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## e-SENS white paper

### D3.8 Overall e-SENS business case

#### Abstract of the Deliverable 3.8

The document presents an integrated business case for the e-SENS Building Blocks (BBs). It is an important step to understand and help designing a coherent, integrated ecosystem of actors and assets for technical interoperability of administrative procedures across domains and borders in Europe. Deliverable D3.8 collects the relevant qualitative information, quantitative approximations and other supportive material from related business cases. The paper provides real insight into the quantitative business case for the e-SENS building blocks from the perspective of citizens, businesses and authorities. It demonstrates that incorporating the e-SENS building blocks in domains service delivery could lead to considerable savings.

Deliverable D3.8 was prepared by e-SENS Work Package 3 'Sustainability and Long-Term Governance', which concerns the long-term consolidation and maintenance of the technical solutions developed within e-SENS. The main goal of these activities is to pave the way for sustainability and long-term governance of the e-SENS BBs and their support in creating interoperable public services across all European Member States and Associated Countries. The document gathers significant *existing material* and knowledge contributing to establishing the business potential of cross-domain interoperability initiatives. Particular attention was paid to capturing the *significant groups of stakeholders*, the respective *value propositions* (or benefits) they are interested in, along with their *expected contributions* (or counterpart).

#### White paper:

The document aims at building an *integrated business case* for technical solutions and interoperability of administrative procedures across domains and borders in Europe. This business case is an essential factor to help convince more stakeholders to participate in the related initiatives (e-SENS Pilots, CEF and others) and gather a *critical mass* of interested parties using Building Blocks e-SENS White Paper D3.8 Overall e-SENS business case

1





which will evolve into an **integrated ecosystem**. The notion of an ecosystem refers to a shared vision for a network of different stakeholders (public or private) that **are cooperating in a business area**.<sup>1</sup>

#### ❖ BUSINESS CASE ELEMENTS FROM e-SENS PILOTS

The first part of the D3.8 builds on the knowledge of e-SENS use cases and is devoted to the detailed analysis of the selected business case elements from e-SENS pilots under the main e-SENS domains:

- **Business Lifecycle:** Business Registration and Activity Registration
- **e-Health:** e-Confirmation
- **e-Justice:** European Account Preservation Order (EAPO) and Family Law
- **e-Procurement:** Virtual Company Dossier, e-Tendering, e-Invoicing
- **e-Agriculture**

The overall analysis prepared for the e-SENS pilots was conducted in accordance with the following steps:

- Step 1 - Stakeholders of the pilot, their needs and expectations
- Step 2 - Observed benefits and costs/counterparts
- Step 3 - Contribution of the Building Blocks to value creation
- Step 4 - Patterns of good practices

The savings in time, maintenance, coordination and infrastructure are estimated at hundreds of million Euros for the entire European Single Market. It was estimated by the **Business Registration** pilot that the costs could be reduced up to 40% by providing standardised APIs<sup>2</sup> and IT functions, while the cost saved by reducing paper document exchanges is estimated at €30/document and translation savings will be around €15/document. The **EAPO** pilot in the e-Justice domain estimated that the travel costs for experts' business trips to other Member States and Associated Countries could be reduced by €61 million and the recovery of cross border debt could actually provide additional resources to SMEs (estimated at €600 million). The travel costs for parties involved in law disputes across borders could be reduced by €4.5 million and almost 7.500 hours less work for the courts and administrations to analyse documents according to the **Family Law** pilot. The **e-Agriculture** pilot estimated that digital certificates for farmers could save 400 hours a year in time needed to complete the application. The public sector may save between €48-120 billion Euro per

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<sup>1</sup> <http://www.investopedia.com/terms/b/business-ecosystem.asp>

<sup>2</sup> Application Programming Interface



year according to the **e-Tendering** pilot. Furthermore, managing less complaints and litigations will result in annual savings deriving from a quicker digital process at €30 million Euro a year covering the benefits for bidders in the EU to €3.510 million. More effective and easier tendering is also expected to result in much more competition and hence better price/quality. The benefits are for the citizens but also for the companies and public spending. Cost savings compared to the tradition paper document flow are estimated at €23 billion Euro across the EU since digitalisation and e-Services are 60-80% more efficient (according to the **e-Invoicing** pilot estimations). Dispute management resulting from cross-border interactions could also be reduced with €8 billion Euro (again according to the **e-Invoicing** pilot).

