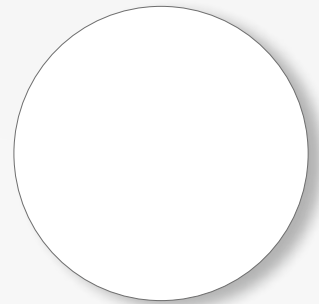


CAEN NORMANDY

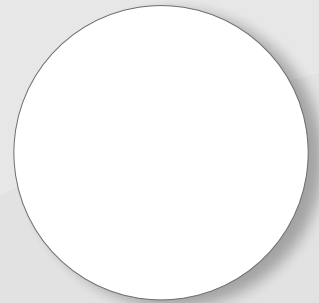
THE LEADER IN MOBILE CONTACTLESS TECHNOLOGY

LEADER DU MOBILE SANS CONTACT

You can directly access the services available in Caen by placing your NFC mobile phone in front of the thumbnail image of your choice.



Gare de Caen



Calvados Tourisme

CAEN, THE LEADER IN MOBILE

Caen la Mer is among nine French territories chosen by the Ministry of Industry, Energy and Digital Economy for the deployment of new mobile contactless services.

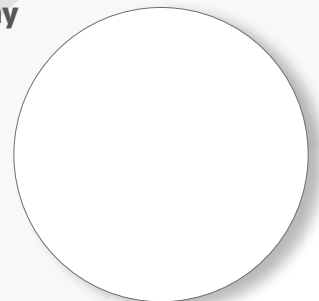
REGIONAL MOBILISATION

Caen is not only the cradle of NFC (Near Field Communication), but also a host town for many collaborative projects in the field of e-secure transactions:

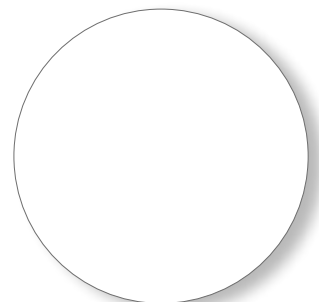
the European Smart Urban Spaces project, the Caen Ville NFC operation, a multiservice card for the 60,000 students in Upper and Lower Normandy's university campuses, "Payez Mobile", etc. An impetus which perfectly illustrates the conurbation's capacity to design, test, share and deploy the new services that are generated through research, whilst associating citizens and the community...

When the Ministry of Industry launched its call for expression of interest: "Territorial leader in contactless mobile technology" in July 2010, aimed at developing new contactless services for the benefit of individuals and enterprise, the entire urban area joined forces to take action. A committee in support of Caen la Mer's bid was rapidly formed, reuniting public authorities and private players. Its 29 members collectively signed a letter of intent to illustrate their shared desire to see Caen among the leading territories in contactless mobile technology.

Caen la Mer's bid was officially filed in September 2010 and highlights the urban area's many assets: its advance and extensive experience in new usage for contactless technologies; its public and private players' capacity to join forces and mobilise their collective ambition for economic development; its propitious ecosystem, reuniting major players in the field of NFC and the resources required for innovation.



Taxi



Allo Ciné

CAEN, LEADER DU MOBILE SANS CONTACT

L'agglomération figure parmi les neuf territoires français choisis par le Ministère de l'Industrie, de l'Énergie et de l'Économie numérique pour le déploiement des services mobiles sans contact. Les acteurs publics et privés se sont mobilisés autour de la candidature de l'agglomération. Celle-ci s'est appuyée sur l'expérience du territoire dans le domaine des NFC, la capacité de ses acteurs à se mobiliser, ses ambitions, son écosystème. Caen figure désormais dans le peloton de tête des territoires numériques qui comptent au plan national et international.



