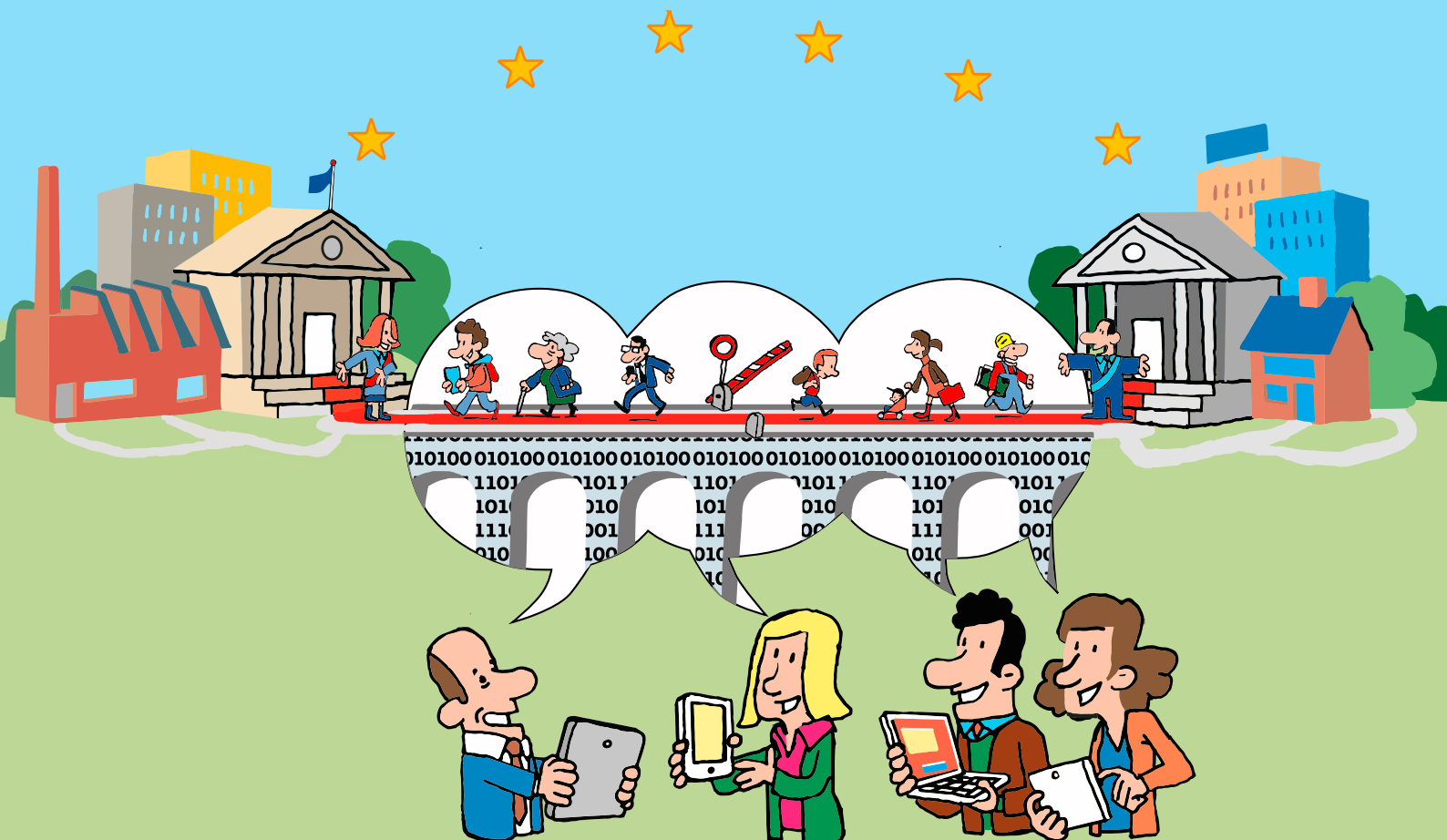


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## RESULTS PACK

**eGOVERNMENT:**  
delivering innovative public services  
for citizens and businesses



The digital transformation of government will benefit citizens and businesses, save administrations money and create a new marketplace for public service applications. EU-funded projects have helped to overcome obstacles and provide the building blocks (such as eDelivery, eID, eInvoicing, eSignature, eTranslation) for administrations to deliver new digital services across departments and across borders.

