A horizontal bar with a teal segment on the left and an orange segment on the right.

# Internet Engineering Task Force (IETF)

APIGA 2024: Governance of the Internet, 9 July 2024

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## Making the Internet work better!

# IETF Mission

Make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.

[RFC 3935]



**Everyone** may participate



Make all work available for **free**



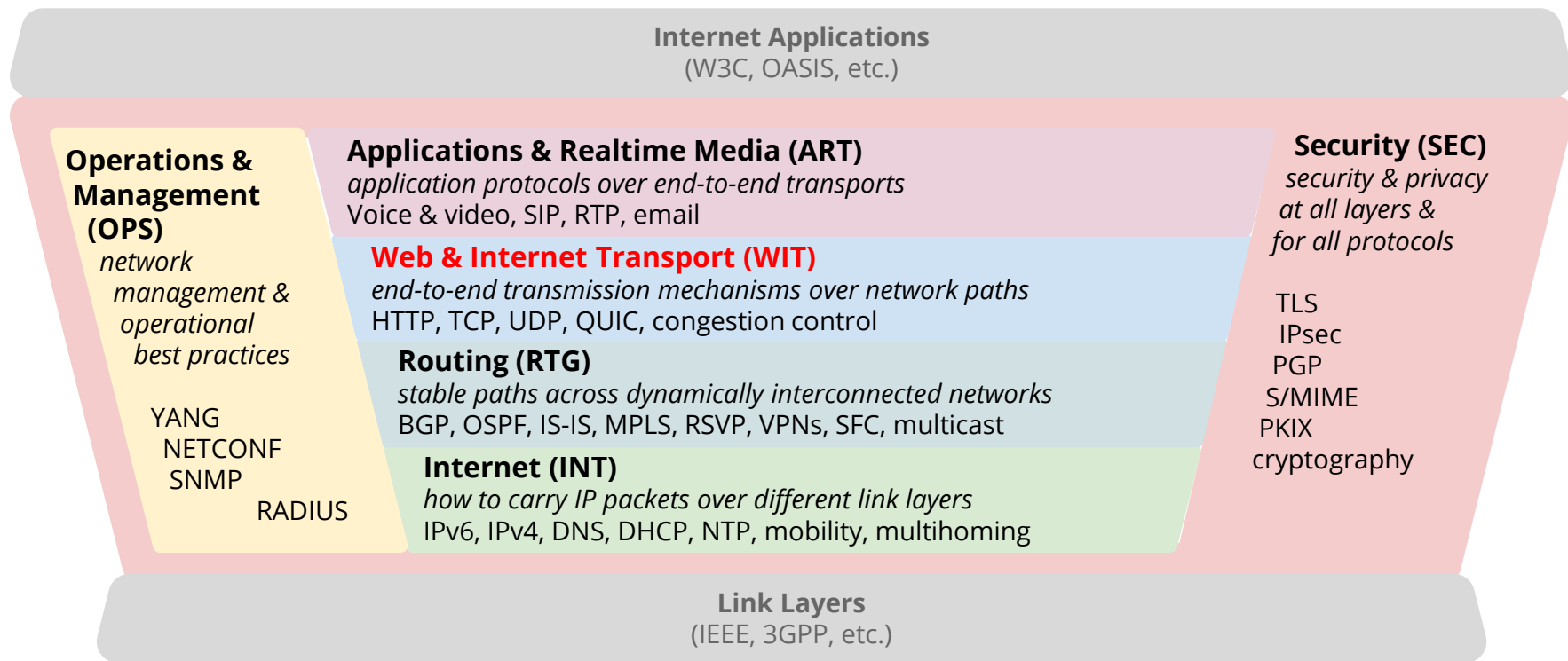
Judge contributions on **technical merits**

