development of pilot systems		**01/09/13**	**31/01/14**	-	-	-
Task 1	Analyse, design and adapt SP application for foreign end-users	01/09/13	31/01/14	M-12	Agreement of user interface details at SP level	31/01/14
	TSI-1.1 Analyse the possibilities for acquisition of Slovenian Tax number	01/09/13	31/01/14	MSI-01	Analysis to integrate the procedure to acquire Tax number	31/01/14
Task 2	Analyse and design SP interface to national STORK 2.0 infrastructure	01/10/13	31/01/14	M-08	Integration of the interfaces of each SP to the common layer of STORK 2.0 using common software, tools and building blocks.	31/01/14
Phase 2 – Pilot integration and national testing in preproduction environment		**01/12/13**	**28/02/14**	-	-	-
Task 3	Data provisioning & test definition	01/12/13	31/01/14	M-06	Acceptance criteria. Testing levels.	31/01/14
				M-07a	MS Test Planning, Test Strategy for WP 5	31/01/14
Task 4	SP integration and testing with national STORK 2.0 infrastructure	01/12/13	28/02/14	M-13	Service Modifications to integrate to common layer	21/02/14
				M-15	Individual SP testing against STORK 2.0 national infrastructure in test environment, coordinated at national level	28/02/14
	Task 4.1 – testing SP integration with national infrastructure (using DemoIDP)	01/12/13	21/02/14	M-13	Service Modifications to integrate to common layer	21/02/14

Phase/Task - with MS-Specific comments		Start date	End date	Milest. No.	Key Milestones	Milest. Date
	Task 4.2 – Testing SP acceptance of national test credentials for auth. and powers (IDP and B-IDP)	01/01/14	28/02/14	M-15	SP testing against interop.layer (Testing Environment) Coordinated at national level	28/02/14
	TSI-4.1 Integration with e-Taxes	01/12/13	28/02/14	MSI-02	Integration of Tax no. acquisition procedure	28/02/14
Phase 3 – Cross-border interoperability testing in preproduction environment		**01/01/14**	**31/03/14**	-	-	-
Task 5	Cross-border test planning	01/01/14	28/02/14	M-07b	WP4-WP5 Interoperability Test plan and Test Cases for eGov4Business Pilot	28/02/14
				M-11	Define minimum position to go operational	28/02/14
Task 6	Cross-border interoperability testing at the SP	01/02/14	31/03/14	M-16	Interoperability Testing at MS Level (Coordinated by WP4.5)	31/03/14
				M-17	Interoperability Layer Test Evaluation Decision by MS Council	31/03/14
Phase 4 – Deployment and testing in production environment		**01/02/14**	**30/04/14**	-	-	-
Task 7	Pilot 5.3 service deployment	03/02/14	31/03/14	M-19	Connection of all the services to the production interoperability layer	31/03/14
				M-18	Identify and manage risks, Review before going live, MS Decisions	31/03/14
Task 8	Tests of cross-border services deployed in production environment	01/03/14	30/04/14	M-20	Production Testing of the pilot over the Internet by focus groups and real end-users	30/04/14
				M-21	verification of Go-live criteria, Pilot Go Live Announcement	31/03/14

Table 21: Phase, task and milestone planning – SI

5 Test Planning Including MS Acceptance Criteria

5.1 Pilot Approach for Testing

The purpose of this section is to describe the specific test plan for the pilot as related to the more detailed description of STORK 2.0 Testing Strategy and Approach described in [1]. In particular, this section explains how testing will be structured for the main actors of the eGov4Business pilot and the other STORK 2.0 partners and stakeholders. It will include the objectives for testing, the test phases, the required tasks and the organizational structure. It will also describe the prerequisites for testing and the criteria that are required for acceptance of pilot services. Test cases are discussed and the approach to testing with real users is also mentioned.

The main goal of each eGov4Business Pilot service is to allow foreign end-users to access their service. This involves close integration with the national STORK 2.0 infrastructure (in all but one case the PEPS, or S-PEPS, otherwise the /S-V-IDP) as well as semantic and operational interoperability with Identity Providers and Attribute Providers from foreign countries.

Thus, testing will focus on these two levels:

- **Individual Member State Testing** (Phase 2 in the harmonised planning of chapters 3 and4). All types of SAML query and response tokens should be exchanged between the PEPS and the SP to simulate the different steps in the Authentication on behalf of process using Demo IDP and Demo AP supplying foreign test credentials and/or using test credentials from the national STORK 2.0 infrastructure for authentication and processing of legal entity and powers attributes (this corresponds to Phase 2 and Phase 5 in [1])
- **Cross-border Interoperability Testing** (Phases 3 and 4 in the harmonised planning of chapters 3 and4). Before the pilot can go live it is necessary to run interoperability testing between Member States' applications. This needs to be coordinated with the common specifications and building blocks work package, WP4, as they will be conducting the major part of the connectivity testing for the cross-border common STORK 2.0 modules. The first phase of interoperability testing takes place in the pre-production environment. After meeting the acceptance criteria the software and all its connections will be migrated to the production environment. Phase 4 verifies consistency, "production validation", in the production environment. (These steps correspond to Phase10 and the "Production tests" in [1]). We note that a service owner may decide not to deploy the STORK 2.0 pilot in its "official" production environment but in a staging platform having the same technical characteristics as the production environment, but used for experimental or innovative services. This in no way effects or changes the testing procedures outlined here.

Each service owner, SP, has defined their own scope of the services that they will provide. The STORK 2.0 platform provides cross-border interoperability for existing services, so the testing of the services themselves is limited to the modified features allowing integration with the national STORK 2.0 infrastructure and the correct processing of identification and authorisation (powers to represent) data from foreign IDPs and APs and not the complete details of service fulfilment.

5.2 Testing Objectives and systems in scope

Testing objectives

The goal of eGov4Business pilot testing is to ensure correct access to business services in real life cross-border pilot situation by use of STORK 2.0 common infrastructure. It aims at validating the common infrastructure and function as a showcase for future cross-border service delivery. Testing does not perform a complete functional test on common infrastructure components as that is part of WP4. Nor does it verify the correct service fulfilment once a person has been granted access to the service as no new business services are connected to STORK 2.0 and the correct fulfilment of services is independent of the correct functioning of the STORK 2.0 platform. Moreover it tests integration of the interoperability layer only as an end-to-end process flow with greater emphasis, as has already been remarked, on the interoperability of data rather than the connectivity of the underlying components. Both positive and negative test cases will be designed to verify the effective interoperability of credentials, in particular, credentials for the representation of legal entities by natural persons.

Systems in Scope

Testing is partly a national activity and partly a cross-border task. As a prerequisite for cross-border testing the MS will need to have completed its own internal testing connecting the service provider to a V-IDP or the national PEPS.

The systems that are in scope of pilot testing are:

- The Service Provider service (SP), which in many MS consists of separate collaborating entities, an eGovernment portal for end-user registration, authentication and profiling, and a layer of Administrative Service providers accessed through the portal (see Figure 11).
- The National S-PEPS/S-V-IDP, and in particular any of its MS-specific features
- The national and foreign eID providers, IDPs, and the legal entity identity and attribute providers (AP or B-IDP) for business attributes and mandates
- The digital signature software/service providers used to sign documents.

The basic functionalities of the SP and AP will remain the same after they have been integrated into the STORK 2.0 infrastructure, but the systems may need to be adapted to conform to the agreed-upon STORK 2.0 data model and the exchange of SAML tokens. Testing takes place to make sure that these functionalities connect flawlessly to the STORK 2.0 infrastructure. WP4 is delivering the common software building blocks comprising the national implementation of the interoperability layer. This software is tested as part of WP4, but complete service interoperability can be tested only once the SP pilots have been integrated.

Appendix I defines naming conventions for the common and use case specific test scripts and test cases. Service providers running additional tests can choose their own naming conventions for additional scripts and test cases. It is important to be able to report on the accurate status of testing but this can be done from the description of the test rather than the name.

5.3 Test Phases

Pilot testing is the last part of STORK 2.0 testing, and it relies on the prior testing of common modules of the cross-border platform, the MS-specific modules and the integrated ID and Attribute providers. Following the overall Testing Strategy ([1]) we can consider three main

testing phases corresponding to the phases in the overall pilot plan and the passage from national level to cross-border and from pre-production environment to production:

- **Phase 2 - Pilot integration and national testing in preproduction environment**: service testing against the national STORK implementation in the test environment. As already noted, this corresponds to Phases 2 and 5 in [1].
- **Phase 3 – Cross-border interoperability testing in preproduction environment**: service testing against the cross-border STORK platform in the test environment. This corresponds to Phase 10 in [1].
- **Phase 4 – Deployment and testing in production environment**: service testing against the STORK cross-border STORK platform in the production environment. This testing needs to take place immediately after STORK has been migrated to the production (or final staging) environment and possibly in non-peak hours of portal activity. This corresponds to the "Production tests" in [1].

