



# **The Integral Satcom Initiative**

*European Technology Platform  
for Satellite Communications*



***ISI contribution***



## Agenda

- ❑ **1. Introduction to your ETP, the economic importance of the sector, your vision for contributing to the 2020 Digital Agenda (we will also discuss this element in more detail during the round-table session.)**
- ❑ **2. Research and Development capabilities and priorities of your sector**
- ❑ **3. Your Recommendations for future funding instruments and how to maximise synergies with Member State and Regional Initiatives**



## ISI overview and objectives

**> 194 members organizations representing all the European SatCom industry stakeholders.**

- ❑ **manufacturing industry, network operations and service provision, SMEs, research centres and academia, European and National Institutions.**

**European SatCom industry Key to sustain the whole European space industry and its strategic independent access to space**

- ❑ **2/3 of the European satellite industry turnover (up and down stream revenues) and employment (30000 Highly skilled jobs),**
- ❑ **90% of all European commercial launches.**
- ❑ **Essential element of any global networks;**
  - **Information and education (> 77 M HH in Europe), Digital inclusion, Security, Crisis management, Defence**
- ❑ **Driving force for technologies development, applicable to all industrial sectors**



## ISI research capabilities and priorities

European policy	SatCom added value	SatCom emerging solutions
Digital Agenda	Overcome the Digital/Speed divide when targeting <u>ubiquitous broadband coverage objectives</u> with internet speeds gradually increasing up to 30 Mbps	<u>Powerful multi beam satellite networks</u> , for cost optimised broadband access in low populated density areas
More sustainable and efficient economy	<u>Cost effective space and time service availability</u> for smart infrastructure in Energy, Transport, Healthcare, Education and knowledge domains	Advanced <u>interactive broadcast, mobile satellite systems, hybrid systems</u>
Security and Defence Policy	<u>Improve Europe's capacity to prevent and respond to crisis or disaster situations wherever they may occur</u>	<u>Flexible satellite networks</u> for global, secured and resilient communications (ISICOM initiative)



# SatCom in FI enabled smart infrastructures (I)

## Smart Content systems: Social inclusion

### □ SatCom role

- Broadcasting and media delivery services, incl. 3D Media and Ultra HDTV, in simultaneous broadcast to large and low density populated areas

### □ Added value

- Optimise Quality of Experience with services based on high resolution content format

SatCom: Efficient  
one to many  
infrastructure for  
high quality at a low  
cost

## Smart health-care systems: Public health

### □ SatCom role

- Broadband connectivity provisioning in low density populated areas

### □ Added value

- Assistance to patients in their homes and interconnection to hospitals and medical teams in low density populated areas

## Smart systems for transport and mobility: Sustainable transport

### □ SatCom role

- Alert & guidance services as well as asset monitoring
- Broadband connectivity to trains, buses, vessels and aircrafts

### □ Added value

- Optimise traffic information to the public and private transport stakeholders
- Infotainment services to railway and bus passengers

SatCom:  
complementary w.r.t.  
coverage gaps &  
terrestrial infrastructure  
dependability



## SatCom in FI enabled smart infrastructures (II)

### Smart energy grids: Climate change and clean energy

#### □ SatCom role

- Monitoring from remote and/or critical remote nodes
- Back-up critical links of the communication network

#### □ Added value

- Optimize the efficiency of the global monitoring and black-out management

### Smart environmental information systems: Climate change and clean energy

#### □ SatCom role

- Data gathering from sensors deployed over a wide area (regional, national or continental), on board observation satellites or on board Unmanned Aerial Vehicles (UAV)
- Data relay to relevant stakeholders, Alert and guidance services provisioning

#### □ Added value

- Real time environmental monitoring for early decision

### Smart broadband access systems: Social inclusion

#### □ SatCom role

- Very High Speed Broadband access in low density populated areas

#### □ Added value

- Provide Next Generation Access service grade to all

SatCom = essential access technology for FI communication enablers to be global, reliable, resilient, trusted and secure.



# ISI recommendations on future funding instruments

## Framework program

- ❑ **Need for increased EC financial support to SatCom related projects: <0.5% of total EC financial support in FP7 ICT work program clearly insufficient to sustain the SatCom industry competitiveness**
- ❑ **Instruments should support applied Research & Development, standardisation, regulatory framework harmonisation, Demonstration and Trials, role model definition, educational & training activities up to large scale experimentations**

## About IP, STREP, CSA

- ❑ **EC financial support**
  - **Simplification of procedures for administrative evidence (for example, wider use of average cost rate for personnel**
  - **Combination of very small targeted projects on specific research items and large scale initiatives.**
- ❑ **Industry co financing**
  - **Public financing rate to be increased for projects**
    - targeting European institutional missions
    - or enabling European technology independence
- ❑ **IPR: The rights of the inventor should be better protected**



# Synergies with Member State and Regional Initiatives

## Topics to be addressed

- ❑ SatCom strategic research priorities
- ❑ Innovative and ambitious SatCom framework programs (e.g. ISICOM initiative)
- ❑ Demand aggregation, harmonised regulatory framework to foster cost effective deployment of future SatCom solutions
- ❑ Opening of CIP (competitiveness and Innovation Programme) to demonstration of services based on SatCom

## Implementation

- ❑ **European level**
  - EC: European Commission (DG INFOSOC, DG ENTR)
  - ESA: European Space Agency
- ❑ **Member State level**
  - ISI Mirror Group involving Member States representatives
  - National space agencies
- ❑ **Regional level**
  - NEREUS (Network of European Regions Using Space Technologies)





# The Integral Satcom Initiative European Technology Platform for Satellite Communications



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