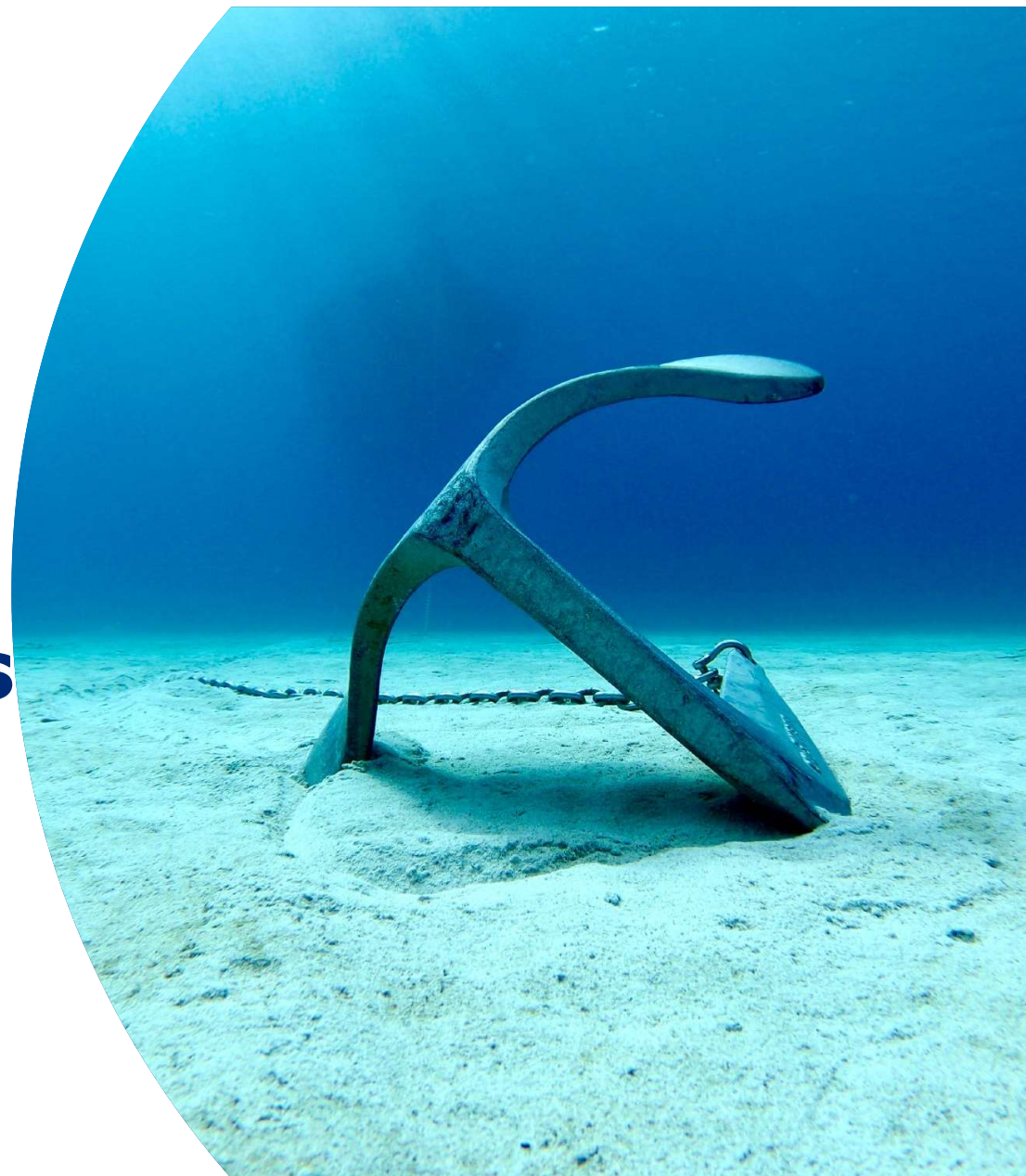


Critical Telecommunications Infrastructure

Director-General
Jarkko Saarimäki



**Courage,
cooperation
and reform**

**Always
ready for
change**



We ensure the smooth, sustainable, safe and secure movement of people, goods, information and data.



We build sustainable economic growth together with our stakeholders.



We are a pioneer of safe and secure digitalisation.