The overall conceptual process stages for testing at WP4 and WP5 Pilot levels can be seen in the diagram below:

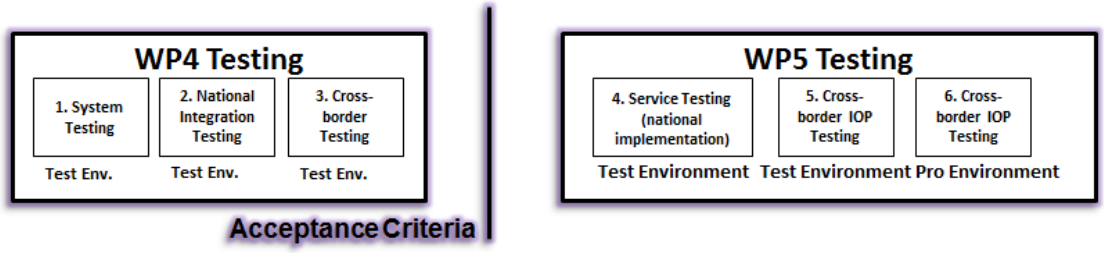

Figure 14: Conceptual Testing Stages in WP4 and WP5 in pre- and production environment

The detailed work breakdown schedule for cross border interoperability testing can be found in Appendix II.

5.4 Testing Tasks and organization

The testing tasks to be executed for each phase and their dependencies are part of the overall harmonised planning for the pre-running period as shown in Figure 12 of Chapter3.

Types of testing

Pilot system testing should consist of several different types of testing: technical testing, functional testing, integration testing, regression testing and acceptance testing. Technical testing is part of software development. It is executed by software developers and consists of unit testing (testing of developed software modules in isolation) and unit integration testing (testing of integration of the developed software modules). Functional testing aims to establish that software functions properly from a functional perspective (it does what it should do). Integration testing is done to ensure correct functioning of all software components together. Regression testing makes sure that existing business processes are still in place (not affected by new software). The acceptance test is usually executed by (real life) users to ensure that the software solution supports business processes correctly. The following table shows which types of tasking takes place in the testing phases.

Strictly speaking, production validation is not so much a test of the software as it is of the correct deployment of the software modules to the production environment. For this real life users execute some instances of process flows using real credentials.

The following figure indicates the principle types of testing that will be performed in the testing Phases of the harmonised planning:

	type of testing					
Phase	technical testing	functional testing	integration testing	regression testing	acceptance testing	production validation
Phase 2 - National integration and testing	x	x	x	x		
Phase 3 - Cross-border interoperability testing in preprod.			x	x	x	
Phase 4 - Deployment and testing in production environment					x	x

Figure 15: Types of testing per Phase

Testing organization

Different actors are responsible for execution of the testing tasks. Most tasks, however, will be performed by the SP.

- System testing (technical testing – Tasks 1 and 2) is a responsibility of software developers of the SP.
- The SP is responsible for national test definition and data provisioning (Task 3), and, in collaboration with the PEPS, for connecting to the national STORK 2.0 infrastructure for national testing of pilot services (Task 4).
- The SP is responsible for cross-border testing (Task 5 and Task 6) and pilot deployment to the production environment (Task 7). The SP's test team will conduct testing in the service owners test environment. They will use test credentials that have been provided by other MSs that are involved in the pilot and attributes that have been provided by the attribute providers from other MSs that are involved in the pilot.
- The SP is responsible for Production Testing (Task 8). In the production environment it is only possible for legal entities that have nationally issued credentials, business attributes and mandates to be able to perform production testing. It will be necessary to agree which (representatives of) legal entities will conduct the testing so as not to affect any business processes that exist in the Service. The service owners test team is in charge of production verification. Of course in close interaction with foreign IDP's and AP's.
- The MS is responsible for testing and implementation of the national V-IDP/PEPS components and for connecting IDP's and AP's (for both business attributes and mandates) to the interoperability layer. *These fall under the responsibility of WP4.*

Furthermore:

- Service providers will write the test scripts for their services. These should be written to cover the interaction with the service provider only. The cut off should be when the interaction is handed to the identity provider.

- Credential Providers will write the test scripts for the use of the credentials. This will be a credential Authentication for both revoked or expired and non-revoked credentials. It is assumed that this is part of WP4.
- The MS that owns the identity provider will be responsible for distributing the credentials required for each service provider to test. It is assumed that this is part of WP4.
- WP leader will check sporadically via review test cases, workflows and test execution lists in different project phases.

Each service owner will be responsible for the organization structure required for testing. The test cases can be found in Appendix I.

Test credentials

As reported in the description of the common technical environment in Section 2.2, above, ATOS coordinated the exchange of testing credentials among all partners involved in implementing the STORK 2.0 infrastructure and in the Piloting. These credentials will be used in national testing, but will obviously be of greatest use in cross-border testing, enabling partners to simulate real transactions without having to involve end-users for each test.

Testing tools

Each SP uses its own testing tools for national testing. Testing for the cross-border interaction will be a manual task conducted by all service providers. This means that no common testing tools will be used for actual testing. Issues raised in testing will, however, be inserted in the project Jira environment, as described in the next section.

Reporting

Reporting is a key part of testing so that the STORK 2.0 project has visibility of the issues and the potential success or failure of the project. Reporting will comprise the results of testing against the pre-defined test criteria defined within the test scripts for each MS. Reporting will be completed by each service owner in a pre-agreed spreadsheet defining the number of successful tests alongside the number of tests to be completed. Responsibility for reporting will lie with:

- Service owners
- Pilot leaders

Reporting from the service owners to the pilot leader will provided through the pilot wiki on a periodic basis depending upon pilot service needs. Initially, the testing results will be provided using the same format that was used in STORK1. Should this approach not be sufficient the Pilot leader will update the reporting templates as needed, informing the Pilots Coordinator.

5.5 Bug Tracking and classification

Bugs will be discovered throughout the testing phase. The service provider will maintain two environments for tracking their bugs:

1. The service provider's existing tracking tool. This will be used for recording all bugs that are found within the service that are not related to STORK 2.0.

2. The Jira environment. This will be used for tracking all bugs that are discovered and that relate to the STORK 2.0 environment. Recording of these bugs will require the Pilot number and the severity recorded against them. A section in the document on Support Procedures describes the process by which these bugs will be addressed (see [2]).

The following table lists the severity definitions used to classify defects.

Severity	***Description of Severity***
P1	**Critical** – the system is broken and cannot be used, major functionality is impaired, or there is data loss. There are no workarounds
P2	**Major** - the fault renders several system elements unusable, or affects one or more system elements. Workarounds exist which may be unacceptable to the customer.
P3	**Minor** - the fault affects system elements that are not key to the overall functionality of the system or operation of the Departments day-to-day business. The system continues to produce correct results and data is not affected. Acceptable workarounds for the end customer may exist.
P4	**Trivial** – this fault barely affects the quality of a system and will only be fixed if time permits.

Table 22: Defect severity definitions

5.6 Acceptance Criteria

The acceptance criteria define the level of quality that the pilot testing has to surpass in order for the pilot to be migrated to production. The agreed-upon level of quality is defined as follows:

The pilot must have at least one STORK 2.0-enabled service which has been tested in the pre-production environment with at least two foreign IDPs and at least two foreign B-IDPs/APs with the following maximum bug count:

1) Critical errors (P1): = 0

2) Major errors (P2): = 0

3) Minor errors (P3): < 5

4) Trivial errors (P4): < 20

5.7 Testing Environments and SP-specific conditions

As a general approach, testing for all the services will be conducted in three separate environments, these environments are:

- Development environment: this is the development environment and it tends to change and be unstable; common software building blocks developed in WP4 may be installed and tested in this environment, but the main developments will involve pilot level modules and functionalities.
- Integration environment: this would be the same as the development environment but with a production-like environment quality applied which means the availability and performance approaches the level of the production environment. Additionally, the security policy of some SPs may restrict access to external services, such as STORK

2.0, to some environments, so some Preproduction testing may need to be conducted in a separate staging environment.

- Production environment: this would be the common production environment, testing against this environment could be limited as far as it manages real data and in most of the cases, testing can corrupt the integrity of the information the system processes.