*While the technology to achieve smarter, joined-up administrative e-services is there, public administrations have often faced numerous obstacles, including budget constraints, legal, procedural, semantic and technical interoperability problems between services and administrations (as well as between countries) and access to technical know-how. These issues have limited the roll-out of digital Public Services.*

*This is something that the European Commission is determined to address. As outlined in its EU eGovernment Action Plan for 2016-2020, the digital transformation of government is a key element of building the Digital Single Market.*

### Delivering results

*Developing an ICT-enabled public sector has been recognised as a societal challenge by Horizon 2020, the EU framework programme for research and innovation.*

*Cloud computing – which is about sharing resources rather than having local servers or personal devices handle each individual application – has the capacity to transform and improve public services while making them more cost effective. A number of eGovernment projects have been launched based on the cloud of public services concept, some of which are highlighted in this Results Pack. These include CloudOpting, ECIM and CLIPS, which have developed platforms and marketplaces help administrations access a range of cloud-based applications, and Strategic and Storm Clouds, which have helped public authorities shift their services to a cloud-based paradigm.*

*In addition, a number of coordinated Large Scale Pilot projects funded by the Competitiveness and Innovation Framework Programme (CIP) have been rolled out. These projects aimed to pilot first and then deploy the results with the Connecting Europe Facility (CEF), including key digital building blocks that public administrations can (re)use to design and develop new e-services that might make moving to other Member States or tendering for contracts across borders much simpler.*

*This Results Pack highlights the successes of two of these Large Scale Pilot projects. The first is the ambitious EUR 27 million e-SENS project, which is just nearing completion. This project has built upon the success of previous projects (such as ePSOS, STORK, PEPPOL and SPOCS) to deliver a basic online infrastructure that can be used across a range of public services. The second is e-Codex, a secure e-delivery system that allows judicial services to handle and exchange information on civil, commercial and even criminal matters.*

*All of these projects have fundamentally been based on collaboration, transparency and participation of national authorities in Member States, with the aim of taking public administrations out of their silos and making it easier for them to connect and engage with citizens, businesses and other public services across Europe. Citizens and businesses will benefit from more personalised public services, while new commercial opportunities will also be opened up by the creation of an eGovernment services/applications marketplace.*

*The Commission has been investing in projects in the domain of public administration services for a decade, in order to accelerate modernisation in administration. Seamless cross-border and digital public services contribute to competitiveness and make the EU a more attractive place to invest and live in.*

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# Bringing community benefits through cloud computing



An EU-funded project has developed a marketplace for cloud-based services where public administrations, SMEs and citizens can browse available applications and choose the most appropriate ones that address their needs.

European public administrations are often characterised by their stiff organisational approach. This can make it very difficult for citizens and businesses to re-use existing services, for new applications to be developed or for administrations to migrate services towards new technologies like cloud computing.

'CLIPS represents a big step forward for EU cloud capabilities with significant benefits, not only for public organisations at the national and regional levels, but also for SMEs and citizens alike,' explains project coordinator Lanfranco Marasso. 'As a



In order to address these issues, the EU-funded CLIPS project developed a common platform with interoperable services – along with an associated business model – to facilitate easy adoption of cloud-based public services that bring direct benefit to citizens.

*Public administrations and enterprises can focus on innovation instead of spending so much time worrying about infrastructure and technology.*



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result, we see CLIPS playing a key role in the digital transformation happening in the public sector and in building sustainable ecosystems.'

#### A big step forward

The platform provides a marketplace for cloud-based services and micro services (MSs) where public administrations, SMEs and citizens can browse available applications, choose the most appropriate ones to address their needs and then create their own service. At the same time, the marketplace offers SMEs the possibility of advertising and selling their services, along with promoting the sharing and reuse of solutions already developed for other Public Administrations.

'Essentially, CLIPS is designed to facilitate easy communication between public administrations, citizens and SMEs,' says Lanfranco Marasso. 'This means that public administrations and enterprises can focus on innovation instead of spending so much time worrying about infrastructure and technology.'

#### Citizen benefits

The platform has already shown what direct benefits it can bring. For example, the project demonstrated how cloud-based services can help a family move seamlessly from one EU Member State to another, through the delivery of CLIPS platform-based services in four pilot cities – Bremerhaven (Germany), Lecce (Italy), Novi Sad (Serbia) and Santander (Spain).

'Taking into account such administrative requirements as registering for utilities, schooling, local taxes and social care, these pilots showed how the cloud can improve the delivery of public services,' says Roberto Di Bernardo, the project's technology guru. 'The definition and implementation of these new cloud-based services follow a mash-up approach designed to develop an ecosystem template that can be easily replicated across Europe, promoting interoperability and enhancing consumer confidence in cloud services.'

To support Santander's Smart City initiatives, CLIPS developed a service for the procurement of official census certificates – the procedure most often requested by Santander citizens. In Bremerhaven, CLIPS helped deploy a cloud-based 'Request a Place at Kindergarten' service, which lets users planning to move to Bremerhaven look up nearby kindergartens and already begin the application process.

