



European Satellite Operators Association

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THE USE OF SPACE TECHNOLOGY:  
Opportunities and Challenges for South-Eastern Europe  
and the Black Sea Region

**The Role of Satellites in Bringing Europe Closer**

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“ESOA”

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# ESOA

- Association based in Brussels
- Represents interests of European satellite operators
- 10 full members, 4 supporting members (Arianespace, Alcatel Space, EADS Astrium, International Space Brokers (ISB))

### ***Mission:***

‘To work with key [European] organisations including the European Commission, Parliament, Council, the European Space Agency and any other relevant international organisations to create the political, industrial and regulatory environments necessary to deliver vital communications services to citizens across the globe.’

- Not a platform for commercial cooperation.



ESOA priorities include:

- Regulatory issues
  - spectrum policy across EU
- Market access/ trade issues
  - countries acceding to WTO/ EU
- Issue of ***delivering broadband connectivity via satellite across Europe and beyond:***
  - While being a European Association, ESOA member companies are active in all continents and are therefore concerned by issues and opportunities across the globe.

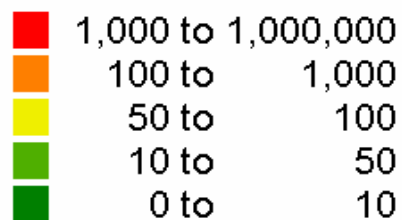


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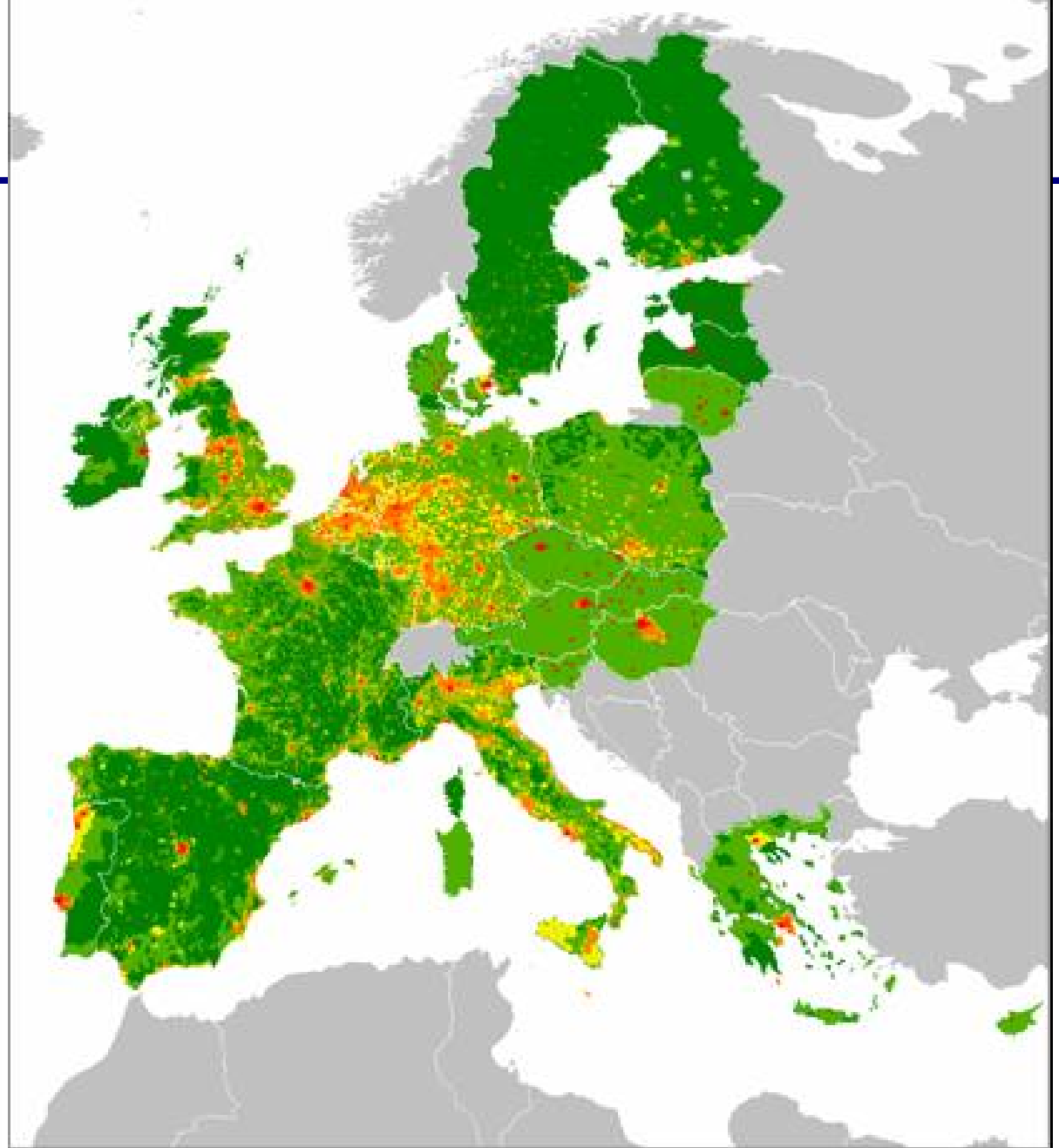
## Broadband Connectivity: Where is the Problem?

