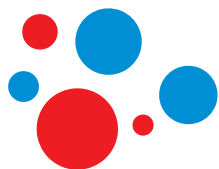


SmartCities

an innovation network helping cities
develop better electronic services



SmartCities

Project Guide



The Interreg IVB
North Sea Region
Programme

*Investing in the future by working together
for a sustainable and competitive region*



Introducing the Smart Cities project

The Smart Cities project is creating an innovation network between governments and academic partners in the North Sea Region that is leading to excellence in the development and take-up of e-services and e-government, and which is setting new standards for e-service delivery across the whole North Sea region.

The Smart Cities partnership is made up of thirteen partners from six countries in the North Sea region. All of the government partners are leading cities and regions with considerable experience in developing and delivering e-Government. Project partners want to improve their e-service-delivery by rethinking the basics of service delivery, by changing their innovation methodology, by transferring their best practices to other project partners, and by engaging with academic and research partners from the very beginning of this process.

The project aims to develop an understanding which e-services services work best and why. It will:

- **facilitate** the transfer of e-Government successes across national borders,
- **identify and support** the real transformational impacts of this transfer of good practices on local government service delivery,
- **equip** decision makers with the knowledge and ambition to continue to develop innovative approaches to deliver e-enabled public services; and
- **integrate** national authorities in these efforts to deliver enhanced services and approaches to e-government services.

At the European level, the project will support the creation and growth of communities of practice across the North Sea Region by building organisational commitments to inter-regional government service sharing and by developing their capacity to deliver these changes.

Smart Cities is partly funded by the Interreg IVB North Sea Region Programme of the European Union. The North Sea Region Programme 2007–2013 works with regional development projects around the North Sea. Promoting transnational cooperation, the Programme aims to make the region a better place to live, work and invest in.



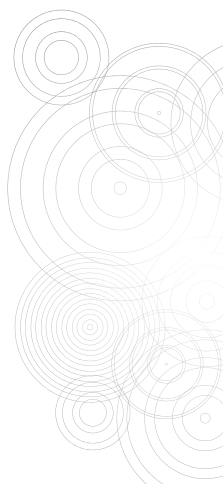
A unique approach

The way the Smart Cities project works is unique, bringing together three important methodological approaches.

Academic network The Smart Cities regional academic network consists of university and university colleges representing six countries from the North Sea region. The academic network gives government partners access to a wide range of expertise and competencies that they can use as they rethink and improve electronic service delivery. The academic partners help the government partners by helping to identify and define the key questions and business challenges. The academic network evaluates the impact of local and transnational work in the project and disseminates its findings and lessons learned to both the North Sea region and to academic and practitioner communities. White papers, tested methodologies, and transferred knowledge will be the key outputs from this people-based innovation network.

Mainstreaming national governments are a key factor for transferring technology and solutions to other regions and municipalities. A number of national and central governments have already become partners of the Smart Cities project, and we are approaching more. The knowledge and commitment from these partners will lead to a sustainable transfer of the services developed in the project to other areas in the North Sea Region. Smart Cities also works closely with the European ePractice.eu community.

Co-design What's the sense of developing services if people don't use them? The most under-used road to innovation is through asking your customers not just to assess how services are delivered, but also to help to design them. Smart Cities pilots are by definition user-centric: government partners will actively listen to the needs of their citizens, and these users will be deeply involved in the e-service development process. Co-designing services with citizens will lead to more sustainable services that are more effective and which provide greater levels of customer satisfaction.





Work Packages

1. **Project Management**
2. **Methodology**
3. **Customer Services and Service Platform**
4. **Wireless City**
5. **User Involvement, Profiling and Take-up**
6. **Mainstreaming**



Work package 1

Project Management

(leader Intercommunale Leiedal)

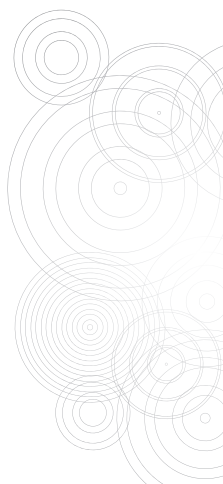
Intercommunale Leiedal is the lead partner in the Smart Cities project, and is responsible for Work Package 1 – Project Management. Leiedal have previously been involved in a wide range of related projects, including Evoice and BIRD (Broadband Access for Innovation and Regional Development) and were the lead partner for Log-in.

Leiedal are responsible for the overall direction and implementation of the Smart Cities project. In practical terms, they manage the delivery of project outputs by monitoring progress towards the project's indicators and objectives, providing a range of tools to measure and monitor project finances and outputs, and ensuring regular activity reporting within the project. Leiedal provides the project's infrastructure, including the project website, project wiki, and the project's reporting and financial management systems.

To ensure that the project meets its policy goals, Leiedal works to articulate the horizontal and vertical links between partners, pilots, and work-packages – these links will ensure that the work done in the individual project pilots is translated into trans-national pilots and shared learning. This work is supported by cooperation between governments, municipal partners and the Smart Cities Regional Academic Network. Leiedal manages the networks of municipal partners and mainstreamers, while Edinburgh Napier University is responsible for the management of the academic network.

Leiedal has overall responsibility for project management and delivery, which includes:

- keeping track of EU policy developments and ensuring these are integrated into the Smart Cities project;
- facilitating meeting planning and organisation (with local partners);
- leading communication and reporting activities within the project;
- managing communications with the project's stakeholders and with the public;
- providing formal and informal reporting on progress to both the North Sea Region (NSR) and the European Union; and
- financial and administrative management and reporting.