#### ❖ OVERALL BUSINESS CASE

This part focuses on the economic evaluation and the overall business case of the e-SENS building blocks of eID, eSignatures, e-Delivery and eDocuments. Based on figures about costs and benefits received from the pilots, an economic cost-benefit analysis of the contributions of the building blocks to the cross-border administrative e-Services was prepared. The generic character of the building blocks means that they can facilitate many cross-border administrative e-Services in different domains like health, justice, agriculture, tendering and therefore can potentially create direct benefits for users<sup>3</sup>:

#### Costs reductions and time savings

- Cost-reductions due to more efficient processes, e.g. changing from a paper based process to an online process
- Time-savings due to more efficient processes, e.g. electronic processes require less manpower than traditional paper based services

#### Improved service quality

- Higher intrinsic quality of service provisioning (less mistakes, errors etc.),
- Less effort from citizens, businesses or authorities to make use of a service, e.g. time savings when using a service in comparison to the previous “traditional” situation

#### Other benefits

- Less fraud or damage, e.g. due to stronger mechanisms for ID verification
- Improved policy e.g. increased competition due to improved e-tendering services

The development of an overall business case for the e-SENS building blocks is a challenging task. The actual value of the building blocks is indirect and manifests itself through the benefits of cross-border

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<sup>3</sup> Ecorys, Research en Consulting (2007) [in Dutch]. Handreiking voor kosten-batenanalyse voor ICT projecten. e-SENS White Paper D3.8 Overall e-SENS business case



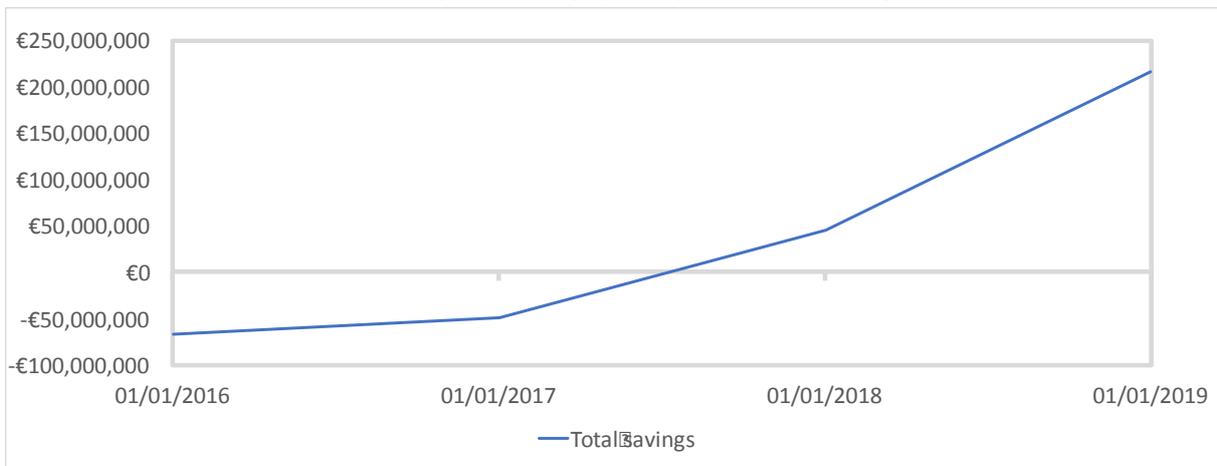
e-Services that make use of the building blocks. For the business case it is needed to identify and preferably quantify the benefits of these services, and the value of the contributions of the building blocks to the particular e-Service. The quantification of e-Service's benefits and building block contributions are obtained from e-SENS and previous pilots, the following summary results of costs, benefits and return on investment (ROI) were obtained:

**Business case e-ID**

Benefits			Costs			
	Citizen/business		Authorities		Service Providers	
		€160.6 million		€0.27 million	implementation costs	€66.7 million
Hours	1.067.904	€28.9 million	4.500	€0.12 million	operational costs	€19.5 million
<b>Total</b>		<b>€189.5 million</b>		<b>€0.39 million</b>		<b>€86.2 million</b>

**Table1: Business case e-ID: benefits and costs**

The return on investment (ROI) is expressed as payback period about 1,5 year for e-ID.



