

ETSI Software Development Groups

Collaborative Software in Support of Standardization

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20/04/2026

ETSI Software Development Groups

A type of group in ETSI to support **software driven ecosystems**



Tailored for collaborative software development, in support of standardization



Choice of software license, including open source



Open communities, meritocracy-based governance

What is in it for ETSI



A **TOOLBOX** for quick prototyping, **experimentation** and new use-case validation allowing ETSI groups working on future network technologies to **accelerate** standardization cycles and optimize their **quality**.

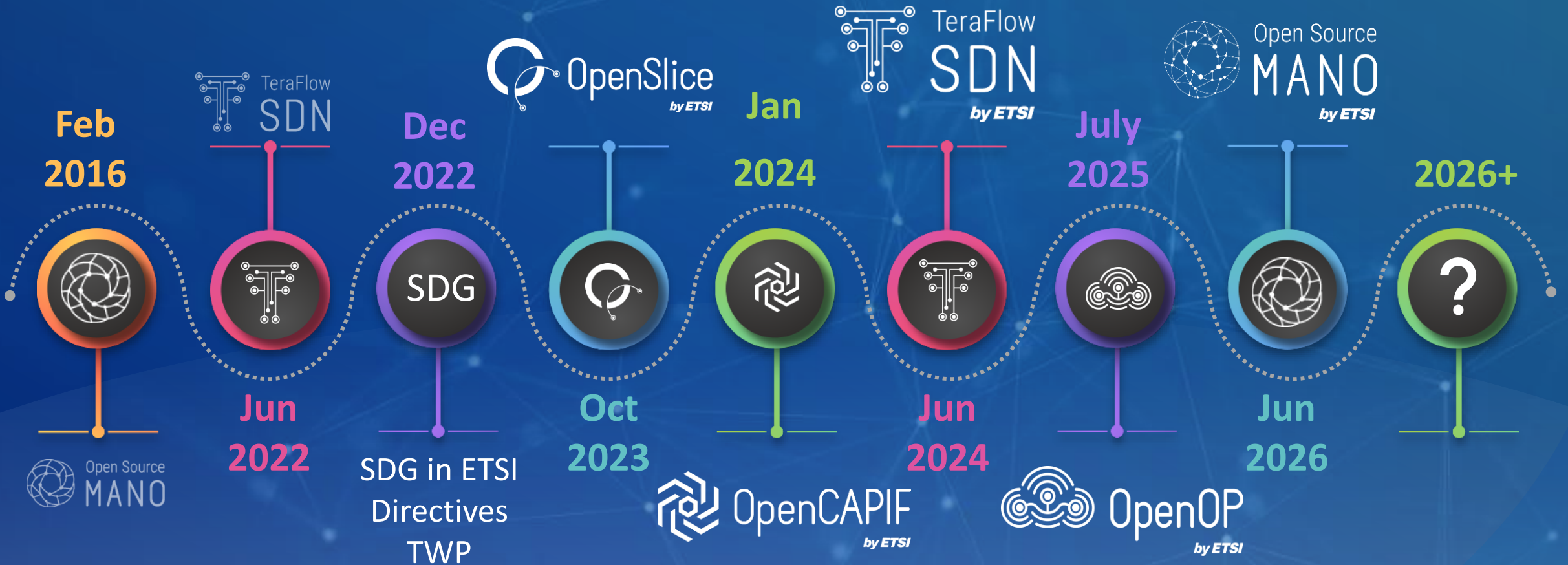


A **BRIDGE** between **Standardization** and **Research**, as the code is adopted by research projects and new contributions received.



A **VEHICLE** to **promote** and facilitate adoption of ETSI standards among **software** development communities and **open source** projects.