Work package 2

Methodology

(leader Edinburgh Napier University)

The Smart Cities Regional Academic Network is led by Edinburgh Napier University. This network includes a number of academic partners (Edinburgh Napier University, MEMORI, and UAS Oldenburg), one commercial partner (Porism Ltd.) and several associate partners (Agder University, Groningen University, and Karlstad University) from across the North Sea Region.

The academic network's principal role is to offer hands-on support to the government partners, to qualify good practices and to accurately translate pilots into transferable good practice, white papers and methodologies. The network is working to identify good practice inside the project by developing project wide monitoring and evaluation tools, by collaborative joint working with municipal partners to supporting the development of local pilots, and by identifying relevant good practice outside the project – e.g. by reviewing cases on epractice.eu and identifying lessons from other relevant projects. Our findings are being disseminated via the epractice.eu network (DG Info), academic publications and briefings to central governments.

Academic partners are working closely with local municipal partners to help develop better e-services. **Karlstad University** is providing skills and support to Karlstad Municipality and the other municipal partners in the project who are interested in business process change. **Edinburgh Napier University** is linking the City of Edinburgh Council with a range of academics and University teams with skills to help deliver local pilots. **UAS Oldenburg** is providing technical/academic support to Osterholz-Scharmbeck to identify and measure the e-gov/e-service needs of local citizens and businesses and supporting the development of local IT systems. **MEMORI** continues to work closely with Kortrijk and Leiedal, developing survey and analytical tools for their local partners. **Porism** is working closely with the project's municipal partners to develop a prototype North Sea Region/EU-wide service list, while also working closely with Norfolk County Council to support the delivery of Work Package 5 - User Involvement, Profiling and Take Up.



Work package 3

Customer Services and Service Platform

(leaders City of Kristiansand and the City of Kortrijk)

The municipalities and regions that are taking part in the Smart Cities project are rethinking how they deliver services to the public and which delivery channels they should use: face to face, internet, mobile, telephone, e-mail etc.. At the same time, they are working to reorganise their internal service delivery processes and back office functions.

Work Package 3 partners are working together to develop an **EU service list**. This service list will provide a uniform, structured way of identifying (and providing information on) the public services that are delivered by municipalities across the EU. This will be the first trans-European service list of its kind, and is a development of the UK's esd-toolkit.

Smart Cities partners are also working on delivering better **customer contact centres**. Their aim is to develop a 'single point of contact' for citizens, that delivers services and information to citizens by answering questions, transferring calls to relevant departments and by handling some types of service cases. The Dutch **Answer** methodology and framework will be transferred to at least three transnational partners in the project – local pilots in **Karlstad**, **Kortrijk** and the **Kortrijk** region (**Leiedal**) are already being developed. The EU service list will contribute to this work, with the development of an additional taxonomy/list of services which shows which products are suitable for delivery via a single contact point and which are not.

Leiedal, **Osterholz-Scharmbeck**, and **Norfolk County Council** have already begun to include efforts to **co-design** services with citizens as part of their pilot development. This is already providing the project with good information on how to involve citizens in e-services development. These examples will be key examples for the other project partners as they investigate the creation of new e-services.

The Smart Cities partners have also been working on local pilots to develop new standards and services, where either the methodology or the underlying process is potentially transferable to other partners, with a particular emphasis on developing or re-engineering **e-services**.

Work package 4

Wireless City

(leader City of Groningen)

Mobile services are the future. Smart Cities' partners are developing a range of new and innovative services for mobile platforms, while testing and evaluating new forms of urban wireless networks.

The wide use of mobile phones and the emergence of municipal wifi-networks allows local governments to deliver new services, or to adapt existing e-services to bring them closer to citizens or workers on the move. Research shows that e-services enabled for mobile phone manage to reach social groups who currently make limited use of public e-services.

Groningen is currently rolling out a municipal wireless network. Although the network is only in the initial phases of deployment, it is already the largest WiFi deployment in the Netherlands. When completed in 2011, this will be the largest single sign-on WiFi deployment in Europe and will cover the whole of the city of Groningen. Groningen is working with the local police service and with local universities to develop new e-services that will use this network.

Bremerhaven has been working on the development of a tourist and local information system to provide based on WiFi and with fixed and mobile (bus based) access points to provide timely information to users. Hardware and software techniques have been analysed and tested, while a delivery partnership has been developed and links developed between local stakeholders.

Norfolk County Council is also working to develop their wireless infrastructure, with the aim of tackling the "final third" of households who cannot afford broadband access and residents of rural areas where the private sector would not normally provide a service because of high unit costs.

Kortrijk is continuing to roll out a wireless network that now covers many public buildings and part of Kortrijk's city centre.

The lessons that have been learned and the services and technologies that have been developed will be mainstreamed across the North Sea Region.

Work package 5

User Involvement, Profiling and Take-up

(leader Norfolk County Council)

Public services need to adapt to the needs of citizens. Often new e-services are technology-initiated, but Smart Cities starts with the user. Sociology, marketing and economic science have a lot to offer to the developers of e-services. This means **bringing a range of data sources together to develop accurate profiles of target customer groups**. The Smart Cities project partners are using a wide range of geographical, transactional, demographic and survey data to better understand citizen's needs and to reengineer services. This will allow partners to **identify and use the most appropriate service channels for different target groups**, and to proactively provide services that will meet their needs. This will ensure that services are designed and implemented in ways that recognise the specific needs of different groups of citizens. When combined with the methods of co-design, the Smart Cities partners will be able to use a strong mix of knowledge and established best practices to do a better customer profiling and to identify the most appropriate channel choices for service delivery.