**Figure 1: Payback period for e-ID**



### Business case e-Signature

Benefits				Costs		
	Citizen/business		Authorities		Service Providers	
		€355.6 million		€25.0 million	implementation costs	€66.7 million
Hours	995.040	€26.9 million	948,208	€25.7 million	operational costs	€19.5 million
<b>Total</b>		<b>€382.5 million</b>		<b>€50.6 million</b>		<b>€86.2 million</b>

Table 2: Business case e-Signature: benefits and costs

The return on investment (ROI) expressed as the payback period is for e-Signature less than 1 year.

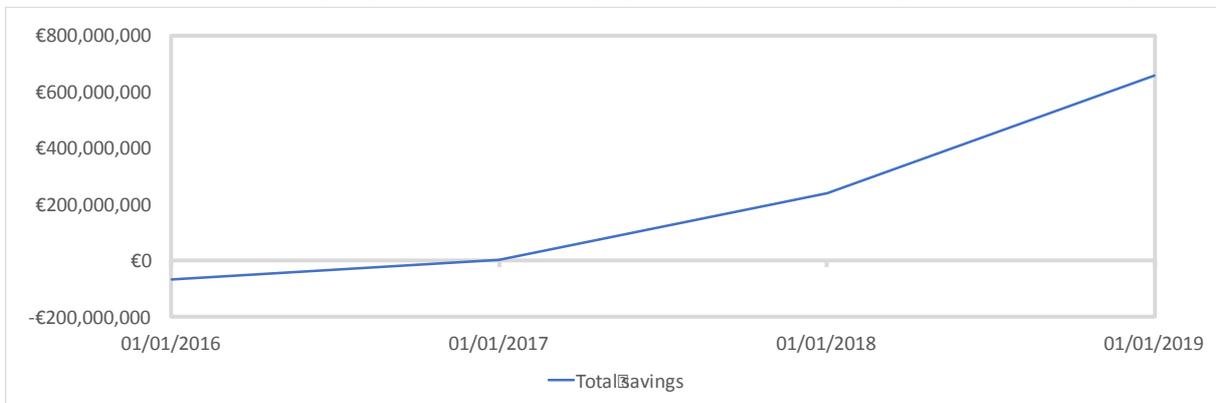


Figure 2: Payback period for e-Signature

### Business case e-Delivery

Benefits				Costs		
	Citizen/business		Authorities		Service Providers	
		€177.5 million		€143 million	Implementation costs	€90.0 million
Hours	1.000.980	€27.1 million		€0 million	Operational costs	€26.4 million
<b>Total</b>		<b>€204.6 million</b>		<b>€143.0 million</b>		<b>€116.4 million</b>

Table 3: Business case e-Delivery: benefits and costs



The return on investment (ROI) expressed as the payback period for e-Delivery is about 1,25 year.