*We see CLIPS playing a key role in the digital transformation happening in the public sector.*

'CLIPS helps facilitate the mobility of European citizens in the public administration field,' says Roberto Di Bernardo. 'It enables citizens to reuse their own national credentials in public administration applications provided by foreign states and to securely transfer their sensitive data across states.'

#### Layered architecture

In order to move a public administration's legacy information system towards the cloud and, subsequently, to enable the reuse of resources, CLIPS based its platform on the MS concept, introduced a Micro Proxy (MP) platform and leveraged a hybrid integration approach.

The CLIPS platform is also three-tiered and includes Infrastructure-as-a-Service (IaaS), application Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS) layers. The latter is the most relevant, combining the ready-to-use software services of SaaS, the application serving and development functionality of traditional PaaS, and a convenient marketplace for the development of applications. A cross-tier layer for managing security aspects is also included.

Project	Cloud approach for Innovation in Public Services
Coordinated by	ENGINEERING - INGEGNERIA INFORMATICA SPA Rome, Italy
Funded under	CIP-ICT
Project website	<a href="http://www.clips-project.eu/">http://www.clips-project.eu/</a>



# Creating a cloud-based services marketplace



An innovative new ‘plug in’ platform can help public administrations efficiently manage their services and access a range of cloud-based applications. By doing so, it promises to revolutionise public procurement and save municipalities money.



Integrated cloud-based applications enable public services to seamlessly manage assets – such as transportation and waste management – and make efficient use of sensory data generated by citizens. However, implementation across Europe has been mixed, due largely to tight budgets and limited access to such services.

cloud-computing services has been slow,’ explains Ignacio Soler, coordinator of the EU-funded CloudOpting project and co-founder of Smart Partners in Barcelona, Spain. ‘So to address this, we developed a platform that offers administrations access to cloud services on a pay-per-use basis. This has the potential to drastically cut user IT expenditure.’

‘Ownership and maintenance of a single platform is expensive for many municipalities, and public sector adoption of

## A catalogue of cloud services

This ‘plug and play’ platform can be easily installed by administrations, and enables them to centrally manage operational data. Most importantly, it gives them access to a catalogue of applications and services that can be employed in cities and municipalities across Europe.

*There is no need to replicate these services across several clouds.*



This has the potential to create an EU-wide marketplace for innovative new applications. A service that has been successfully deployed in one city, for example, can easily be taken up in another if it is in the catalogue. CloudOpting offers public bodies with no cloud deployments at all a readily available bundle of services that can be directly adopted.

'For example, the City of Barcelona (which led the project) can now provide smaller municipalities in the surrounding area with cloud-based services,' explains Ignacio Soler. 'By installing this platform, a marketplace for services has been created that these municipalities – some 900 in total – can access. There is no need to replicate these services across several clouds, which they would not be able to afford to do in any case.'

## A European marketplace

In a European context, this means that an application used for sensor-controlled street lighting in Barcelona can now be easily replicated in Berlin, or a mobile service allowing citizens to find services and places of interest can be replicated across numerous municipalities. Towards the end of the project, administrators and service providers from all over Europe were invited to three 'Hackathons', where they were able to try out the platform for themselves. Feedback was very positive, says Ignacio Soler.

'From the service provider's point of view, this platform greatly increases their chances of getting their product into the market,' he adds. 'This platform has huge potential to create business opportunities; companies can publish their services in the catalogue and promote them across Europe, even globally. We are currently in conversation with investors in order to turn CloudOpting into a start-up business and hit the market. The end of this project (February 2017) is really the beginning of something.'

*We developed a platform that offers administrations access to cloud services on a pay-per-use basis. This has the potential to drastically cut user IT expenditure.*

Cloud computing adoption is growing at a slower rate in Europe than elsewhere; like in the US, for instance. In order to build up a viable European marketplace for the public procurement of cloud-based services, Ignacio Soler passionately believes that an EU-wide approach is needed. 'This was a key finding of the CloudOpting project,' he explains.

'Municipalities and local governments work to very strict rules on how they publish and evaluate tenders, and it is crucial that EU-wide procurement rules are put in place so that they can then be adopted by all EU countries. Concrete policies are needed to make this a reality. We have the technical ability to make this platform work, but we also need EU-wide procurement rules that will make the marketplace flourish.'

Project	CloudOpting
Coordinated by	INSTITUT MUNICIPAL D'INFORMATICA DE BARCELONA Barcelona, Spain
Funded under	CIP-ICT
Project website	<a href="http://www.cloudopting.eu/">http://www.cloudopting.eu/</a>



# Improving judicial cooperation across Europe



An EU project has developed a secure e-delivery system that judicial services across Europe can use to handle and exchange information on civil, commercial and even criminal matters. The solution will help public administrations meet new EU regulations on how judicial information is delivered.