Norfolk County Council has developed a detailed methodology/business process to deliver a transnational **customer profiling** tool/method for the Smart Cities partners. The method describes how a profiling question should be answered: which steps to follow, and which tools to use in each stage of the customer profiling process. The methodology is based upon the use of a comprehensive template/business process model, which will help users to develop a clear understanding of their aims in attempting to use this approach. This process has already been locally tested by four pilot projects in Norfolk, and is now being used by local pilots in **Kortrijk** and **Leiedal** in order to test the methodology's transferability

Work package 6

Mainstreaming

(leader Leiedal)

The goal of the mainstreaming work package in Smart Cities is to get central governments involved in the project in such a way that they really understand the potential of pilots and methodologies. This involvement will facilitate the transfer of the learning and practice from these bottom-up pilots to national strategies, with the potential that the solutions developed by the Smart Cities partners are rolled-out across countries. Twice a year the project will host an International Mainstreaming Group meeting, where these national decision makers will be able to review the project's progress and will provide feedback that will shape the project's development. **All seven central governments from partner countries have made a commitment be involved in the project in this way.**

National governments play a key role in transferring technology and solutions to other regions and municipalities. A number of national and central governments have already become partners of the Smart Cities project, and we are approaching more. The knowledge and commitment from these partners will lead to a sustainable transfer of the services developed in the project to other areas in the North Sea Region. Smart Cities also works closely with the European ePractice.eu community.

Smart Cities has already delivered one international conference ('Creating Smarter Cities') and three international e-gov academies to bring together practitioners, mainstreamers, academics and local municipalities, and the project continues to develop links with other relevant projects. Communities on epractice.eu and LinkedIn are key dissemination routes for the project's activities and findings.

A final conference is planned for 2011.



Project Partners

Intercommunale Leiedal, Belgium (Lead Partner)

Edinburgh Napier University, United Kingdom (Lead Academic Partner)

BIS GmbH, Germany

City of Edinburgh Council, United Kingdom

Gemeente Groningen, Netherlands

Karlstads Kommun, Sweden

Norfolk County Council, United Kingdom

Stadt Osterholz-Scharmbeck, Germany

Stad Kortrijk, Belgium

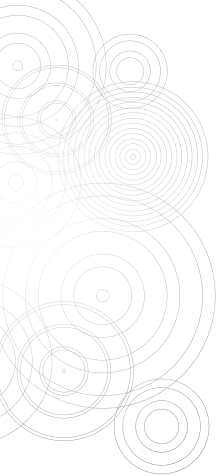
Cities of Kristiansand and Lillesand, Norway

Mechelen University College (MEMORI), Belgium

Jade University of Applied Sciences of Wilhelmshaven/Oldenburg/Elsfleth, Germany

Karlstad University, Sweden

Porism Ltd, United Kingdom



Lead Partner

Intercommunale Leiedal

Kortrijk, Belgium

www.leiedal.be

Leiedal is a regional public body representing thirteen municipalities in the Kortrijk region. This region is situated in the south of Flanders, close to the French metropolitan region of Lille. The region has 296,447 inhabitants, 8,920 companies (mainly SMEs) and over 3,200 ha of business parks.

The e-government team of Leiedal supports these municipalities by providing knowledge, platforms and technologies, including a GIS infrastructure and a web platform used for communications and transactions with citizens. Leiedal is primarily interested in developing a customer driven approach to service development during the project.

Leiedal is developing these pilots in the Smart Cities project:

- Developing a methodology for **customer profiling and channel choice** for use by local municipalities, based on the experiences of **Norfolk County Council**, **Porism** and **Groningen**. This will help municipalities to target their services by having a better understanding of the needs of local citizens. Leiedal will implement a range of customer profiling methods, including online survey tools, and marketing training.
- **Organising e-government academies and workshops** on Smart Cities themes, bringing a wide range of knowledge and best practices from the Smart Cities network to the Kortrijk region, including service architectures, customer profiling, online surveys, customer contact centres, personalised online services, web services, geographic information systems and innovation.
- The web platform used by the municipalities will be enhanced to enable municipalities to provide **authenticated and secure transactions** (Eid-card), personalised information, and geo-based services.
- A **regional contact database** – developed in cooperation with the City of Kortrijk – will lead to better contact data, as a basis for customer relationship management in the municipalities.
- Leiedal will develop pilots and methods for **involving users in e-service development** that are based on what we have learned from **Osterholz-Scharmbeck**, **Norfolk County Council** and **Karlstad University**. The “zeg ons hoe het kan” website invited the public to identify service needs and has led to the development of pilots on child care, press information and other e-services.
- Leiedal is involved in the creation of a **Flemish product catalogue**, which will provide service descriptions for the public services of Flemish municipalities and which can be integrated into municipal websites. The Flemish catalogue is based on the British model developed by **Porism**, a Smart Cities partner.

Lead Academic Partner

Edinburgh Napier University

Edinburgh, United Kingdom

www.napier.ac.uk

Edinburgh Napier University is the lead academic partner for the Smart Cities project and leads the **Smart Cities Regional Academic Network**. This network includes a number of academic partners (**Edinburgh Napier University**, **MEMORI**, and **UAS Oldenburg**), one commercial partner (**Porism Ltd**) and several associate partners (**Agder University**, **Groningen University**, and **Karlstad University**) from across the North Sea Region.

