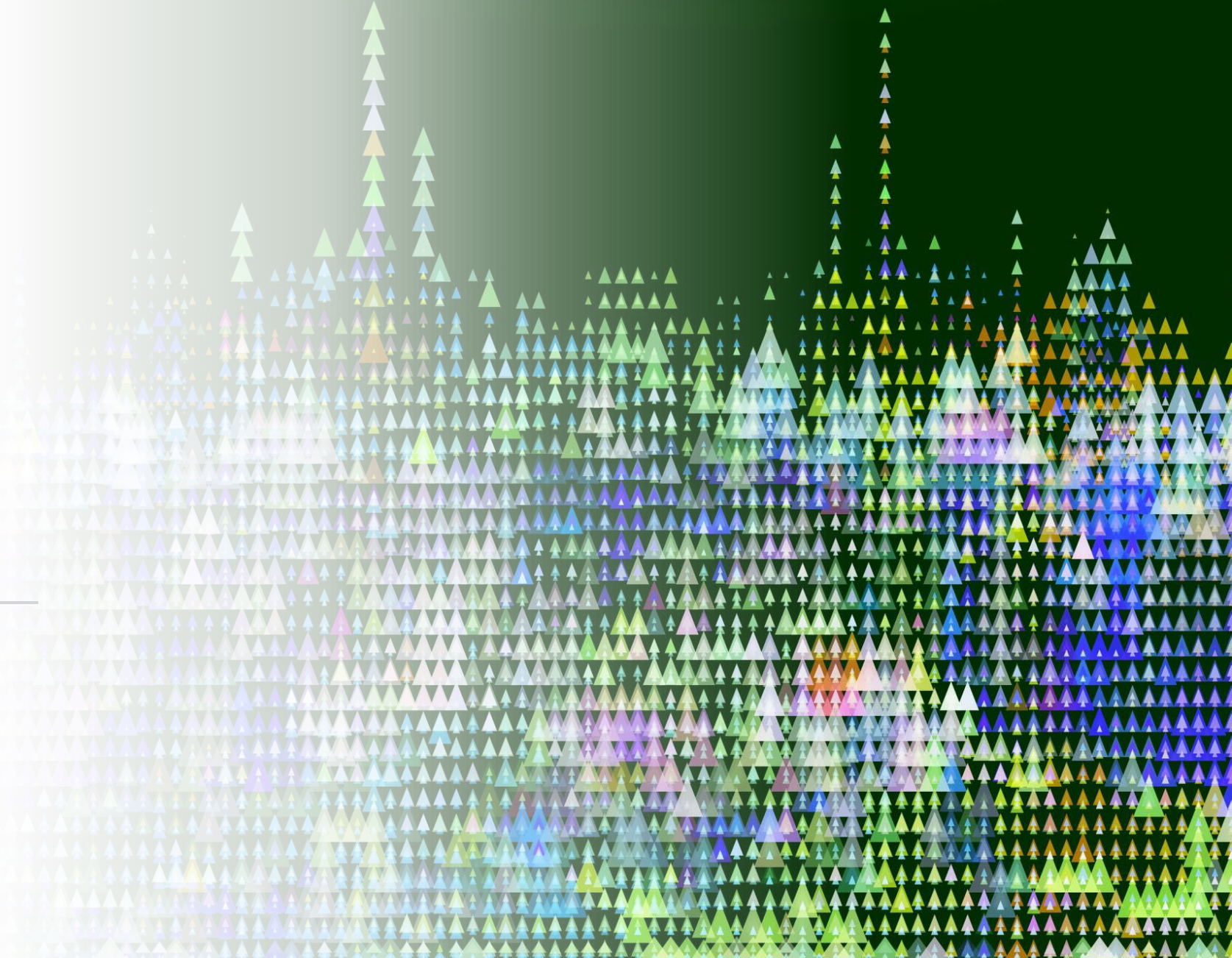# Internet toward the Future

practice and evolution

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INSIG 2022

Hyderabad

Making the Internet work

The Internet works. It is incredibly robust, and vulnerable at the same time. Yet it serves us well, around the world. How do we make sure future generations benefit from the Internet?

1. The Internet in practice, today, and how we govern it, together
   - *Governance of the Internet vs. governance on the Internet*

2. Strategic issues, as we see them today, for the years to come
   - *Trends, weak signals, key uncertainties*

3. Powers that shape the future

The Internet in practice, today, and how we govern it, together

The Internet ecosystem is a complex whole, with many interacting actors, influence by a myriad of stakeholders. What is the role of the technical community in this?