Open Source & SDGs at ETSI – a bit of history

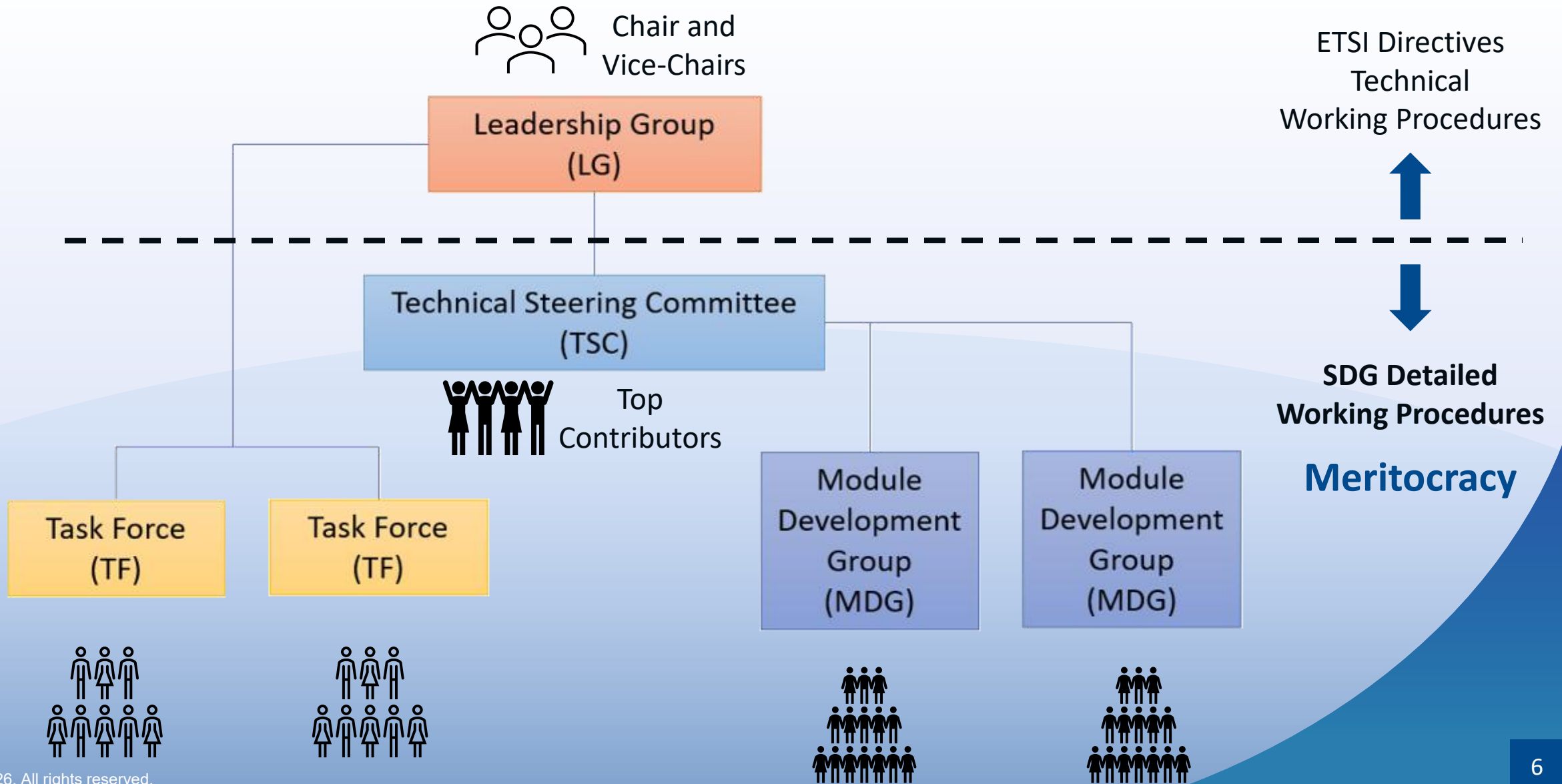


SDGs to support standardization

- ✓ Ideal framework for **software driven** standardisation work
- ✓ In many aspects, like ISGs ... but for software!
 - ✓ Initiated by any group of companies, provided at least **four are ETSI members**
 - ✓ **Creation approved by the ETSI Director-General**, following consultation with the **ETSI Board**.
 - ✓ Initial period is **2 years**, renewable.
- ✓ **Open to ETSI members, non-members and individuals**
- ✓ Own **SDG Detailed Working Procedures**
 - ✓ **To define structure, code related decision-making processes**