The network's principal role is to offer hands-on support to the government partners, to qualify good practices and to accurately translate the pilots into transferable good practice, white papers and methodologies.

Edinburgh Napier University is one of the top ten universities in the UK for graduate employability, and with 15,000 students from over 100 countries we are one of the largest higher education institutions in Scotland. We are focussed on undertaking research which is directly relevant to supporting sustainable economic growth in Scotland and in other countries. We are also leaders in the transfer of knowledge from our applied fields of research, to industry and commerce at both at home and abroad.

As lead academic partner, our role is:

- To bring academics and municipalities from across the North Sea Region together to support the development of local pilots by doing joint work and exchanging knowledge.
- To support the management and delivery of the project through developing the Smart Cities wiki, an online collaborative environment for project partners.
- To identify good practice inside the project by developing project wide monitoring and evaluation tools for local pilots.
- To identify relevant good practice from outside the project – e.g. by identifying relevant cases on epractice.eu and by identifying lessons from other relevant projects (EQUAL, LUDA, SURegen etc.).
- To develop and deliver an evaluation programme for the project that covers formative and summative evaluations.
- To disseminate research outputs and findings via the epractice.eu network (DG Info), academic publications and briefings.



Government Partners

BIS GmbH

Bremerhaven, Germany

www.bis-bremerhaven.de

The city of Bremerhaven (population of 115,000) was founded in 1827, and is located on the east side of the Weser estuary, at the confluence of the Geest and the Weser. Bremerhaven and the city of Bremen (560,000 inhabitants) make up the Federal State of Bremen – one of Germany's sixteen Federal States (Bundesland). Bremerhaven has the biggest harbour in the North Sea, and its economic development is lead by container handling (with one of the world's largest terminals), car trans-shipment (Europe's leading port), fish and food processing, ship building, marine and climate research, and tourism and leisure activities. Bremerhaven has a wide range of maritime related attractions, including the Old Harbour and New Harbour, the German Maritime Museum, the German Emigration Centre and the Climate House Bremerhaven 8° East.

Bremerhaven is currently using 21 information terminals in and around the city centre to provide up-to-date information to customers about tourist attractions – these are a result of the SEAPORT INTERREG IIIB-Project. Bremerhaven wants to expand the range of information about the city and region that is provided on these terminals to provide tailored information to a range of customer (target) groups – e.g. young people, the elderly, businessmen, visitors/tourists, etc.. These terminals currently provide information via display screens. As mobile phones have developed it is now possible to use phones for other purposes besides making phone calls – they offer new ways to communicate and provide information e.g. data transmission via Bluetooth, which is free to use and which is now integrated in most mobile phones. Bremerhaven will implement **Bluetooth hotspots** at several locations to test and analyse user acceptance.

Bremerhaven is also involved in a Seventh Framework Programme (FP7) funded project called the "European Bus System of the Future". The city will work with Bremerhaven Bus and the Bremerhaven Tourist Board to build a comprehensive information service for passengers, citizens, tourists, etc. through a new **information service infrastructure**. This service will be developed as an on-vehicle information system that will be linked with "service hubs" (remodelled/redesigned bus stops) and the existing information network (info-terminals, static 'visitors signage system' etc.). Information will be exchanged between bus stops and passing buses via WLAN: this system will disseminate up-to-date information across the city. Data transfer happens while buses are stopped, but as bus stops are very short only a small volume of data can be exchanged. The pilot will test improved methods of WLAN data transfer at 2 locations.

City of Edinburgh Council

Edinburgh, United Kingdom

www.edinburgh.gov.uk

The City of Edinburgh Council is responsible for providing services such as education, social services, housing and culture and leisure to the City of Edinburgh's population of 470,000, which is spread over 264 square kilometres. The council's current strategic priorities are the development of the city and regional economy, environmental sustainability, health, wellbeing and inclusion, services for children, and working to improve community safety and quality of life in our communities. In order to deliver this, the Council employs 16,646 people across 6 departments, and has a total revenue budget of £1042 million for 2009/2010. Council Tax makes up £225 million of this with £816 million coming from Government grants. The total capital budget is £294 million.

The City of Edinburgh Council's **customer services strategy** fits in with the Smart Cities vision, as the co-design of services with our customers is an important part of our strategy. A number of projects are underway in the Council – including the Smart Cities pilots listed below – to deliver our customer services strategy and improve the council's services.

- The **Business Process Change** pilot will incorporate both **lean thinking** and **customer journey mapping** approaches into a strategy to improve our internal business processes. The approach is being trialled in the Council's Revenues and Benefits Division. As well as aiming to identify measurable process improvements, the pilot is developing training and tools which will be used across the Council to support business process change which will be used across the Council. This will allow us to deliver other customer service process reviews and to share our methodologies with Smart Cities partners.
- The procurement and development of a **new Internet presence** for the City of Edinburgh Council will give us the capability to deliver a more useful, accessible and usable website with up to date, reliable and accurate information. The ability to complete **transactions** online requires a new platform that is both adaptable and scalable to incorporate future innovations and new technologies.
- The **Wireless Service** pilot has trialled the provision of free wireless internet access for citizens in some of the City's local libraries. The lessons learned from this experience will be shared with all Smart Cities partners and will provide valuable insights for any further initiatives to provide wireless services in Edinburgh - be it in libraries or elsewhere.

