



G20 and Space Cooperation to Develop an Accessible, and Self-Sustaining Space Economy

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Outline

- 01 Problem Statement
 - 02 Vision
- 03 Challenges
- **04** Proposed Solutions
- O5 Actionable Recommendations





Problem

Current Global Earth Observation does NOT meet Daily Business Needs





Problem

- Cell Phone Invented: 1973
 - Global Unique Users: 5.15 billion (66% of World Pop.)
 - Market Size: \$489 Billion (2022), expected \$793
 Billion (2029)
- World Wide Web Invented: 1989
 - Users: 59% of World Population!
 - Amazon + Google Market Cap: > \$1.5 Trillion!

Global Earth Observation (1972): \$3.3 Billion (2022), expected \$4.7 Billion (2028)







VISION

Make Earth Observation Impact Every Human Being Daily!

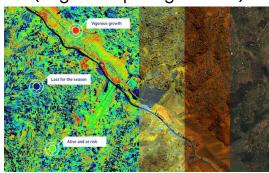




Space integrated with other technologies to power an accessible, self-sustaining space economy



Advance sensors (Edge Computing and IoT)



AI/ML applications

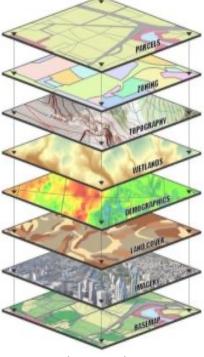
Enabling Policy Landscape





Field data through Crowd source

Public-private partnership



Geo-intelligence

Sustained funding

Data transformation for

- Advisory to Farmers
- Data for Import export policies
- Stabilising commodity prices
- Ensuring Food Security
- Risk transfer (Crop insurance)
- Water management
- Mitigating disaster impacts
- Climate resilience





CHALLENGES



Multiple challenges to facilitate <u>access to Daily, High Complexity Earth</u>

<u>Observation Data and Information</u>





PROPSOED SOLUTIONS: TO ADDRESS THE CHALLANGES

- Implement appropriate numbers and types of Earth Observing satellite constellations
- 2. Making daily EO <u>freely available to</u> <u>all human Beings</u>
- 3. Solving the "High Data Latency" problem

Proposed Solutions







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PROPSOED SOLUTIONS: G20 and Global Collaborations

- Collaborations to increasing adoption of daily EO data
- 2. Collaborations for **developing and launching satellite constellations**
- 3. Collaborations for **implementation of High-Performance Edge Computing Solutions** to reduce data latency

Collaboration Projects

Applicable Technologies









COLLABORATION





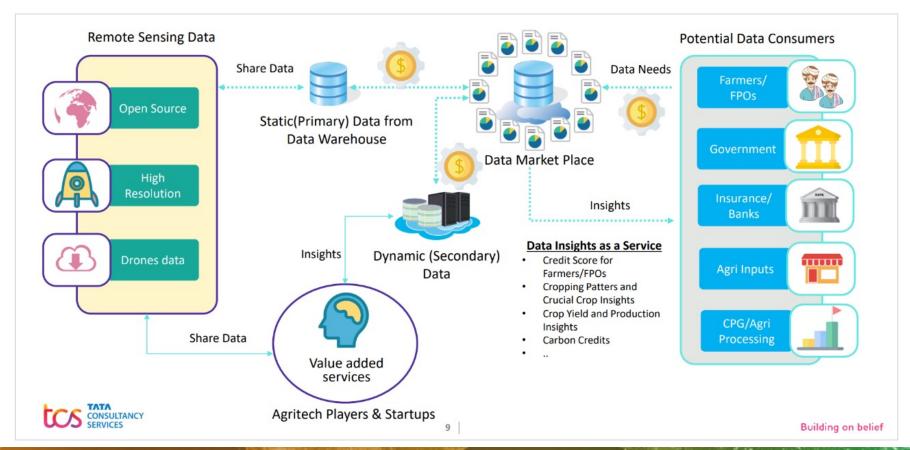
MULTI SENSOR DATA
INTEGRATION WITH
REMOTE SENSING
DATA





PROPSOED SOLUTIONS: Digital Highway approach for data-driven ecosystem centric

model



UN, Vienna





ACTIONABLE RECOMMENDATIONS

RECOMMENDATIONS

01

Initiate G20 Collaborative Pilot Projects for building open repositories 02

Make EO data freely accessible to G20 and South-South 03

Develop G20 Use Cases

04

G20 funding for Data-Driven Agriculture & Water Conservation 05

Promote Scaled Up Implementations 06

Evaluate and enable regulatory frameworks





Invitation to COPUOS Members mp@caneus.org