Testing for all the services in the pilot will be conducted in testing/integration environments whose precise urls and details will be exchanged between partners at the pilot wiki, and in production environments as indicated in the following table which also reports any *special conditions* needed by the MS pilot (i.e., conditions *beyond* the common basic requirements on the successful implementation of national infrastructures – PEPS , IDP, AP – and integration of SP services):

MS	***Production environment***	***MS specific condition***
Austria	www.usp.gv.at	- Assessment on enrolment of foreign companies (for getting a tax identifier) can be overcome. - Examination of which foreign mandates are legally admissible for automatic enrolment to Supplementary Register (ERsB)
Belgium	www.limosa.be	none
Estonia	Ettevotjaportaal.rik.ee	none
France	To be determined	none
Greece	www.ermis.gov.gr; www.eprocurement.gov.gr	Registration to the portals is required for the production environment
Iceland	Psc.island.is	none
Italy	www.impresa.gov.it	Initial STORK 2.0 testing can be achieved once the SP eGov Portal, impresa.gov, is integrated since this is where authentication and basic authorisation take place; Service fulfilment testing at the SP Ministry applications will be performed subsequently.
Lithuania	www.verslovartai.lt/en/	none
Luxembourg	Environment installed put public url still to be determined	LU S-PEPS in place and validated
Netherlands	Dutch farmers portal: www.drloket.nl/	- SP connected to NL S-PEPS in testing and production environment. - solution for linking foreign eID's of legal entities to (existing) national identifiers at national SP in place and tested.
Portugal	www.portaldaempresa.pt	Company needs to be previously registered with current procedure.
Slovakia	https://www.slovensko.sk/sk/e-sluzby	none at present
Slovenia	Slovenian business Portal:	Solution for acquisition of Slovenian tax

	www.evem.si/www.eugo.gov.si	number (for foreigners) in place

Table 23: MS testing environments and special conditions

5.8 Test properties

The table below shows the test properties, criteria and methods that will be used for testing of the eGov4Business pilots for both Common Functional Use Cases and their variations (see Table 2).

Test properties	***Test Criteria***	***Method of Testing***
Functionality	• A legal representative of a foreign company can be authenticated and authorised to access the pilot service (AUB process) • No re-authentication required for successive service requests (PV process). • Authorization is possible when the country of registration of the represented legal entity is different from the end-user's country for personal ID authentication. • Nomination of a natural person for powers or company role is supported • Other service variations based on those listed in Table 2 • Different services requiring and recognizing different academic attributes • Different nationally recognised eID credentials	• The scope and common functional use cases that have been agreed by the pilots. • A fully functioning environment that meets the definitions in the use cases and corresponding test cases. • The pilot service demonstrates that a variety of credentials can be used to access services at different trust levels.
Interoperability	• Exchange of id's, business attributes and mandates between national PEPSes and V-IDPS successful. • Business services/portals receive Identity information and attributes correctly	• The pilot service demonstrates that user profiling functions can correctly process different foreign credentials.
Security	• Security of cross-border authentication and authorisation matches local SP requirements. It's up to each SP to determine correct implementation of their national security measures relevant for the tested business service. • Security self-assessment passed (integrity and confidentiality through the transport layer assured) in	• Each MS completes their self-assessment and reports to the project coordinator that this is complete.

	accordance with WP4 or other guidelines	
Maintainability	• The SP pilot service user profiling implementation and its interface with the STORK 2.0 infrastructure must be easily maintainable. • Reference the Support and Change Control document which will specify procedures for changes implementation, regression testing, etc	• The ability for required changes to be implemented and the time taken for them to be available in the production environment. • Service changes that require STORK 2.0 changes.
Flexibility/-Scalability	• No additional criteria. Maintainability is mainly determined by WP4.	-
Reliability/-Maturity	• The SP system components handle possible faults correctly and in a reliable manner • Cross-border authentication and authorisation meets the reliability demands of the pilot service.	• Evaluation based on self-assessment and on end-user feedback
Portability	• Common sw can be installed and/or interfaced and integrated without excessive effort. (Portability is mainly a concern of WP4.)	• Not explicitly tested in the single SP implementation; this will be verified over the population of platforms hosting SP services and STORK 2.0 national infrastructure.
Business Value	• Cross-border service fulfilment is as easy and effortless as national service fulfilment. • Simplification of current (paper-based or online) procedures for cross-border service provision.	• Demonstrated through positive evaluation of Focus-group and real end-user testing
Usability/Under-standability	• Usability/understandability testing will focus strictly on authentication and authorisation features of the pilot services - service fulfilment is out of scope.	• Feedback and qualitative assessment of feedback throughout the life of the pilot.
Data Protection	• The cross-border solution meets the requirements for personal data protection (Data Protection Directive) by implementing the technical and organisational measures (security requirements above, as well as requirements and suggestions by Art. 29 WP and DPAs / national data protection legislations)	• Each MS completes their self-assessment and reports to the project coordinator.

Table 24: Test properties and metrics

The next matrix shows in which task and by which type of test the properties are tested. Note that the correspondence of tasks and types of testing is the same as reported in section 5.4.

task					test property									
task 1 pilot design and build	task 3 national pilot testing	task 5 cross border pilot testing	task 7 production verification	*type of testing*	Functionality	Interoperability	Security	Maintainability	Flexibility/-Scalability	Reliability/-Maturity	Portability	Business Value	Usability/-Understand-ability/-Accessibility	Data Protection
x				technical testing	x		x							x
	x			functional testing	x								x	
		x		integration testing	x	x				x				
		x		regression testing	x					x				
		x		acceptance testing	x	x						x	x	
			x	production validation	x	x	x							

Figure 16: Types of testing per task

5.9 Focus Groups Testing

The focus group consists of representatives of real legal entities and is in charge of acceptance testing and production validation. The goal of focus group testing is to solicit constructive feedback from users before officially launching the real-life pilot. This feedback can be used to help improve the solution and the related support material in the production environment. In the eGov4Business pilot, end-users will be representatives of a legal entity in a country different from that of the SP. The end-users will have, preferably, a good knowledge of the language of the Service Provider or will be instructed to use an English version of the service. Each service provider will select at least two legal entities that will perform the tests on their own services using foreign test credentials for personal identification and for the simulation of business attributes establishing powers of legal representation. The approach to 'real user testing' must reflect the real life environment. The approach should include the following aspects:

1. The end-user should be provided with the scenarios that they are to test. These scenarios should be defined as high level objectives to reflect a 'real world business goal and environment'.
2. The end-user should focus on the 'cross-border interaction', in particular the authentication of personal eID credentials and the verification of authorisation to act on behalf of a legal entity – as opposed to the specific functionality leading to service fulfilment.
3. The user should complete a feedback form after each scenario scenario (see Appendix III). This should be done electronically.

4. It is expected that the time taken to read the scenario, perform the test and provide feedback will be no more than 30 minutes.
5. The user should have available to them the public information about and produced by the project.
6. The Member State representatives should then translate the feedback to English and submit to the SP representative or WP leader. The SP representative or WP leader will then consolidate the responses and propose a way forward. This will be circulated to the pilot.

Most of these activities will take place as part of Task 8, but input and preparations will also come from Tasks 5-7 (see the harmonised plan in section 3.1 and section 3.6).

5.10 Go-Live Launching Criteria

As remarked in section 3.1, all MS have a target launch date of April 1, 2014 for a first release of a minimum set of STORK 2.0-enabled pilot services. However, as seen in Chapter 4 several partners already exhibit deviations from the plan due to organizational difficulties and coordination with stakeholders outside the project consortium.

At this time we establish three levels of overall eGov4Business Pilot Go-Live launch criteria:

- ***Minimum***: The minimum requirements to establish a successful, albeit partial, Go-live of the eGov4Business Pilot will be defined by the implementation in at least one SP of an access and authorisation procedure integrated with the STORK 2.0 cross-border "Authentication on behalf of" process which will effectively retrieve eID and powers attributes from a MS different from that of the SP, and these attributes shall suffice to grant the foreign end-user access to the eGov4Business pilot service.
- ***Desirable***: At least 5 (more than one third) of the pilot SPs succeed in implementing STORK 2.0-enabled cross-border authentication and powers verification, with at least one of these implementing the second common functional use case, "Nomination of a natural person for powers or company role". Additionally, at least three MS different from the five represented by the SPs should provide eID and Business Attribute AP services for these applications.
- ***Good***: At least 9 (more than two thirds) of the pilot SPs succeed in implementing STORK 2.0-enabled cross-border authentication and powers verification, with at least two of these implementing the second common functional use case, "Nomination of a natural person for powers or company role". Additionally, at least five MS are able to provide eID and Business Attribute AP services for these applications.
- ***Excellent***: At least 12 (almost all) of the pilot SPs succeed in implementing STORK 2.0-enabled cross-border authentication and powers verification, with at least three of these implementing the second common functional use case, "Nomination of a natural person for powers or company role". Additionally, at least five MS are able to provide eID and Business Attribute AP services for these applications, and at least one SP is able to evaluate a case in which the C-PEPS and the A-PEPS come from different participating countries.

We remark that the Minimum launch criterion should be reached by April 1st to be considered a success, and the remaining criteria will be monitored through time to establish the successful achievement of the higher levels of "Go-live launch".

6 User Engagement Strategy

The core aims of the pilot are to implement, demonstrate and test, in public services for business, the STORK 2.0 solutions for cross-border eID interoperability of the authentication of natural persons and legal entities and the handling of powers of representation, or mandates, between such entities. Thus the primary actors will be businesses and the persons who represent them as end-users of eGovernment for business services. The main stakeholders are the Public Administrations responsible for running national Business Service Portals such as the Points of Single Contact (PSC) established by the EC Services Directive [7], including the group of Competent Authorities whose individual services are published at these portals and the ancillary agencies and technical support structures who offer their various services in developing and running the services. Additional stakeholders are the public agencies dedicated to industrial and territorial development through international cooperation, mobility and investment, and the professional business associations interested in developing the European-wide market and making it more accessible to their members. Pilot partners in each Member State have these stakeholders identified and also have contacts within the stakeholder organizations that can be reached for pilot dissemination and other impact creation.