Gemeente Groningen

Groningen, Netherlands

www.groningen.nl

Groningen is the largest city in the Northern Netherlands, with a population of 187,000, and is the eighth largest city in the Netherlands. Groningen has a university, a university of applied sciences, a school for fine art and design, an academy of music and many more training institutes. It is a young city – half of the population is under 35 years of age. Besides being a university city, Groningen is also at the leading edge in the development of research, innovation and entrepreneurship. Groningen is also known as the “City of Talent”, reflecting the strategic partnership between the municipality of Groningen, the University of Groningen, the University Medical Centre Groningen (UMCG), the Hanze University Groningen and the Province of Groningen. This partnership is investing half a billion Euros in the innovation and knowledge infrastructure in the city.

Groningen is concentrating on three themes in the Smart Cities project: improving customer services, developing ‘wireless Groningen’, and deregulation.

Groningen is working to improving customer services through improvements in front-offices and the development/improvement of **customer contact centres** – these deliver services and information to citizens by answering questions, by transferring calls to relevant departments, and by handling some types of service cases. Groningen will improve the handling of e-mails within the municipality, train front office personnel, improve the entrepreneurial front office (which works with local businesses), and develop new e-services. Groningen is leading work within the Smart Cities project to transfer the Dutch **Answer** methodology and framework to at least three transnational partners in the project.

Groningen is currently rolling out a **municipal wireless network**. Although the network is only in the initial phases of deployment, it is already the largest WiFi deployment in the Netherlands. When completed in 2011, this will be the largest single sign-on WiFi deployment in Europe, and cover the entire city of Groningen.

Groningen is also working with local SMEs to reduce red-tape and bureaucracy through **deregulation**, reflecting a growing awareness of the need to reduce the number of laws and regulations affecting local citizens and businesses.



CITY OF KARLSTAD

Karlstads Kommun

Karlstad, Sweden

www.karlstad.se

Karlstad is located near the Klara älv River on the northern shore of Lake Vänern, halfway between Stockholm and Oslo. Karlstad is one of 16 municipalities in the Värmland region, and is one of Sweden's 20 largest municipalities with 84,000 inhabitants. Karlstad has one of Sweden's most modern universities with 10,000 students.

Karlstad municipality will use information technology to give citizens and businesses access to flexible, fast and accessible services. IT will also be used to ensure citizens are aware of municipal activities and have opportunities to participate in the democratic decision-making process. Karlstad municipality is delivering a vision of "Digital life quality" by focusing on three strategic IT concepts – service orientation, process orientation and interoperability.

Karlstad municipality's project pilots in Smart Cities include:

- **The e-Office** – For Karlstad municipality to appear as a single entity to the public, companies or visitors, we will need systems that seamlessly work across the various parts of the municipality. It is not enough to create a variety of projects: a framework is required with a common strategy, methodology, technology and knowledge to succeed. Karlstad municipality has created an organization called the e-Office, which brings together different models, guidelines, templates, approaches and common solutions. Much of this knowledge has been developed with Karlstad University and with input from other project partners. The e-Office's main task is to coordinate, to help departments to understand the benefits of e-service and e-governance, and to provide a toolbox to support the development of e-services.
- **Process Project, the process for process mapping** – When other municipalities carried out work to create complex e-services that cross department or other authorities' boundaries, it became clear that Karlstad must document work processes in the same way. Karlstad municipality has no existing common process model, and the various departments have different ways of document work processes. The e-Office will establish a common standard for how we work and think and document processes, the present situation and e-service models.
- **My Page** – One of Karlstads municipalities' goals in the Smart Cities project is to introduce the my Page approach, where municipal web pages are personalised for citizens. Karlstad has put together a roadmap for the sustainable development of e-services, which will be used to get a broader overview of what is required and set out our approach to the development of personalised web pages. An action plan based on the roadmap will be developed in early 2010.

Stad Kortrijk

Kortrijk, Belgium

www.kortrijk.be

The city of Kortrijk has a population of 75,000, and is in the south of the Belgian province of West-Flanders on the Leie river. It is 25 kilometres north-east of the French city of Lille and 42 km southwest of Ghent. Kortrijk, Lille and the Belgian city of Tournai make up the transnational Eurodistrict of Rijsel-Kortrijk-Doornik, which has a population of approximately 1,900,000.

In the 19th and 20th century Kortrijk was an important centre of the flax industry, and the textile industry is still important today. The last 30 years has seen a diversification of economic activity, with the growth of electronics industries and automotive suppliers. Over the last ten years the city has focused on developing the design industry.

Kortrijk has a wide range of local pilots as part of the Smart Cities project:

- **Project 1777** – The free phone number 1777 is a **single phone number** citizens can use to contact a variety of municipal services. Specially trained staff guide callers to the right service and the right person. This is the first step towards the development of a customer contact centre.
- **Process Description (Mavim)** – Kortrijk is using process descriptions as part of efforts to digitalise business processes.
- **Narrowcasting screens – interior and exterior** – Cultural and sports events that use the city's facilities will be promoted not just on screens inside city buildings but also on external digital signs/LED walls. While each channel will have specific/targeted content, they will both be steered by the same software and the same team in the municipality.
- **I-Points: digital tourist kiosks** – In the summer of 2010 this pilot will install eye-catching touch-screens that provide tourist information in different places in the city.
- **Frame portal for WiFi networks and I-points** – The portal that provides content for the I-point digital tourism kiosks will be accessible via the city's WiFi-networks and on the university campuses. It will collect information from a range of existing databases and deliver this to touchscreens, mobile devices and normal computers.
- **Mypage and authentication** – A first test for the authentication possibilities of the Belgian E-ID card will be the online authentication of city council members when accessing the city's intranet and e-decision system.



