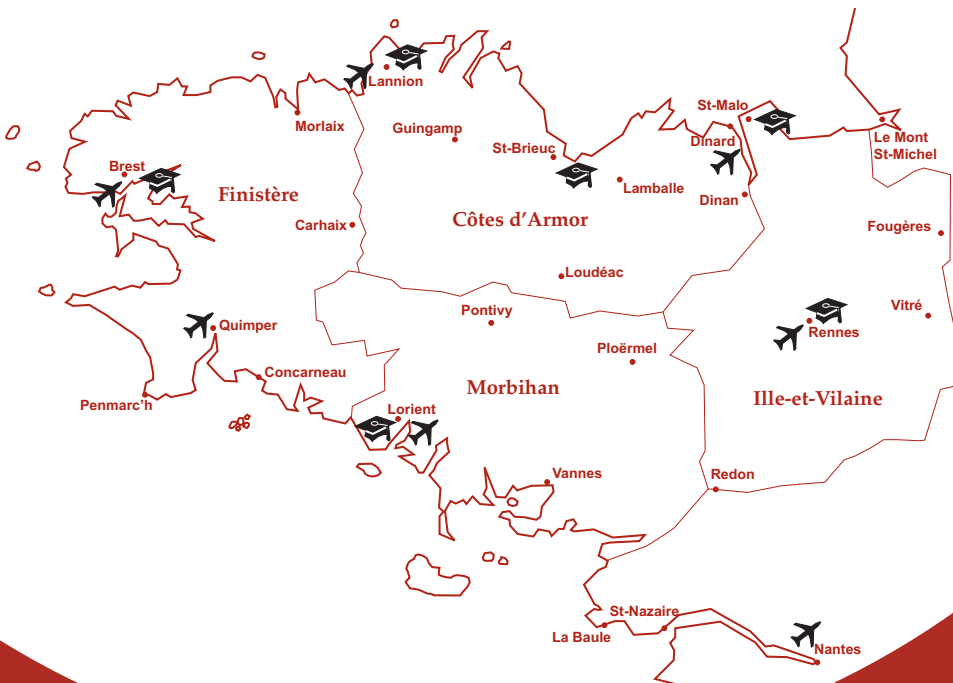


# Invest in Bretagne



**Telecom & Applications**  
**Broadcast & Multimedia**  
**Electronics**  
**Wireless Connectivity**  
**Precision, Imaging & Measurement**  
**Optics**  
**Software Services**  
**Web & Mobile Content**



## Bretagne ICT facts & figures

- **50 000** people work in the ICT sector
- Over **850** companies in the ICT sector
- **25** higher education and research centers dedicated to ICT
- **30** new companies created each year within the ICT sector

Bretagne,  
Land of excellence and innovation in ICT



## R&D Centers & prestigious higher education establishments

- Academy of Computer Science (SUPINFO Bretagne)
- Brest National Engineering School (ENIB)
- Electrical Science School (SUPELEC)
- Electronic Institute of Bretagne (ISEN Brest)
- Telecom Bretagne
- Higher Education Institutions specializing in teacher training (ENS Cachan)
- Institute of Computer Science and Random Systems Research (IRISA)
- Institute of Electronics and Telecommunications (IETR)
- National Engineering School for Weapons Design & Technology (ENSTA)
- National Institute for Applied Science & Technology (ENSSAT)
- National Institute for Research in Information Technology and Automation (INRIA)
- National Institute of Applied Sciences (INSA Rennes)
- European University of Bretagne (UEB)

## Technology Parks & Clusters

- CERV (European Center for Virtual Reality)
- Granit (ICT association)
- ITS (Intelligent Transport Systems)
- MEITO (ICT association)
- Polim@ (Content Diffusion & New Uses Cluster)
- Pôle de compétence IPV6
- ID4Car (Automotive Cluster)
- Pôle Image & Réseaux (Media & Networks Cluster)
- Pôle Mer (Sea Innovation & Business Cluster)
- Valorial (Tomorrow's Food Cluster)
- RFID Bretagne Development
- Anticipa Science park Lannion
- Brest Iroise Science park
- Lorient Innovations Science park
- Quimper Cornouaille Science park
- Rennes Atalante Science park
- VIPE / Vannes

## Events in Bretagne

- SoluTIC, networking convention about ICT, February, Brest
- Start West, VC & CEO matching, Mars, Rennes
- MicroWave Day, May, Brest
- Les Étés TIC de Bretagne, meetings dedicated to Internet uses and web evolutions, July
- WPMC, the 14th International Symposium on Wireless Personal Multimedia, Communications, September, Brest
- Nem Summit, on the future of internet media, October, St Malo

# The Bretagne ICT industry, 8 key sectors of activity

### • **TELECOM & APPLICATIONS** : *Operators, network equipment, network solutions, network surveillance, wireless technologies, microwaves*

**Technologies:** GSM, 3G+, LTE, IP, QoS, IPV6, Windows Mobile, SAAS, Cloud Computing  
**Companies:** Alcatel-Lucent, AMG Microwaves, Ariadnext, Astellia, Boozter, Cisco Systems France, Ekinops, Flexicore, Mitsubishi Electric ITE, Novasight, Orange Labs, Renesas Design France, Sagem Communication, Siradel, ST-Ericsson...

