



EuroDIG 2024

Workshop 3:

**Network Evolution:
Challenges and Solutions**

19 June 2024

Agenda

Welcome, and Opening Remarks	Karen Mulberry, Moderator
Introducing the EU White Paper: How to master Europe's digital infrastructure needs?	Miguel González-Sancho, European Commission, Head of Unit - Future Connectivity Systems, Directorate-General CONNECT
ETNO's perspective on the technological and market changes that will affect network rollout and network operations in Europe over the coming years.	Paolo Grassia, ETNO, Senior Director of Public Policy
Infrastructure needs around evolving the network	Peter Koch, DENIC, Policy Advisor
“Digital Decade 2030” targets on “Gigabit for everyone and 5G everywhere” to the recent EU Public Consultations on “The future of the electronic communications sector and its infrastructure” and “How to master Europe’s digital infrastructure needs?” and the “Gigabit Infrastructure Act”: Where do we stand and what are (some of) the challenges?	Costas Balictsis, Hellenic Telecommunications & Post Commission (EETT), Member, IEEE European Public Policy Committee (EPPC) Working Group on ICT
Panel Discussion and Q&A	Moderator and Speakers
Closing Summary	Karen Mulberry

Miguel González-Sancho

**European Commission, Head of Unit
- Future Connectivity Systems,
Directorate-General CONNECT**



EU White Paper: How to master Europe's digital infrastructure needs?

EuroDIG, 19 June 2024

Miguel González-Sancho
Head of Unit
DG CNECT E1: "Future Connectivity Systems"
European Commission

Vision: telecom sector facing unprecedented transformation

Technology

- **Enabler** of telemedicine, automated driving, predictive maintenance of buildings, precision agriculture
- New model of network and service provision relies on complex **computing continuum** of cloud, edge, content, software and component suppliers, AI (traditional boundaries blurred).
- **Massive investment needs** for underlying infrastructures and transformation of business model (more than €200 billion investment needs for Digital Decade target)