Cities of Kristiansand and Lillesand

Kristiansand/Lillesand, Norway

www.kristiansand.kommune.no

www.lillesand.kommune.no

The cities of Kristiansand and Lillesand are neighbouring municipalities in the south of Norway who are working together in the Smart Cities project. Kristiansand has 80,000 inhabitants, while Lillesand has 9,000. Both face the North Sea and support a mixture of electro-metallurgical processing, oil-related industries, and trade and tourism. The municipalities consider themselves to be modern and have an advanced use of ICT. The widespread ownership of computers and high levels of ICT use in Norway helps the development and uptake of e-services. The municipalities have focused on expanding the use of ICT in administrative processes, and on introducing digital forms and workflow programming as tools. Their long term target is to have most administrative processes pre-programmed in workflows to increase quality, to speed up delivery, and to empower people in the organisations.

The first step in improvement of municipal processes has been introduction of **process descriptions**. This is a well known technique for documenting what is done and how authority is spread in the organisation. It takes time and in many cases legal issues limit how changes can be made to different processes. The municipalities are working to deliver **digital forms**, which are tools that enable information gathering through a structured process and where additional information can be put in as guidance or reminders. The municipalities' preferred tool is **workflow programming**, where the collection of data and structures is based on the same principles as process descriptions, but where the workflow program-script acts as the process-description. This approach models and defines the interactions between different systems, including the digital archive and ERP. **Integrated solutions** link municipal invoicing data with accounts receivables, and produce digital invoices that are sent directly to the relevant banks. The municipalities are also developing **automated processes**, where services are automatically provided if the user submits the correct data (e.g. booking an appointment).

The various elements of the pilot form an integrated set of elements that will be an efficient and effective reorganisation of municipal work. This gives customers an opportunity to understand how processes work, while giving the organisation/municipality a better understanding of how their internal processes work and providing opportunities to develop process-related indicators that can support better management and decision making.

Norfolk County Council

Norwich, United Kingdom

www.norfolk.gov.uk

Norfolk County Council is the top tier local authority for the largely rural county of Norfolk in the East of England. The county has a population of more than 800,000 based in the three main urban centres of Norwich, Great Yarmouth, and Kings Lynn, with a spread of market towns, villages and very small communities which are a challenge to deliver services to. The area has generally good health, low levels of crime and a good diverse economy, but it also has pockets of very high deprivation in urban and rural areas, the population of older people is growing faster than the national average, and low levels of aspiration and attainment by young people. The county council and its public, private, academic and community sector partners are working together to improve the way they deliver joined up services to tackle the issues facing Norfolk's people and businesses.

Norfolk is concentrating on two areas within the Smart Cities project – **understanding more about our customers through customer profiling**, so we know what services they need and how to tell them about them, and **joining up information about services and customers**, so we can analyse this information either by local area or by customer group to make it more relevant to people. We then work with customers to make sure services meet their needs.

The key groups we are targeting for customer profiling are:

- families who have high levels of contact with different arms of public bodies because they have problems of health, social care, housing, education, money, crime and employment, and
- people who have low skills.

We are looking especially at teenage parents, migrant workers, people with unhealthy lifestyles, and families with young children to try and give joined up solutions before they go into crisis.

The new channels we are developing to do this include **new directories of services** which group information for specific groups; local **web “mash up” sites** bringing together online information from lots of different groups; and **face to face services in mobile service centres and local community venues**.



Stadt Osterholz-Scharmbeck

Osterholz-Scharmbeck, Germany

www.osterholz-scharmbeck.de

The city of Osterholz-Scharmbeck has more than 30,000 inhabitants and is the county seat of the county of Osterholz. It is one of the smallest counties in Lower Saxony, and is located to the north of the German state of Bremen. The local environment and unspoiled landscapes provides a high potential for recreation and tourism, e.g. with the "Teufelsmoor" ("Devil's fen"), one of the largest fens in Germany. The city of Osterholz-Scharmbeck offers its citizens and visitors a range of interesting regional events, ancient buildings and a picturesque market square. The city of Osterholz-Scharmbeck is a friendly and modern municipality.

The pilot project of the city of Osterholz-Scharmbeck is the development of a **citizen oriented internet presence** (OS EGov), which will re-shape the city's current, very static internet-presence. In the future the city's internet portal will contain basic information on relevant e-services for all citizens and visitors, and will provide an interactive tool for the citizens, local enterprises and all important interest and user groups in the city. Osterholz-Scharmbeck has already conducted a survey of citizens and businesses to identify which services are needed and wanted by different target groups. The demand for a wide range of e-services was identified, including applications for passports, federal ID-cards, building permits, marriage applications, and citizen registrations. These will be made available online in a user-friendly way. Where possible, services that usually require a personal visit to the city administration will be automated and e-services will be made available. The city will implement a geocoded system tool to facilitate the provision of **geo-located services**, and improve its own processes as the new e-services are developed. These will be the first steps for the city of Osterholz-Scharmbeck to develop a basic and serviceable eGovernment environment, and act as the focal point for the city's efforts to become a more user-friendly, efficient and modern city for citizens and visitors.