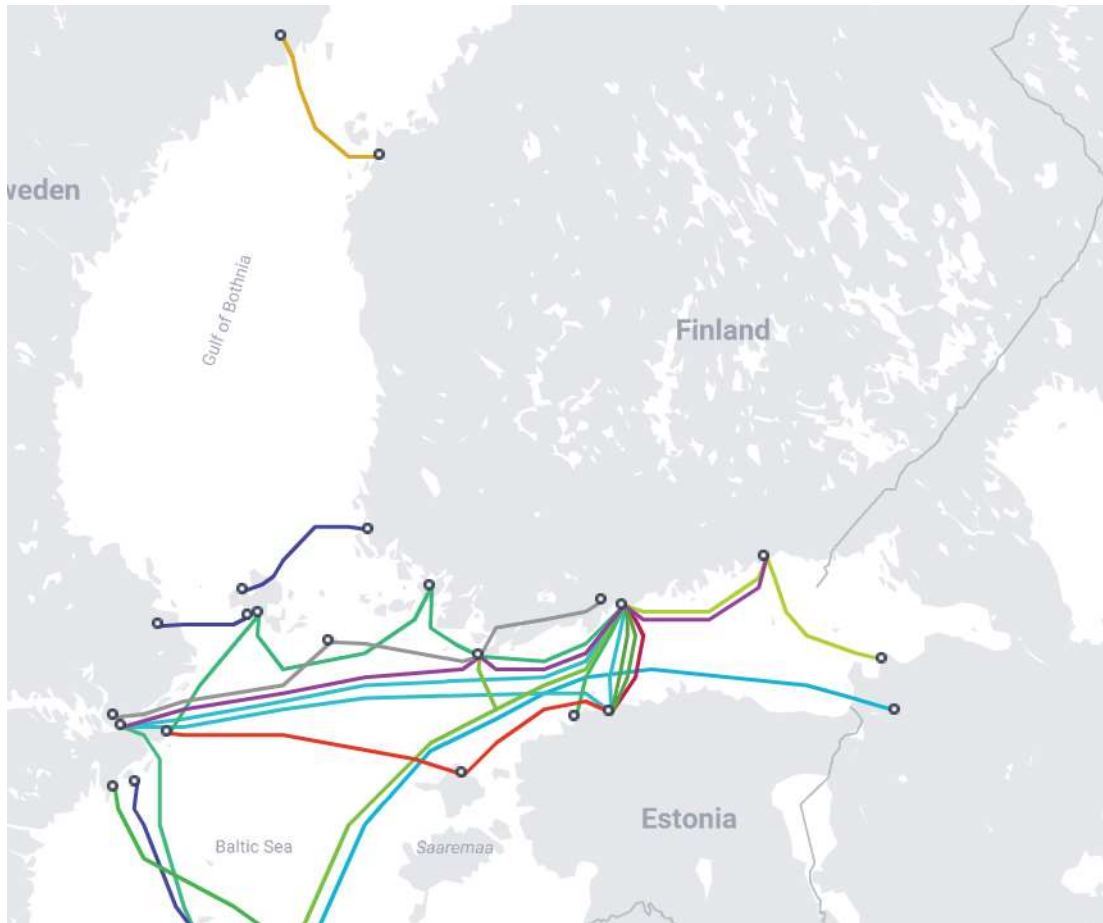


Our success is based on the wellbeing and competence of our personnel.

**We build a safe and functioning society based on
cyber security, transport and communications.**

TRAFICOM

How Important Are Submarine Cables for Finland?



- ▶ Finland is an Island
- ▶ Cables are vulnerable to both malicious and unintentional hazards
- ▶ Cables are protected by legislative, technical and operational measures



How Our Legislation Protects Communications Network Infrastructure?

Requirements of Protection Are Set by Law

Must withstand normal expected climatic, mechanical and other external disturbances

Faults and disturbances that significantly disrupt functionality must be detected.

What Kind of Technical and Operational Protection Do we have?

- ▶ Telecom operators have **several international cables**
 - ▶ Detailed and tested **methods for rerouting traffic**, including **inter-operator collaboration**.
 - ▶ The most important **systems are duplicated** and the most important **communication connections are route-secured**.
 - ▶ In addition to the existence of several submarine cables, the **internet is technically quite fault-tolerant**: Internet routing protocols automatically find new routes for traffic if a connection is lost.
- ▶ Traficom regulates and monitors international communication cable situation in Finland.

Is There Still a Change of Faults or Disturbances?

- ▶ There is no such thing as 100 % security or operational reliability: **cable breakages are possible and they will happen**
 - ▶ Weather, maritime traffic...

<i>Co-operation</i>		
Prevent	Detect	Fix



What Are Traficom's Ideas on Possible Future Work?

*Adequacy of
repair
capacity*

*Sequence of
repair works*

*Joint material
stockpiles*

*Censoring of
infrastructure*

And of Course There Is Much More Critical

- ▶ Physical infrastructure
 - ▶ Optic and copper cables
 - ▶ Mobile Networks
 - ▶ Satellite Connections
- ▶ Network and information systems
- ▶ Service Providers and Connectivity
- ▶ Security and Management Systems
- ▶ And all dependencies
 - ▶ Electricity

THE FUNCTIONS VITAL FOR SOCIETY