SDG Governance & Decision Making



SDG Way of Working

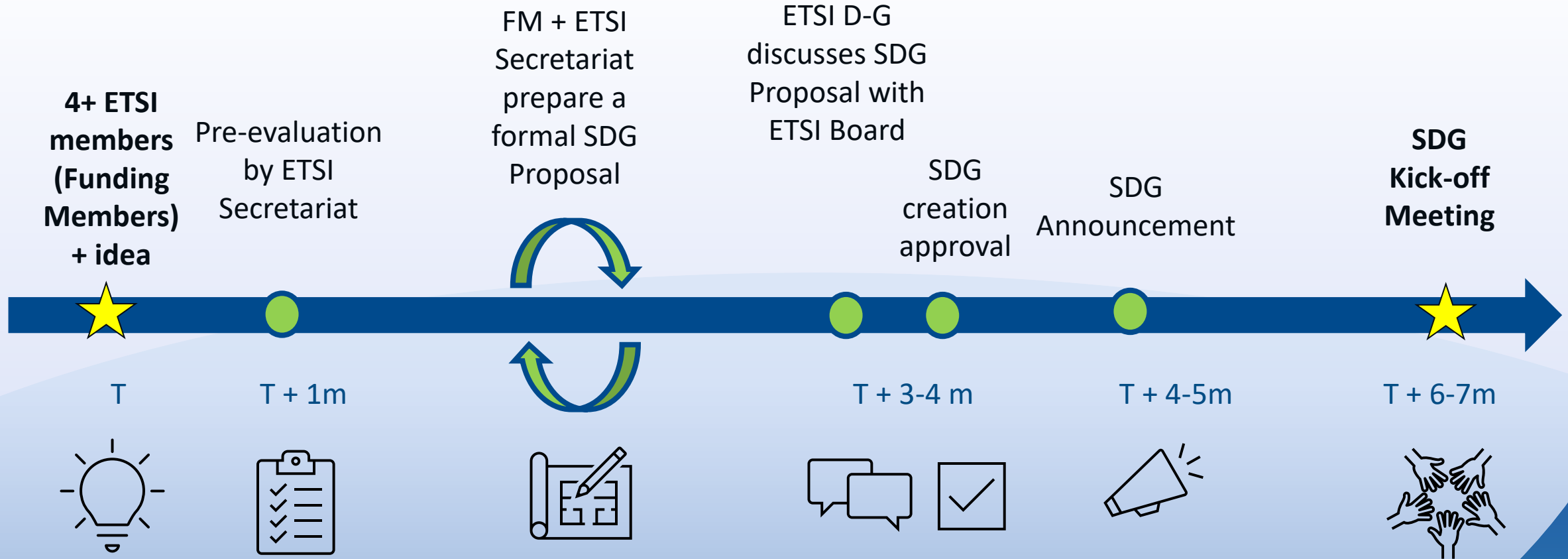
- SDGs develop code, not standards, but
 - They provide regular feedback to standardization groups (joint workshops, contributions..)
- Most of the hard work (code) is done asynchronously & online (Gitlab, Slack, ..), but
 - Community meets regularly (weekly conf calls / 2+ Plenary meetings a year)
- Major code releases twice a year
 - Followed by Plenary meetings, Hackfests, Webinars, Demos, External Events...



```
429     range(256):
430     ipplist.append(('172.16.17.1', 1/2, 'str(=)')
431     subclass='C':
432     for i in xrange(256):
433         ipplist.append(('192.168.'+str(i)+'.'+str(i)+'.'+str(i)+'.'+str(i)))
434
435     q=Queue()
436     for i in range(NUM):
437         th = Thread(target=pingsubnet,args=(q,))
438         th.setDaemon(True)
439         th.start()
440
441     for ip in ipplist:
442         q.put(ip)
443     q.join()
444     for addr in pinglist:
445         print addr,'is reachable.'
446
447 def scanipport():
448     global lock
449     while True:
450         host,port=sq.randget()
451         sd=sk.socket(sk.AF_INET, sk.SOCK_STREAM)
```