Academic Partners

Mechelen University College (MEMORI)

Mechelen, Belgium

www.memori.be

MEMORI is the research institute of the University College of Mechelen. Professional education is the core activity of the College of Mechelen, which is an associated partner of the University of Louvain. Mechelen is situated in the centre of Belgium and hence of Europe. MEMORI has particular expertise in a number of relevant research fields, including public communications, communication of non-governmental organizations, local participatory democracy and local e-government.

MEMORI engages in applied scientific research for municipalities, local authorities and social profit organizations. We position ourselves as “the missing link” between theory and practice, and we value the integration of research findings into the actual work of governments and non-governmental organizations as highly as we value scientific research.

As part of the academic network, MEMORI aims to offer support to the government partners, to qualify good practices, and to translate the findings from the project pilots into good practice, research papers and transferrable methodologies. MEMORI has produced a toolkit for cities to use to measure levels of supply and demand for e-services and e-government, compared statistics on ICT use in the Smart Cities countries, and produced an analysis of security risk identification methods for city councils.

MEMORI is also developing a **Smart Cities Framework**, which provides a broad perspective on the ‘Smart City’. A Smart City is a city which develops their digital facilities, starting from ten approaches which each focus on a particular type of user. MEMORI will develop a self evaluation tool for local governments that is based on this framework paper.

MEMORI is also working closely with local project partners Kortrijk and Leiedal on several projects, including:

- A series of local e-government academies
- The website www.zegonshoehetkan.be. This website invites customers to co-design municipal and regional electronic services by collecting user stories. The City of Kortrijk, MEMORI and Leiedal have worked together in creating customer-focused electronic service solutions. The website invites people to give their ideas, not by asking them for specific solutions, but by asking them to tell their stories of what services they need and how they want to use them.
- A survey for the municipalities in the Kortrijk region that measures citizen’s e-government needs. The results of the study will be used to influence local and regional e-government policies. The first results of this research project are expected in the spring of 2010: Leiedal is responsible for data input and project management, while MEMORI will design and deliver the survey, and analyse and report the results.

Jade University of Applied Sciences of Wilhelmshaven/Oldenburg/Elsfleth

Oldenburg, Germany

www.fh-oow.de

Jade University of Applied Sciences Wilhelmshaven/Oldenburg/Elsfleth was founded in 2009, when the University of Applied Sciences Oldenburg/Ostfriesland/Wilhelmshaven, which was founded in January 2000 (when the three formerly independent Universities of Applied Sciences in the north-west of Germany merged) was split into two universities. With close to 10,000 students, it is the largest university of applied sciences in Lower Saxony.

As is typical for universities of this type, the Jade UAS focuses on hands-on studies, and students work on concrete, practical tasks within a scientific context. A special feature of the Jade UAS is an unusually broad range of courses on offer, with more than 60 future-oriented courses in engineering and natural sciences, economics, architecture, construction, geo-information and shipping. The Jade UAS is part of a large international network of universities that offers good opportunities for students to carry out part of their studies abroad.

UAS Oldenburg is supporting the city of Osterholz-Scharmbeck to set-up a pilot eGovernment project as part of the Smart Cities Project. It is intended to create **online processes and services** that citizens can access via the city's internet portal. The first processes to be implemented will provide the foundations to enable the city to provide a working and secure system to at least partially execute administrative processes online. The technical research needed to deliver this is ongoing and the list of processes to be implemented is continually being revised.

By the end of the project the city of Osterholz-Scharmbeck is aiming to allow citizens to apply for passports and ID-cards, request affidavits, pay parking/speeding tickets, apply for marriage licenses, register house moves and access job-market information online. The city is aiming to develop an active and useable prototype of the first eGovernment processes by the middle of 2010.



Associate Partner

Karlstad University

Karlstad, Sweden

www.kau.se

Karlstad University – the modern university – is one of the youngest universities in Sweden. With 12,000 students in 50 disciplines offering 900 courses we have already attained a significant level of academic achievement with openness, creativity and multi-disciplinarity. We see it as our role to challenge the established and investigate the unknown. It is our ambition to contribute to the development of knowledge both at the international, regional and individual level, and to be an active and important link in the Swedish system of higher education while maintaining our strong regional focus and international outlook. Underpinning all our teaching and research is a close dialogue with private companies and public organizations. We can thus offer one of the most inspirational university environments in the country.

Karlstad University brings a range of expertise to the Smart Cities project, including business and service development, process improvement and employee and customer involvement. Karlstad University is working with Karlstad municipality to produce a goal analysis that **reviews e-service development** on national, municipality and Smart Cities project levels. This analysis can be used as a tool for structured and result-oriented work for management and employees to use when presenting arguments for use of e-services, to identify relevant actions to perform in e-service development, to communicate the same information about e-services in different channels, and to prioritize and evaluate e-service developments.

Karlstad University is also supporting transnational work to develop a **common process model for e-services**, which will be used as a knowledge base for business development projects. A common process model is a first step in creating a platform that sets out how to think, describe and work towards process and quality improvements in e-services. This model will help employees to be more effective by working uniformly in and between administrations/organisations by using a common language, concepts and values. The process model is a “living model” that is maintained and continually updated by the e-office in Karlstad municipality, and which is based on research, standard praxis and experiences from the use of the model.

Karlstad University is also reviewing **accessibility standards** for municipal websites, developing **indicators and measurement** tools for services and processes, and sharing expertise in the use of **personas** as a means of helping to target the delivery of services to different customer groups.