Besides validating the STORK 2.0-enabled services, a further aim of piloting is to encourage the adoption and wider take-up of eID management by the public services community in order to achieve longer term sustainability beyond the termination of the pilot. Hence the selection criteria for end-users must also take into account the opportunities for stimulating dissemination at all levels. We plan to engage with a key set of actors, pilot partners and their collaborating agencies, that can contribute to the dissemination and act as models for future use of electronic credentials, encouraging the provision of new public services with added value for businesses.

- This chapter will therefore describe The categories of target users and the actions planned to identify and engage them.
- Illustrate by examples how some Member State (MS) plan to engage users for their pilot systems.
- How the pilot will work towards further dissemination of project results.

6.1 Classification of Pilot Users and Targeted Actions

6.1.1 User classification

To achieve the goals of User Engagement in eGov4Business Pilot it helps to distinguish between three types of users with regard to their expected involvement:

- To achieve a basic level of successful piloting activities in eGov4Business Pilot, a level that ensures an adequate amount of testing and validating of the STORK 2.0 solutions, we need representative and capable participation on behalf of a relatively small number of **core focus group users**. These will be real end-users or “almost real” end-users, such as trade association representatives or colleagues in Administrative areas related to the pilot services. They will have the technical ability, organisational capability and business interest and knowledge to participate in the piloting activities and to provide qualified, critical feedback (see Appendix III). Their most important feedback will be gathered before the Go-live launch, but they will be involved throughout the piloting for periodic evaluation of services. This group will consist largely of known users and especially of national representatives of foreign companies or organisations who will be seen as potential “STORK 2.0 evangelists”,

spreading the opportunities of piloting and the benefits of STORK 2.0 to their partners abroad. Another subset of the core focus group will be composed of technical personnel from other Administrations that can provide additional perspective on evaluating the benefits of STORK 2.0 solutions and will be invited to evaluate how these benefits may be realised in their own online public services.

- To achieve the intended level of success in piloting activities a wider group of real end-users will be engaged. These are the additional **real pilot users** who will participate in the piloting activities after the Go-live launch, validating the service and providing continuous feedback through the online form which will be made available. Their feedback will be used to confirm and consolidate STORK 2.0 results, establishing their visibility, relevance and value. Corrections of malfunctions and feature improvements may also be implemented where the benefits significantly justify the additional costs for modifying the released solutions. In addition, customer support channels currently serving the SP portal may be useful for reporting feedback to the pilot teams. These users will to a large extent consist of real foreign users known and contacted through the SP marketing or customer service departments or engaged by the users' known national representatives, perhaps already participating in the focus group.
- To further promote and encourage the use of eGov4Business pilot services by foreign businesspersons and legal entities, we will engage with additional **potential future users**, typically unknown at the start of piloting. They may be new users of the SP service willing to experiment the innovative and simpler procedures offered through STORK 2.0. or even users of services integrated with STORK 2.0 during the course of piloting.

This perspective conforms well with the vision set out in the work package dedicated to such activities, WP8 – Marketing, Communication & Dissemination, of treating the communication process as one of moving from informing end-users, to consulting with them, to involving and empowering them.

The following table gives an overview of the main user groups:

User group	***target group members***
Core focus group (Known audience to be reached as a priority)	**Service Providers and technical support agencies:** SP technical and operational staff involved in creating and running pilot services or analogous online eGovernment services. **Real end-users currently registered in pilot services**: Known national and international end-users of the STORK 2.0 pilot service. **End-user representatives:** Trade association representatives of end-users of sector-specific services.
Real pilot users	Primarily real end-users reached by one of the actions designed to inform and engage known and even unknown national and foreign users (see Section 6.1.2, below).
Potential future users	Unknown businesses that could be future users of the SP service thanks to the easier access afforded by STORK 2.0. These potential users will be reached through information published at the SP website, at the STORK 2.0 website and through actions in collaboration with other administrative

User group	*target group members*
	agencies both within the SP Member State and abroad.

Table 25: Overview of the main user groups and their members

Clearly, all of the above end-users will be interacting with a variety of other STORK 2.0 actors: SP, IDP, B-IDP and AP, PEPS. The services of these actors will in most cases represent real-life scenarios; exceptionally, simulations or test-cases – especially of credentials - may be used to allow users to more fully test the pilot functionalities.

6.1.2 User Engagement activities

User Engagement activities of individual pilot services will generally be conducted nationally (inherently integrated with MS marketing strategies) to help users evolve from being aware of STORK 2.0 services to becoming active participants in STORK 2.0 piloting. Activities will therefore aim at

- *Convincing* potential users (and service providers) that STORK 2.0 services help simplify access to foreign eGovernment services, from a technical and organisational perspective and business perspective through presentations and publications.
- *Engaging* interested potential users by offering some incentive or immediate advantage (reward) to participate in the piloting activities.
- *Sharing* good practices in adopting and using STORK assets through demonstrations, workshops, hands-on sessions, remote support.
- *Developing* synergies both through the addition of new services integrated with STORK 2.0 and through word-of-mouth, peer recommendations activated through company networks and national and international trade associations and promotional organisations.

Besides, these national efforts, STORK 2.0 partners will also be continuously invited to take part in international events to increase general awareness of the STORK 2.0 results and also to invite specific target groups to test online services of particular interest to them (based on sector, geographic preferences, recent EC legislation, etc.).

The generic activities listed above will be implemented through the following concrete actions:

- Presentations of STORK 2.0 pilot services at national eGovernment services conferences and other public workshops on technologies related to eGovernment and STORK 2.0, for example, Identity Management, Internet Security, federated interoperable cross-border public services.
- Presentations of STORK 2.0 pilot services at national sector-specific conferences for operators (businesses and public agencies) active in the economic sectors covered by the pilot service (agriculture, environment, health, territorial marketing, company administration and regulation, etc.).
- In particular, presentations and contacts with known networks of SME promotional agencies such as EUGO and the national and the Chambers of Commerce and their national and international associations.
- SP website presentation of STORK and pre-registration of interested focus group and piloting users. As a “reward” for participating in the STORK 2.0 piloting, the list of

pilot users (businesses) may be published at the SP portal giving visibility and publicity to these "companies at the forefront of innovative EU eID management".

- Direct email contact of known service users explaining the advantages of STORK 2.0 services and inviting their participation in pilot activities.
- Demonstration workshops of STORK 2.0 enabled services with evaluation of advantages for businesses, professional trade associations and government agencies.
- STORK 2.0 eGov4Business multi-lingual microsite for informing and convincing potential users and for feedback from real pilot users.
- Collaboration with EC initiatives for promotion of Large Scale Pilots, in particular, collaboration with the eIdentity work group of eSENS.
- Other national and international dissemination activities with pilot-specific information including press releases, brochures, etc.

6.2 MS Specific Approaches

Each of the eGov4Business Pilot MS may have their own variations on the user engagement activities and on the precise make-up of the main user groups depending on the types of service the country is piloting. Specific user roles and the number of target pilot users will be established for each of the 3 main groups of users accordingly.

Moreover, Member States are encouraged to favour **participative activities**, if possible, where users contribute to the design of the activities to ensure relevance to the local market, benefit of a positive lever effect on outcomes, and help progressively build a **community of users**.

Generally, it is important to motivate as many users as possible whilst establishing the targets in each category required. The success of the piloting activity will be measured, in part, on the successful outcome of user engagement activities.

We report below, some examples of the current plans already confirmed with the individual MS.

6.2.1 Austria

Austria has a legal basis for foreign eID acceptance. This is based on the reliance of qualified electronic signatures, i.e. the regime of the Signature Directive 1999/93/EC. An order by the Federal Chancellor declares equivalence of such eID (covering BE, EE, ES, FI, IS, IT, LI, LT. PT, SE, and SI). Given that legal acceptance, Austria aims at seamless integration into its eGovernment infrastructure. This is accomplished by enrolling the entities into so-called Supplementary Registers (the representatives into a Supplementary Register for Natural Persons "ERnP" and the represented company into a Supplementary Register for Other Persons "ERsB"). This enrollment ensures that the foreign entity can be queried by service provides as if they were Austrian entities. The identifiers used are semantically equivalent to Austrian identifiers (like allowing for the calculation of sector-specific identifiers that Austrian eID system is based on).

The selected pilot 5.3 service "notification of cross-border services" is frequently used in particular by neighboring countries. Services providers in those states already use the portals involved in the pilot – i.e., the Business Service Portal USP – to inform themselves about the administrative procedures. Thus, the user engagement strategy is to use this to portal also on informing about the possibility to use an eID to carry out the procedures electronically.

