

# ***MULTITEL***

# ***RESEARCH & INNOVATION CENTRE***



# Multitel, a link between the universities and the companies

- Two universities joined forces to create Multitel



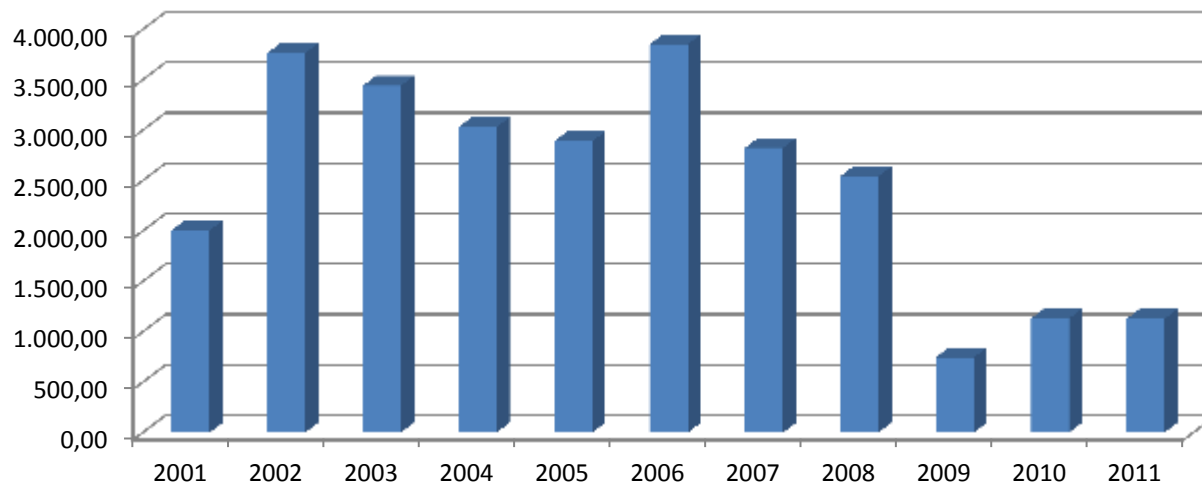
(5,000 students)








(17,000 students)

**Multitel is independent from the universities, but it develops strong partnerships with them.**

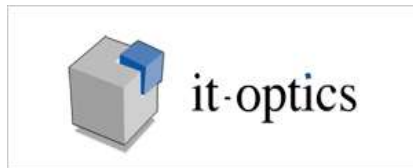
- Multitel was created thanks to ERDF funds
  - 2000-2007: 100% funding
  - 2007-2015: 75% funding



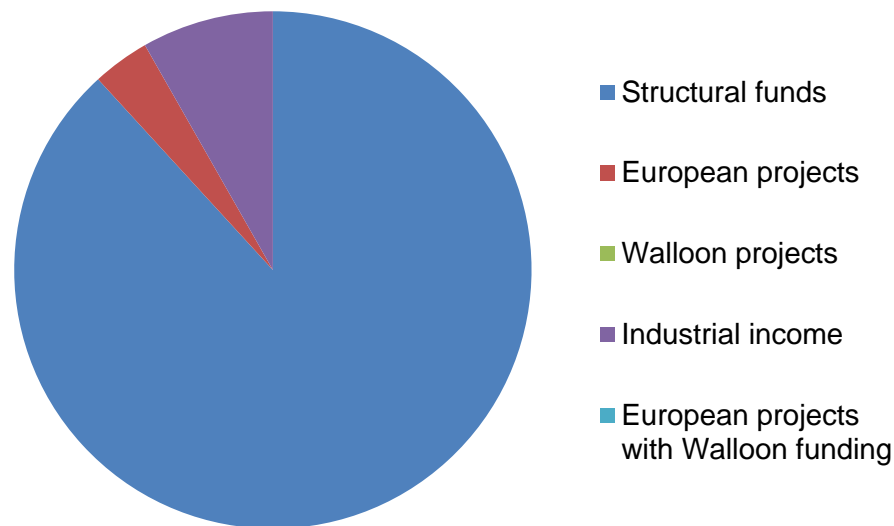
- Applied photonics: lasers and optical sensors
- Signal processing (speech oriented HMI), Embedded sys (firmware, hard), traceability (active & passive RFID).
- Image & video processing
- Telecommunications: wifi, VoIP, Red Hat, LTE, GSM-R
- Railway certification

