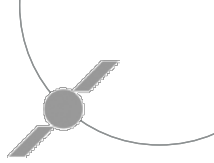EUTELSAT

Satellite Broadband

Stefano Agnelli
Director of European Institutional Affairs

EIF Study Visit to Milan 'Media, research and entrepreneurship in the digital era: technology excellence and innovation in difficult times'
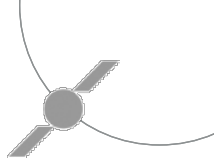*17 October 2014*

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HTS such as the Eutelsat's KA SAT are 'game changers'

- **Barriers to the delivery of consumer-grade Internet access removed by recent progresses and investment in satellite broadband technology**
  - ➤ capacity and speed considerably increased
  - ➤ fixed and recurrent costs for the final user reduced

350 M€ private investment

Standard consumer offers up to 22 Mbps

S.Agnelli - Satellite's role in the penetration of broadband connectivity within the EU
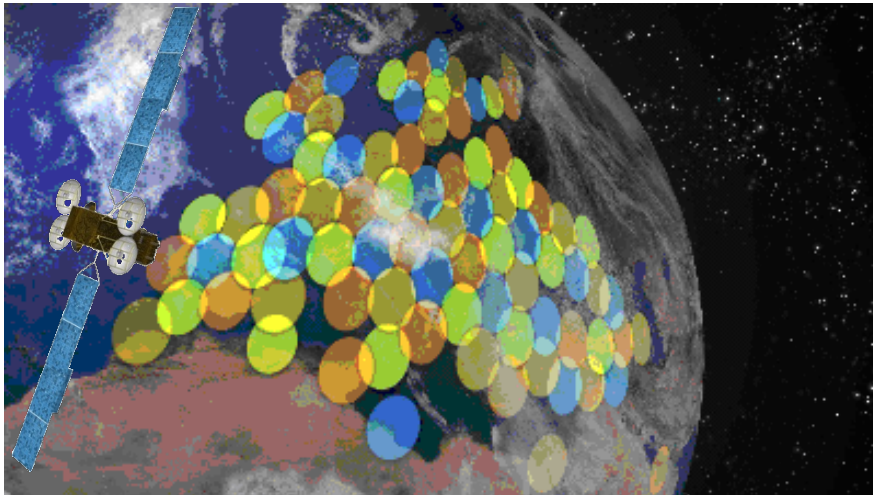
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Eutelsat KA-SAT & Tooway™ characteristics today

KA-SAT

- Built by Astrium (now Airbus D&S)
- Located at 9°E, coverage **82 beams**
  - Energy focused: 250km spot size
  - Frequencies re-use, 4-color scheme
  - 40 GHz system from 2 GHz of spectrum
- Total capacity **90Gbps** (Europe's first HTS satellite system)
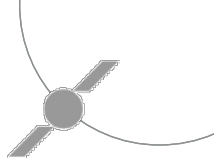
Tooway™

- **22 Mbps** downstream, **6 Mbps** upstream
- Antenna size < 80cm, 3W amplifier
- Plug and play with Ethernet and/or Wi-Fi
- TV reception with optional dual-feed
- Installed terminal €300 - €500 per household

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Digital Agenda for the EU – the issue of low take-up

