



NGA Vision for 6G Sustainability

EuCNC & 6G Summit Workshop

Amir Gomroki

Chair – Societal and Economic Needs Working Group

6G Drivers



Next G Alliance Agenda

Private sector, academia and government collaborate to position North America as the global leader for Next G technologies.

North American Model for Success

A comprehensive model built on North American 6G technology developments, R&D needs, standards goals and market readiness.

6G Market Leadership

Strategies that will lead to rapid commercialization and adoption of Next G technologies across domestic and global markets.



ATIS Next G Alliance Overview

6 Working Groups

- > National 6G Roadmap
- > Societal and Economic Needs
- > Applications
- > Technology
- > Spectrum
- > Green G

Research Council

6 Audacious Goals

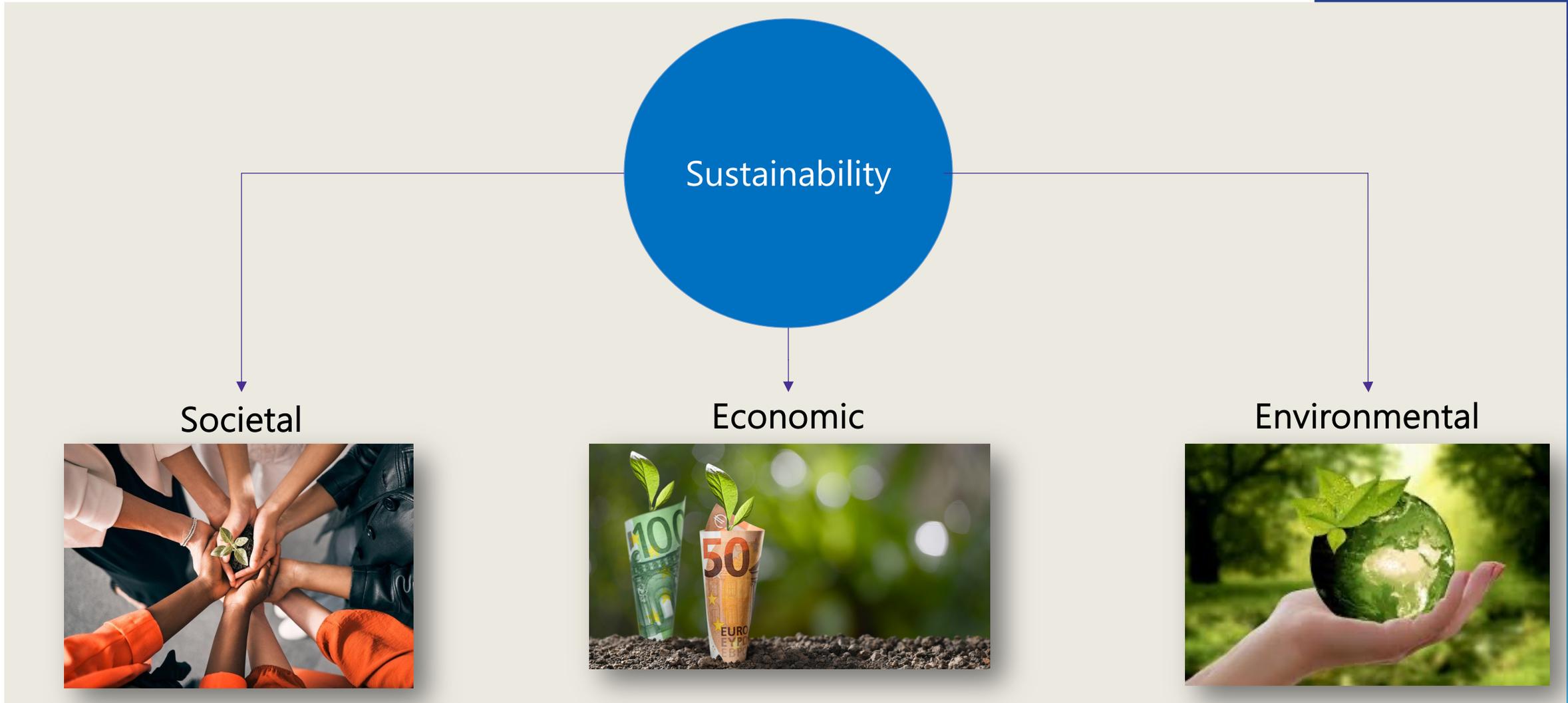
- > Trust, Security, & Resilience
- > Digital World Experience
- > Cost Efficiency
- > Distributed Cloud & Communications System
- > AI-Native Future Network
- > Sustainability



Top 10 Research Priority List

- > Security, Trust, & Resilience
- > New Radio Components and Antennas
- > Network Convergence and Integration
- > AI/ML
- > Spectrum Sharing and Enhanced Spectrum Access
- > Radio Access Technologies
- > Joint Communication and Sensing
- > Architecture and Control of Open, Disaggregated Systems
- > Sustainability / Reduced Energy Consumption & Cost
- > Cloud Native Networks and Distributed Cloud

Sustainability Triple Bottom Line





Green G Working Group



Green G Working Group



Leadership

Bhushan Joshi • Ericsson • Chair

Ralf Bendlin • AT&T • Vice Chair

Gagandeep Bhatti • Nokia • Vice Chair

Ian Deakin • ATIS

Minimizing the environmental impact of future generations of wireless technology

The mission of the NGA Green G Working Group is to position North America as the global leader in environmental sustainability by creating a sustainable 6G ecosystem and enabling other industries to reduce greenhouse gases and energy consumption, limit land and water use, and move towards circular economy.