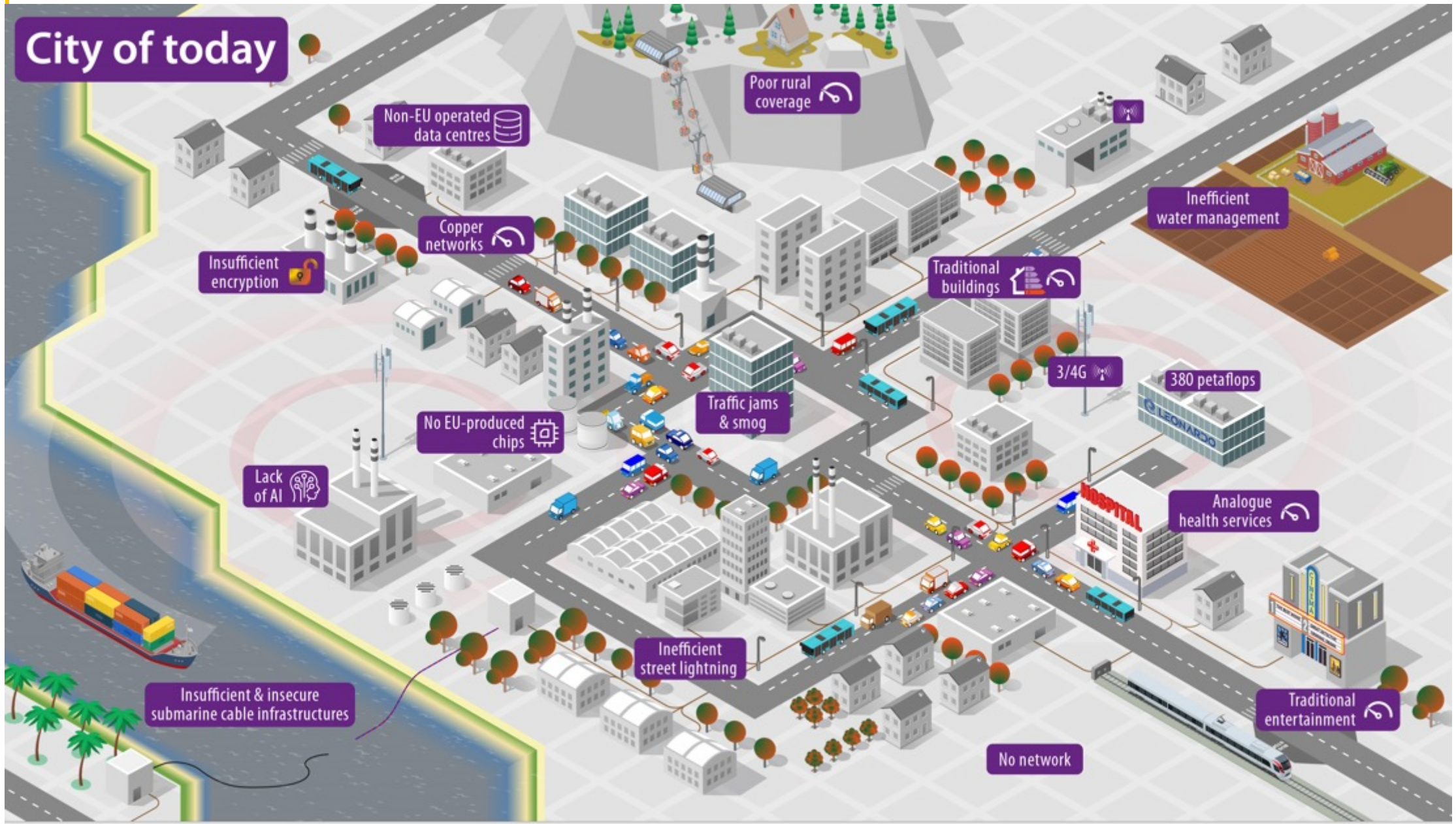
Scale - based on Single Market

- Focus on core network and operation cross-border/Country of origin provisions to address fragmentation and obstacles to the single market
- Service platform at European scale in balanced position with OTT content platforms
- EU-level spectrum licensing model for satellite services

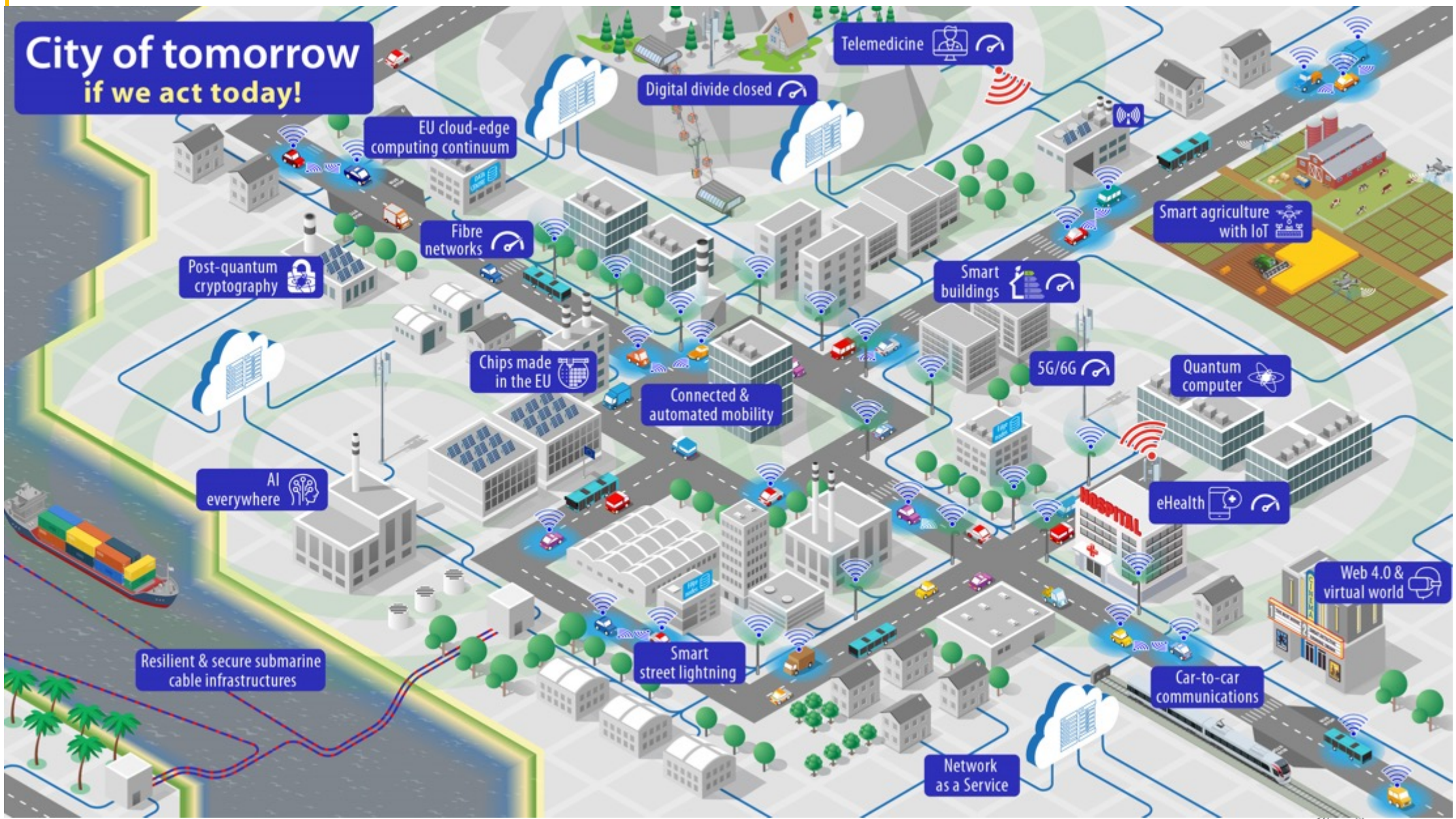
Security - Europe to face geopolitical change