ICANN's Mission

The mission of the Internet Corporation for Assigned Names and Numbers (ICANN) is to **ensure the stable and secure operation of the Internet's unique identifier systems**

Specifically, ICANN:

1 Coordinates the allocation and assignment of names in the root zone of the Domain Name System.

2 Coordinates the development and implementation of policies concerning the registration of second-level domain names in generic top-level domains (gTLDs).

3 Facilitates the coordination of the operation and evolution of the DNS root name server system.

4 Coordinates the allocation and assignment at the top-most level of Internet Protocol numbers and Autonomous System numbers.

5 Collaborates with other bodies as appropriate to provide registries needed for the functioning of the Internet as specified by Internet protocol standards development organizations.

Technical Internet Governance

The Internet Governance Ecosystem

Discussion

What are the strengths and weaknesses of such an ecosystem?

Strategic issues, as we see them today, for the years to come

The ICANN 5-Year Strategic Plan and it's five areas of specific focus.

Key uncertainties

- Fragmentation of the Internet - or fragmentation on the Internet

- Digital divide: becoming bigger, or will we deal with it

- Securing our communications: increasing insecurity or justified trust

- Integration of things and intelligence

- …

Your key uncertainties depend on what you want to achieve

Strategic Objectives for **Fiscal Years 2021–2025**

Taking into account the external impacts on the global growth and evolution of the Internet, the DNS, and other unique identifier systems ICANN helps coordinate, the following five strategic objectives are identified for the fiscal years 2021–2025 to enable ICANN to continue to fulfill its mission and achieve its new vision:

Strengthen the **security** of the Domain Name System and the DNS Root Server System.

CLICK FOR MORE ◆

Improve the effectiveness of ICANN's multistakeholder model of **governance**.

CLICK FOR MORE ◆

Evolve the **unique identifier systems** in coordination and collaboration with relevant parties to continue to serve the needs of the global Internet user base.

CLICK FOR MORE ◆

Address **geopolitical issues** impacting ICANN's mission to ensure a single and globally interoperable Internet.

CLICK FOR MORE ◆

Ensure ICANN's long-term **financial** sustainability.

CLICK FOR MORE ◆

Discussion

What do you think are the most important areas of change?

Powers that shape the future

With the increasing criticality of the Internet to society and economy, pressures go up to shape it according to the preferences of different stakeholders.

Internet will become 'like electricity' — less visible, yet more deeply embedded in people's lives (PEW)

Most growth will have occurred outside of today's high income, or 'advanced,' economies (CISCO);

The absence of any viable global governance formula or alternative in terms of institutional structure, will keep the set of rules currently governing the Internet fundamentally unchanged between now and 2025 (CISCO);

Steep growth of Internet (including "Things") puts stress on existing risk-management capabilities and ability to scale up (WEF)

Heightened concerns over interpersonal ethics, surveillance, terror, and crime, may lead societies to question how best to establish security and trust while retaining civil liberties (PEW, WEF)
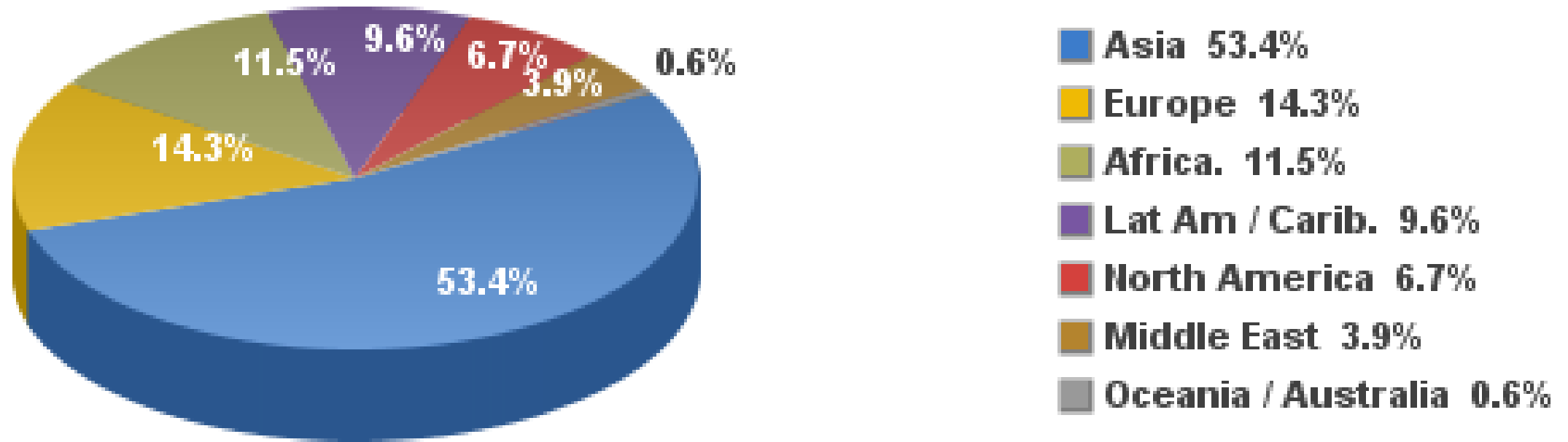
2025

