With the increase on mobility of citizens and businesses, public administrations in Europe are facing many challenges of legal, technical and organisational nature and recognize the lack of interoperable cross-border services. In order to reap the full potential of the European Single Market, governments need to reduce administrative burdens. The e-SENS project facilitates the access of citizens and businesses to public services across borders by enabling public administration to provide interoperable services online. Interoperability across different national systems is achieved through the re-use of generic Building Blocks in the development and delivery of electronic services. Interoperability is therefore crucial in European public administrations delivering public services to European citizens and businesses, as without it provision of services across borders will be difficult, if not impossible [1].

Digital cross-border services

Digital cross-border services are a key policy priority in the internal market due to the increase in mobility within the EU. However, cross-border e-Government services are still few, since a number of challenges is faced, varying between semantic, organizational, legal or technical ones. A significant effort still needs to be made for turning the single market vision into reality when it comes to public e-services in EU. Delivering cross-border services to European citizens and businesses is quite difficult, if not impossible, without interoperability among European public administrations. Since cross-border services require horizontal approach, they tend to run into more barriers than services provided on national level. According to the European Interoperability Framework (EIF), four levels of interoperability should be addressed when establishing European e-services: legal, organizational, semantic and technical [2]. The e-Government Action Plan 2011-2015 also reveals some conditions that should be taken into account when developing cross-border services, setting at the same time ambitious goals for the provision and usage of such services [3].

The e-SENS project, as a Large Scale Pilot (LSP), aims at promoting interoperability between public services in Europe based on the existing solutions, in particular results of the previous Large Scale Pilot (LSP) projects [4]: PEPPOL, e-CODEX, STORK, epSOS and SPOCS. The LSPs have already proven that providing cross-border services can be made simpler. In numerous domains (e-Health, e-Justice, e-Procurement, Business Lifecycle), technical building blocks (BB) have been developed and piloted, that enable seamless cross-border services. The e-SENS consolidates, improves and extends the usage of the building blocks provided by the existing LSPs. Thus, the main objectives of the e-SENS are to:

- consolidate the LSP building blocks
- ensure rollout, expansion and sustainability of LSP building blocks
- develop infrastructure for interoperable public services.

Meeting the objectives will unlock the potential of cross-border services and define the standards to enable cross-border services resulting in:

- improving overall efficiency and effectiveness of cross-border public services leading to more self-service for the user in a complex environment
- making it easier for national companies to do business abroad
- making Member States more attractive places to set up and to do business (forming start-up’s, fulfilling legal requirements, tendering to public authorities, etc.)
- helping citizens when they cross borders as well as helping foreign citizens to access healthcare or judicial system abroad improving their freedom to move to other countries.

Business Lifecycle domain

Business Lifecycle is one of the four domains, together with e-Health, e-Justice and e-Procurement, within which active piloting is currently taking place under the e-SENS project. The main objective of piloting in the Business Lifecycle domain is to enable cross-border interaction between administrations and businesses to be executed seamlessly online in order to register a new company or business activity in another country. This is being achieved through the use of interoperable specifications and services which support cross-border access to national processes and systems related to business and activity registration in different Member States or Associated Countries.

1 Article reviewed
The work done within the Business Lifecycle domain will support further take-up of the Services Directive (Directive 2006/123/EC of 12 December 2006 on services in the internal market), which provides the general framework for both temporary and permanent establishment of business undertakings in another EU country [5]. The work will also facilitate implementation of the provisions of Directive 2012/17/EU on the interconnection of business registries for specific types of companies [6]. Piloting within e-SENS aims to expand the existing functionality already offered by national authorities of EU and EEA countries, such as Points of Single Contact (PSCs) and business registries, and make them interoperable through the integration of technology building blocks that are re-usable across multiple domains. The take up of solutions developed by SPOCS can be considered as the base line and one of the key solutions in terms of business registration [7].

**Points of Single Contact (PSCs)**

PSCs are e-government portals that allow citizens, professionals and entrepreneurs to obtain information about the rules, regulations and formalities that apply to service activities and to complete administrative procedures online. The PSCs were established in each EU country as a result of the implementation of the Services Directive. According to the Directive, the PSCs allow service providers to:

- obtain all information about the procedures they need to complete to provide their services at home or in another EU country (e.g. company registration, business licences, recognition of professional qualifications)
- deal with all formalities via one single contact point
- complete the necessary steps remotely by electronic means.

The e-SENS project will facilitate the provision of electronic public services on the PSCs at both European and national level using the same technical modules. More specifically, the pilots will provide the potential to:

- be identified and sign through the use of e-ID and e-Signature credentials issued in their home country
- access semantic interoperability services that will help them understand cross-border equivalence of information and/or documentation that must be provided from themselves and their home country to the country of registration.