<b>University</b> <b>Pure research</b>	<b>Multitel</b> <b>Applied research</b>	<b>Companies and spin-offs</b> <b>Results</b>
TCTS (UMons) Tele (UCL)	<b>Image processing</b> <b>Signal processing</b>	ACIC 
TCTS (UMons)	<b>Signal processing</b>	Babel Technologies → Acapela Group 
Telecom (UMons)	<b>Computer networking</b> <b>Applied photonics</b>	IT-Optics 
TCTS (UMons) Tele (UCL)	<b>Signal processing</b> <b>Image processing</b>	Smartwear 
TCTS (UMons) Tele (UCL)	<b>ERTMS certification</b> <b>Signal processing</b> <b>Image processing</b>	Tech4Rail 

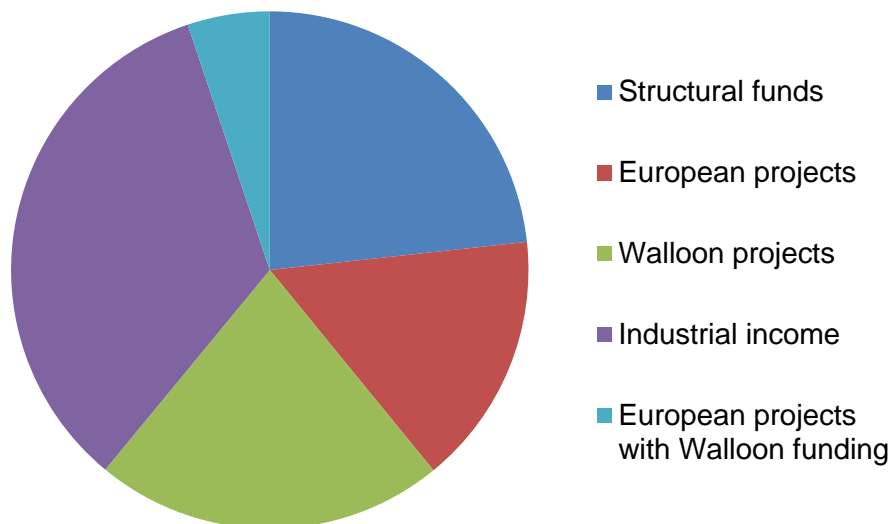
- Motivation of the staff
- Reduce the turn-over



- In 2001, we relied mainly on structural funds...



- Now, we rely mainly on industrial incomes.



- European projects (FP6, FP7 are also very important).



26 finalized projects

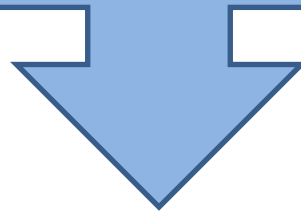
7 in progress



## CERTIFICATION



- ERTMS European Lab
- R&D and development of new tools to support ERTMS expert validation
- Consulting services for validation and verification of signalling systems