'A number of large scale pilot (LSP) projects with Member States had already been launched in a number of other domains to help public services, but not in justice,' explains e-Codex project coordinator Carsten Schmidt from the Ministry of Justice of North Rhine-Westphalia. 'We saw that there was a real need here to offer proof of technical solutions that could facilitate the fast and secure exchange of judicial information between countries.'

the specific judicial sector. 'A key concept was that we should build on solutions developed in previous EU-funded projects, and then ensure that our results can be used going forward,' says Carsten Schmidt. 'Projects like SPOCS have previously worked on secure e-transport infrastructure, so what we proposed was building on this to develop a common e-delivery solution that could be used for secure applications.' This concept has since fed

The mobility of people and business within the EU is on the rise, making relationships and cooperation between different national judicial systems more complex. The e-Codex project aimed to tackle this 'complexity' with smarter, streamlined use of ICT solutions that help citizens, companies, administrations and legal professionals cope with new situations requiring redress.

In order to accomplish this, the project further developed and tested an e-transport infrastructure initiated by other LSPs in

*We also successfully piloted some criminal justice cases, and were able to ensure that information could be exchanged in a secure and reliable way for these as well.*

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into the major (and also CIP-funded) e-SENS project, which has sought to reuse results across a number of domains to create a common infrastructure.

## Civil and criminal cases

'We were able to show that our e-delivery system could handle regular judicial information relating to civil and commercial matters, where security requirements are not that high,' says Carsten Schmidt. 'We also successfully piloted some criminal justice cases, and were able to ensure that information could be exchanged in a secure and reliable way for these as well.'

Civil cases involved issues such as European payment order procedures, small claims procedures and the registering of businesses. A pilot involving criminal justice cases demonstrated how the infrastructure could facilitate cross-border legal assistance and help prosecutors get information from other Member States and send legal requests electronically in order to get immediate responses. The project also underlined that information sent and received electronically can be archived and accessed far more easily. 'We demonstrated that real benefits can be realised immediately,' says Carsten Schmidt.

countries are obliged to have something in place by June 2017. This came from a directive related to business registers and a request in the European Council, where Member States wanted to put in place a legal basis that sustains the outcomes of the e-Codex project.

'We expect an explosion of activity, with millions of legal transactions taking place across this network,' says Carsten Schmidt. 'The Commission is now very interested in implementing this infrastructure for the criminal justice sector across all Member States.' The bridge project ends in 2018, whereupon all technical assets are planned to be handed over to the EU-LISA agency in Tallinn, Estonia. In this way, the e-Codex infrastructure will continue to be rolled out across Europe, connecting judicial systems and dramatically improving the efficiency of European legal services.

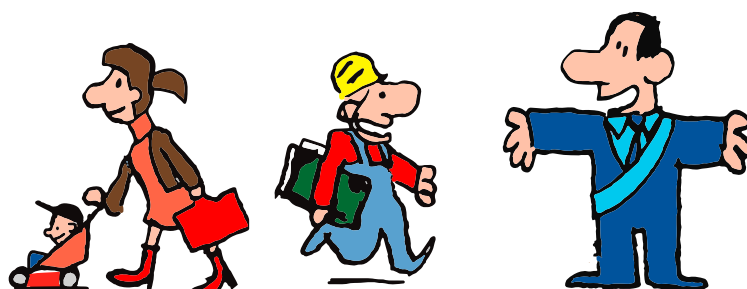
Project	<b>e-Justice Communication via Online Data Exchange</b>
Coordinated by	Justizministerium des Landes Nordrhein-Westfalen Düsseldorf, Germany
Funded under	CIP-ICT
Project website	<a href="https://www.e-codex.eu/">https://www.e-codex.eu/</a>

## Transforming justice in Europe

The project was completed in the summer of 2016 and since then a bridge project has been underway to help public administrations implement e-Codex infrastructure in close cooperation with the CEF Telecom programme. In view of the implementation of the Business Registry Interconnect System, it is now a legal requirement; e-infrastructure has to be mandatorily used as a means of interconnecting different judicial systems, and



*e-infrastructure has to be mandatorily used as a means of interconnecting different judicial systems, and countries are obliged to have something in place by June 2017.*





# The building blocks for digital governments' revolution



The ambitious e-SENS project has built upon previous projects to deliver a generic e-infrastructure that can be used across a range of public services. Making digital government services simpler and more cost-effective to implement will benefit citizens, businesses and public organisations.