Creating a new SDG



How to get started with ETSI SDGs

As an individual

Who:
Anyone

- ✓ Download the code from <https://labs.etsi.org/>
- ✓ Read the documentation
- ✓ Join the Slack and ask questions
- ✓ Subscribe the INFO mailing list
- ✓ Participate in a Hackfest or Ecosystem Day

Who:
Individual
Users

- ✓ **How:** Create an individual account at <https://labs.etsi.org/signup/>
- ✓ **What:** All the previous +
 - ✓ Submit bug reports
- ✓ **How:** Accept the SDG ICLA and Upgrade your account to Individual Contributor at <https://labs.etsi.org/manage/>

Who:
Individual
Contributors

- ✓ **What:** All the previous +
 - ✓ Subscribe the TECH mailing list
 - ✓ Participate to TECH Sessions / Conf Calls
 - ✓ Contribute code and documentation

As an organisation



Who:
Non ETSI
Members

- ✓ **How:** Sign the SDG Agreement
 - ✓ – yearly fees may apply (*)
- ✓ **What:** All the previous +
 - ✓ Request an ETSI Online Account (EOL)
 - ✓ Subscribe the SDG Mailing list
 - ✓ Participate in Plenary meetings
 - ✓ Link new features and contributions to your research project
 - ✓ Get your research project listed in SDG Ecosystem pages
 - ✓ Apply for Module Leader positions
 - ✓ Apply for TSC positions
 - ✓ Apply for TSC Chair position

Who:
ETSI
Members

- ✓ **How:** Sign the SDG Agreement
- ✓ **What:** All the previous +
 - ✓ Apply for Leadership Group positions (Chair, Vice-Chair)
 - ✓ Access to all ETSI TCs & ISGs

OpenOP

Since July 2025

OpenOP is delivering an Open-Source Operator Platform enabling operator network and testbed federation, along with capability exposure APIs.



<https://oop.etsi.org>

OpenCAPIF

Since January 2024

OpenCAPIF is developing an open source Common API Framework as defined by 3GPP, allowing to expose and invoke APIs in a secure and consistent way.



<https://ocf.etsi.org>

OpenSlice

Since October 2023

OpenSlice is developing an open source Operations Support System delivering Networks as a Service



<https://osl.etsi.org>

TeraFlowSDN

Since June 2022

TeraFlowSDN develops an open source cloud native SDN controller enabling smart connectivity services for future networks beyond 5G.