Interaction with major actors  
in the railway industry



## LABORATORY CERTIFICATIONS/ACCREDITATIONS

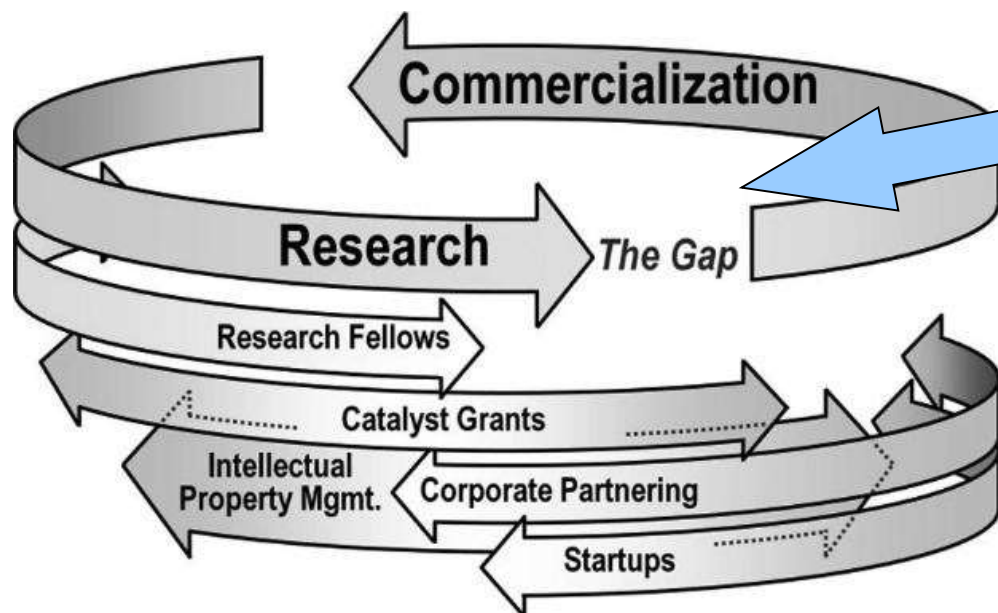
- MULTITEL is ISO9001:2008 certified for quality management ;
- EVC (Vital Computer) Test Laboratory is fully ISO 17025 accredited for EVC certification according to SUBSETS 076 and 094.
- EUROBALISE/BTM Laboratory is ISO17025 accredited for tests according to SUBSET 036 and 085.

MULTITEL test laboratory accreditations are issued by BELAC, which is by the Accreditation Body of the Federal Ministry of Economy in Belgium.





Creation of a EU alliance in “niche” technology  
Transfer for IT/Rail/Sustainable transport