2018 Views on Internet 2025

1. **Fluid frontiers:** The Internet becomes pervasive and centrifugal. Technology continues to make connectivity and devices more affordable. Global entrepreneurship and fierce competition ensure that the needs and demands from across the world are met quickly and from equally diverse setups and locations

2. **Insecure growth:** Individual- and business users are scared away from intensive reliance on the Internet. Relentless cyber attacks driven by wide-ranging motivations defy the preventive capabilities of governments and international bodies. Secure alternatives emerge but are expensive.

3. **Short of promise:** Prolonged economic stagnation in many countries takes its toll on the spread of the Internet. Technology offers no compensating surprises. Protectionist policy responses to economic weakness make matters worse-both in economic terms and network technology adoption.

4. **Bursting at the seams:** The demand for IP-based services is enormous in this world. Capacity constraints and occasional bottlenecks create a gap between the expectations and reality of Internet use. International technology standards don't come to pass partly due to a global backlash against decades of U.S. technology dominance.
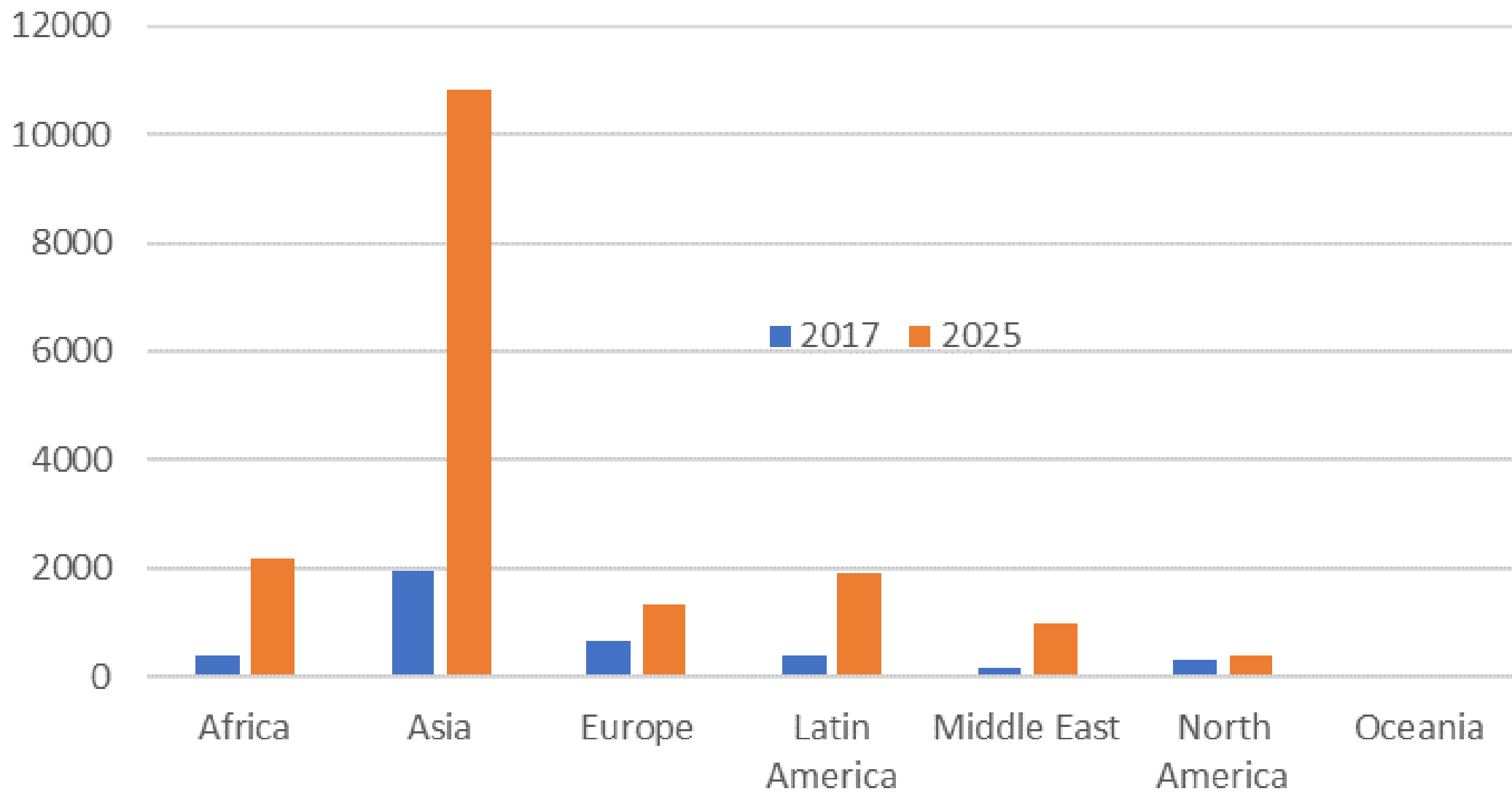
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2025 Possible Market Hypotheses (CISCO 2015)

