



Industry Engagement for global standards

Dr. Ulrich Dropmann, Head of Standardization and Industry Environment, Nokia, ITU-T workshop, April 2024

Nokia CEO: ‘Geopolitical tensions shouldn’t fragment the world. Here’s why machines need to speak the same language, even if people don’t’

BY PEKKA LUNDMARK

June 9, 2023 at 11:34 AM GMT+2



Create technology that helps the world act together.

Cooperating with peers and competitors to **define technology standards** is an important part of that.

Collaboration on **standards** helps ensure that important topics such as **energy efficiency, sustainability, inclusion, human rights**, and **safety** and **privacy regulations** are discussed alongside technical aspects such as **radio spectrum allocation**

Shape 5G and 6G standards to support interoperability and **innovation** and encourage a **healthy and competitive business environment.**



ITU-T
 165 years
 Truly global

Global
 landscape
 Technical work in
 various formal and
 informal groups

ITU-T leverages work
 from global landscape

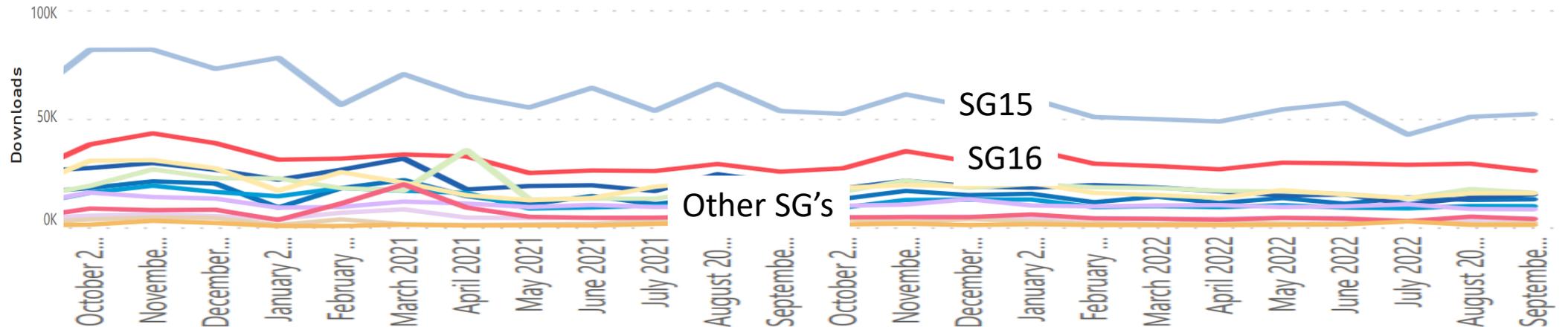
Global Successes....

xDSL and PON
OTN
Single mode Fiber

Transport, Access, Home Networking

Video codec Expert Group
Joint activity with ISO/IEC JTC1

Multimedia



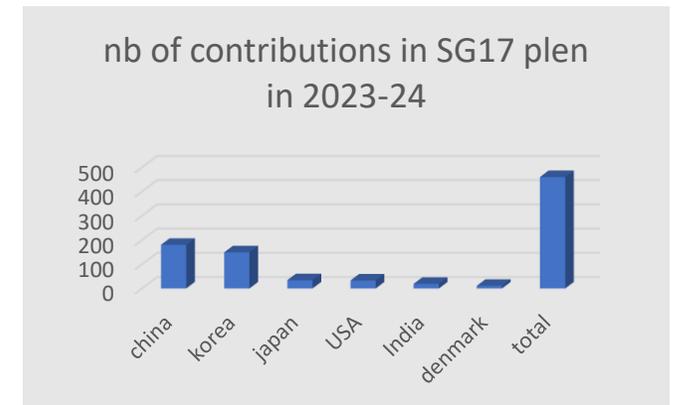
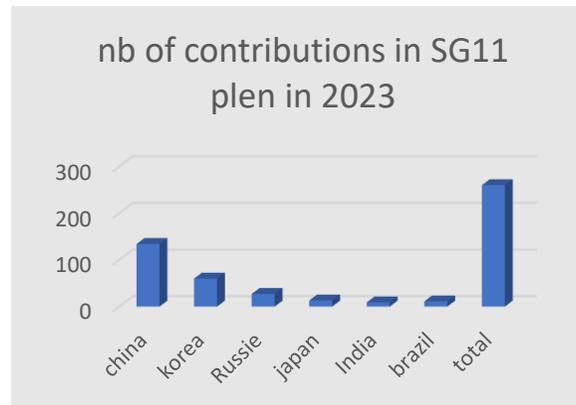
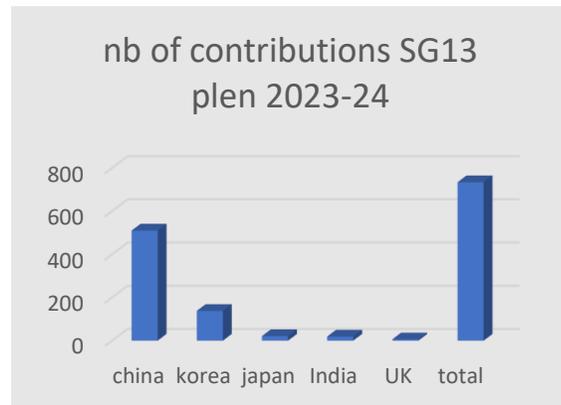
...versus limited market adoption