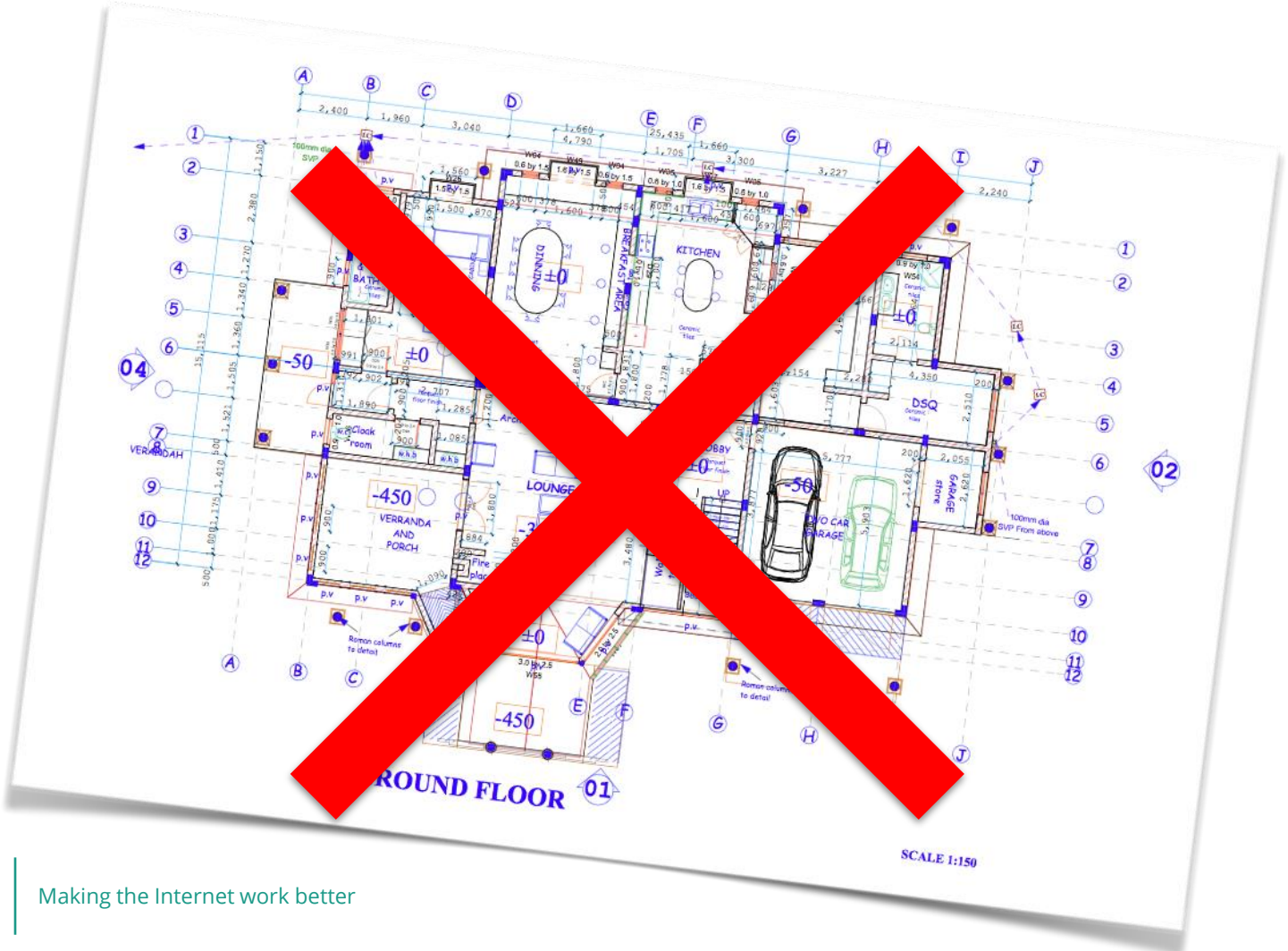


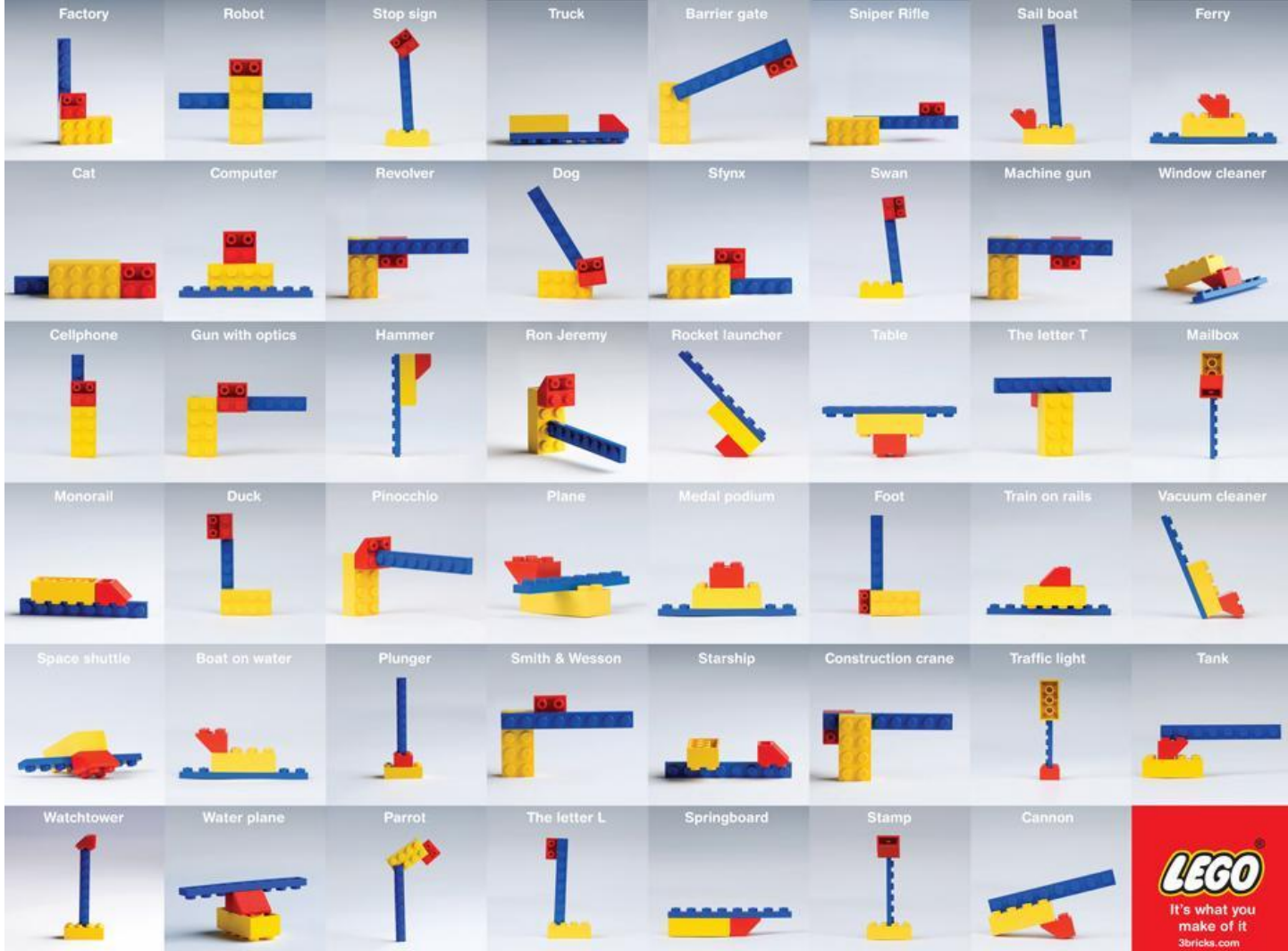
Determine success by **voluntary deployment**

# IETF

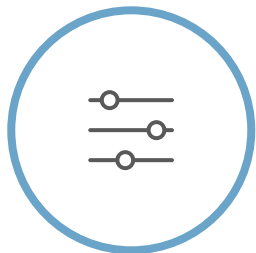
## Work Areas and Key Protocols







# Examples of Relevant, On-going Work



## Improvements on media transport

E.g. **Media over QUIC (MoQ)** develops a simple low-latency media delivery solution for ingest and distribution of media

page  
07



## Improving security and privacy

E.g. **TLS1.3** to ensure the Internet is trusted as a medium for communications and collaboration



## Performance optimizations

**Low Latency, Low Loss, and Scalable Throughput (L4S)** Service supports both high bandwidth and low latency



## Developing new transport technology

E.g. **QUIC and HTTP3** to enhance the ability of applications to send data across a growing and diverse Internet



- Open standards are key to allow devices, services, and applications to **interoperate across a interconnected, heterogeneous, and global network of networks**
  - All IETF standards are available **online at no charge**, thus facilitating adoption of them.
  - The IETF determines its success by **technical quality and voluntary deployment**
- The IETF process is **open, transparent**, and relies on a **bottom-up consensus-building**
  - **Everybody may participate**, no membership
  - All work like Internet-Drafts and email archives are **publicly available**
  - Decisions are based on **rough consensus**
- **Openness** in both the technical standards itself as well as the standards development process is the basis for **innovation** in and on top of the Internet and **key to its success**.