The basic digital infrastructure building blocks are now available to public administrations and service providers, enabling them to develop their own online services without the need for having to first develop their own technical solutions. Several service providers – including giants like IBM as well as innovative SMEs – are using these building blocks to develop their own software solutions for Member States, public services and organisations. In this way, a new e-services market has been created, and the feedback from end users across all domains has been positive.

## Digitally connecting Europe

'Digital services vary across Europe, resulting in a number of barriers when it comes to cross-border transactions,' explains e-SENS project coordinator Carsten Schmidt from the Ministry of Justice of North Rhine-Westphalia, Germany. 'Previous projects have tended to address this issue by focusing on just one domain such as delivering e-health, mobility or judicial services. The aim of e-SENS has been to bring together the results of these individual initiatives, break up silos and deliver building blocks that can be used to develop solutions across a range of sectors.'

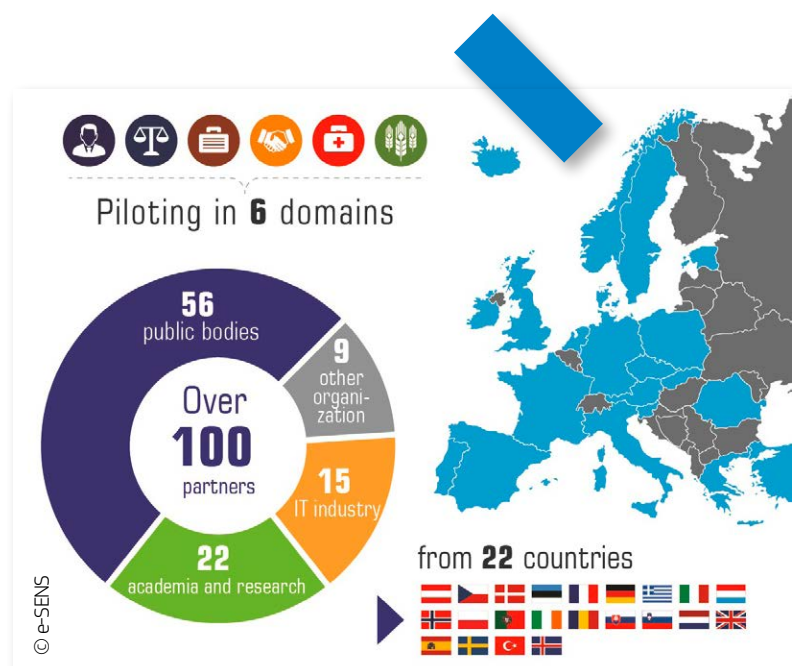
Between April 2015 and March 2017, some 65 pilots across 18 countries were deployed to prove that seamless e-ID could be implemented, using the results of previous pilot projects (like STORK, PEPPOL, SPOCS, ePSOS and e-CODEX) that successfully created Connecting Europe Facility (CEF) technical building blocks for e-ID and document delivery, to name but a few tools. Administrative procedures such as accessing health services, starting a business abroad and bidding for contracts in another country were conducted between countries electronically.

With this in mind, creating comprehensive Digital Service Infrastructures (DSIs) offers the prospect of an investment well made. Just boosting online cross-border access to patient summaries will save more than EUR 36 million, according to one study.

'These are just a few examples of the large benefits that can be obtained,' says Carsten Schmidt.

## Meeting EU standards

Another key advantage is that public administrations and service providers using e-SENS building blocks for developing e-delivery solutions will be putting infrastructure in place that fulfils the technical requirements of the EU electronic identification and trust services (eIDAS) regulation. This is an important consideration; during the Commission's preparation of eIDAS, the need to put in place an electronic identification that is user-friendly, trustworthy and applicable in different countries for exchanging documentation was highlighted as a key need by public administrations.





*The aim of e-SENS has been to bring together the results of these individual initiatives, break up silos and deliver building blocks that can be used to develop solutions across a range of sectors.*

'The e-SENS consortium has been in constant contact with organisations like standardisation bodies, civil law groups and commercial networks in order to provide them with information about these technical building blocks and project outcomes,' says Carsten Schmidt. 'We now want to help them to make use of these tools in their own projects.'

Furthermore, the achievements of e-SENS will feed into full scale deployment of services funded through CEF, which is investing some EUR 970 million in digital service infrastructures over 7 years. This will deliver connected cross-border services for citizens, businesses and public administrations, and represents a significant step forward in creating the Digital Single Market in Europe.