**Piloting scenarios**

**Registering a new business – example use case**

A businessman from EU or EEA country wants to set up a specific type of undertaking (sole proprietorship, Limited Liability Company, etc.) in another country. He/she first needs to find information about the administrative requirements in the destination country for registering and operating the undertaking, which might differ significantly from the requirements in the home country. The businessperson will find information and guidance on the equivalence of legal requirements and the supporting documents that are needed from his/her country of origin. He/she completes the necessary forms and attaches documents (if required). When the application is complete, the user signs it with his/her own e-ID and submits it electronically.

**Benefits for business**

The implementation of e-SENS solutions is expected to simplify the procedure both for businesspersons/professionals and for the competent authorities. The businessperson will be more easily guided through the process and the requirements that need to be fulfilled. The use of e-SENS modules will simplify security during the transactions and will increase the level of trust between the businessperson and the competent authority. Making it easier for individuals and companies to register companies and activities across borders will facilitate business mobility across the European Single Market. Solutions proposed by e-SENS will minimize the technical barriers in the use of e-government services using cross-domain building blocks, which will make administrative procedures more time- and cost-effective.

**Digital signature - online cross-border solution available in Poland**

Online capability to support EU-wide digital signatures, is available in Poland through the business portal, www.biznes.gov.pl. Anyone from Europe wishing to provide business services in Poland can perform digital procedures with digital signatures online, through the portal, thanks to the ‘e-Signature’ building block piloted within the EU’s e-SENS project.

The biznes.gov.pl portal has been developed by the Polish Ministry of Economy with a mission to be the Point of Single Contact for e-services, centred around business activity and service provision. At the moment the biznes.gov.pl platform is able to support more than 20 transactional e-services, related to a variety of professions and trades. It enables individuals and businesses to sign with any certificates issued and re-
cognized in their home country. Allowing digital signature users from Europe to use the portal, makes it more attractive to all wishing to do business in Poland. The e-Signature is based on an online signing the SD-DSS-tool provided by the European Commission. The implementation of the solution by the Ministry of Economy supported by the Institute of Logistics and Warehousing is the first national pilot of the e-SENS project that goes live with real transaction capability.

The Polish government will monitor the dedicated website to gain insight into how the online services are being used, and what volume of traffic is being generated in which sectors. The collaboration between public bodies and private sector companies enabled by e-SENS is expected to put in place basic IT solutions to enable cross-border activity in four different domains: e-Justice, Business Lifecycle, e-Health and e-Procurement.

**Conclusion**

A varied and diverse set of e-SENS pilots is working to expand existing online business, health, procurement and justice functionality available in EU and EEA member states, and eventually to make them interoperable through the use of cross-domain IT ‘building blocks’. The e-SENS project aims to provide an architectural framework of solutions, methodologies and standards that will enable interoperability and enhance the introduction of European Single Market. The Business Lifecycle domain focuses mainly on two use cases: Business Registration and Activity Registration. Business Registration involves setting up a new company of various legal forms in a different country. Online access to services using e-ID, e-documents/semantics and e-Signatures allow business owners and entrepreneurs to register their company in a different EU member state. In Activity Registration, service providers planning to expand their activity in a different EU country, are not obliged to set up a new company but they simply register their activity and apply for licences, permits and so on, in the relevant member state.

**Abstract**

The paper presents the e-SENS project’s solutions which facilitate the access of citizens and businesses to public services across borders by enabling public administration to provide interoperable services online. Interoperability across different national systems is achieved through the re-use of generic Building Blocks in the development and delivery of electronic services. Within the paper, the Business Lifecycle domain is described, together with possible piloting scenarios – two example use cases – Business Registration and Activity Registration. The analyses and studies conducted under the e-SENS project clearly indicate that interoperability is a crucial issue for European public administrations delivering European public services to European citizens and businesses.

**Keywords:** online cross-border public services, Business Lifecycle domain, piloting, digital agenda

**Elektroniczne usługi transgraniczne w obszarze zakładania działalności gospodarczej**

**Streszczenie**

W artykule przedstawiono rozwiązania projektu e-SENS, które ułatwiają obywatelom i przedsiębiorcom dostęp do transgranicznych usług publicznych poprzez umożliwienie administracji publicznej świadczenia interoperacyjnych usług elektronicznych. Współdziałanie w ramach różnych systemów narodowych odbywa się poprzez wielokrotne wykorzystanie technicznych rozwiązań projektu (tzw. building blocks) podczas procesu przygotowania i wdrożenia kolejnych usług elektronicznych. Artykuł opisuje obszar zakładania działalności gospodarczej (business lifecycle) wraz z możliwymi scenariuszami pilotażu – dwa przykłady zastosowania: rejestracja firmy oraz rejestracja działalności usługowej. Przeprowadzone w ramach projektu e-SENS analizy i badania wyraźnie wskazują, iż dążenie do interoperacyjności rozwiązań jest kluczową kwestią dla krajowych administracji publicznych chcących świadczyć usługi dla obywateli i przedsiębiorstw w Europie.

**Słowa kluczowe:** elektroniczne, transgraniczne usługi publiczne, zakładanie działalności gospodarczej, pilotaż, agenda cyfrowa

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