# 5G European approach and habitat concerning cybersecurity

- The European framework background
- BEREC Internal Survey
- BEREC Internal Workshop
- Toolbox
- Way forward for BEREC

# 5G European approach and habitat concerning cybersecurity

- 12 March 2019 –Joint communication between EU and China:

    Chapter IV:

    The Commission will adopt a recommendation following the European Council for a common EU approach to security risks to 5G networks, building on a coordinated EU risk assessment and risk-management measures, an effective cooperation and exchange of information framework, and joint EU situational awareness covering critical communication networks.

- 26 March 2019- COM(2019)2335 –Commission Recommendation on Cybersecurity of 5G networks

    Request for coordinated actions at national level and at union level –BEREC explicitly mentioned

- 30 April 2019 –BEREC ad hoc WG

    Terms of Reference ("ToR") for a new ad hoc group (Ad hoc Cybersecurity of 5G Networks  working  group ("Ad hoc C5GN WG")

- 7 June 2019- the EU Cybersecurity Act was published and came into force on June the 27th 2019

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# Actions arising from COM(2019)2335-leading actors



**Member States**

**National Risk Assessments on 5G Networks**

15/07/2019

**Risk Matrix**

| Likelihood | Very Likely | Likely | Unlikely | Highly Unlikely |
|---|---|---|---|---|
| **Consequences** Fatality | High | High | High | Medium |
| Major Injuries | High | High | Medium | Medium |
| Minor Injuries | High | Medium | Medium | Low |
| Negligible Injuries | Medium | Medium | Low | Low |

NIS Cooperation Group

**Union Risk Assessment on 5G Networks** 9/10/2019
https://ec.europa.eu/commission/presscorner/detail/en/IP_19_6049

**Common Union toolbox to address the risks** 29/1/2020
https://ec.europa.eu/digital-single-market/en/news/cybersecurity-5g-networks-eu-toolbox-risk-mitigating-measures

Internal Survey/ Internal Stakeholder Workshop

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# BEREC Internal survey description

**Part 1:** Aimed to map the national state of play for security requirements in the 3G, 4G and 5G networks. It also touches the plans of the Member states about the possible future legislation changes about the network security requirements. Interested in special present and future plans about the network security requirements for the spectrum assignment.

**Part 2:** Operators' survey included questions for the 3G, 4G and 5G network operators in each country. BEREC would like to gain insights from the operators about the footprint and market shares of equipment suppliers as well as their views on future/possible 5G regulation.

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# BEREC Internal Workshop @27 of November 2019

**Participants: DG Connect / ENISA / ECTA / ETNO / GSMA / GSA**

**Fast takeaways:**

Collective efforts are necessary by all participants

5G infrastructure lifecycle must be examined in a sequence: standardization body > vendor> operator

 Proposals for the toolbox:

- Validation /assurance process or schemes –e.g. NESAs can be useful. Focus not only on certification level (validation, assurance, etc.)

- Integrated  vision applicable to all of 5G is necessary ( eg mobile edge computing has to be addressed also)