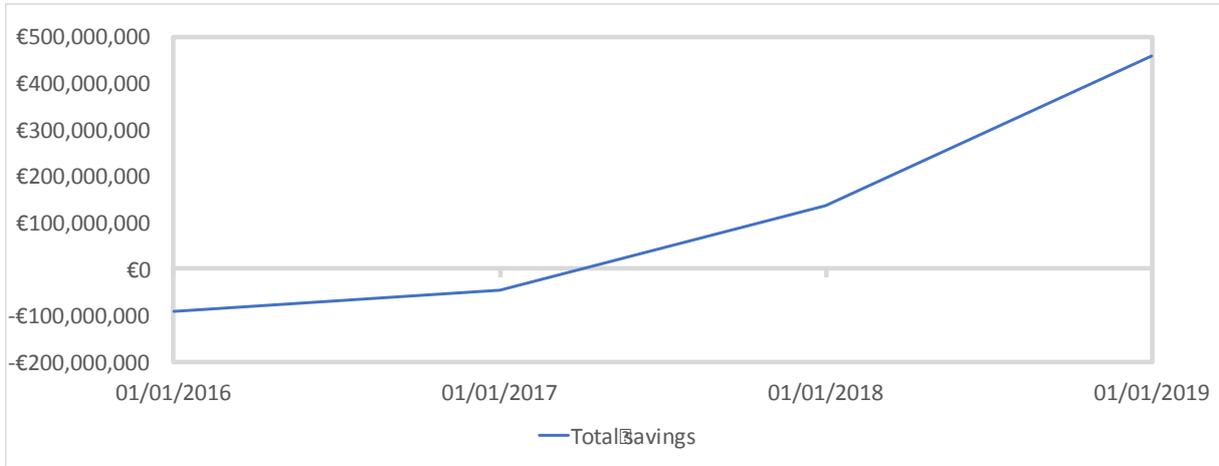


Figure 3: Payback period e-Delivery

### Business case e-Document

Benefits				Costs		
	Citizen/business		Authorities	Service Providers		
		€204.5 million		€172 million	Implementation costs	€66.8 million
Hours	1.005.940	€27.2 million	4,500	€0.12 million	Operational costs	€19.6 million
<b>Total</b>	<b>€231.7 million</b>			<b>€172.1 million</b>		<b>€86.3 million</b>

Table 4: Business case e-Document: benefits and costs

The return on investment (ROI) expressed as the payback period for e-Document is more than 1 year.

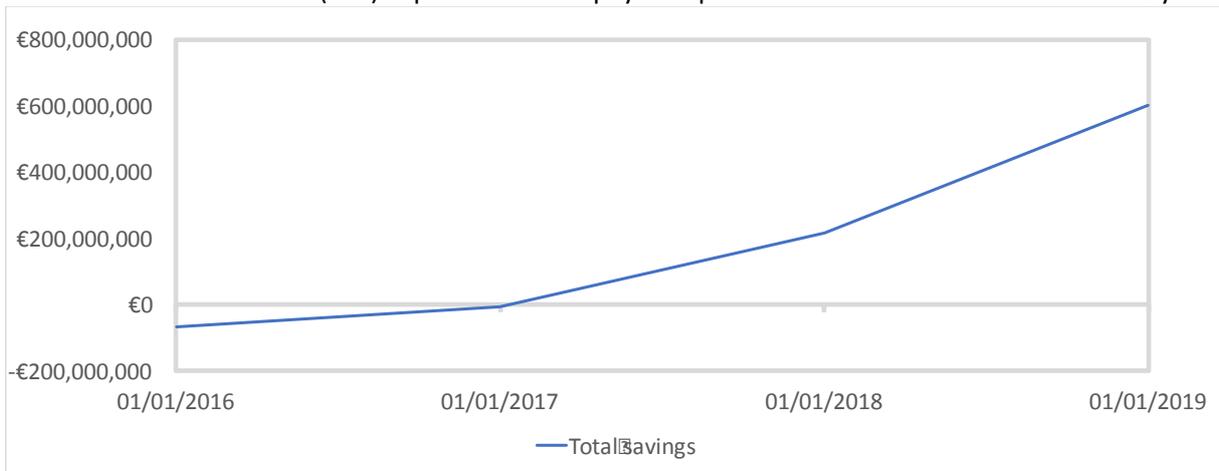


Figure 4: Payback period e-Document

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**Conclusions:**

Adoption of the building blocks can deliver hundreds of millions of euros in savings for citizens, businesses and authorities. The document strives to estimate directly quantifiable benefits like cost reductions and time savings on the basis of experiences of piloting countries in the e-SENS project. Many other benefits can be listed as qualitative benefits, which add positively to the overall business case. Future work on the e-SENS BBs business case will further investigate the stakeholders, the value proposition of each pilot and the aggregated set of building blocks that was defined in this document.