Most densely populated (red) areas are already wired by terrestrial broadband SP's.

Now they are moving towards smaller cities/ towns = moving into the green areas but not addressing all of it.



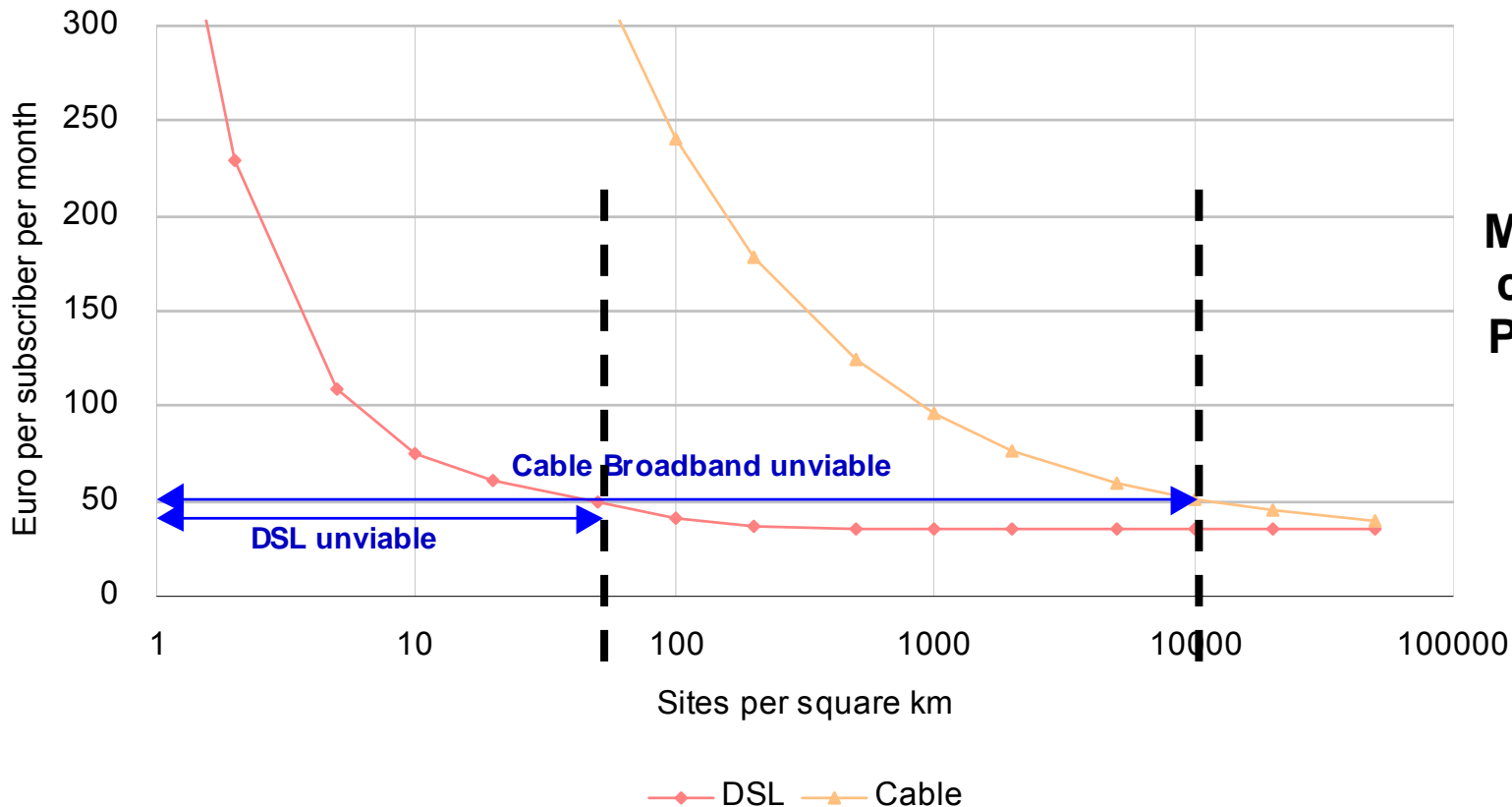
## Distribution of Users in Europe 2003:



Source: Analysys Consulting Ltd.