A PROMISING URBAN AREA

Caen la Mer's bid in response to the Ministry of Industry, Energy and the Digital Economy proved to be convincing. In January 2011, the urban area, in association with the Manche département, was selected among a total of 9 French pilot projects for the deployment of mobile contactless services. It is now one of the front runners among France's digital territories of national and international influence. Caen la Mer's project lies at the crossroads between three major priorities: the development of contactless technologies, transport and mobility-related services, consumer use of NFC in a vast range of settings. The French state will be accompanying and supporting initiatives in Caen aimed at

MOBILE CONTACTLESS TECHNOLOGY



developing the town's new mobile contactless services offer. Such support, together with the networking of NFC deployment strategies within the nine urban areas selected by the Ministry, is sure to accelerate the development and industrialisation of these new processes. Along with the other digital towns of Bordeaux, Lille, Marseille, Nice, Paris, Rennes, Strasbourg and Toulouse, Caen's spirit of innovation is sure to make contact with the entire territory. In October 2011, Caen la Mer also filed its bid in response to the Ministry of the Economy, Finance and Industry's request for proposals entitled "Digital towns" and "Intelligent Transport Systems". The call was made within the context of the "Investissements d'Avenir" (Investments for the Future) "new usage development" theme.



A WISE MOVE

Twisto (Caen la Mer's bus and tramway network) stops and V'eol stations have been equipped with Cityzi (NFC) tags and QR codes since the start of the 2011 academic year. Thanks to their smartphones, passengers can now keep up to date with network information, in real time, or hire a cycle via a simple SMS or an e-mail. And in an aim to take the project even further, the authorities in charge of the urban area's public transport network (Viacités, Lower Normandy Regional Council, Calvados Departmental Council) have launched a contactless ticket project. Its aim: to institute, by 2014, a unique support medium (mobile card) compatible with all transport modes ("TER" - Regional Express Train, tramway, bus).

SUPPORT COMMITTEE: 29 MEMBERS

Caen Town Council, Caen la Mer, Calvados Council, Lower Normandy Regional Council, University of Caen Basse-Normandie, Ensicaen, TES Competitiveness Cluster, NXP, La Poste, Elitt, Gemalto, Oberthur, CEV, Bouygues Telecom, SFR, GIE Cartes bancaires, Crédit Agricole, BNP Paribas, Crédit Mutuel, Caen-Normandy Chamber of Commerce and Industry, Chambers of Trade, CGPME, Medef du Calvados, KEOLIS, SNCF, VINCI, MONEXT.

THE CRADLE OF NFC AND

Home to many an experiment, Caen was also the proud venue for the very first smartcard transaction. Historically considered as the cradle of NFC (Near Field Communication), the conurbation has become an essential hub in the field of new technologies and secure transactions. A propitious environment which led to the creation of the E-Secure Transactions Competitiveness Cluster in 2005.



M-STADIUM

A brand new mobile service is being tested over the 2011-2012 football season in Caen's Stade d'Ornano. Initiated by Orange Labs, the University of Caen and Clic Mobile, and certified by the TES Cluster, the M-Stadium project will be offering subscribers the possibility to enter the stadium using their mobile phone. They will also receive information - via their mobile - before, during and after the match: traffic news, score sheet, videos, goodies... the Stade d'Ornano in Caen and the Stade de France in Paris are the only stadiums to participate in this experiment, which is controlled direct from Caen.

TES CLUSTER - A STIMULUS FOR INNOVATION

The urban area of Caen and, more largely, the region of Normandy, offer a well-balanced economic fabric comprising major industrial players, SMEs and higher education and research institutions. In 2005, these exceptional assets led to the creation of an innovation cluster: the E-Secure Transactions Competitiveness Cluster (TES), which now boasts over a hundred member companies.

In just 6 years, the TES Cluster has enabled some 103 projects to be developed and implemented, representing an R&D investment effort of over €326 million. The majority of the innovative solutions that result from these projects target the general public and concern mobility and contactless technologies. "Pegasus", "Payez Mobile" (pay mobile) - a reference in mobile phone payment solutions, or "Ulysse" - a mobile ticket sales service are but a few examples.

Highly active throughout the region, the Normandy-based cluster's doors are also wide open to outside players, for over 60% of its members are private companies. The TES Competitiveness Cluster and the "Normandy Living Lab" (usage laboratory) label, obtained in 2007, perfectly illustrate Caen la Mer's innovative spirit and its capacity to deploy new services in the field of e-secure transactions.

TES : STIMULATEUR D'INNOVATION

Terre d'innovations, la Basse-Normandie rassemble les compétences indispensables à la réalisation d'un programme ambitieux autour de la sécurisation des transactions. Des atouts qui ont conduit à la création en 2005 du pôle de compétitivité Transactions Electroniques Sécurisées. Le pôle TES accueille 119 membres. En six ans, il a permis l'émergence de 103 projets, soit un effort de plus de 326 millions d'euros d'investissement R&D.