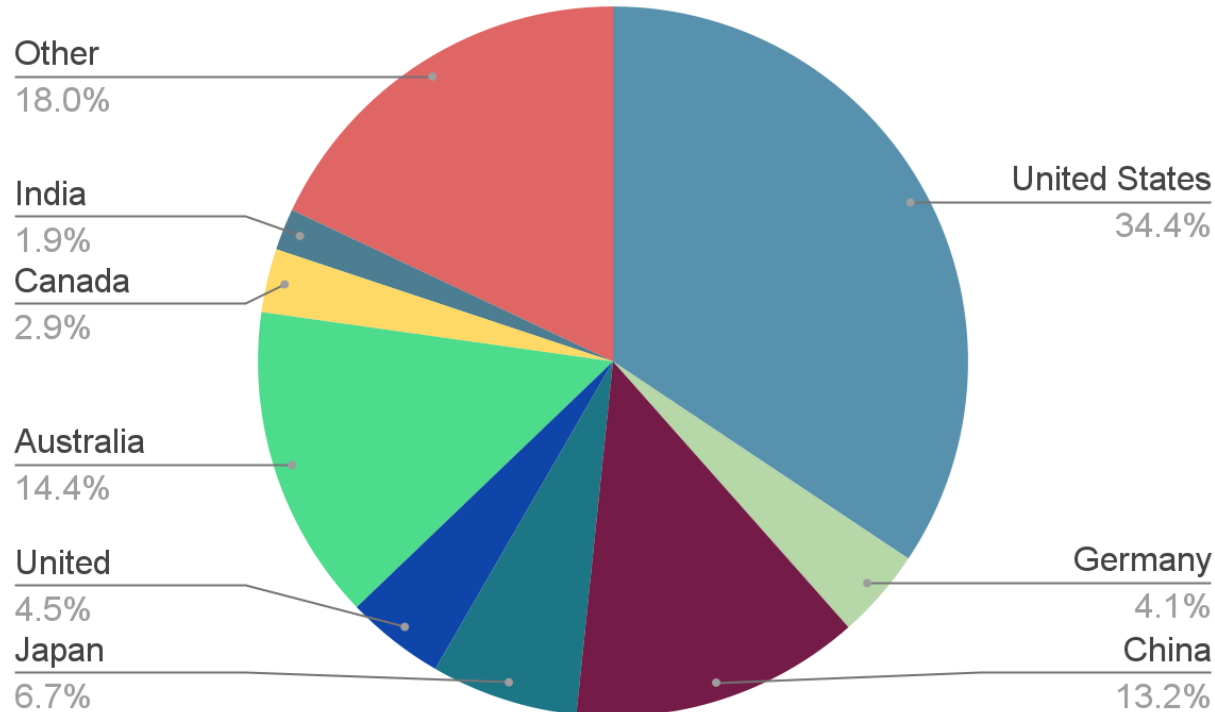


# Global IETF Community



# IETF 119 Brisbane, March 2024

## 1460 onsite and remote participants



# IETF Snapshot 2023

<https://www.ietf.org/blog/ietf-snapshot-2023>

**7,859 Participants**

in all IETF activities (mailing list posters, meeting participants, I-D authors)\*

**5,128 Registered**

IETF Meeting participants

## Documents

**1066** Internet-Drafts (I-D) submitted†

**2832** I-D authors

**173** RFCs published

**138,303 Messages**

sent to IETF mailing lists

**3,177 Individuals**

posting to IETF mailing lists

## Working groups

**126** Active Working groups

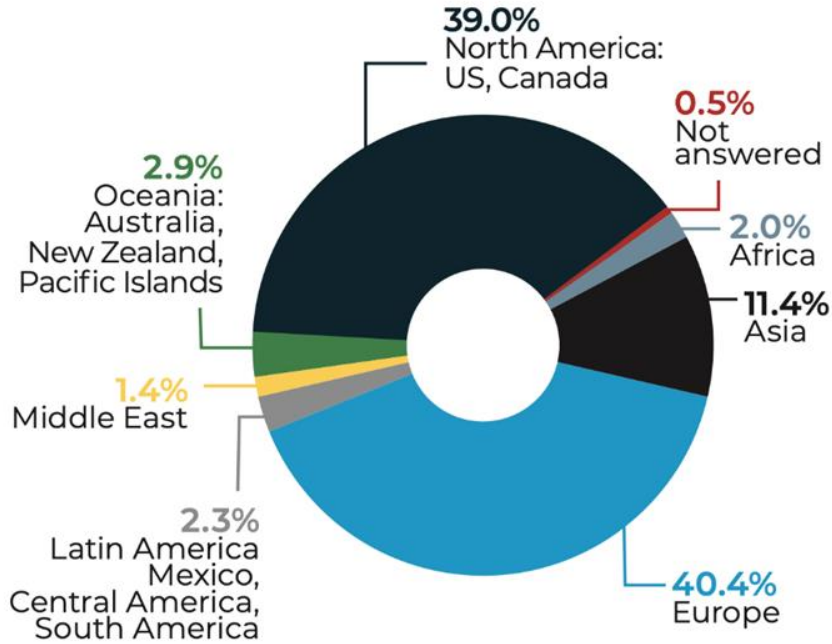
**8** of new Working Groups chartered during 2023