Porism Ltd

London, United Kingdom

www.porism.com

Porism Limited is a private sector company that supports business improvement - particularly in the public sector - by using web-based tools. Porism is the technical partner in the UK **electronic service delivery toolkit** (esd-toolkit – see www.esd.org.uk), having founded the toolkit on the Web in co-operation with three UK municipalities in 2002. esd-toolkit is now used by several hundred UK municipalities and is managed by a board of their representatives. esd-toolkit supports evidence-based service improvement within local government, providing a set of tools which local government officers can use to share and compare information on services, including metrics that are collated according to a set of standards.

Porism is involved in two pilots in the Smart Cities Project. Porism is developing a **Local Government Business Model** (LGBM), which is an ontology (i.e. a classification framework) that describes the components of local service delivery in the public sector and sets out the relationships between them. It models:

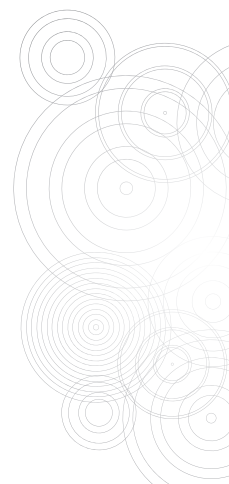
- life events, need and circumstance to provide a structured way of understanding customers and where services should be targeted
- the elements of service delivery, including delivery channels and the generic processes that are involved in transacting a service.

This work builds upon existing work with UK municipalities that defined the services they offer and how they are delivered. A **transnational EU service list** is being developed that will cross-reference the services that are delivered in each partner country to one another and to the LGBM model.

Porism will be using the Local Government Business Model to developing tools and guidance for developing **Customer Insight**. These tools will:

- show how different customer characteristics apply to different geographical areas,
- relate outcomes to demographic factors,
- profile surveys,
- help understand the costs that are involved in service delivery, and
- help identify customer channel preferences and identify ways to migrate customers to more appropriate or more efficient channels.

These tools will inform efforts to redesign business processes to deliver more efficient and better targeted services and improve customer journeys.





Contact details

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www.smartcities.info

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Academic network

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Government partners

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City of Edinburgh Council

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www.edinburgh.gov.uk

Karlstads Kommun Municipality

Karlstad, Sweden

www.karlstad.se

Stadt Osterholz-Scharmbeck

Osterholz-Scharmbeck, Germany

www.osterholz-scharmbeck.de

City of Kristiansand

Kristiansand, Norway

www.kristiansand.kommune.no

BIS GmbH

Bremerhaven, Germany

www.bis-bremerhaven.de

Gemeente Groningen

Groningen, Netherlands

www.groningen.nl

Norfolk County Council

Norwich, United Kingdom

www.norfolk.gov.uk

Stad Kortrijk

Kortrijk, Belgium

www.kortrijk.be

City of Lillesand

Lillesand, Norway

www.lillesand.kommune.no

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Karlstad University

Karlstad, Sweden

www.kau.se

Porism Ltd

London, United Kingdom

www.porism.com

Mainstreaming partners

Associated partners

Flemish Ministry of e-Government, Belgium,
www.vlaanderen.be

CORVE – Coordination Unit Flemish E-Government, Belgium
www.corve.be

IBBT, Belgium
www.ibbt.be

Deutscher Städte- Und Gemeindebund DStGB, Germany
www.dstgb.de

University Medical Center Groningen, Netherlands
www.umcg.nl

Province of Groningen, Netherlands
www.provinciegroningen.nl

Rijksuniversiteit Groningen, Netherlands
www.rug.nl

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, Netherlands
www.minbzk.nl

Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek – Netherlands Organization for Applied Scientific Research, Netherlands
www.tno.nl

Hanzehogeschool Groningen, Netherlands
www.hanze.nl

Kommunesektorens interesse- og arbeidsgiverorganisasjon – Norwegian Association of Local and Regional Authorities, Norway
www.ks.no

Improvement and Development Agency for local Government (IDeA), United Kingdom
www.idea.gov.uk

DC10plus, United Kingdom
www.dc10plus.net

The Scottish Government, United Kingdom
www.scotland.gov.uk

Stakeholders

Vlaamse Vereniging voor Steden en Gemeenten, Belgium
www.vvsg.be

V-ICT-OR, Belgium
www.v-ict-or.be

West-Vlaanderen Chamber of Commerce CCI, Belgium
www.voka.be/west-vlaanderen/

State of Bremen, Germany
www.bremen.de

Europäische Metropolregion Bremen/Oldenburg, Germany
www.metropolregion-bremen-oldenburg.de

EGEM i-Teams, Netherlands
www.egem-iteams.nl

Commissie Regeldruk – National Taskforce on Deregulation, Netherlands
www.ez.nl

Association of Netherlands Municipalities – Vereniging van Nederlandse Gemeenten, Netherlands
www.vng.nl

The Groningen Accord, Netherlands
www.akkoordvangroningen.nl

Ministry of Government Administration, Reform and Church Affairs - FAD, Norway
www.regjeringen.no

Knutepunkt Sørlandet, Norway
www.knutepunktsorlandet.no

Sveriges Kommuner och Landsting – Swedish Association of Local Authorities and Regions (SALAR), Sweden
www.skl.se

Wermland Chamber of Commerce, Sweden
www.handelskammarenvarmland.se

Region Värmland, Sweden
www.regionvarmland.se

Norfolk Ambition, UK
www.norfolkambition.gov.uk

Scottish Improvement Service, UK
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