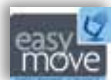
EUROPE'S FIRST CONTACTLESS MOBILE EXPERIMENT

Caen la Mer was Europe's first community to experiment mobile contactless technology. As early as 2005, its inhabitants were offered the opportunity to use this technique to pay for purchases in retail outlets, to access car parks or to obtain practical information (bus timetables, advertising...). Since, a number of companies (mobile phone operators and smartcard manufacturers), banks and public or private research laboratories have been experimenting various usage scenarios and NFC devices:

E-SECURE TRANSACTIONS



EASYMOVE - DEVELOPED BY THE TES CLUSTER - IS MAKING CITY LIFE EASIER



The TES Cluster has developed an innovative and independent platform for downloading contactless services on all mobile support mediums (telephone, tablet computers, etc.). EasyMove will be offering retail outlets, businesses and public authorities the opportunity to develop applications for their clients or users: booking a taxi within the urban area, plotting out a tour of the town's antique shops... As early as 2012, Lower Normandy's inhabitants will be able to download their own choice from a range of applications.



multiservice cards, payment and ticket sales via mobile phone or even, this year's novelty, a guided tour of the historic town of Caen via a mobile phone.

LE BERCEAU DES TECHNOLOGIES SANS CONTACT

Berceau historique du NFC (Near Field Communication), Caen la mer est aujourd'hui incontournable dans le domaine des nouvelles technologies. Co-inventeur de la technologie sans contact, NXP est un des fleurons de l'agglomération en la matière.

Le laboratoire de recherche international du groupe France Telecom Orange, Orange Labs, à Caen, dispose par ailleurs de plus de 200 chercheurs qui innovent pour l'ensemble du groupe dans les domaines des Transactions Electroniques sécurisées et des technologies Mobile Sans Contact NFC. L'implication de Caen la mer dans de nombreux projets liés aux Transactions Electroniques Sécurisées repose aussi sur l'existence du Pôle de compétitivité dédié et sur création récente de Normandy Living Lab, véritable laboratoire des usages.

COMPANIES OF RENOWN

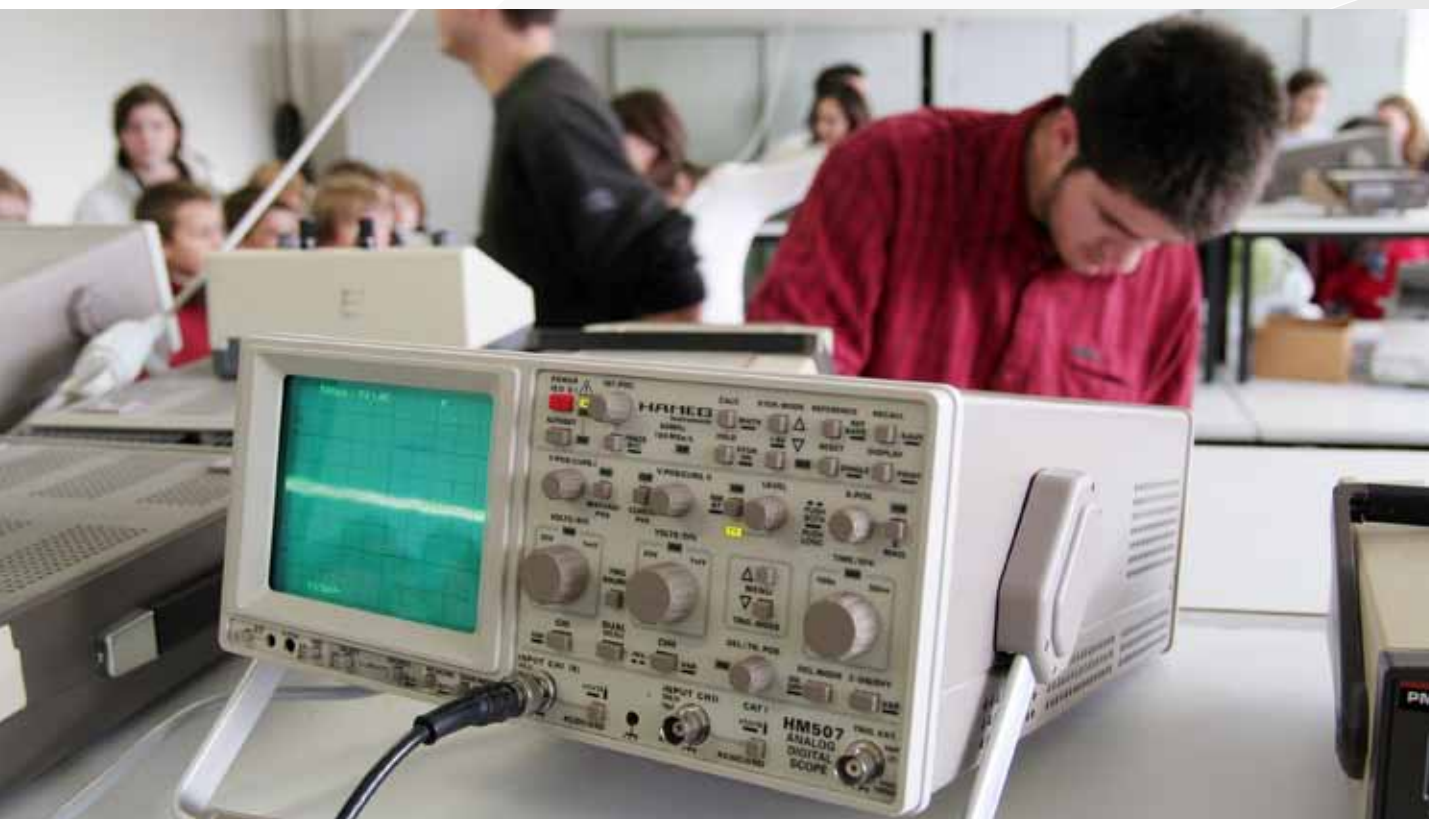
NXP is one of the Caen conurbation's unquestionable assets in the field of new technologies. Co-inventor, in partnership with Sony, of contactless technology, the firm employs a staff of 700 within the EffiScience science park. Its R&D centre alone concentrates ninety specialists and is NFC's largest team in the world.