### • **BROADCAST & MULTIMEDIA**: *Video, compression, transmission, streaming, television, internet, radio*

**Technologies:** DVB (H, T, S, C), MPEG4, MHEG, HD, VoIP, OFDM, DAB, ISDN  
**Companies:** Boom Audio, Broadpeak, Cabasse, Digidia, Enensys Technologies, Envivio, Fougerolle, SmardTV, Sodielec, Streamezzo/Amdoc, TDF, Teamcast, Technicolor, Viaccess, Vity Technology...

### • **ELECTRONICS**: *Semiconductors, printed circuits, integrated circuits, microelectronic components, domotics, heating management, automated systems*

**Companies:** Alliance PCB, Asteel Flash, Cabasse, Canon Bretagne, Delta Dore, Deti, Estar System, Innovason, Intercept Tregor, Jabil, Kenwood Electronics Bretagne, Lacroix Sofrel, Lagassé Communications & Industries, Lithos, Oktes, Roux & Cie, Thales Microelectronics, Vity Technologies...

### • **WIRELESS CONNECTIVITY**: *RF design, applications and solutions, RF tags, RF readers, smartcards, smart labels, identification, M2M*

**Technologies:** Bluetooth, EPC, NFC, RFID, UHF, UWB, Zigbee  
**Companies:** Allflex Europe, Atlantic RF, Eray Innovation, Ijinus, IRIS-RFID, Kerlink, MTG, Niji, Oberthur Card Systems, Siren, Spie Ouest, Tazrag...

### • **PRECISION, IMAGING & MEASUREMENT**: *Medical imaging, defence, undersea defence, marine safety, oceanography instrumentation, monitoring, regulation, radar, reproduction, electromagnetic devices, antennas*

**Companies:** 3DMS, Advantem, DCNS, Etiam, Inpixon, Interface Concept, Martec Serpe IESM, NKE Electronics, Satimo, Siradel, STMicroelectronics, Thales Underwater System...

### • **OPTICS**: *Optic fiber, industrial vision products, lenses, lasers, military and research applications*

**Companies:** Alcatel-Lucent, Atlantys, Edixia, Ekinops, Idil, Ixfiber, Keopsys, Kerdry, Manlight, Optinvent, Oxsius, Umicore IR Glass, Yenista Optics...

### • **IT & SOFTWARE** : *Engineering, computer services, integration, application development, ITS*

**Technologies:** Turbocodes, Java, Linux, ERP, CRM  
**Companies:** Alkante, Atos Origin, Cap Entreprise, Cap Gemini, ERTF, Groupe Open, Isatech, Meti, Néo-Soft, Open Log, Retis, Sii, Sodifrance, Somaintel NCI, Turbo Concept...

### • **WEB & MOBILE CONTENT**: *Digital media producers, content aggregators, gaming, web agencies, CGI, 3D*

**Technologies:** Android, IOS, open source, XHTML, XML  
**Companies:** AMA, Archivero, Artefacto, Azimut, Bluefox, Civolution, CL Corporation, France3, Digitaleo, Groupe Ouest, Guillemot Corporation, Imagili, Haploid, Hippocampe, Les Pages Jaunes, Le Télégramme, New LC, Ouest-France, TF1, Ubicod, UbiSoft, Wokup/Wedia...



## Some success stories

“Prior to the TeamCast story, its founders moved their previous company (ITIS) from Paris to... Rennes in Bretagne! In 1993, this choice was particularly obvious for us: notwithstanding the delightfulness of the region and the facilities offered for travelling (high speed train/airlines/highways) we identified in Rennes a perfect environment for our activities and since then, we never regretted this choice! Also when we created our second startup TeamCast in 2003, we naturally located it in Rennes to benefit from its environment: higher education schools “produce” very skilled engineers which makes staffing our R&D teams easy, a huge variety of companies experienced in dense & complex electronic boards provide us ideal subcontractors for the manufacturing of our designs and the proximity of prestigious industrial companies allows us to participate in significant collaborative R&D projects; for this we must thank the “Media and Networks” Competitiveness Cluster of Bretagne!

**G rard FARIA, CTO, TEAMCAST**

## Images & R seaux Cluster

**Via collaborative projects, the Images & R seaux worldwide ICT cluster stimulates innovation in new information and communication technologies.**

Created in 2005, the Cluster brings together over 220 actors - major groups, SME and public education and research establishments - in Bretagne and the Pays de la Loire.