# Why won't Terrestrial SP's offer ubiquitous service?



Monthly subscriber cost per user over Population Density

Consumer demand drops drastically if price > €50 per month  
Low density areas therefore become non-viable:

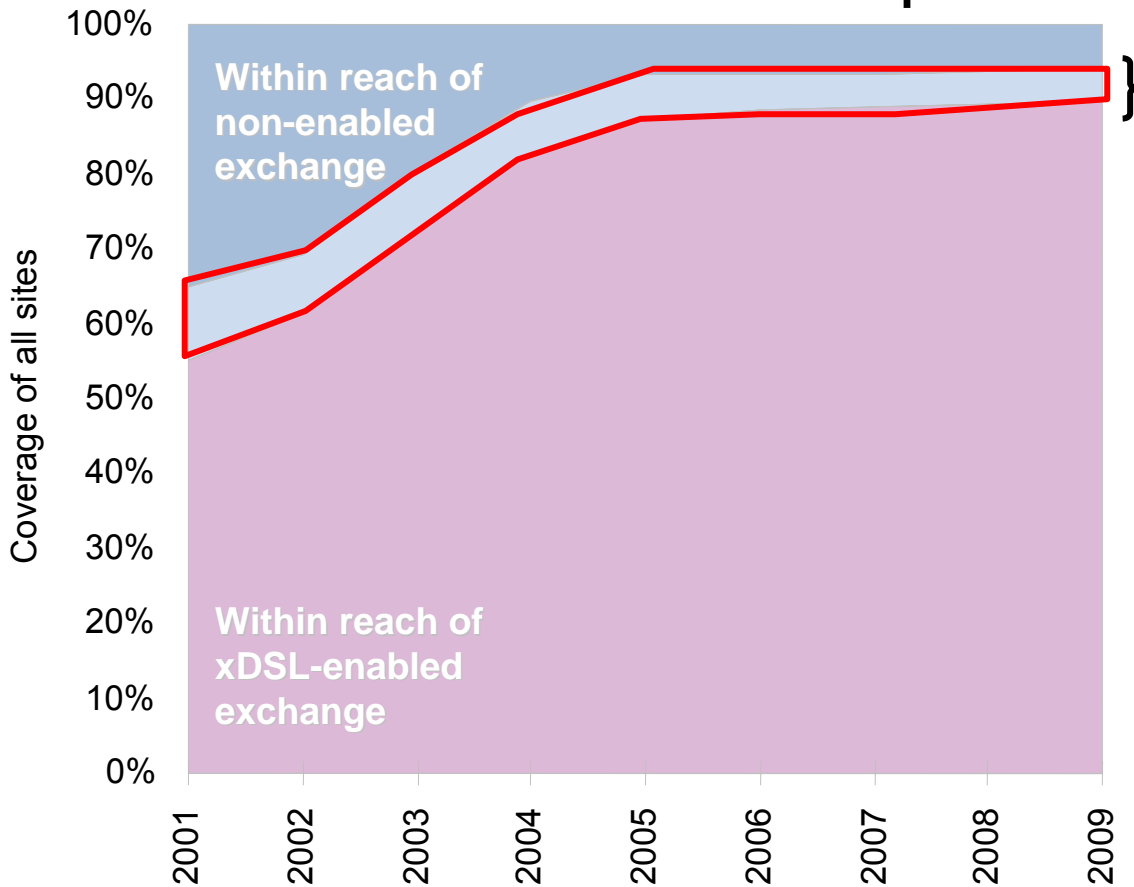
- Cut-off point for DSL is 80 sites per km<sup>2</sup>
- Cut-off point for cable is 10,000 sites per km<sup>2</sup>



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# The Size of the Problem

### Evolution of DSL in Europe



10% (~15m) of European users will still be unconnected by 2009

***DIGITAL DIVIDE -  
social/political/economic  
consequences  
Information/ Communication  
Technologies become another  
discriminatory factor.***

Source: Analysys Consulting Ltd.



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# The Contribution of Satellites

- There is a problem & market forces will not solve it.
- Action should be taken quickly.
- One technology alone will not solve the problem, BUT

As the EC has recognised in its White Paper:

***Satellite communications services can play a very important role in delivering broadband technologies to areas where 'conventional' solutions are not possible.***

- Satellite BB technology can 'technically' help close the Digital Divide
- Service/ data rates are comparable to terrestrial solutions
- Satellite solutions can be ***deployed quickly***



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## Satellite Cost Structure

Current satellite BB services are far-reaching, BUT costly, especially when providing two-way broadband access

- Monthly service charge for DSL-like access services: €150-200: prohibitive for individual consumers
- To benefit from economies of scale, need to increase terminal production

However unlike terrestrial BB solutions, satellites do not need X number of users to be located in any given area, they simply need X number of users – who can be anywhere as long as they are within the footprint.

***ESOA estimates that this X could be a few hundred thousand units in order to bring terminal cost down BUT the market needs a ‘kick start’ before an autonomous business plan can be sustained.***



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## Conclusion

ESOA:

- (i) Recognises that this is not an easy problem to solve and
- (ii) Believes that no matter which technology, a limited, near-term public investment is inevitable.

Therefore ESOA recommends that public funds be mobilised quickly to allow the optimal technical solution to proceed.

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**THANK YOU**

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