Via its international research laboratory, Orange Labs, in Caen, France Telecom Orange has a local team of over 200 researchers who develop innovative solutions for the entire group, focusing in particular on E-Secure Transactions and, since 2005, NFC mobile contactless technologies.

Caen la Mer's involvement in a number of projects in the field of e-secure transactions stems from a range of expert skills developed within the TES Competitiveness Cluster (119 member companies, 103 projects). A strategy developed by the conurbation and endorsed through the creation of the Normandy Living Lab where businesses and laboratories can test and validate their digital innovations on the general public. This impetus is the proof, if need be, of its capacity to design, test, share and deploy new services which are the fruit of public and private research, whilst associating community organisations and local citizens and whilst encouraging the emergence of new consumer trends.

AN INNOVATIVE

The Caen conurbation is a genuine concentration of businesses, laboratories and engineering schools specialising in these new technologies. In support of innovation, the science park, business incubators and temporary business premises contribute to offering a fertile breeding ground for learning and creating.



A PROPITIOUS ECOSYSTEM

The creation of the **E-Secure Transactions Competitiveness Cluster (TES) in 2005** was by no means a fortuitous event. For in this specific field, Caen and its surrounding region are already at the forefront of world research in electronic payment. And it owes this renown to over 25 years of established and concerted efforts among:

- **businesses of world renown.** For indeed, the territory reunites players from the micro-electronics field, specialising in analog systems, integrated circuits or integration techniques for passive components on silicon. More generally, research and innovation are initiated and conducted by NXP, Ildpia, Presto, Orange Labs, Elitt...
- **specialised higher education courses** (3 years post-Baccalaureat, Professional Degree, 5 years post-Baccalaureat, engineering courses and specialised Master's Degrees) dispensed by the ENSICAEN engineering school or the University of Caen.
- **internationally renowned research teams** in the fields of monetics, biometrics and materials (NIMEC, GREYC, LAMIPS, CRISMAT, etc.).

UN ÉCOSYSTÈME FAVORABLE

L'agglomération caennaise concentre entreprises, laboratoires et écoles d'ingénieurs. Le terrain est là, à la fois pour apprendre, créer et innover. Ce n'est pas un hasard si le pôle de compétitivité Transactions Electroniques Sécurisées (TES) est né ici en 2005 ! Dans ce domaine, la région est déjà au premier rang mondial pour les paiements électroniques.

