



Fundação para a Computação Científica Nacional
Foundation for National Scientific Computing

Are Structural Funds a good option for funding fibre infrastructure?

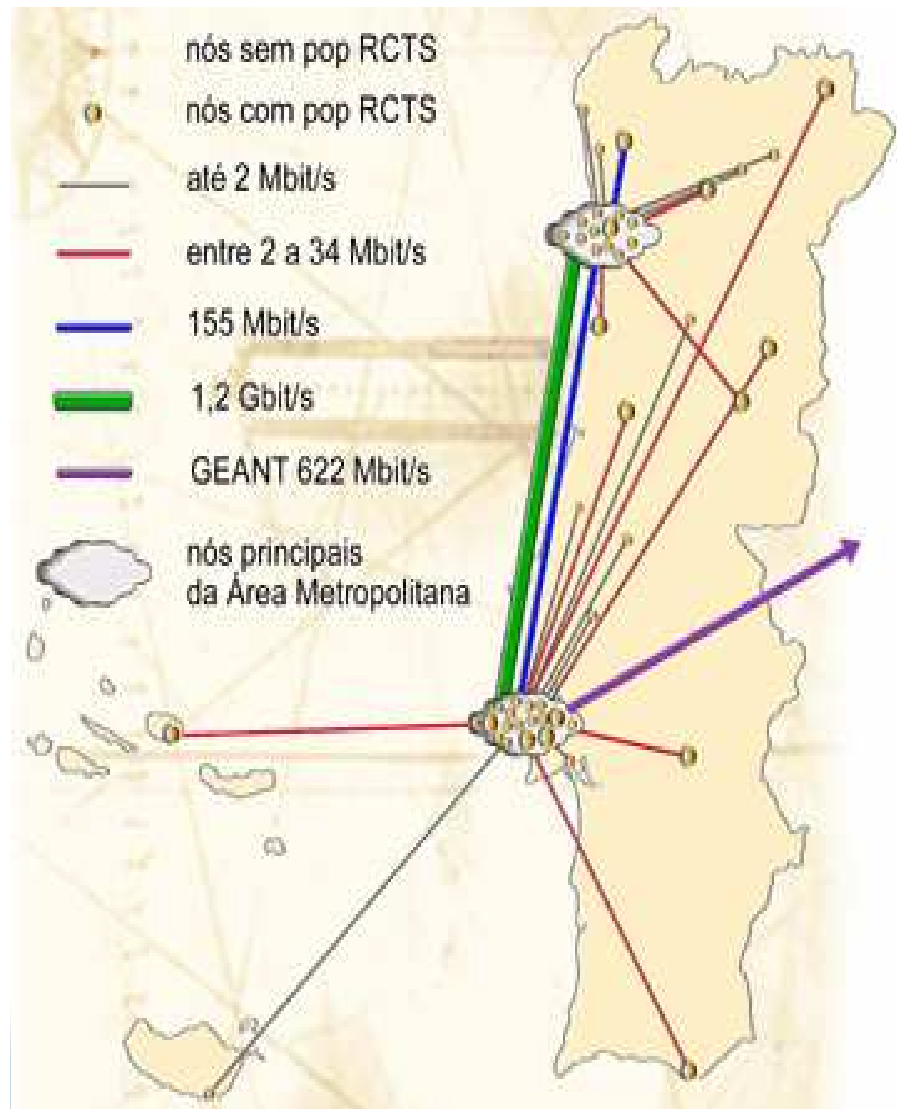
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- Lack of market offer
 - SDH, ATM, ... and almost nothing else
- Expensive
 - Very expensive *lambda*
 - e.g., SERENATE Study
- Ethernet (10 Mbps, 100 Mbps, 1Gbps)
 - Only in Lisbon and only offered at a later stage

Existing network



- Increasing the bandwidth *per capita* at fair prices
- Allow
 - true networking research
 - labs cross-access
 - offer a capable infrastructure to develop very demanding projects
 - GRID Computing
 - ...

- FCCN began planning to have access to dark fiber to build the next generation of RCTS, the Portuguese NREN
 - Lease ?
 - Buy ?
- Example:
 - Lease pair of fibres costs with one supplier:
 - $(0,7 \text{ €} + 0,1 \text{ €}) \times 300 \text{ km} = 240.000 \text{ €/y}$
 - 240 k€ / year (for a pair of fibres between Lisbon and Porto)

Fiber Cable



- Fiber cable installed along the railway
- 400 km (Lisbon – Braga)
 - Covers ~ 70% of Higher Education community
- Cable
 - 12 pairs G-652
 - 12 pairs G-655
- Local Loops
 - Partnerships with local owners of ducts
- Budget
 - around 3M€

Guidelines on criteria and modalities of implementation of structural funds in support of electronic communications

SEC (2003) 895, July 2004

These guidelines are intended to help those regions who wish to co-finance investments through structural funds in the electronic communications sector.

- Objective 1
 - Community action through the structural funds has among its main objectives to promote the development and structural adjustment of regions which are lagging behind
- Objective 2
 - the economic and social restructuring of regions
- Investments through structural funds need to go beyond commercial considerations and must take into account wider issues of public policy.

- **Need for a strategic framework**
- Geographical targeting
 - investments must be targeted towards areas that would otherwise be neglected under free market conditions
- Technological neutrality
- Open access

- Tendering process
- Financing
- Ownership
- Transparency
- Determination of co-financing rates
- Evaluation, monitoring and benchmarking

- The guidelines are meant to be indicative.
- They are complementary to the broad guidelines for the Mid-term review of Structural Funds interventions, which took place in 2003-2004.
- **Each MS had to reflect these guidelines in their national programmes according to their policy and investment priorities and be approved by EC.**

- **Operational Programme for Knowledge Society (POSC)**
 - AL 4.1: Reinforce Broadband Infrastructures
- Any project has to comply with the following:
 - The investment in infrastructure has to be justified and fit in an existing strategic development plan
 - All the existing telecommunication infrastructures in the target area, or to be implemented during the programme, should be taken into account in the overall plan. Those to be implemented are considered as such only if
 - already in execution the phase
 - exists a concrete development plan
 - The investments co-financed by the EIB should also be taken into account.
 -

- Stimulate the increase of coverage/availability of broadband infra-structures in areas where they are not economically viable under market conditions.
- **To ensure the development of the broadband infra-structures necessary to guarantee the scientific and education community an adequate network connectivity and access to online resources.**
- ...

Regulation of the AL 4.1 of POSC

- This regulation was published in the Government official Journal.
- **Article 2nd: Eligible Projects**
 - c) Project to create a national broadband network dedicated specifically to educational e research purposes to interconnect the higher education institutions and to the Pan-European network - GEANT.



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Thank You 😊