<b>Project</b>	<b>Electronic Simple European Networked Services</b>
Coordinated by	Justizministerium des Landes Nordrhein-Westfalen Düsseldorf, Germany
Funded under	CIP-ICT
Project website	<a href="https://www.esens.eu/">https://www.esens.eu/</a>

## Creating a marketplace for mobility applications



The EU-funded ECIM project has developed a cloud-based marketplace where service providers, data providers and developers can co-design and co-create Smart Mobility applications.

Many citizens are eager to embrace Smart Mobility, which promises to reduce congestion and facilitate faster, greener and cheaper transportation options. The concept is about allowing seamless, efficient and flexible travel across various modes, such as park & ride schemes and booking a trip involving train, metro and bus.

Accessing mobility services in an integrated manner however can be frustrating as users often have to jump across apps, payment systems and programmes in order to sort out their itinerary. So in order to pull all these pieces of the puzzle together, an EU-funded project combined an existing cloud-based platform with new functionalities.

The result is the ECIM marketplace for transport solutions, which is designed to enable local authorities and businesses to provide seamless online mobility services. 'This is more than just another IT platform – it's a marketplace that facilitates interactions between different stakeholders and customer groups,'

*This app lets users find the nearest parking spot and pay via a single payment system.*



explains ECIM project manager Hugo Kerschot. 'It is a one-stop-shop where service and data providers and developers can come together to co-design and co-create mobility applications.'

### A mobility marketplace

For public administrations, ECIM provides a cloud-based platform to which they can migrate existing transport services, create new ones and provide a marketplace to sell them. Indeed, the marketplace also gives mobility service providers



an effective distribution channel, along with the opportunity to enter new markets. For developers, ECIM offers easy access to standardised APIs of different mobility services, some of which can only be found on the ECIM platform.

According to Hugo Kerschot, the mobility marketplace is analogous to common app stores, serving an intermediary role in terms of data/service discovery, subscription, technical interfaces, and contractual, financial and legal agreements. Unlike existing Open Data initiatives, it provides not only data, but also web services and it is this that allows developers to interact with service providers.

The platform creates a set of API format recommendations to increase service interoperability, help developers integrate new services into an app and enable both sides to exploit the cross-border capabilities that ECIM provides.

## A collaborative revolution

From this collaborative marketplace, new, end-user oriented mobility applications have been launched. For example, one ECIM pilot application tested in Brussels integrated mobility services and data into a single app. 'Brussels suffers from chronic traffic congestion, with a third of all traffic caused by drivers looking for a parking spot,' says Hugo Kerschot. 'This app lets users find the nearest parking spot and pay via a single payment system.'

The app includes a map that displays all available on- and off-street parking in real time, along with information about nearby connecting transport options. The app pulls information from across parking providers and, once parked, the user

*It is a one-stop-shop where service and data providers and developers can come together to co-design and co-create mobility applications.*

can pay directly via the app, thus eliminating the need to carry cash. The app also offers such added-value services as points of interest and route suggestions provided by Google Maps.

'ECIM goes beyond the concept of Open Data and lays the groundwork for Open Services, where an authenticated and authorised developer can consume and monetise public and private services which, up to now, were only available to providers themselves,' says Hugo Kerschot. 'The ECIM marketplace brings the app store concept to the mobility domain, giving it the potential to revolutionise the way mobility services are designed and delivered to citizens.'

Project	European Cloud Marketplace for Intelligent Mobility
Coordinated by	IMINDS VZW Ghent, Belgium
Funded under	CIP-ICT
Project website	<a href="http://ecim-cities.eu/">http://ecim-cities.eu/</a>

# Facilitating the migration to cloud-based applications



The EU-funded Storm Clouds project is helping public authorities shift their services to the cloud. This will enable them to make available the tools needed to create Smart Cities.

Smart cities might be high on the EU's political agenda, but putting in place necessary applications to deal with complex urban life has proved challenging. One answer to this is to facilitate the uptake of smart city strategies through the development of application repositories, which encourage the reuse of software that has already been developed and tested by other cities.

These repositories are hosted via the cloud, allowing public authorities and public service providers to select and deploy a large number of applications dedicated to different city functions. The EU-funded Storm Clouds project facilitates this shift to a cloud-based paradigm for the provision of public services by creating a set of relevant guidelines and best practices based on direct testing in several European cities.

'Cloud computing has gained significant attention from public authorities and policy makers due to their size and scope of services,' says project manager Agustín González-Quel. 'Our aim is to define useful guidelines on how to address the process in order to accelerate it.'

According to Agustín González-Quel, public sector service organisations are particularly well-positioned to benefit from cloud computing due to their complex nature, many departments, rigid organisational structure and significant funding restrictions. Furthermore, they tend to encompass services in diverse technological domains based on monolithic architectural models that are difficult to reuse.