- **Low broadband penetration, especially in remote and rural areas ('Basic Broadband' (fixed + fixed and mobile wireless coverage = 99.4%)**
- **Real user demand in those areas - but users scattered over all the territory**
- **Unlikely solved with terrestrial solutions only in areas where difficult topographical conditions or low population density make them impractical / economically unviable**
- **The unit costs for terrestrial connection increase as population densities drop, because of high fixed investment costs**
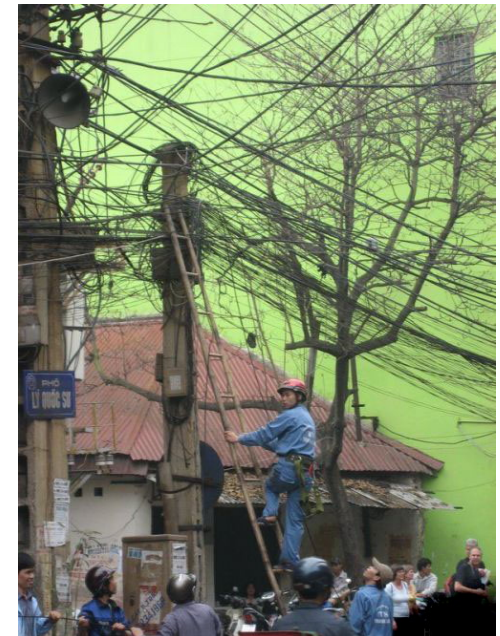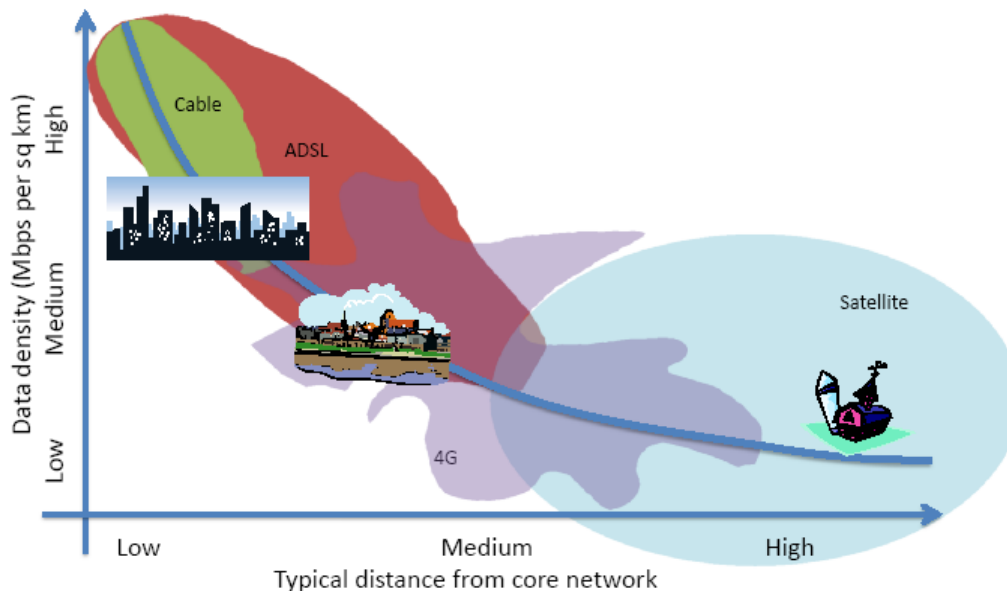
Achieving Broadband-for-All with satellite broadband
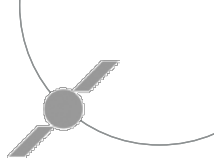
- **Satellite solutions ideally suited to providing instant access to broadband everywhere**
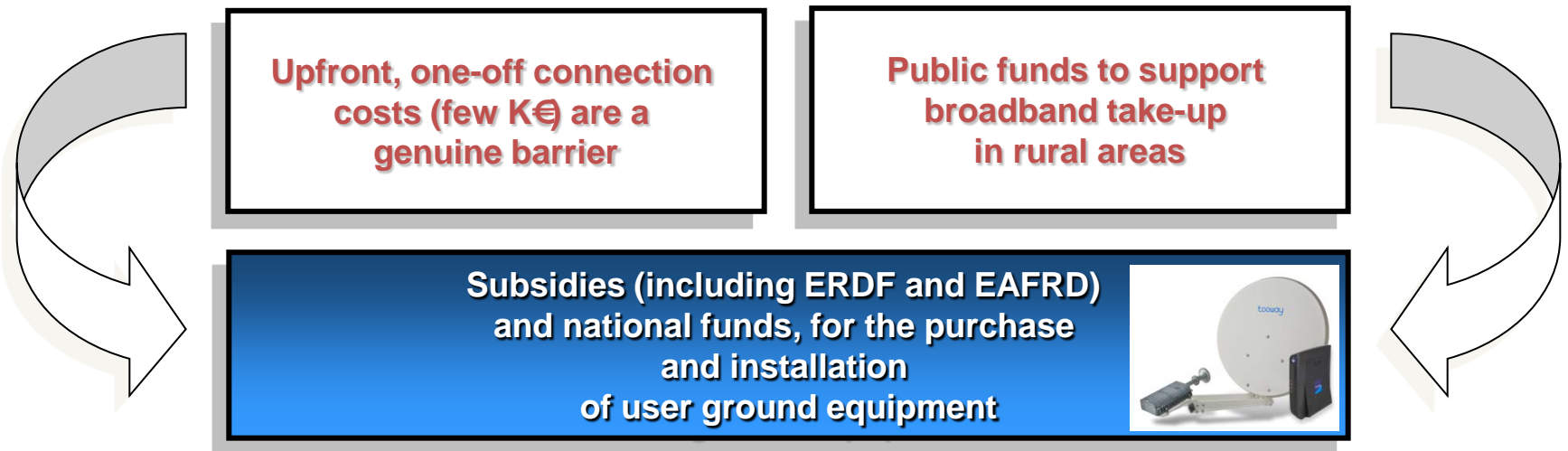
  - Rapid deployment, cost independent of location, immediate provision of access (basic infrastructure already in place, investment already amortized)
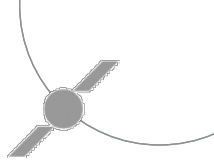
  - N.Kroes, European Commissioner for the Digital Agenda: "*Thanks to the extra coverage from satellite broadband, with representation in every EU country, we have achieved our 2013 target of BB for all*"

