Accessing Space Capabilities Key To Achieving the Sustainable Development Goals

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Satellite Communications - Connecting the World

Inclusion • Security • Mobility • Safety • Cyber-resilience
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Satellite is Relevant to all SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Broadband for All</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Early Warning Systems / Food Security</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Telemedicine / Remote Diagnostics</td>
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<tr>
<td>4</td>
<td></td>
<td>eLearning For Teachers &amp; Students</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Digital Inclusion for Women/Girls</td>
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<tr>
<td>6</td>
<td></td>
<td>Water Management</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Power Management / Smart Grids</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Digital Opportunities to Prevent Rural Depopulation</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Resilient, Robust, Instant Connectivity Systems</td>
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<td>10</td>
<td></td>
<td>Bridging Digital/ Education/ Health/ Social divides</td>
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<tr>
<td>11</td>
<td></td>
<td>Smart Cities (Traffic management, Air Quality, etc.)</td>
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<td>12</td>
<td></td>
<td>Precision Farming / Smart Agriculture</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Monitoring Sea Levels &amp; Temperatures, Pollution, Heat Loss, etc.</td>
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<td>14</td>
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<td>Reporting Fishing Quotas, Preventing Illegal Practices</td>
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<td>15</td>
<td></td>
<td>Monitoring Deforestation; Tracking Wildlife</td>
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<tr>
<td>16</td>
<td></td>
<td>Peacekeeping Operations; eGovernment</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Partnerships: NGOs, Terrestrial Operators, International Organisations</td>
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</tbody>
</table>
Extraordinary technological innovation in satellites
Ubiquity, reliability, mobility enable smart society applications in cities and rural areas
Work hand-in-hand with terrestrial systems to achieve the SDGs as a key component of 5G

Ensure continued access to relevant spectrum
Ensure regulatory conditions allow technology exploitation
Stakeholders should cooperate to promote innovation and technology development
SATMED on ‘Friendship Floating Hospitals’ in Bangladesh
Making e-Health Accessible

SATMED serves NGOs, hospitals, medical universities & healthcare providers in resource-poor areas

- Ships are equipped with maritime satellite terminals
- Visiting medics communicate from remote areas with national/international doctors
- They provide medical counseling to marginalized communities through telemedicine & exchange medical knowledge with local doctors

SATMED has deployed 10 times: Philippines, Bangladesh, Benin, Sierra Leone, Niger
SOS Children’s Village brings healthcare to children & their families in remote parts of Benin using portable satellite terminals

- Patient medical data sent in real time via satellite to urban hospitals
- Monitoring, diagnosis & treatment of adults & children
- Diabetes, hypoglycemia, hypertension & other serious conditions identified
- Conditions that may never have otherwise been discovered referred for treatment
- Successful pilot in 2014 - project still in operation today

Secure Transmission of Personal Data • Immediate Diagnosis & Treatment
Project iMlango, Kenya
Project iKnowledge, Tanzania

- 500 schools connected with small satellite terminals & community WiFi hotspots backhauled via satellite
- Education for marginalized communities & training for teachers
- Focus on 68,000 marginalized girls in Kenya & encouraging ‘science for girls’ in Tanzania
- Cooperation between Tanzanian schools & University of Dublin to promote Young Scientists Tanzania competition
- Students use Skype to do joint experiments with students in Dublin

International cooperation • ‘Train the Trainer’ • ‘Science for Girls’
Use Cases: e-Learning: Latin America

Call for tender from Ministry of Education in Panama to connect 450 isolated schools

- Schools connected via satellite to the Internet
- Local technicians receive training on installation, working & maintenance of satellite links & equipment
- Benefits for local adults & children
- Education & skills transferred to rural communities

Education for All • Local Capacity Building • Sustainable Solutions
Use Cases:
Professional Training – How to Run a Business

Gender Equality • Empowering Women • Financial Independence
Use Cases: e-Learning: Europe

Connecting schools on Greek Islands: Valtesiniko, Kastellorizo, Gavdos

- Development issues are not just reserved for emerging economies! Relevant also in the EU!
- Island areas can typically be home to tiny populations of a few hundred persons
- One Greek island now connected by satellite has only 50 residents + 1 school!
- Simple satellite connections allow such communities & their children to keep up with education & be part of society itself

Social cohesion • Equal opportunities • Every Child Online
Satellite Operators deploy Immediate Solutions in Difficult Circumstances
... and instant solutions when they are needed most.
Creating Local Jobs & Capacity Building for Sustainability
Delivering Immediate & Complete Connectivity

- Safety/security fencing
- Satellite Dish
- Solar Panels
- Mobile Base Station
Conclusions

- A technology unique to global connectivity
- Already used for a multitude of applications
- Despite widespread use, satellites remain an invisible infrastructure
- UNOOSA can change this
- Benefitting from satellite services requires:
  - Technology neutral regulation
  - Interference free spectrum
  - Continuing Innovation and Economies of Scale

THANK YOU
ESOA Members