2025

Challenges and Opportunities

Societal challenges

Healthcare;
Independent living;
Secure society;
Sustainable society

Economic challenges

Innovation; growth

Environmental challenges

Scarce resources;
waste reduction;
environmental
monitoring

Governance

Global standards, open
standards,
multistakeholder
involvement, ethical IoT

Privacy and data collection

Big data issues, cloud
issues (location,
jurisdiction,
accountability), digital
literacy

Security

Autonomous systems,
cyber attacks on new
end points

Source: GNKS, 2014

Internet Users Distribution
in the World - 2021

Asia 53.4%
Europe 14.3%
Africa. 11.5%
Lat Am / Carib. 9.6%
North America 6.7%
Middle East 3.9%
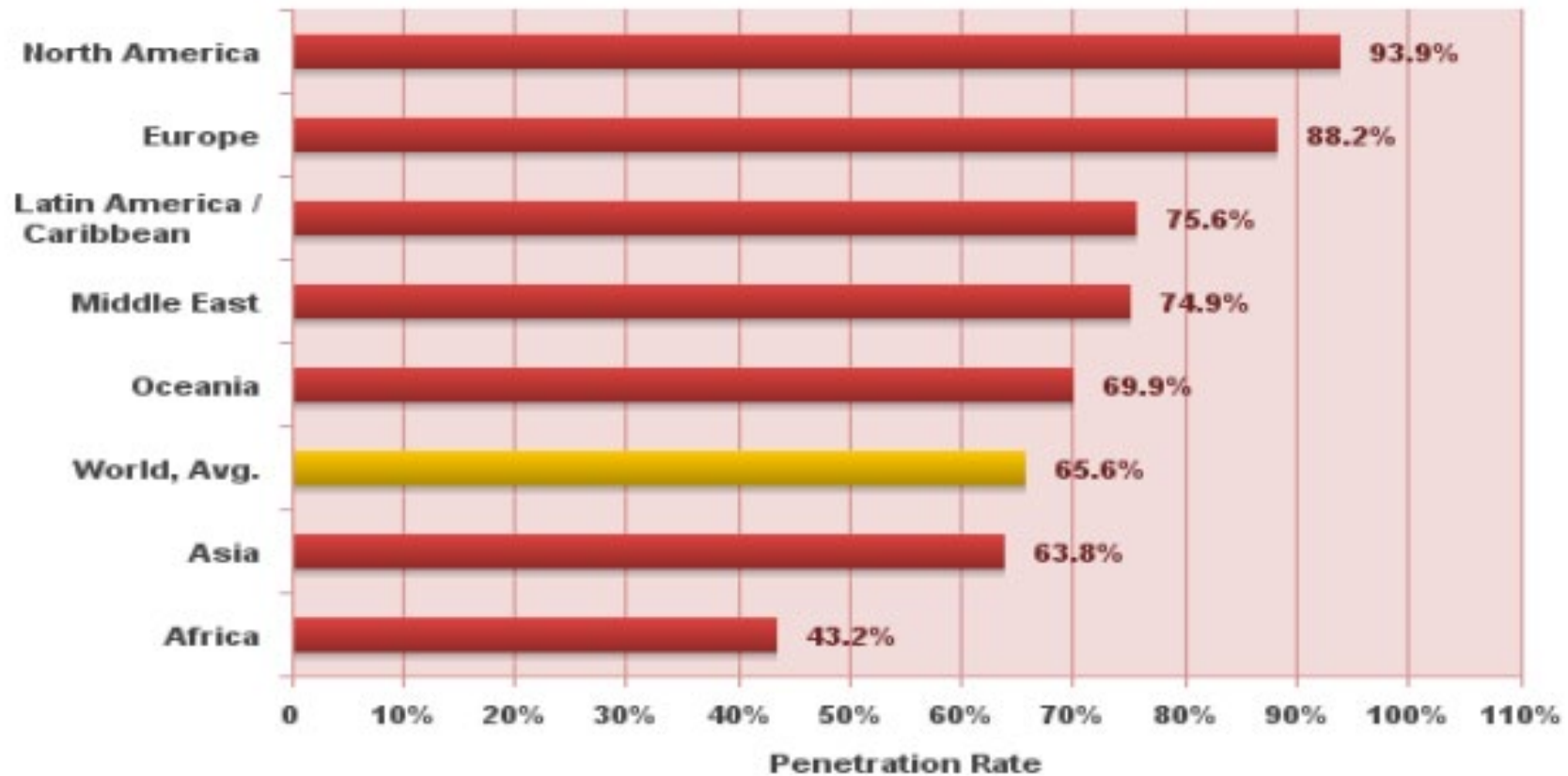**Oceania / Australia 0.6%**