The following figure shows the web page where end-users possessing an eID from a "STORK-enabled MS" can get access to the pilot services. In the months prior to Go-Live, information about the STORK 2.0 services will be provided to attract pilot users.

Figure 17: Notification of a service (for Services Directive) at Austrian Business Service Portal

6.2.2 Greece

Greece has been active in engaging the commitment of stakeholders involved in business promotion and eGovernment services in order to directly involve these actors in pilot evaluation and to be able to reach the national and foreign business end-users of STORK 2.0 services. The main agencies that have been engaged are the Business Registry, the Chambers of Commerce and their association, the Central Union of Hellenic Chambers. The Chambers of commerce will act as multipliers, inserting information about STORK 2.0 services in their own promotional events and vehicles. The Business Registry is exploring the possibility of integrating their own national public e-procurement service into the STORK network – an early success to dissemination of project results.

Other general awareness-raising activities have already taken place through presentations at national eGovernment conferences and these activities will continue during piloting.

6.2.3 Iceland

In Iceland SKRA-IS (Register Iceland) participates in STORK 2.0 Pilot 5.3 in the role of the national PSC. Registers Iceland also participates in the European PSC network EUGO where it has proposed STORK 2.0 as an option to implement secure, cross-border eID. Similarly, the Chambers of Commerce and their international associations will be engaged to exploit their direct contact with potential end-users. Register Iceland participated in the first STORK project having a positive experience with the cross border identification. Therefore it considers that connecting PEPS to the PSC would enhance the usability for both nationals and foreign users, as well as providing citizens cross Europe with a secure business environment. Register Iceland will require the same security level of eID for both nationals and foreign cross-border users to be able to access and use the eDelivery offered at the national PSC.

In today's fluid business environment there is an increased need for delegating and therefore giving mandates electronically. In spite of the complex nature of mandates in the business

world today Register Iceland plans to take a first step into offering mandates: providing only the full or absolute procura.

6.2.4 Italy

The two Italian SP pilot services are currently available at the national portal for public services for businesses, www.impresa.gov.it, a branch of the one-stop eGovernment service desk for businesses, www.impresainungiorno.gov.it, which houses Italy's Point of Single Contact for the EC Services Directive. Thus the commitment and active participation of the public administrations and government agencies which sponsor these portals and run their services is a key element for the future evaluation, dissemination and sustainability of the STORK 2.0 network and services.

The two pilot services involve the Ministry of the Environment and the Ministry of Health, each of which have formulated strategies for reaching the three types of users identified in section 6.1.1. In particular, they have framed criteria for selecting a small number of current users for participation in focus group testing prior to the Go-live launch of services, they have gathered emailing lists for the engagement of a wider group of real pilot users, and they have begun presenting STORK 2.0 to their clients and to collaborating agencies and professional associations who will actively promote the piloting among potential future new users. Both Ministries have presented STORK 2.0 at national conferences of their respective sectors: manufacturers of medical devices regulated by the Health sector and electric device manufacturers who must adhere to environmental regulations.

Additionally, information will be published at the websites of these services and in the general eGovernment portals to inform businesses about STORK 2.0 and to invite appropriate companies to participate in piloting (see Figure 18, below).

Figure 18: information about STORK 2.0 at national eGovernment portal

6.3 Pilot Dissemination and Other Relations to External STORK 2.0 Environment

As already seen in the previous sections, the activities planned and begun for the engagement of pilot users are in strong synergy with other dissemination activities designed to raise general awareness about STORK 2.0 results, or more specifically focused on spreading the real use of STORK 2.0 solutions on behalf of other eGovernment service providers.

The opportunities for participating in active piloting are incorporated in all dissemination activities. A summary of types of these activities and related channels (media/tools) will be made from MS contributions, similar to table below.

Online Tools	***Project Website***
	Pilot Microsites
	Social Networks
	Public Administration Newsletters
	National eGovernment Websites
	e-mailing List targeted to current users (list supplied by SP) or to potential users (list supplied by trade association or other government agency)
Offline Tools	Promotional Materials
	EC Deliverable
Media	Press Release
	Featured articles, interviews & posts
Educational Programs	Conference Presentations
	Workshops
	Demos
	Webcasts
Others	Collaboration with other LSPs and European PA Networks
	Analyst relations

Table 26: Overview of the main user groups and their members

7 Relationship with Other WP's

During the first half of the second year of the project, partners in WP5.3 have participated in tasks or activities performed by other WP in STORK 2.0. The collaboration with other work packages is described in the following sections.

7.1 WP3 Legal and Trust Analysis

Almost all the information to be dealt with in the eGov4Business Pilot services is publically available from official government authorities or certification bodies, and as such present limited restrictions on use, transmission across borders or issues of data privacy.

The issue of validity of foreign mandates of powers of representation from the legally responsible persons of a company to other persons (legal entities or physical persons) was addressed and led to the necessity of case-by-case, country-by-country evaluations of policy which in the end are subject to the interpretation and requirements of the individual SPs. In general, STORK 2.0 Service Providers may require two additional types of assurance regarding mandate information extracted from public databases: self-declarations of responsibility made by the end-users, and a general agreement between STORK 2.0 partners, a Memorandum of Understanding, regarding the "official legal value" of information supplied by certain public institutions making up the national STORK 2.0 infrastructure. The MOU would represent a fundamental element towards establishing the STORK 2.0 "circle of trust".

7.2 WP4 Common Specifications & Building Blocks

Collaboration with WP4 has been continuous and "two-way" during the entire period. Clarifications of pilot needs have helped refine the initial model of basic STORK 2.0 services giving rise to the development of important variations of the AUB procedure as well as additional procedure flows (e.g., Powers Validation, PV) and transversal services (e.g., limited form of single-sign on to avoid unnecessary re-authentication of end-users). Similarly, the consolidation of the structure of SAML tokens for Mandate Data and the agreements on the use of this structure establish the basis for successful piloting.

Discussions have also touched on making the common software building blocks as re-usable as possible by the SP developers. In particular, the SAML engine developed by WP4 to support the communication between PEPS modules will also be used to integrate S-PEPS with SP systems.

WP5.3 partners will also be using and testing and providing feedback on the document signature functions to be released by WP4.

7.3 WP6 Pilots Evaluation

As for all STORK 2.0 pilots, the eGov4Business pilot participated in an Ex ante evaluation led by WP6 partners. The recommendations of that evaluation (see [8]) and successive discussions have contributed to the further refinement of the Benefits Logic approach described in section 2.6 and to the user engagement strategy described in chapter 6. In particular, attention has been focused on measuring real business value (for end-users and public service providers) of pilot services, and on issues related to guaranteeing robust pilot results and overcoming potential low or limited service usage. Continued interaction with WP6 will further refine the evaluation criteria in a practical set of "SMART" metrics (SMART = significant, measurable, attainable, relevant, timely).

7.4 WP7 eID as a Service Offering

WP5.3 has contributed to surveys and discussions promoted by WP7 “eID as a Service Offering” aimed at gathering market requirements and constraints placed on STORK 2.0 services by the “ecosystems” defined and inhabited by public services for business. In particular, the importance of establishing legal value of information handled by STORK 2.0 and on the definition of responsibility and guarantees on the availability, quality, usability of information and services. Essential to this is the establishment of robust governance mechanisms at the basis of the STORK 2.0 “circle of trust” which go beyond mere technical service performance measures. WP5.3 has also contributed to focusing on some of the end-user “usability” issues that impact the market requirements of STORK 2.0 services.

On the other hand, the observations of WP7 (see [9]) regarding measurement of satisfaction and performance of pilot service attributes although not immediately applicable to pilot service development, should in the future help to prioritise marketing actions and the dissemination of results among public stakeholders and end-users. Additionally, discussions with WP7 are contributing to the refinement of the Metrics that will be applied in both pre-running and running pilot phases to determine business value – including the costs and main benefits of deploying STORK 2.0-enabled services – and in particular as this relates to the future adoption of STORK services by new SPs.

7.5 WP8 Marketing, Communication and Dissemination

WP5.3 has contributed to the dissemination activities of WP8 through the participation in national and international information events related to eID management and to the specific areas of eGovernment represented in the STORK 2.0 eGov4Business services.

Additionally, the pilot has also contributed materials such as presentations and pilot descriptions for the project website, factsheets, brochures and the periodic newsletters.

8 Conclusions

The present document has described the planning of the integration of Online Public Services for Business, eGov4Business services, into the STORK 2.0 network to allow the cross-border piloting of these services starting from the Go-live target date of 1 April 2014. Planning has been described at the individual Member State level for the thirteen countries actively participating in the eGov4Business Pilot, WP5.3, as well as at the d work package level and over all piloting work packages, WP5.1-WP5.4. Clearly, this planning has been performed in tight coordination with the development and roll-out plans for the common STORK 2.0 cross-border interoperability infrastructure, and has led to frequent interactions with other project work packages, as indicated in the document.