UNIQUE WORLDWIDE

The Educational Monetics Platform was born in Caen, in the ENSICAEN engineering school, and constitutes a totally unique training tool. Created in an aim to reinforce collaboration between engineering schools and enterprise, this resource and skills centre is now largely renowned for its quality engineering courses and its industrial partner club comprising over 80 member companies from the monetics field.



TERRITORY



A WILL TO INNOVATE

Indisputable! Anyone wishing to create, develop, innovate within the urban area of Caen - should head for one, and only one address: the EffiScience Science Park. Developed by Normandie Aménagement on a 27-hectare site just 5 minutes from the train station, the park not only accommodates the E-Secure Transactions Competitiveness Cluster (TES), but also a number of companies: NXP, GIE Cartes bancaires, Elitt, Thalès, Ingenico Prepaid, Asco, Cag Gemini...

Within the same park, twenty firms, with over 100 employees, work within the "Plug N'Work" business incubator, certified by AFNOR (the French Standards Organisation) in February 2011.

Finally, Caen la Mer benefits from a total of 150km of fibre optic cables which supply its business parks thanks to its very high bandwidth "1066 network". An emblematic reference here in Normandy.



LA VOLONTÉ D'INNOVER

Tout est fait pour aider les entreprises à innover : campus technologique, pépinières ou encore hôtel de projets sont à disposition. Bien sûr, le territoire de l'agglomération est irrigué par 150 km de fibre optique grâce à son réseau Très Haut Débit.



GEEMIK

In October 2011, Caen la Mer was the proud winner of the French E-Democracy Award, thanks to Geemik. The operation was initiated and set up by the urban community in an aim to increase public awareness on the use of QR codes or NFC Cityzi tags and to get inhabitants involved in the development of future services.





A CONQUERING TERRITORY

Caen, the regional capital, covers an urban area which is home to some 400,000 inhabitants and on the shores of the world's busiest waterway. Its geographical location, a genuine gateway to "Grand Paris", proffers Caen with an undeniable strategic advantage for national and international businesses.



UN TERRITOIRE CONQUÉRANT

Caen, capitale régionale, rayonne sur une aire urbaine de près de 400 000 habitants et s'ouvre sur la mer la plus fréquentée du monde. Son positionnement comme l'une des portes d'entrée du Grand Paris en fait un lieu d'implantation stratégique pour les entreprises nationales et internationales. Au centre d'un bassin de 90 millions de consommateurs à moins de 500 km, elle dispose d'infrastructures de premier plan.

An ideal location. Situated between Paris and London, the conurbation is at the very heart of a population of 90 million consumers within a 500km radius.

Economic attractiveness. Caen la Mer's advantageous position is further endorsed by a number of surveys ranking French conurbations: 1st in its category (conurbation with 200,000 to 500,000 inhabitants) in terms of economic attractiveness, for 3 years running⁽¹⁾.

Sectors: motor industry, electronics, agrifood, pharmaceutical, logistics, nautical industry, tourism...

Companies: R. Bosch Electronique, NXP, SC2N, Schering Plough, Agrial, Renault Trucks...

Sectors which have continued to forge direct and strong links with higher education and research institutions and which continue, today, to create the best development conditions for tomorrow.

Prime infrastructures. Motorways: a road network with a regional, national and international vocation - including the A13 motorway linking Paris and Caen, the A84 linking Caen and Rennes, the A88... and with the A28, A10 and A11 within easy reach.

Port facilities: the port of Caen-Ouistreham is part of the Normandy ports network, France's leading port network which deals not only with 103 tonnes of freight but also 2.2 million cross Channel ferry passengers.

Caen-Carpiquet airport: Normandy's leading airport for regular flights. Daily rotations with the airports of Paris-Orly and Lyon offer passengers over 40 European destinations.

Digital network: very high bandwidth to serve economic development. 150km of fibre optic cables offering very high bandwidth access to companies in all zones of activity throughout the urban area.

(1) According to the Entreprise magazine survey.

KEY FIGURES

28,000 students • 1,055 researchers

Caen la Mer is a land of predilection where innovation and higher education & training work hand in hand within centres of excellence to prepare for its future development.