- Drive environmental sustainability in 6G systems through collaboration across ICT and other industries
- Aggregate information from across the ICT sector and educate our industry, other industries, and consumers
- Enable other industries to be more sustainable by using wireless technology

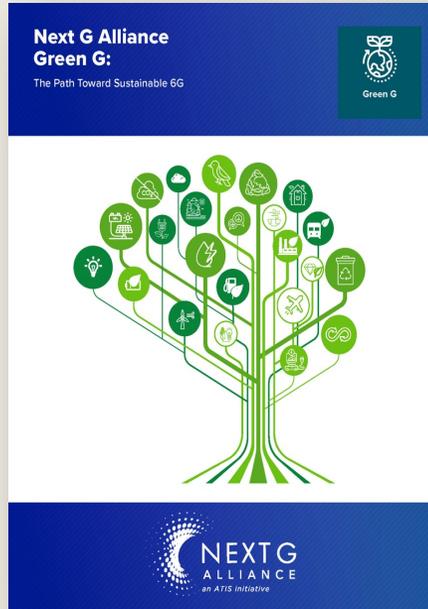
Takeaways

Key sustainability indicators essential for reaching Net Zero emissions

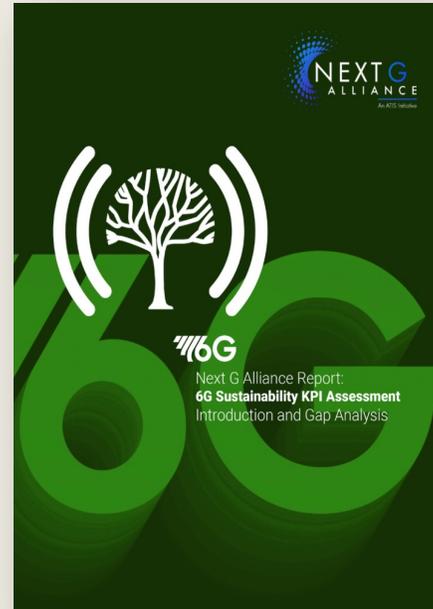
Technological enablers critical for transitioning to sustainability native 6G

Importance of observability, choice, and circular economy for implementing key sustainability indicators

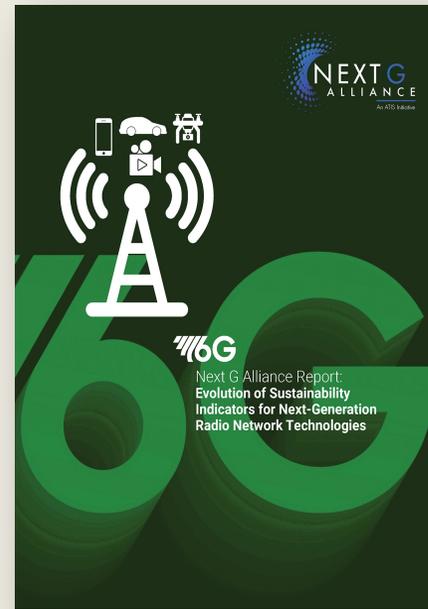
What's Next for Green G WG?



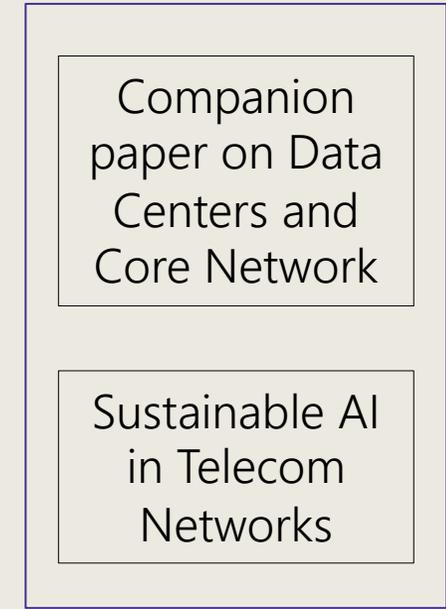
2022



2023



2023



2024

Minimize the environmental impact of future generations of wireless technology



Societal & Economics Needs (SEN) Working Group

SEN Working Group



Leadership

Amir Gomroki • Ericsson • Chair

Joseph Schumacher • AT&T • Vice Chair

Jeremy Nacer • Verizon • Vice Chair

Carroll Gray-Preston • ATIS

Minimizing The Digital Divide

The mission of this group is to identify and characterize the 6G social and economic drivers (e.g., societal demands, market needs, operational necessities, and strategic imperatives), and to make recommendations for how these factors should influence the 6G prioritization for North American research, development, and deployment.