Not sufficient regional diversity
Important industry players missing
Limited recommendations
Limited downloads

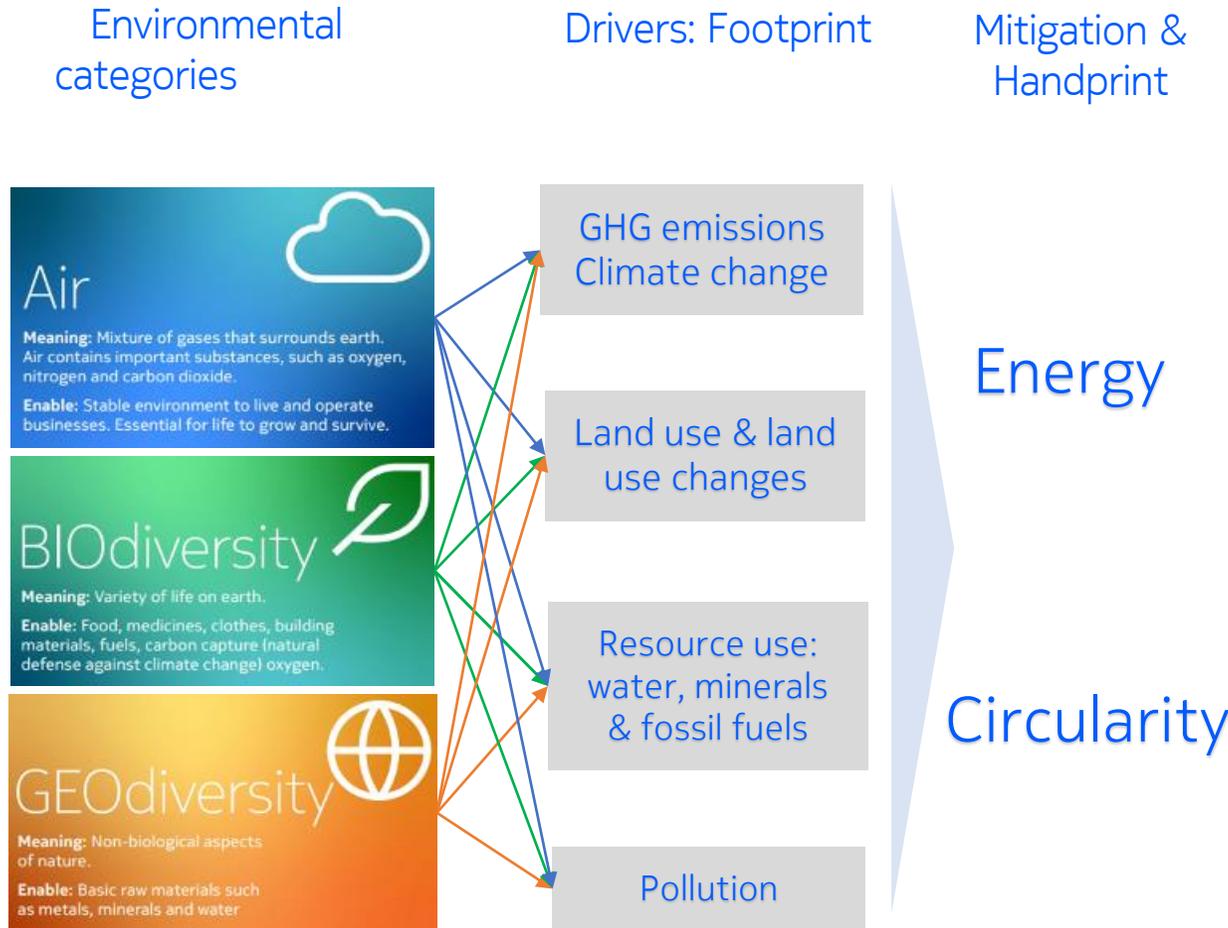
Cloud & Protocol

Not sufficient regional diversity
Low level of downloads

Security



Environmental sustainability | Impact/footprint & how to measure



Relevant topics & their coverage in standardization forums

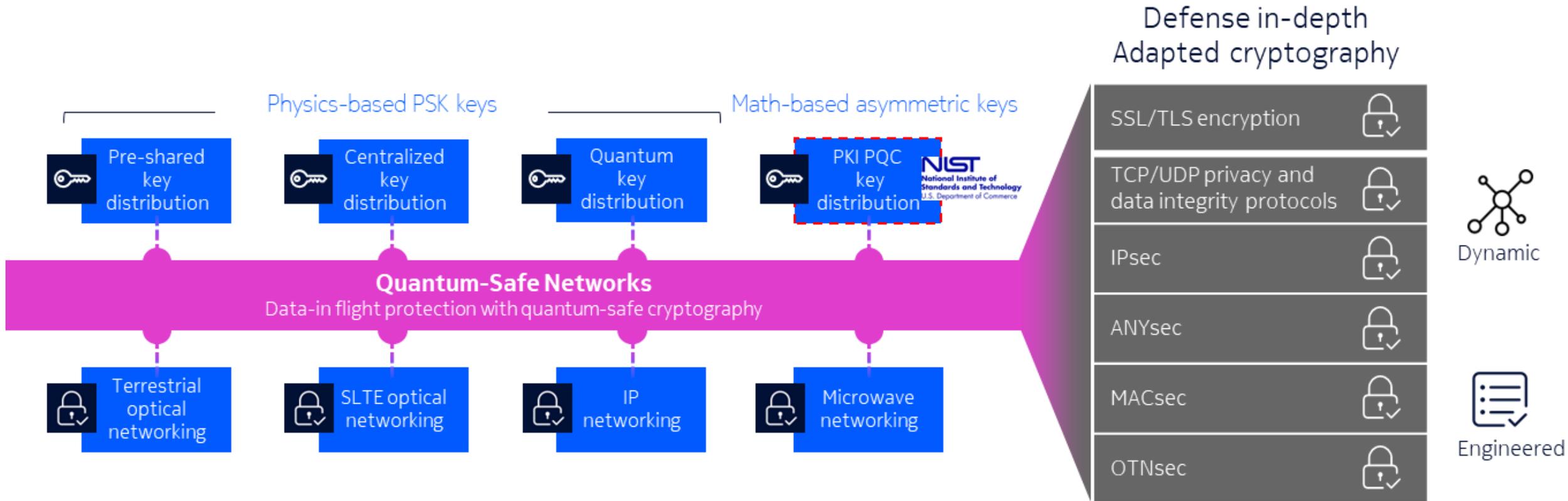
- Energy saving and efficiency toolbox of features/capabilities in wireless networks
- Network management of energy saving features
- **Energy consumption & efficiency measurement methods**