  - **Satellite broadband still under-exploited in Europe - take-up not yet widespread in the rural areas and still marginal**

- **Correct integration of satellites in the implementation of public policies for broadband development could help bringing 4 A's (Availability, Affordability/Accessibility, user Acceptance)**

Upfront, one-off connection costs (few K€) are a genuine barrier	**Public funds to support broadband take-up in rural areas**

Subsidies (including ERDF and EAFRD) and national funds, for the purchase and installation of user ground equipment

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Sparse demand in a fragmented market

in the EU

Two major obstacles slowing down the take-up of satellite broadband

1. **Absence of a Single Telecom Market**
   - Very different market (rules, dynamics and languages) in each country/region

2. **Dispersed management of public funds**
   - Public funding allocated to regions and typically managed at regional (or even at sub-regional) level
   - No viable central action to promote services availability and inform on public initiatives

Elsewhere (single telecom markets)

- **U.S.A.**
  - 935,000 subscribers to Hughes consumer broadband service (June)
  - Viasat claims over 1 M Exede terminals
  - Dept. of Agriculture, Rural Utilities Service, Broadband Initiatives Program, up to $100M available for grants for Satellite projects (2010)
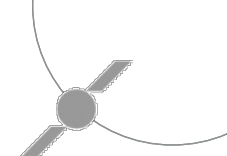
- **Australia**
  - The national satellite broadband project (NBN) is confronting a demand spike

- **Canada**
  - Several national funding programs to improve remote services since 2009

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Common approaches to satellite broadband public deployment

„THINK GLOBAL - ACT LOCAL"

Activity	Central Government	Local
Core scheme design	√	
Specification of local parameters		√
Provision of guidance documentation	√	
Provision of central "Information Portal"	√	
Provision of funding	√	
Scheme administration		√
Delivery of anti-fraud checks		√
Local demand stimulation (for the take-up of vouchers)		√
Payments to suppliers		√
Scheme reporting (local level)		√
Scheme reporting (programme level)	√	

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