Planning has included major common milestones, phases and tasks, as well as MS-specific subtasks and milestones. The developments of the eGov4Business pilots are centered on the SP services which are gradually integrated and tested in ever-widening scenarios beginning with the National S-PEPS/V-IDP, then including other actors of the national STORK 2.0 infrastructure and finally using the STORK 2.0 cross-border interoperability layer to access resources integrated with the national STORK 2.0 infrastructures of other countries. Likewise, planning has mapped the progressive rollout of STORK 2.0-enabled systems from development and local testing environments to integration and interoperability testing or pre-production environments and on to final staging or production environments.

The general eGov4Business strategies for user engagement and pilot dissemination have been given with some examples of specific MS strategies.

Active program management and close coordination with other work packages, in particular, the common specifications work package, will continue up to the Go-live launch.

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Appendix I: eGov4Business Pilot Test Case Definitions

National and cross-border interoperability test cases are grouped into common test cases and use case specific test cases (with respect to the common functional use cases listed in Table 2). The common test cases should be performed by all WP5.3 service providers. Use case specific tests should be conducted by the services providers implementing the particular common functional use case or its variations.

Since eGov4Business Pilot services are existing applications national test cases should involve only those software modules and functions which have been modified for STORK 2.0.

National testing

Required test objects:

- pilot Service Provider;
- national S-PEPS and national C-PEPS;
- national IDP - for authentication and physical person attributes;
- national AP (B-IDP) - for business (legal entity) attributes (eg. national business register);
- national AP (B-IDP or other authority) - for mandates;

Common Test Cases

Negative authentication test cases:

- UC0-001: Connection test of SP to national S-PEPS;
- UC0-002: Authentication request (national IDP) with no credentials;
- UC0-003: Authentication request (national IDP) with expired credentials;
- UC0-004: Authentication request (national IDP) with revoked credentials;
- UC0-005: Authentication with valid credentials against an identity provider that does not support these sets of credentials (e.g., foreign eIDs);
- UC0-006: Authentication with valid credentials, but insufficient QAA levels;

Negative mandate attribute test cases:

- UC0-007: Authentication with missing mandatory mandate attributes;
- UC0-008: Authentication with powers that are not sufficient to access service;
- UC0-009: Authentication with powers that are not valid at the time of service request;
- UC0-010: Authentication with valid powers credentials, but insufficient AQAA levels;

Negative business (legal entity) attribute test cases:

- UC0-011: Authentication with missing mandatory legal entity attributes;
- UC0-012: Authentication on behalf of legal entity which is bankrupt or otherwise not active;
- UC0-013: Authentication of a physical person unknown to the SP acting on behalf of a legal entity known to the SP;

- UC0-014: Authentication of a physical person known to the SP acting on behalf of a legal entity unknown to the SP;
- UC0-015: Authentication of a physical person unknown to the SP acting on behalf of a legal entity unknown to the SP;

Positive test cases:

- UC0-016: Authentication with valid credentials and sufficient mandate and business (legal entity) attributes collected from national APs;

Non-functional test cases:

- UC0-017: Service security checking;
- UC0-018: Service performance checking;

Use Case Specific Test Cases

Use case 1: authentication and validation of authorisation to access service on behalf of legal entity

- UC1-001: Authentication with insufficient powers, but powers cannot be processed electronically (requires two-step authentication with back office processing for interpretation of mandates);
- UC1-002: Authentication with sufficient powers, but powers cannot be processed electronically (requires two-step authentication with back office processing for interpretation of mandates);
- UC1-003: Authentication with valid chain of powers;
- UC1-004: Authentication with invalid chain of powers;
- UC1-005: Authentication with joint mandates;
- UC1-006: Authentication on behalf of a company selected from a drop-down list of companies extracted from the AP (B-IDP or business register);
- UC1-007: Authentication on behalf of without re-authentication in case the person wants to represent another company;
- UC1-008: Authentication on behalf of when the country of the represented legal entity is different from the end-user's country.

Use case 2: Nomination of a natural person for powers or company role

- UC2-001: authorised person appoints a natural person that does not exist (cannot be identified);
- UC2-002: authorised person appoints powers/role that do not exist;
- UC2-003: person is not authorised to nominate for powers or company role;
- UC2-004: person is authorised to nominate for powers or company role (positive testing);

National testing at service providers

Below, each service provider describes the implementation of the above test cases. A code for national testing is defined as N-CC-PP-X-UCY-00N, where N represents national testing, CC-PP is a country code - partner acronym, and UCY-00N a specific test case as defined above,

e.g. L-NL-MEAI-UC0-009 for testing Authentication with powers that are not valid at the time of service fulfilment by a Dutch service provider.

The result of each national test case needs to be documented in a standardized way by all WP5 partners to give a clear view of test progress. Reporting takes place in the format underneath.

NL-MEAI: Cross-border farmers pilot	01/03/2014
Test case	**Result**
N-NL-MEAI-UCY-001	Correct
N-NL-MEAI-UCY-002	Correct
N-NL-MEAI-UCY-003	Incorrect, explanation of incorrect behaviour
…	…

Table 27: Sample national testing report

Interoperability testing

The test guidelines presented here assume that WP4 testing has already verified national authentication procedures of physical persons and legal entities, SAML attribute exchange and any STORK 2.0 infrastructure connectivity issues.

Common test cases

Once local tests are accomplished, the next interoperability tests will be performed:

- INT0-001: S-PEPS/v-IDP connectivity, simple connection test, multiple connection (stress) tests ;
- INT0-002: Correct authentication by a foreign IDP;
- INT0-003: Incorrect authentication by a foreign IDP because of invalid credentials (revoked or expired);
- INT0-004: Incorrect authentication by a foreign IDP because of a set of credentials not supported by the S-PEPS/C-PEPS;
- INT0-005: Incorrect authentication by a foreign IDP because of insufficient QAA level;
- INT0-006: Correct authentication by a foreign IDP, but missing mandatory business (legal entity) attributes;
- INT0-007: Correct authentication by a foreign IDP, but missing mandatory mandate attributes;
- INT0-009: Correct authentication by a foreign IDP, but the need to re-authenticate at the AP to gather required business and mandate attributes

The next table shows which foreign IDP's are part of the WP5.3 eGov4Business pilots (for each of the partners). The marked cells indicate the most likely partnering countries based on current service usage statistics and planned user-engagement actions. It is not meant to exclude countries or businesses; in fact, it is worth noting that Spain is not included in the table, but may participate in the piloting since their mercantile register will be integrated with

the STORK 2.0 infrastructure, thus permitting Spanish companies to take advantage of all pilot services.

Cross-border testing		at a **Service Provider** from											
		Austria	Belgium	Estonia	France	Greece	Iceland	Italy	Lithuania	Luxembourg	Netherlands	Portugal	Slovakia	Slovenia
USERS from	Austria			X			X	X					X	X
	Belgium	X								X	X			
	Estonia	X							X					
	France							X		X				
	Greece						X							
	Iceland													
	Italy	X			X							X		X
	Lithuania			X										
	Luxembourg			X										
	Netherlands		X					X	X					
	Portugal	X				X				X				
	Slovakia					X								
	Slovenia	X					X							

Table 28: Testing partners.

Use Case Specific Test Cases

The use case specific interoperability test cases are identical to the national test cases except for the IDP and AP's are cross-border instead of national.

Use case 1: authentication and validation of authorisation to access service on behalf of legal entity

- INT1-001: Authentication by a foreign country with insufficient powers, but powers cannot be processed electronically (requires two-step authentication with back office processing for interpretation of mandates);
- INT1-002: Authentication by a foreign country with sufficient powers, but powers cannot be processed electronically (requires two-step authentication with back office processing for interpretation of mandates);
- INT1-003: Authentication by a foreign country with valid chain of powers;