**8** IETF Working Groups concluded during 2023

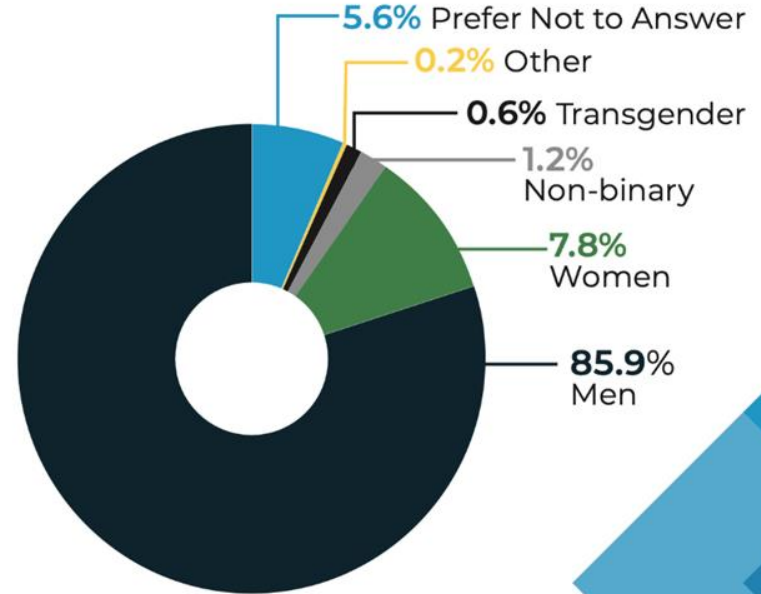
*\* based on unique email address used to register for IETF events, submit I-Ds, and post to IETF mailing lists*

*† Unique I-D names not counting different versions of the same I-D submitted to the IETF I-D archive*