- Best practice repository could be useful

- Threat information sharing and distribution mechanism(s) necessary

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# Timeline
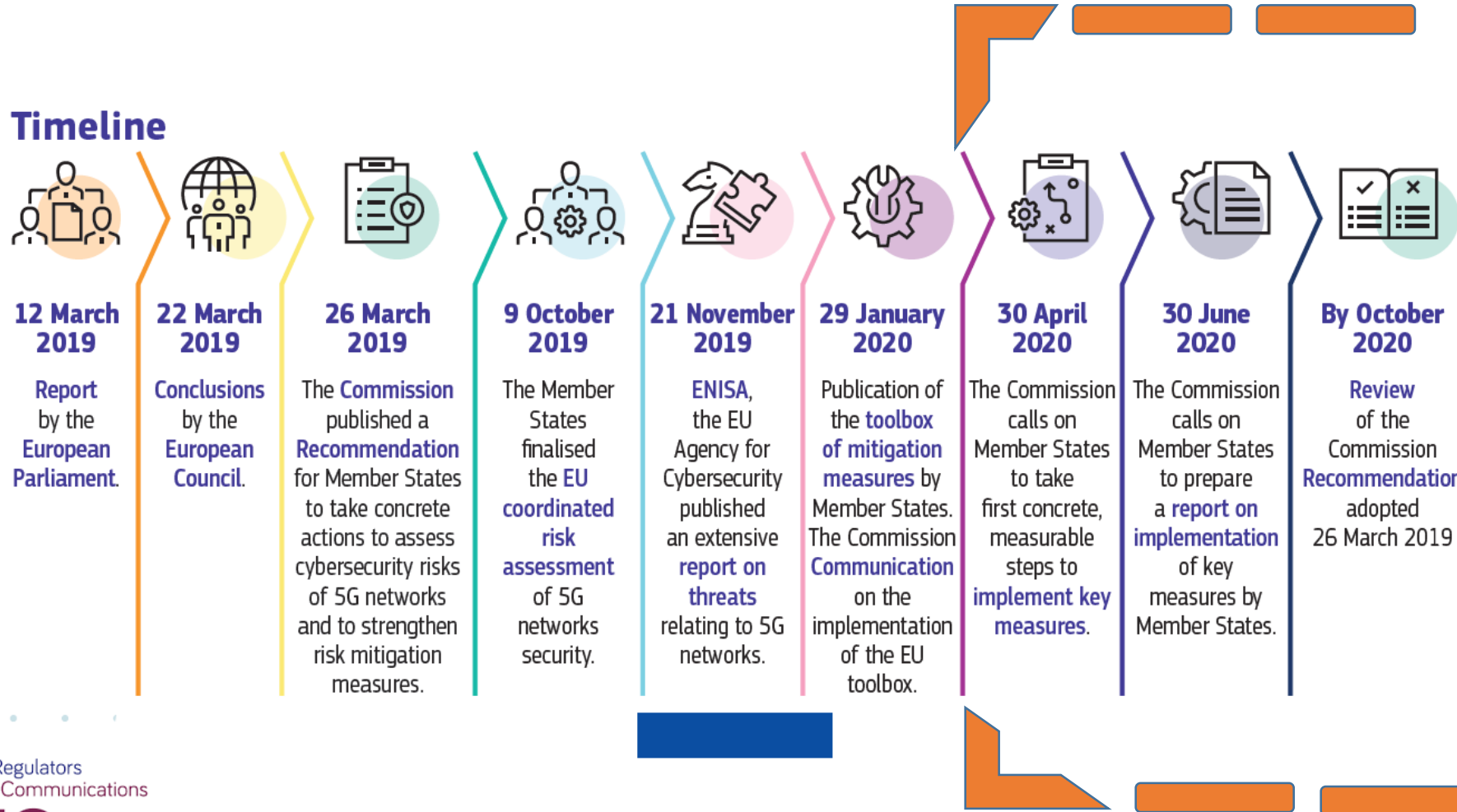
# Toolbox-brief description

## EU Toolbox for 5G Security

Based on the EU coordinated risk assessment of 5G networks security, the toolbox lays out a range of security measures, which allows to mitigate risks effectively and ensure secure 5G networks are deployed across Europe. It sets out detailed **mitigation plans** for each of the identified risks and recommends a set of **key strategic and technical measures**, which should be taken by all Member States and/or by the Commission.

### STRATEGIC MEASURES

- Regulatory powers
- Third party suppliers
- Diversification of suppliers
- Sustainability and diversity of 5G supply and value chain

### TECHNICAL MEASURES

- Network security – baseline measures
- Network security – 5G specific measures
- Requirements related to suppliers' processes and equipment
- Resilience and continuity

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# Toolbox key measures

## EU Toolbox conclusions: key measures

**Member States**: they should have measures in place and powers to mitigate risks. In particular they should address these aspects:

- strengthen **security requirements** for **mobile network operators**;
- assess the risk profile of suppliers; apply relevant restrictions for suppliers considered as high risk, including necessary exclusions for key assets;
- ensure that each operator has an appropriate **multi-vendor strategy** to **avoid** or **limit** any **major dependency** on a single supplier and avoid dependency on suppliers considered to be high risk.