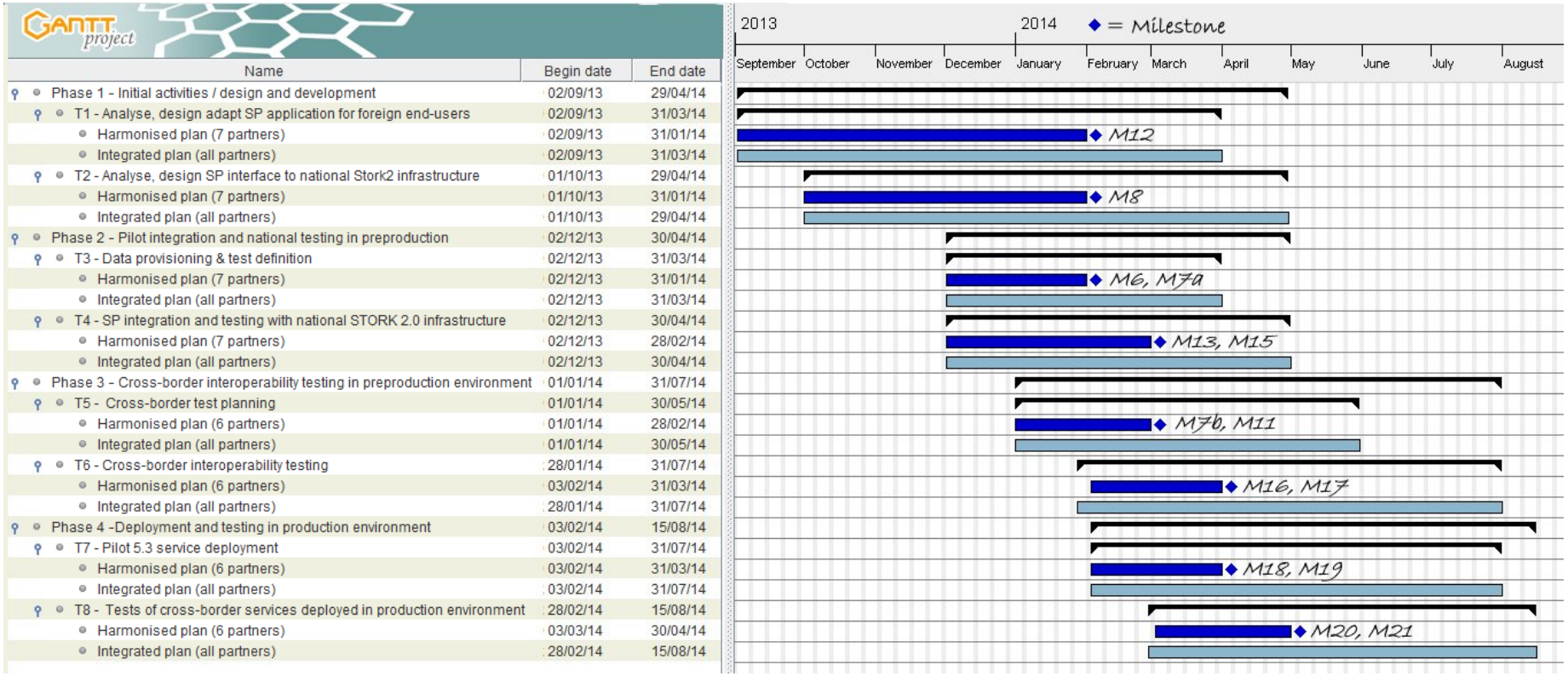
- INT1-004: Authentication by a foreign country with invalid chain of powers;
- INT1-005: Authentication by a foreign country with joint mandates;
- INT1-006: 'Authentication on behalf' of a foreign company selected from a drop-down list of companies extracted from the AP (B-IDP or business register);
- INT1-007: 'Authentication on behalf of' of a foreign company without re-authentication in case the person wants to represent another company;
- INT1-008: 'Authentication on behalf of' of a foreign company when the country of the represented legal entity is different from the end-user's country.

Use case 2: Nomination of a natural person for powers or company role

- INT2-001: authorised person from a foreign country appoints a natural person that does not exist (cannot be identified);
- INT2-002: authorised person from a foreign country appoints powers/role that do not exist;
- INT2-003: person from a foreign country is not authorised to nominate for powers or company role;
- INT2-004: person from a foreign country is authorised to nominate for powers or company role (positive testing);

Appendix II: Detailed Work Breakdown Schedule

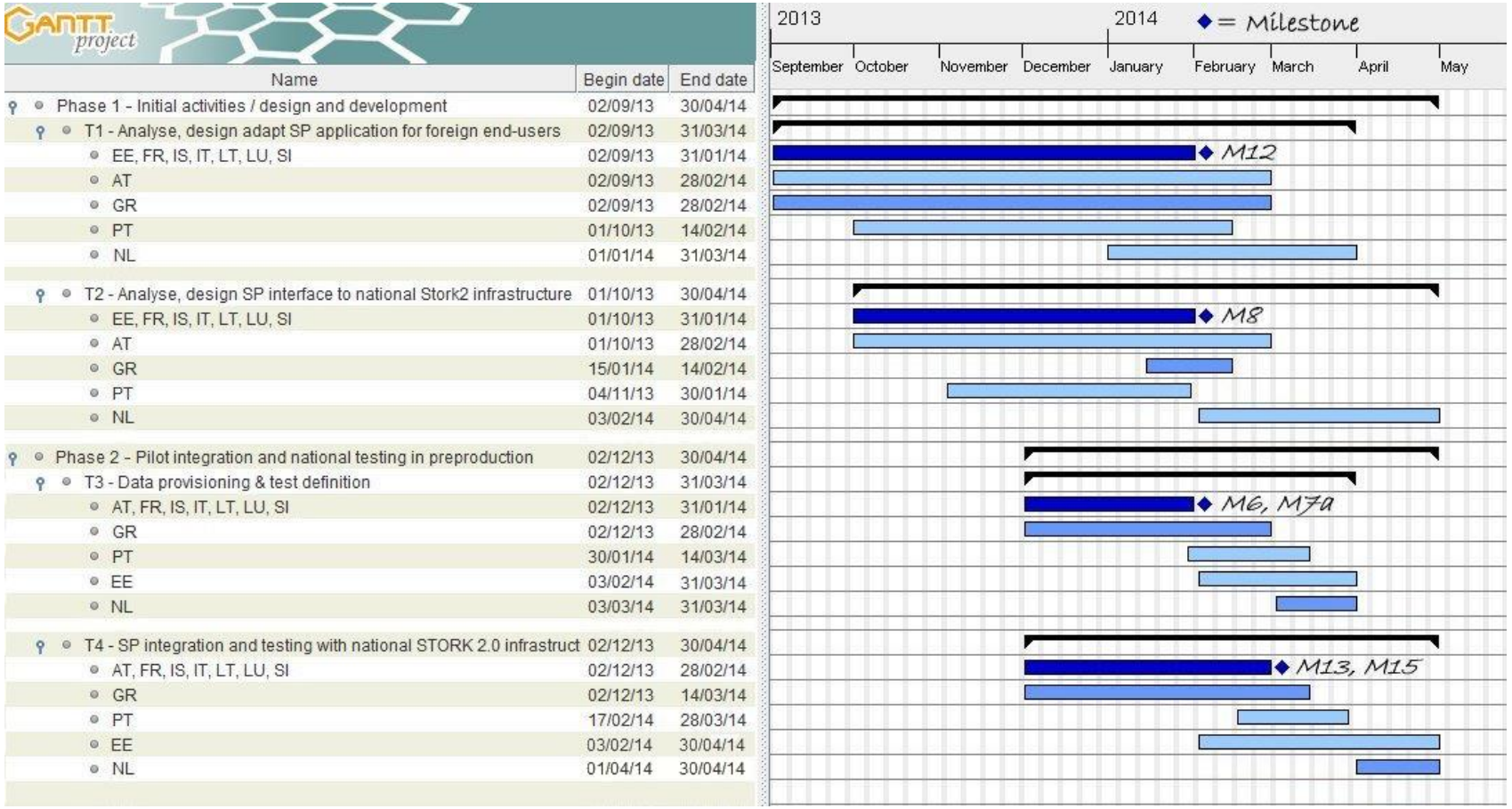
The following figure compares the eGov4Business Harmonised Task and Milestone Plans presented in Section 3.1 and Section 3.2 of this document with the Integrated plan produced by taking together all the individual MS plans reported in the 13 subsections of Section 4.1.



Name	Begin date	End date
Phase 1 - Initial activities / design and development	02/09/13	29/04/14
T1 - Analyse, design adapt SP application for foreign end-users	02/09/13	31/03/14
Harmonised plan (7 partners)	02/09/13	31/01/14
Integrated plan (all partners)	02/09/13	31/03/14
T2 - Analyse, design SP interface to national Stork2 infrastructure	01/10/13	29/04/14
Harmonised plan (7 partners)	01/10/13	31/01/14
Integrated plan (all partners)	01/10/13	29/04/14
Phase 2 - Pilot integration and national testing in preproduction	02/12/13	30/04/14
T3 - Data provisioning & test definition	02/12/13	31/03/14
Harmonised plan (7 partners)	02/12/13	31/01/14
Integrated plan (all partners)	02/12/13	31/03/14
T4 - SP integration and testing with national STORK 2.0 infrastructure	02/12/13	30/04/14
Harmonised plan (7 partners)	02/12/13	28/02/14
Integrated plan (all partners)	02/12/13	30/04/14
Phase 3 - Cross-border interoperability testing in preproduction environment	01/01/14	31/07/14
T5 - Cross-border test planning	01/01/14	30/05/14
Harmonised plan (6 partners)	01/01/14	28/02/14
Integrated plan (all partners)	01/01/14	30/05/14
T6 - Cross-border interoperability testing	28/01/14	31/07/14
Harmonised plan (6 partners)	03/02/14	31/03/14
Integrated plan (all partners)	28/01/14	31/07/14
Phase 4 -Deployment and testing in production environment	03/02/14	15/08/14
T7 - Pilot 5.3 service deployment	03/02/14	31/07/14
Harmonised plan (6 partners)	03/02/14	31/03/14
Integrated plan (all partners)	03/02/14	31/07/14
T8 - Tests of cross-border services deployed in production environment	28/02/14	15/08/14
Harmonised plan (6 partners)	03/03/14	30/04/14
Integrated plan (all partners)	28/02/14	15/08/14