Source: Internet World Stats - www.internetworldstats.com/stats.htm
Basis: 5,168,780,607 Internet users in March 31, 2021
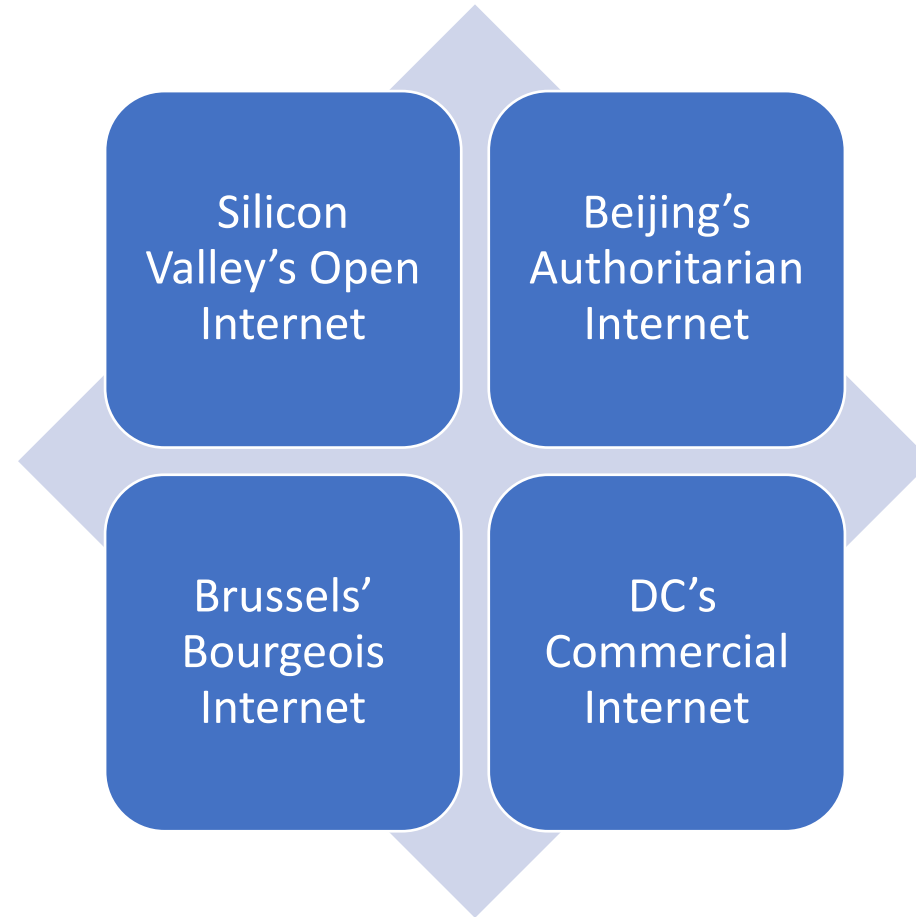Copyright © 2021, Miniwatts Marketing Group

Source: World Bank

Internet World Penetration Rates by Geographic Regions - 2021

Region	Penetration Rate
North America	93.9%
Europe	88.2%
Latin America / Caribbean	75.6%
Middle East	74.9%
Oceania	69.9%
World, Avg.	65.6%
Asia	63.8%
Africa	43.2%

Penetration Rate

The Geopolitics of Internet Ideals

From: Four Internets: The Geopolitics of Digital Governance: Kieren O'Hara and Wendy Hall

Discussion

What do you think the Internet will look like in 10 years time?

We create the world of tomorrow with the choices and actions of today …

Choose your actions well!

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