The **European Commission** together with Member States should take measure to:

- maintain a **diverse** and **sustainable 5G supply chain** in order to avoid long-term dependency, including by:
  - making full use of the existing EU tools and instruments (FDI screening, Trade defense instruments, competition);
  - further strengthening EU capacities in the 5G and post-5G technologies, by using relevant EU programmes and funding;
- facilitate coordination between Member States regarding **standardisation** to achieve specific security objectives and developing relevant EU-wide **certification schemes**.

In addition, the mandate of the **NIS Cooperation Group Work Stream** should be extended to support, monitor and evaluate the implementation of the toolbox.

# Way forward for BEREC

- ENISA-BEREC Joint Workshop end of March 2020

- Specific strategic measures under evaluation by BEREC adhoc 5G Cybersecurity WG

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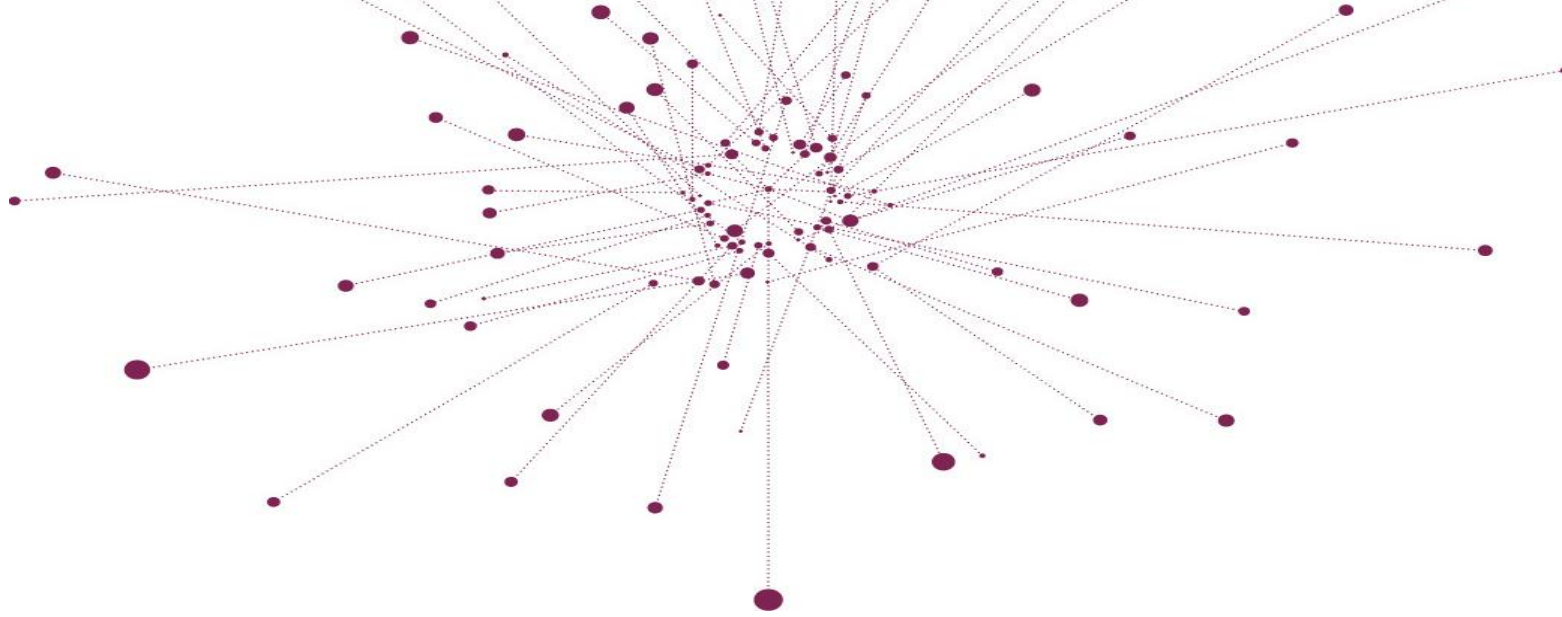
Thank you!

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