<https://tfs.etsi.org>

Open Source MANO

Since April 2016

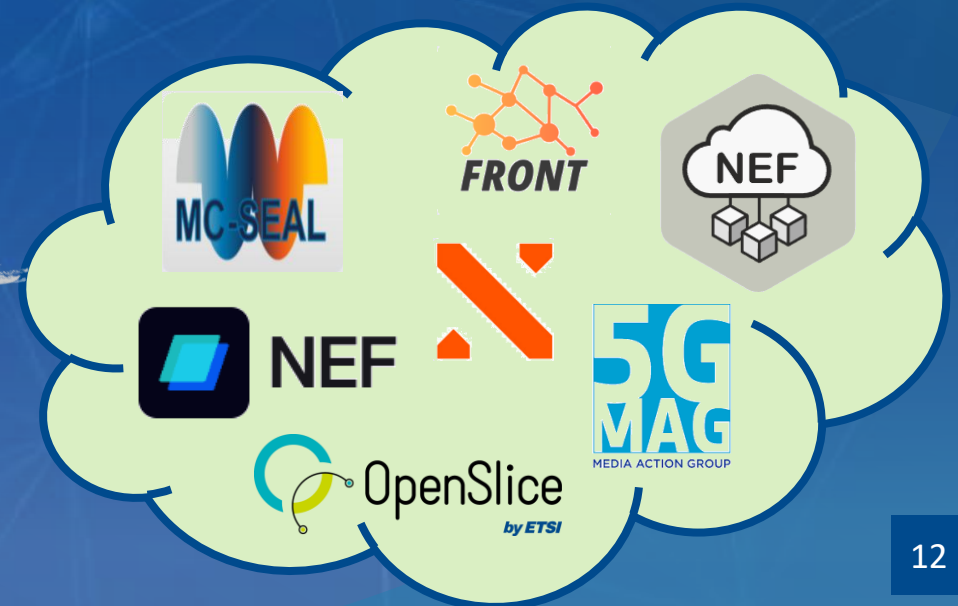
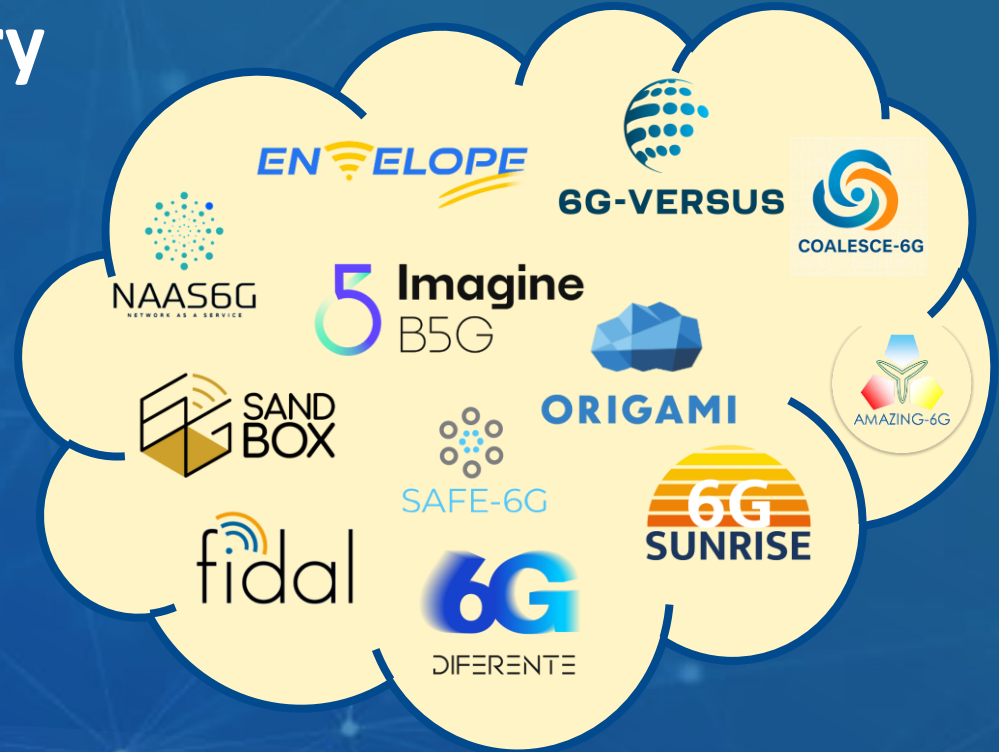
Open Source MANO develops an open source telco cloud orchestrator aligned with ETSI NFV Information Model



<https://osm.etsi.org>

Contact SDGsupport@etsi.org

The SDG OpenCAPIF Success Story & the OpenCAPIF Ecosystem



Thank you!

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