# IETF Community by Geography



# IETF Community by Gender



*People may declare multiple genders and therefore the total exceeds 100%*

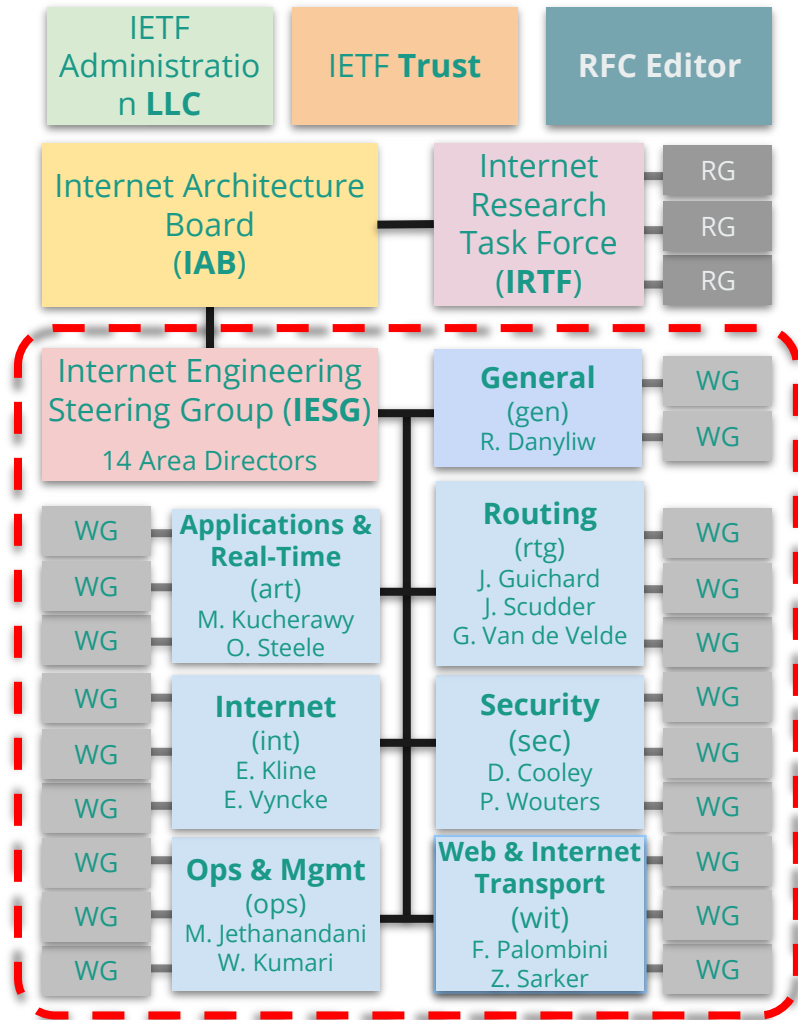


We believe in:  
Rough consensus  
and running code

*David Clark, 1992*

# IETF Organizational Structure

- IETF is structured into seven **areas**
  - Each with area directors (**ADs**)
- Areas are structured into **working groups (WGs)**
  - Each with WG chairs
- Internet Engineering Steering Group (**IESG**) = all ADs
  - Approves all Internet Standards
  - Manages technical work
  - Starts/ends WGs



- **Open** participation, **transparent** processes, and **distributed** decision-making
- **Rough consensus**, no voting
- Judgments on the basis of **technical merit** and **architectural alignment**
  - Leadership judges consensus rather than offering personal opinions
- Leadership **nominations committee** (“NomCom”)
  - Randomized selection of committee members from pool of active IETF volunteers
  - Two-per-organization limit on committee members
  - Decisions on the basis of community feedback
- Leadership **diversity norms**; soft per-company limits

## Internet-Draft (I-D)

- Active **working documents**
  - *Not finalized and not stable*
- **Anyone can submit an I-D**
  - *draft-yourname-...*
- Only **some I-Ds are Working Group documents**
  - *draft-ietf-wgname-...*

## RFC (Request For Comments)

- **Archival** publication series
  - RFCs never change once published
- **Not all RFCs are standards**
  - Also: Informational, Experimental
- **Not all RFCs are IETF documents**
  - Also Internet Architecture Board (IAB), Internet Research Task Force (IRTF), others

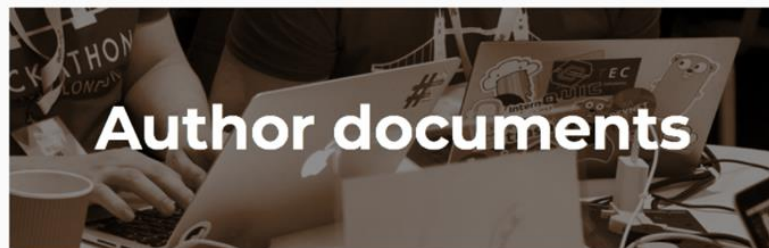
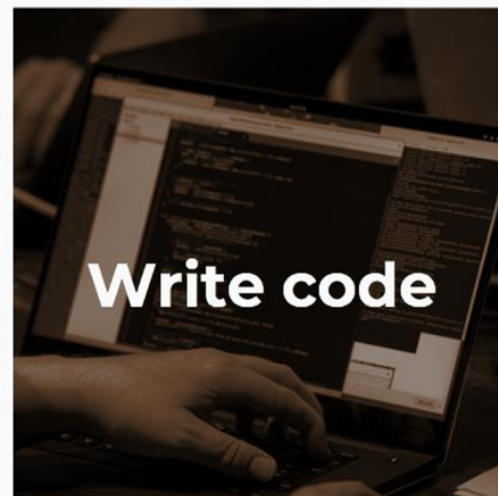


# IETF

## How To Engage

- Working groups and materials
  - **All working groups are open to anyone and free to join**
  - All working materials are freely available online
  - Most work is conducted online
- Meetings and events
  - **IETF plenary meetings** are held three times a year (rotating around the globe)
  - Some working groups schedule **interim meetings** at various times and places
  - **Full remote participation** is available for all meetings (since before the pandemic)
  - Open source **IETF Hackathons** are collocated with plenary meetings
- Get started at: [www.ietf.org/participate](http://www.ietf.org/participate)

# Ways to participate in the IETF





Thank You!

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Join us at IETF 120 20-26 July 2024 in Vancouver!  
*Fee waiver for Remote Participation is available...*