- Environmental impact assessment methods
- **Climate change & Circularity impacts**
- **Life Cycle Assessment [LCA], footprint, handprint, enabling effects**
 - Research on sustainability in next generation networks i.e. IMT-2030, 6G, ...



ITU-T SG5 well position to continue leadership related to measurement and circularity

Emerging domains : Quantum-Safe Transport Networks

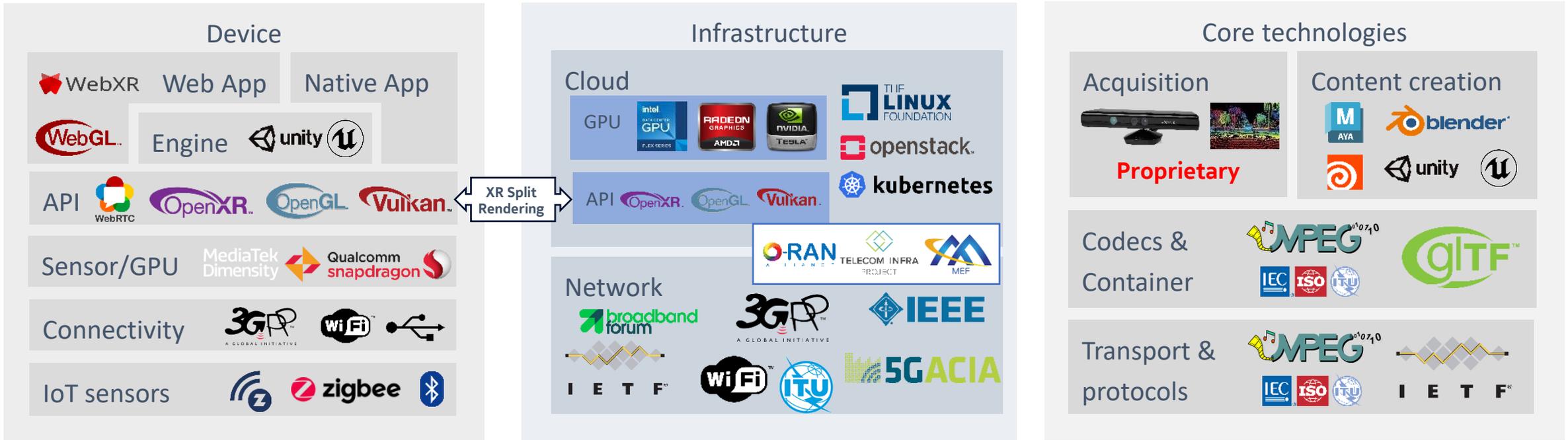
A multi-domain, terrestrial and subsea transport solution for data in-flight protection



ITU-T should aspire leadership on architecture framework for Quantum Safe Network
Cooperate with ETSI, NIST, IETF, IOWN-GF....