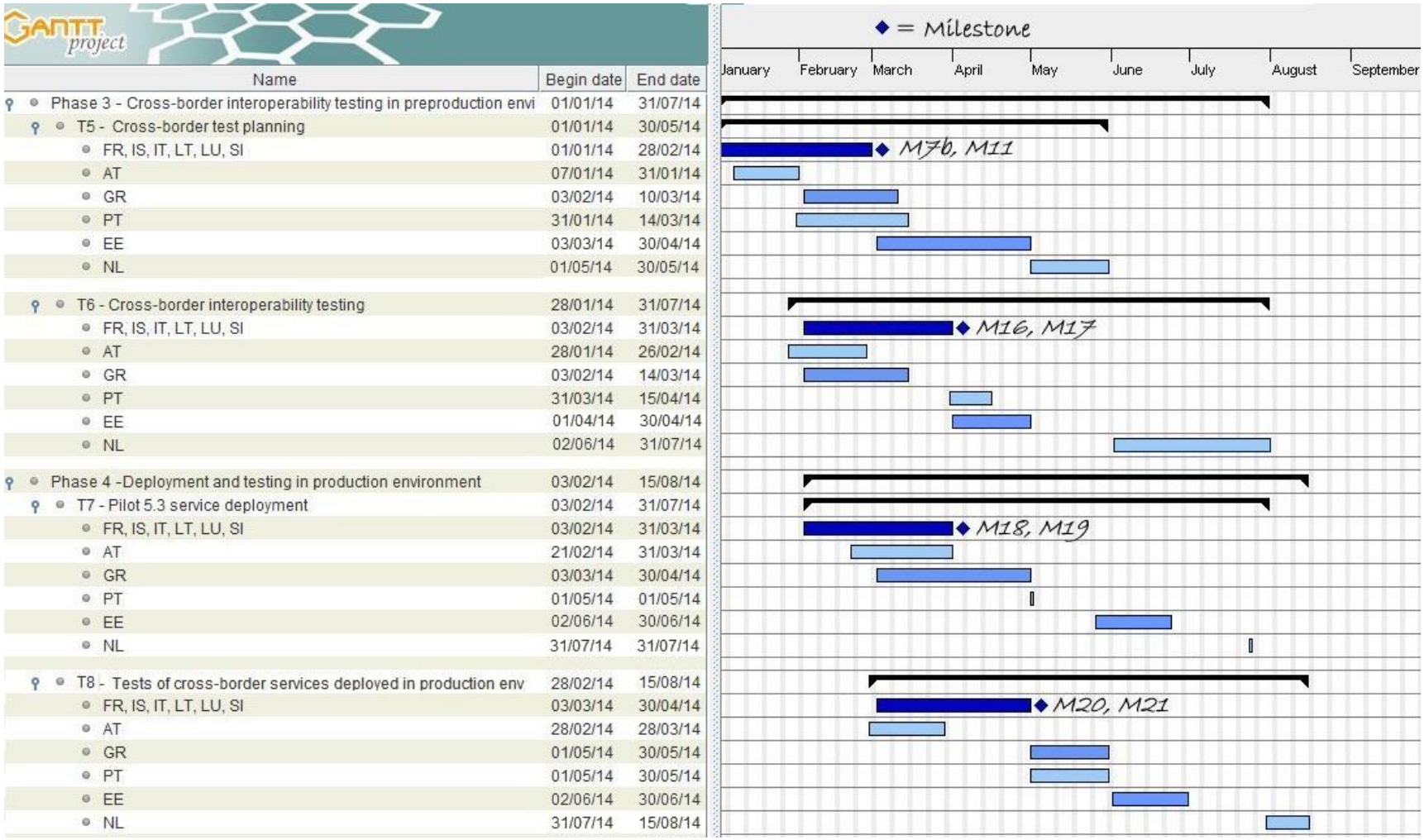
Figure 19: Overall Harmonised vs. Integrated Planning Gantt

The following figures present the detailed individual Task and Milestone Plans reported in the 13 subsections of Section 4.1 . The 8 MS adhering to the harmonised plan have been grouped together.



Name	Begin date	End date
Phase 1 - Initial activities / design and development	02/09/13	30/04/14
T1 - Analyse, design adapt SP application for foreign end-users	02/09/13	31/03/14
EE, FR, IS, IT, LT, LU, SI	02/09/13	31/01/14
AT	02/09/13	28/02/14
GR	02/09/13	28/02/14
PT	01/10/13	14/02/14
NL	01/01/14	31/03/14
T2 - Analyse, design SP interface to national Stork2 infrastructure	01/10/13	30/04/14
EE, FR, IS, IT, LT, LU, SI	01/10/13	31/01/14
AT	01/10/13	28/02/14
GR	15/01/14	14/02/14
PT	04/11/13	30/01/14
NL	03/02/14	30/04/14
Phase 2 - Pilot integration and national testing in preproduction	02/12/13	30/04/14
T3 - Data provisioning & test definition	02/12/13	31/03/14
AT, FR, IS, IT, LT, LU, SI	02/12/13	31/01/14
GR	02/12/13	28/02/14
PT	30/01/14	14/03/14
EE	03/02/14	31/03/14
NL	03/03/14	31/03/14
T4 - SP integration and testing with national STORK 2.0 infrastruct	02/12/13	30/04/14
AT, FR, IS, IT, LT, LU, SI	02/12/13	28/02/14
GR	02/12/13	14/03/14
PT	17/02/14	28/03/14
EE	03/02/14	30/04/14
NL	01/04/14	30/04/14

Figure 20: Detailed Integrated Planning Gantt, Phases 1-2



Name	Begin date	End date
Phase 3 - Cross-border interoperability testing in preproduction envi	01/01/14	31/07/14
T5 - Cross-border test planning	01/01/14	30/05/14
FR, IS, IT, LT, LU, SI	01/01/14	28/02/14
AT	07/01/14	31/01/14
GR	03/02/14	10/03/14
PT	31/01/14	14/03/14
EE	03/03/14	30/04/14
NL	01/05/14	30/05/14
T6 - Cross-border interoperability testing	28/01/14	31/07/14
FR, IS, IT, LT, LU, SI	03/02/14	31/03/14
AT	28/01/14	26/02/14
GR	03/02/14	14/03/14
PT	31/03/14	15/04/14
EE	01/04/14	30/04/14
NL	02/06/14	31/07/14
Phase 4 -Deployment and testing in production environment	03/02/14	15/08/14
T7 - Pilot 5.3 service deployment	03/02/14	31/07/14
FR, IS, IT, LT, LU, SI	03/02/14	31/03/14
AT	21/02/14	31/03/14
GR	03/03/14	30/04/14
PT	01/05/14	01/05/14
EE	02/06/14	30/06/14
NL	31/07/14	31/07/14
T8 - Tests of cross-border services deployed in production env	28/02/14	15/08/14
FR, IS, IT, LT, LU, SI	03/03/14	30/04/14
AT	28/02/14	28/03/14
GR	01/05/14	30/05/14
PT	01/05/14	30/05/14
EE	02/06/14	30/06/14
NL	31/07/14	15/08/14

Figure 21: Detailed Integrated Planning Gantt, Phases 3-4

Appendix III: STORK Pre Production Testing Feedback Form

The following form is designed to gather feedback from the focus group users, in particular on functionality, interoperability, reliability, business value, usability and understandability aspects.

1. Which online Public service for business portal did you try to access?
[a drop-down list of thirteen national SP portals is presented (see Table 4)]

What was the specific service you were interested in using?

_____

2. Were you able to access the service you were interested in?

○ Yes ○ No

If No, please indicate which of the following reasons best applies:

○ You were blocked by the system – please indicate at which point and why:

_____

_____

○ You chose to leave the service – please indicate at which point and why:

_____

_____

If Yes, were you able to complete the service you accessed?

○ Yes ○ No

If No, please indicate at which point you stopped and why:

○ You were blocked by the system for the following reason(s):

_____

_____

○ You chose to leave the service because _____

_____

3. How would you rate the overall User Experience of the service you tried to access?

From 1 to 5, 5 is best: ○ 1 ○ 2 ○ 3 ○ 4 ○ 5

Can you provide a comment on the User Experience including the clarity of the User Interface, for example, was it always clear to you what was required?

_____

_____

_____

4. Which home country did you select?
(*a selector with the possible countries is presented*)

Do you normally use online public services for business in your own country?

○ Yes ○ No

Have you ever used online public services for business from another country?
(*a multi-selector with the possible countries is presented*)

5. Did you understand the concept of using your existing nationally issued identity token to access an online service in another country?

○ Yes ○ No

If No, can you explain what was not clear?

_____

_____

_____

6. Please give specific suggestions to improve the service you have used, for example, ways to simplify the service or additional features to enrich it.

_____

_____

_____

7. Please provide any additional comments.

_____

_____

_____