*For more information:*

*www.images-et-reseaux.com*

*Blog: <http://blog.images-et-reseaux.com>*



## ImaginLab

This unique technology platform is a Testbed and a Living Lab, with true real time users including NGN, FTTx and a LTE/4G network dedicated to experimentation. Connecting the 3 cities of Rennes, Lannion and Brest it provides a playground for innovation, mixing technology and usage. Allowing IT companies to reduce risks on R&D projects & optimize time-to-market in a neutral and confidential telco grade environment.

- Very High Bandwidth Internet Network
- An IMS Core Network
- 2 Access Networks: Optical fiber (FTTx) and Radio (LTE/4G)

*Blog: [www.imaginlab.fr/blog-en](http://www.imaginlab.fr/blog-en)*



## Growing Markets

- E-health
- Smart device applications & services
- LTE: ImaginLab 4th 3G/4G license attributed in France
- Content & entertainment
- ICT applied to renewable energies and intelligent energy networks

## Bretagne: the telecom valley Milestones

- 2011**  
World's first LTE/4G platform open for private experimentation: ImaginLab
- 2009**  
World's first 3D Real time international broadcast "Don Giovanni"
- 2007**  
First plugtests using optic fiber with major international companies in Lannion
- 2006**  
First live E2E diffusion using full HD technology for the "Route du Rhum" (sailing race)
- 1995**  
MP3 development by the Fraunhofer Institute and Lannion Thomson R&D
- 1993**  
Turbo code invented
- 1986**  
World's first ATM demonstration
- 1981**  
Worldwide ISDN research gets off the ground
- 1977**  
Creation of the French National School of Teleco Engineering.
- 1976**  
ANF (National Frequency Agency) set up in Western France
- 1972**  
Opening of CCETT, France's national center for multimedia research
- 1970**  
World's first digital PBX (E.10-Alcatel)
- 1962**  
World's first video broadcast by satellite (US-Europe)
- 1959**  
CNET national telecommunications research center set up in Lannion



# Tax Credit for Research and Development

The Finance Law of 2011 updates the tax credit for R&D in France

Applications can be made simply by completing a straightforward form to be submitted at the same time as the corporate tax return.

## The amount of tax credit given to the company is equal to:

- 40% of R&D expenses the 1st year
- 35% of R&D expenses the 2nd year
- 30% of R&D expenses the 3rd year and for all of the following years
- These rates apply to the first 100 M€ of R&D expenses, over and above this amount the tax credit is equal to 5%

## The R&D expenses

All R&D expenses are taken into account:

- Staff costs (gross wages and social contributions) for researchers, engineers and technicians working directly on research
- Patent filing and maintenance costs
- Amortization of patents acquired for research purposes
- 50% of standardization costs
- Spending on patent defence and technology watch done within the European Union.

# Bretagne International

Bretagne International is a non-profit association of private companies located in Western France. We have been commissioned by the Regional Government of Bretagne to assist Breton companies in their international development, to identify and support foreign companies planning to expand their business into Europe/France through presence in Bretagne.

We provide free confidential assistance through the different stages of your project to expand your business.

## Data collection

- Market validation
- Supplier, partner and customer identification
- Availability and skills of workforce
- Financial incentives
- Cost assessments (salaries, taxes...)
- Labour laws

## Business meetings

Based on your requirements and your project, we tap into our long experience with Breton companies, our excellent knowledge of the regional know-how and the region's economic environment. We will work with you to set up a series of meetings with key business leaders in the region.

## Site proposals

With the support of **Bretagne Développement Innovation**, we can submit to you a selection of sites according to your needs (greenfield, industrial buildings, offices...).

## Assistance before, during and after your installation

We help you with all your administrative formalities:

- Law firm, accounting firm, bank and insurance recommendations
- Capital raising orientation
- Creation of your local structure
- Staff recruitment
- Arrival of your expatriates and their families...

## Meet us at:

- **Mobile World Congress**, February, Barcelona, Spain
- **CTIA Wireless**, March, Las Vegas, USA
- **RFID Show**, March, Paris, France
- **Euro ID**, April, Berlin, Germany
- **Laser World**, Mai, Munich, Germany
- **IBC**, September, Amsterdam, the Netherlands
- **Broadband World Forum**, September, Paris, France
- **Streaming Media Europe**, October, London, UK
- **IP Convergence**, October, Paris, France
- **Pri-Photon**, October, Paris, France

## Bretagne International

16 C, rue Jouanet - CS 20834  
35708 RENNES cedex 7 - FRANCE

Tel.: +33 (0)2 99 25 04 04

Fax: +33 (0)2 99 25 04 00

fdi@bretagne-international.com

www.bretagne-international.com

In cooperation  
with

