GEO4SDGs and the Importance of Commercial Sector Engagement

Barbara J. Ryan
Executive Director, WGIC

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A global trade association of private-sector companies working in the geospatial and Earth observations sectors

info@WGICouncil.org
Strengthen contributions of the geospatial industry to society, and the global economy

Advance global policy matters relevant to the geospatial sector

Create business opportunities for the geospatial industry
WGIC Strategic Goals

- Strengthen contributions of the geospatial industry to society, and the global economy
- Advance global policy matters relevant to the geospatial sector
- Create business opportunities for the geospatial industry
Geospatial and Earth observation contributions to the 17 SDGs

<table>
<thead>
<tr>
<th>SDG Number</th>
<th>SDG Title</th>
<th>Contribution Areas</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>No poverty</td>
<td>Population distribution</td>
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<tr>
<td>2</td>
<td>Eradicate extreme poverty and hunger</td>
<td>Urban and rural infrastructure mapping</td>
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<td>3</td>
<td>Ensure healthy lives and promote well-being</td>
<td>Elevation and topography</td>
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<tr>
<td>4</td>
<td>Ensure inclusive and quality education</td>
<td>Land cover and use mapping</td>
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<td>5</td>
<td>Promote gender equality</td>
<td>Oceanographic observations</td>
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<td>6</td>
<td>Ensure availability of clean water and sanitation</td>
<td>Hydrological and water quality observations</td>
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<tr>
<td>7</td>
<td>Ensure access to affordable and clean energy</td>
<td>Atmospheric and air quality monitoring</td>
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<tr>
<td>8</td>
<td>Promote sustained and equitable economic growth</td>
<td>Biodiversity and ecosystem monitoring</td>
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<td>9</td>
<td>Build resilient infrastructure and cities</td>
<td>Agricultural monitoring</td>
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<td>10</td>
<td>Reduce inequalities</td>
<td>Hazardous disasters and environmental impact monitoring</td>
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<tr>
<td>11</td>
<td>Make cities and human settlements safe</td>
<td>Population distribution</td>
</tr>
<tr>
<td>12</td>
<td>Ensure responsible consumption and production</td>
<td>Urban and rural infrastructure mapping</td>
</tr>
<tr>
<td>13</td>
<td>Take urgent action on climate change</td>
<td>Elevation and topography</td>
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<tr>
<td>14</td>
<td>Conserve and sustainably use the oceans</td>
<td>Land cover and use mapping</td>
</tr>
<tr>
<td>15</td>
<td>Protect and restore land and oceans</td>
<td>Oceanographic observations</td>
</tr>
<tr>
<td>16</td>
<td>Promote peace and justice</td>
<td>Hydrological and water quality observations</td>
</tr>
<tr>
<td>17</td>
<td>Strengthen global partnerships</td>
<td>Agricultural monitoring</td>
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SDG Targets & Indicators that depend on Geospatial and Earth Observations
GHG Monitoring from Space

Joint report by the Group on Earth Observations (GEO), Climate TRACE and the World Geospatial Industry Council (WGIC)

A joint project with the Group on Earth Observations (GEO) and ClimateTRACE/WattTime

A mapping of capabilities across public, private, and hybrid satellite missions

Download from: www.WGICouncil.org
Development of the first systematic database of public, private and hybrid missions for GHG monitoring from Space

### 33 identified missions:

- **Public:** 21 total, 13 in orbit, 7 in development, 1 end of life;
- **Private:** 7 total, 1 in orbit and operational, 1 in its final trial period, and 5 in development;
- **Hybrid:** 5 missions (all in development) with proposed launch dates until the 2040s.

Three GHGs are generally recognized as the critical drivers of climate change: **carbon dioxide** (CO2), **methane** (CH4) and **nitrous oxide** (N2O).
GHG Missions by Gas and Scale

GHG Missions by Gas Type (In-Orbit & Planned)

Applicable Scale of Data by Mission Type (In-Orbit & Planned)
### Key Policy Messages from the Report

1. Satellite observations reduce uncertainty in GHG emission monitoring by providing data across a range of spatial, temporal, and spectral resolutions or scales;

2. Government space agencies have the capability to collect national and global baseline data for all relevant GHGs in a sustained manner with measurement availability ranging into the 2040s;

3. Private sector companies are speedily entering the market and bringing additional point-source emissions monitoring capabilities for specific GHGs;

4. Hybrid models are increasingly emerging and leveraging respective strengths;

5. Collaboration, innovation, and financing are key levers for GHG monitoring from space;

6. Open data, open science and open knowledge are essential to drive on-the-ground solutions;

7. New opportunities are arising for analysing secondary remote sensing measurements with frontier IT technologies which call for transparency and capacity development.

Based on these findings, we call for continued cooperation between public and private sector entities to fully maximize complementary capacities and synergies to **support policy makers in the race to net zero emissions going forward.**
Linkages to Global Policy Mandates

PARIS2015
UN Climate Change Conference
COP21·CMP11

UN World Conference on Disaster Risk Reduction
2015 Sendai Japan

Sustainable Development Goals
Thank you

Barbara.Ryan@WGICouncil.org