Emerging domains: Metaverse. Key to its success: cross-domain interoperability

A snapshot of STDs and industry initiatives progressing Metaverse

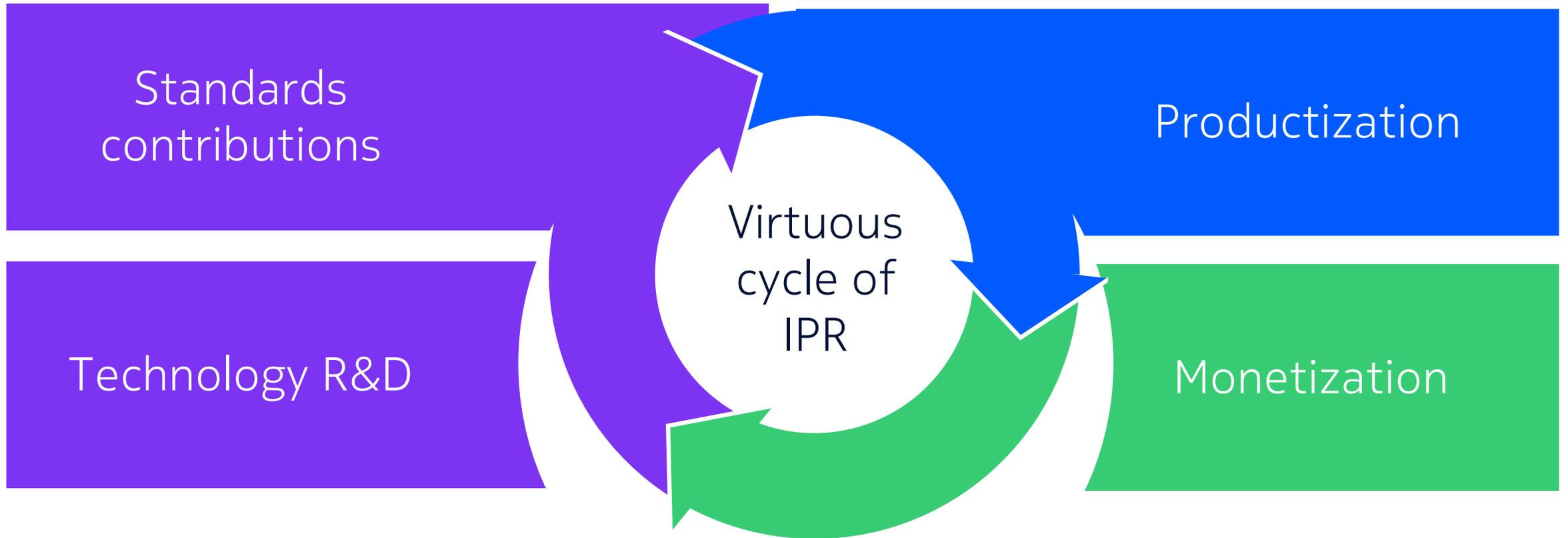


Four main challenges to enable metaverse

- 1) Scaling to Massive Metaverse
- 2) Intersection Applications, Cloud, Networks
- 3) Enable interoperabilities for diverse environment
- 4) Importance of E2E power saving

ITU standards on transport as well as multimedia are essential basis for the Metaverse

The role of IPR and Standards



FRAND IPR rules are basis of virtuous cycle of innovation standard-based technologies in ITU

Industry Engagement in ITU-T

A call for action for ITU and the global standardization community

Define vision and framework

ITU cooperates with standard organizations recognized by market, leveraging their expertise

ITU endorses standards for global use

Committed to SDG's

Green for ICT and ICT for Green

AI framework for ethical and interoperable deployment

Member States Lead

Maintain ITU recognized excellence in Networks Infrastructure as well as Multimedia

Address reputation of ITU-T

Activities with limited industry support

Areas with limited regional impact

Make impact in new topics

New Standard on Quantum Networking

**Leadership
by Excellence**

Keep : FRAND framework as backbone of enabling innovative global ecosystems

Improve decision making processes to reach global success

Future ITU work program structure should enable innovation excellence

Use metrics to assess impact of work

Enable Innovations