*This also protects the municipality's investment – if there's a problem with the current cloud provider they can easily change to another one.*

The Storm Clouds system has been tested in four European cities: Agueda (Portugal), Manchester (UK), Valladolid (Spain) and Thessaloniki (Greece). 'We didn't attempt to define the architecture or to implement the cloud itself, but instead studied and analysed the migration process in order to better understand what works – and doesn't – and to share our conclusions with potential users,' explains Agustín González-Quel. 'The architecture, cloud and applications used in this project are simply the means to reaching this end.'

## Open source-based cloud infrastructures

Within these experiments, the project implemented two similar open source-based cloud infrastructures. Both infrastructures were based on leading open-source products, namely OpenStack and CloudFoundry, and leading edge container technologies. One cloud was used for testing and fine tuning, while the other was used for production purposes. In addition, scripts for automatic migration between both infrastructures were created.

'This arrangement allowed us to evaluate the importance of basing a cloud infrastructure on standard products, as doing so makes the potential migration to another provider much easier,'



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*Plans to commercialise the project's infrastructure are being considered – so one can expect that cities of all sizes will soon be migrating to the cloud.*

says Agustín González-Quel. 'This also protects the municipality's investment – if there's a problem with the current cloud provider they can easily change to another one.'

## Guidelines and best practices

Based on these city experiments, the project developed a methodology – including guidelines and best practices – to help municipalities and public authorities migrate their IT to a cloud infrastructure. 'One particularly popular feature for users is the identification of common barriers and practical solutions for overcoming them,' says Agustín González-Quel. Other outcomes include the development of a cloud infrastructure based on open source products to support ongoing experimentation and testing, a set of scripts to automate some of the more technical tasks involved in a migration, and a catalogue of freely available applications that municipalities can use to evaluate the use of cloud-based services.

However, Agustín González-Quel notes that it's not only European cities that will benefit from the project's findings. 'Our industrial partners – including Hewlett Packard Enterprises, European

Dynamics and Urenio-AUTH – already have plans to commercialise the results and offer consulting support on cloud migration,' he says. 'Also, plans to commercialise the project's infrastructure are being considered, so one can expect that cities of all sizes will soon be migrating to the cloud.'

Project	<b>Surfing Towards the Opportunity of Real Migration to cloud-based public services</b>
Coordinated by	Research, Technology Development and Innovation, S.L. Madrid, Spain
Funded under	CIP-ICT
Project website	<a href="http://storm-clouds.eu/">http://storm-clouds.eu/</a>

## New platform helps public services tap the Cloud

**strategi€**

An EU-funded consortium has developed an easy-to-use platform that enables public administrations to host services on the cloud, helping them to become more efficient and reactive to citizen needs.

Public administrations are facing growing pressure to efficiently deliver services under ever-tighter budgets, and this has made cloud-based solutions an attractive proposition. Many public bodies however remain distrustful of the cloud, and concerned about infrastructure costs and technical requirements.

these services effectively. 'Key features include a graphical interface that helps public services manage all issues related to the cloud,' explains project coordinator Nuria Rodríguez Domínguez from Atos in Spain. 'It is targeted at users with some technical background. The platform is also flexible, suits any type of provider and complies with all legislation.'

## Positive results

In order to address this, the EU-funded STRATEGIC project developed and tested a new platform designed specifically to help administrations host services on the cloud and then manage

STRATEGIC worked closely with public administrations in several countries, and ran successful pilots in the City of Genoa (Italy), Stari Grad (a municipality in Belgrade) in Serbia, and the London Borough of Camden in the UK.





*We found that some administrations simply do not trust cloud technologies.*

'This provided an opportunity to create totally new applications, replicate applications already working in other public administrations and "cloudify" existing applications,' says Nuria Rodríguez Domínguez. 'Camden for example operates a management process of blue cards for people with disabilities, so we developed an application, hosted in the cloud, to manage requests. This is totally new and innovative, and this will be replicated in other public administrations in the UK.'

In Stari Grad the project developed a cloud-based application to manage the cross-border issuing of various certificates with Genoa and installed a mail service for staff. Furthermore, Genoa cloudified its application to help new companies establish themselves. All three pilots ran an open data initiative for publishing data on the cloud.

## Involving the public sector

Following completion of the project, work will now begin to fully commercialise the platform. As the consortium moves forward, public bodies will also be offered consulting services to help them fully tap the potential of cloud-based public services.

'We really want public services to try this platform out, and then share their experiences with future customers,' explains Nuria Rodríguez Domínguez. 'Although administrations are our intended end user, our potential customer base also includes IT providers and cloud application service providers, who can then use our strategic platform to sell their own applications.'