- Trusted suppliers
- Secure and resilient submarine cable infrastructures
- Post Quantum Cryptography

City of today



City of tomorrow if we act today!



White Paper - How to master Europe's digital infrastructure needs?

Pillar I: Creating the “Connected Collaborative Computing” Network (“3C Network”)

- **Large-scale pilots** that set up end-to-end integrated infrastructures and platforms for telco cloud and edge
- Possibility of a **new infrastructure-focussed IPCEI**
- **Different options in order to frame the massive investments** required into a simplified and coordinated support framework for a truly digital single market drawing on European and national, public and private investments (incl. possibility to assign to the Smart Networks and Services Joint Undertaking (**SNS JU**) a **coordinating role**)

White Paper - How to master Europe's digital infrastructure needs?

Pillar II: Completing the Digital Single Market

- **Adapt regulatory framework:** realise full potential of digital single market
 - rethink scope of application and objectives
 - ensure regulatory level playing field (equivalent rights and obligations for all actors and end-users of digital networks)
- **EU core network operators:** leverage full potential of single market
 - application of a single set of rules (Country of origin)
 - change to access policy (EU wholesale access product; no markets for presumptive ex ante regulation)
- **Spectrum:** more integrated governance at EU level; more aligned authorisation and selection conditions
- **Copper switch-off:** measures to accelerate it by 2030
- **Sustainability:** all players to contribute to increasing transparency on the emissions related to service usage (e.g. ⁶codecs' performance labels)

White Paper - How to master Europe's digital infrastructure needs?

Pillar III: Creating secure and resilient digital infrastructures for Europe

On submarine cable infrastructures:

- Reinforcement of advanced **R&I activities** for new fibre and cable technologies
- **Joint EU governance system** on submarine cable infrastructures
- **Harmonised security requirements** in international fora, potentially dedicated EU certification scheme
- **Delegated Act under the Connecting Europe Facility** on CPEI list and related labelling system
- Review of available funding and financing instruments, incl. **possible equity fund**

11 April 2024: Recommendation on **Post Quantum Cryptography**

Commission Recommendation on Secure & Resilient Submarine Cable Infrastructures

Scope

- Intra-EU and international connectivity
- Cables but also landing stations, repair centres, ships for deployment, maintenance and repair

National level actions:

- Promoting high security level when transposing NIS 2 and CER Directives
- Mapping, risk/vulnerability/dependency assessments, stress tests
- Fast-track permit granting

Union level actions:

- Consolidated mapping and assessments
- Cable Security Toolbox
- Criteria for Cable Projects of European Interest (CPEIs) as potential mitigation measure
- Coordinated Team Europe approach internationally

→ **Follow-up:** Expert Group

Next steps

- **Recommendation:** First meeting of the Expert Group scheduled for 27 June 2024
- **White Paper:** [Open for feedback](#) until 30 June 2024

Thank you



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Commission (EETT), Member, IEEE
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Panel Discussion

Q & A

Thank You

Miguel González-Sancho

Paolo Grassia

Peter Koch

Costas Blictsis

Karen Mulberry