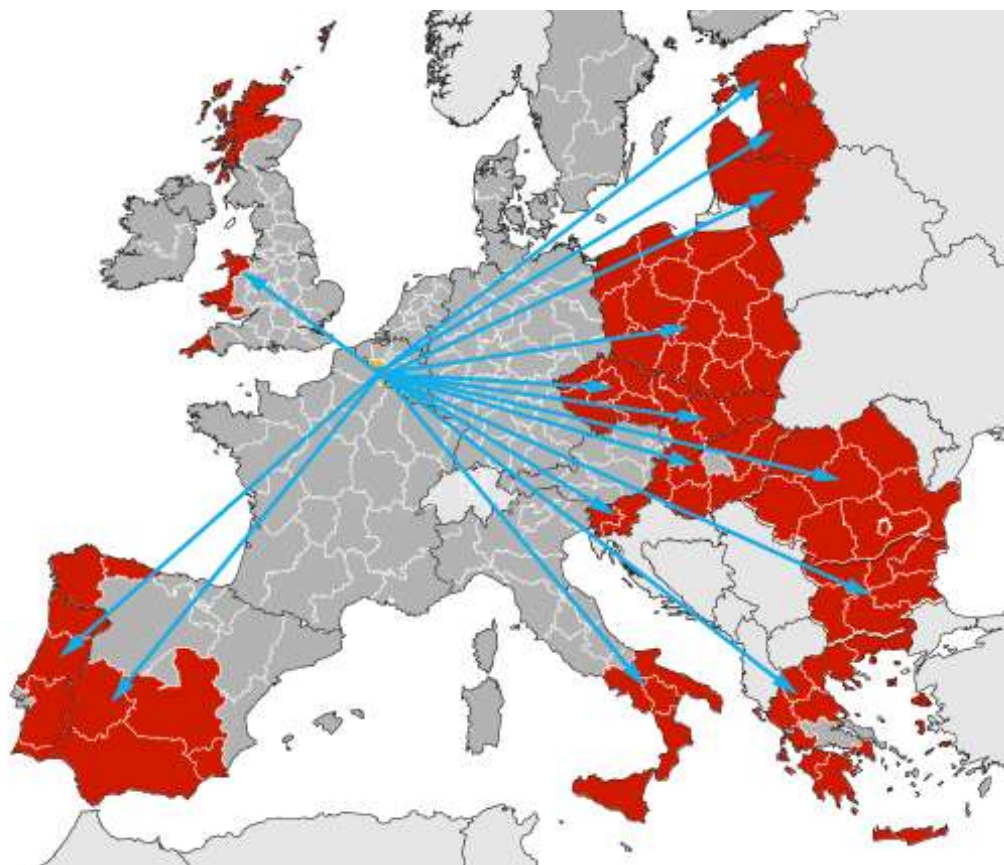


Alliance focus



- Funding : ERDF funds
  - especially well adapted to the goal;
  - 100% funding for universities (compared with 50% in Shift2Rail).

# A European alliance Aligned with ERDF 2014-2020 Priorities



- + 40 European universities have been contacted
- + 26 have confirmed their interest

- SME-oriented
  - vital for small countries without national “champions”
- With direct connection with EC agencies (ERA)
  - Preliminary information on new EC regulations
- Focus on concrete technology transfers
  - not conference publications
  - not “strategic” large orientation discussion
- Focus on “niche” profitable markets
  - e.g. Specific interoperability problems (frontiers),  
Maintenance tools, certification & control...



- Four Labs:
  - Re-Rail: Safety and Reliability analysis of ERTMS/ETCS train management system
  - BALRAIL: link with ex-USSR signalling and train control system
  - Urban Rail Lab: urban transport, noise impact analysis
  - Central Europe Lab: freight logistic planning

- Up to now, 26 Universities and research centres from:
  - Belgium, Bulgaria, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia, United Kingdom...
- Larger countries (France, Germany) will be integrated later (following Shift2Rail initiative)

- Focused on Technology Transfer (TT) on Sustainable Transport/Rail/IT : Why ?
    - Huge budget will be devoted to Transport & Rail Research in 2014-2020 ERDF funds.
    - For ERDF, research needs to boost regional development : TT will be key and specific.
    - ERDF eligible regions have not « large » actors in the transport field.
      - Strong alliance to exist and provide added values to « large » actors, to public operators
    - No duplication of infrastructures
- A strong requirement of ERDF authorities for 2014-2020 ERDF program

- Current EU rails networks:
  - EURNEX: rail research (academic)
  - EURAIL: rail training
  - ERCI: EU cluster of 8 national rail clusters
  - UNIFE : Industrial strategic orientation
  
- Nothing in the « Gap »
- Nothing oriented SME « niche » market
- > a place to be !!

- Why Starting from Belgium?
  - Initiated by Multitel (MLT) :
    - MLT has experience in ERDF since 1994
    - MLT is active in Research & TT :
      - in IT and Transport since 1994, in IT Rail since 2005
    - MLT is active on all TT aspects (Licensing, Spin-offs, Training, Certification)
    - MLT has a quasi-unique certification infrastructure thanks to TT from ERDF projects.
    - MLT is located close to EU (Brussels) & ERA (Valenciennes)
- The infrastructure funded by EDRF have triggered a real TT cycle (including spin-off company creation)

- Why Starting from Belgium?
  - Positive Inputs Support from
    - Belgian Universities: UCL, UMONS
    - M. Demotte, Minister-President of the Walloon Region,
    - M. Busquin, former EU Research Commissioner



# Interested in joining this proposal?

- Please contact us: [feder2@multitel.be](mailto:feder2@multitel.be)

# Thanks for your attention