- Drive Digital Equity in 6G systems to achieve financial affordability, physical accessibility, and geographic availability of network services.
- Create Economic growth by leveraging 6G systems to increase productivity, innovation, and creating new market segments.
- Improve Quality of Life in North America and its local communities addressing education, public safety, health care and transportation.

Takeaways

Digital Divide

Main culprit & impediment for innovation and prosperity in rural America

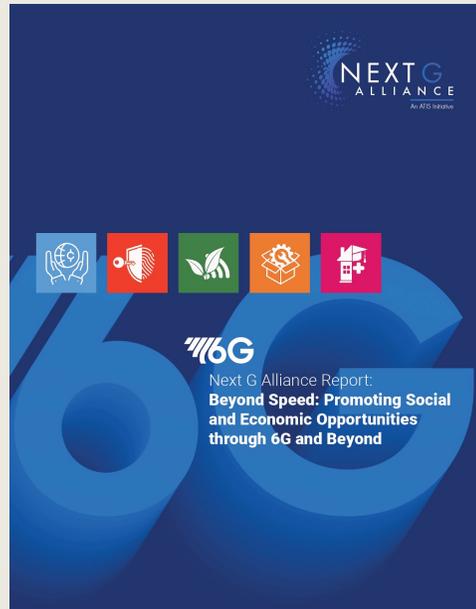
Economic Growth

Digital inclusion, paving the path to sustainable Growth

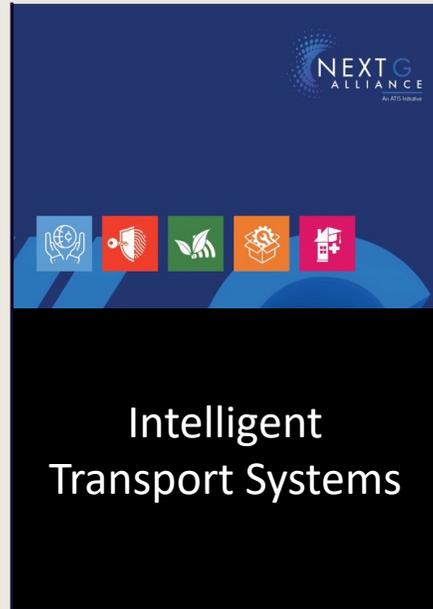
Quality of Life

Digital Equity, the flywheel effect propelling innovation in business, education, healthcare, public safety,...

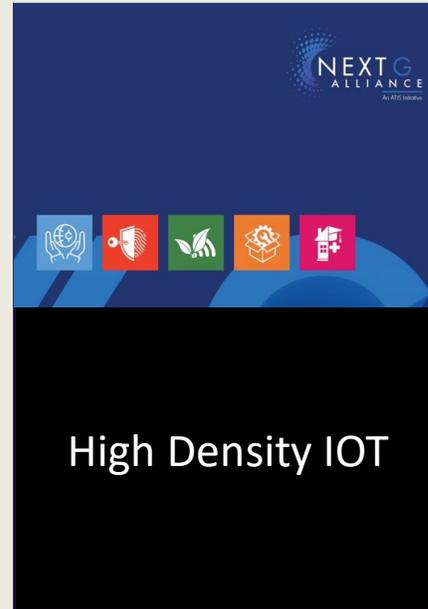
What's Next for SEN WG?



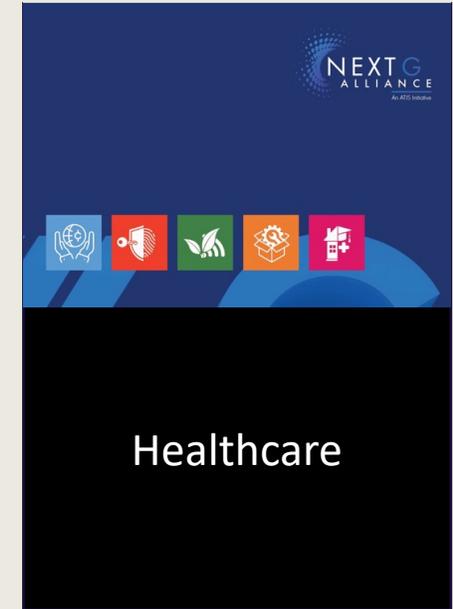
2023



2024
Target Q2



2024
Target Q3



2024
Target Q4

Minimize Digital Divide by leveraging next generations of wireless technology



Building the foundation
for North American
leadership in 6G and beyond