The project has also helped to highlight several issues that continue to limit the roll-out of cloud services in the public sector. 'We found that some administrations simply do not trust cloud technologies,' says Rodríguez. 'A change of mentality is needed, and one of the positive elements of our project was that less-developed administrations – such as Stari Grad – were given the opportunity to learn from more advanced pilots such as Camden.'

Rodríguez also argues that the roll-out of cloud-based public services at the local and regional level simply cannot happen without adequate national support. 'Most municipalities simply do not have the budget to put in place the required infrastructure,' she says.

STRATEGIC also identified a need to fully take into account the constraints of administrative bureaucracy. 'It is very hard for public administrations to work day by day,' says Rodríguez. 'There needs to be prior planning and a clear plan for deployment, laid out well in advance.' These recommendations are currently being written up as a final deliverable, and will help both policy makers and public administrators to develop cloud-based public services in a sustainable and cost-effective manner.

Project	<b>Service disTRibution network And Tools for intEroperable proGrammable, and Unified public Cloud services</b>
Coordinated by	ATOS SPAIN SA Madrid, Spain
Funded under	CIP-ICT
Project website	<a href="http://strategic-project.eu/">http://strategic-project.eu/</a>



*We really want public services to try this platform out, and then share their experiences with future customers.*



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Melinda KURZNE OPOCZKY

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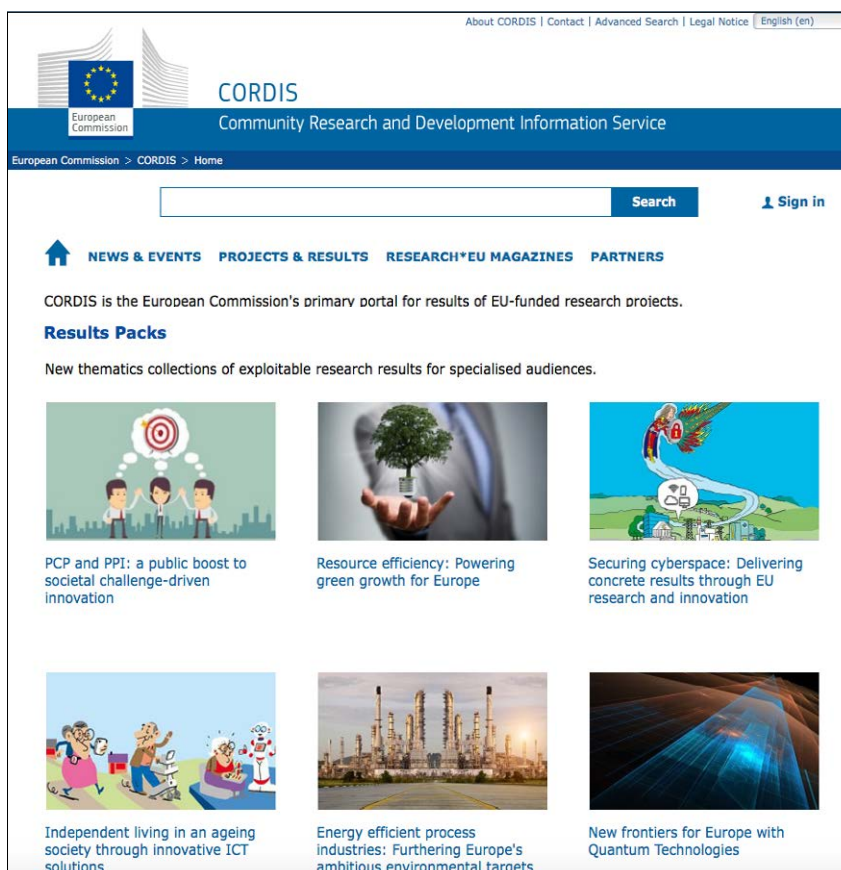


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CORDIS Results Packs are a thematic grouping of articles based on EU-funded projects and aim to disseminate information about new studies, contemporary scientific findings and technologies to the relevant target audience, in order to facilitate their exploitation across Europe and beyond. Eligible projects are those currently funded under the Seventh Framework Programme (FP7) and Horizon 2020.

From December 2015 to March 2017, 13 Results Packs have been published on the CORDIS website, focusing on topics as diverse as quantum technologies, energy and resource efficiency, cybersecurity, biomass, supercomputing and innovative ICT solutions for active and healthy ageing. In 2017 we have several exciting new Results Packs in the pipeline.

For readers from the European Commission services, if you think a Results Pack would be a great way to disseminate tangible and contemporary research results for a topic or sector that you are currently working on, then do not hesitate to contact [editorial@cordis.europa.eu](mailto:editorial@cordis.europa.eu)



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