ICANN Update

Save Vocea
Vice President, Stakeholder Engagement - Oceania

Presented at PacNOG22, Honiara, SB. 25 June 2018

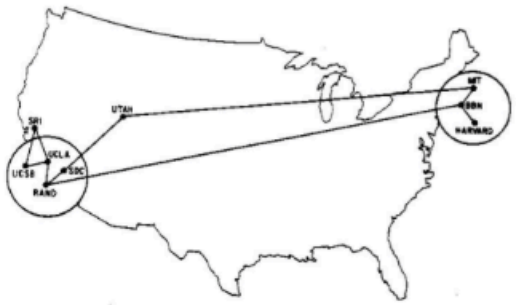
The Early Days

The Beginning…

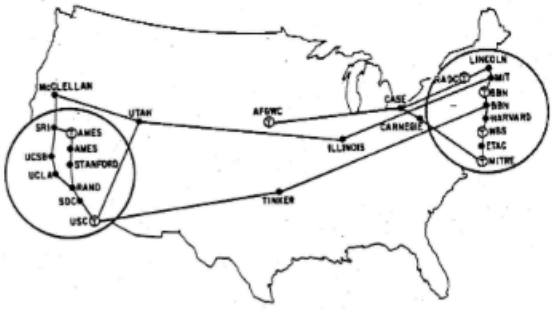
- The Internet started as a research project to allow computers in universities and research institutions to connect and share resources (ARPANET)

- As the network continued to grow, the need for a distributed naming system became apparent => the Domain Name System (DNS)

Dezember 1969



Juni 1970



März 1972

Juli 1977

History of the Internet Part I

1969

DARPA

ARPANET, first network run on packet switching technology, created

1974

Transmission Control Protocol/Internet Protocol (TCP/IP) designed by Vint Cerf and Bob Kahn

1989

HTTP://

Tim Berners-Lee invents World Wide Web and HTTP

1993

Mosaic Browser released, popularized the WWW

History of the Internet Part II

1998

ICANN incorporated in California

1998

Google founded

2001

Wikipedia launched

2004

Mark Zuckerberg launches Facebook in Cambridge, MA

History of the Internet Part II

2006

Twitter launched, first Tweet "just setting up my twttr"

2007

Apple launches iPhone

2009

Weibo launched

2014

U.S. Government announces intention to transition stewardship of key Internet domain name functions to multistakeholder community

2016

On 1 October 2016 the NTIA transferred oversight of IANA functions to ICANN

ICANN History Project

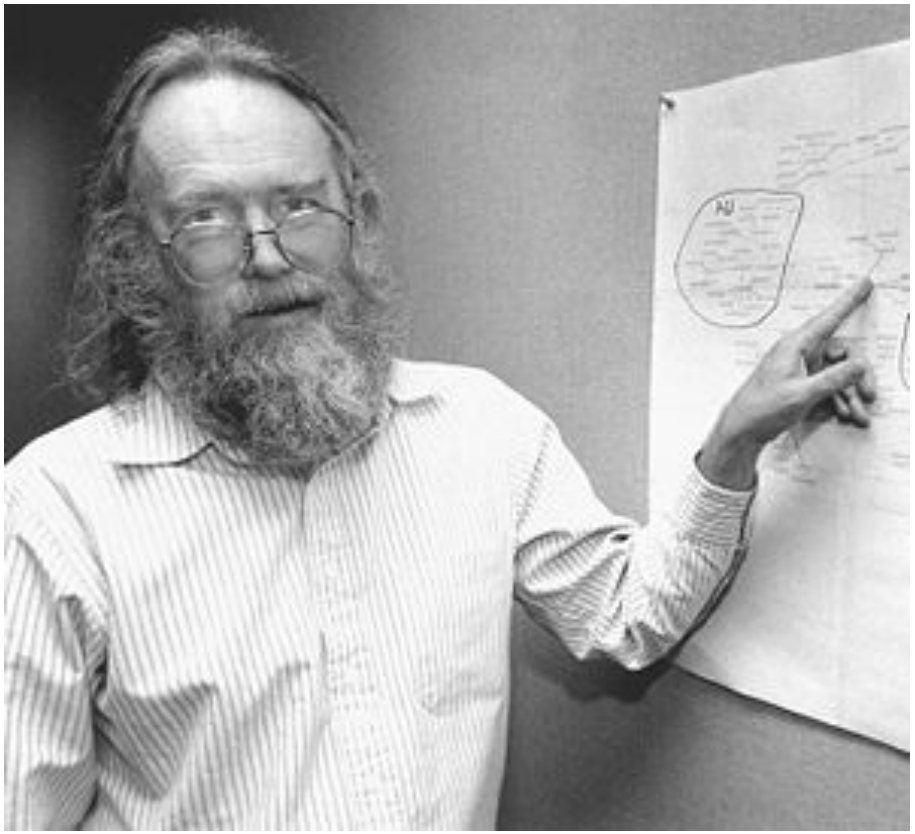
The ICANN History Project explores the key events in ICANN's growth, from its birth to its current day status.

This project seeks to preserve the organization's institutional memory by capturing stories from key figures who helped shape ICANN's past and present.

On the History Project pages you will find documents, pictures and videos that helped frame ICANN's history, and an interactive timeline presenting the chronology of significant events.

Learn More ▶ https://www.icann.org/history

The pre-ICANN Era

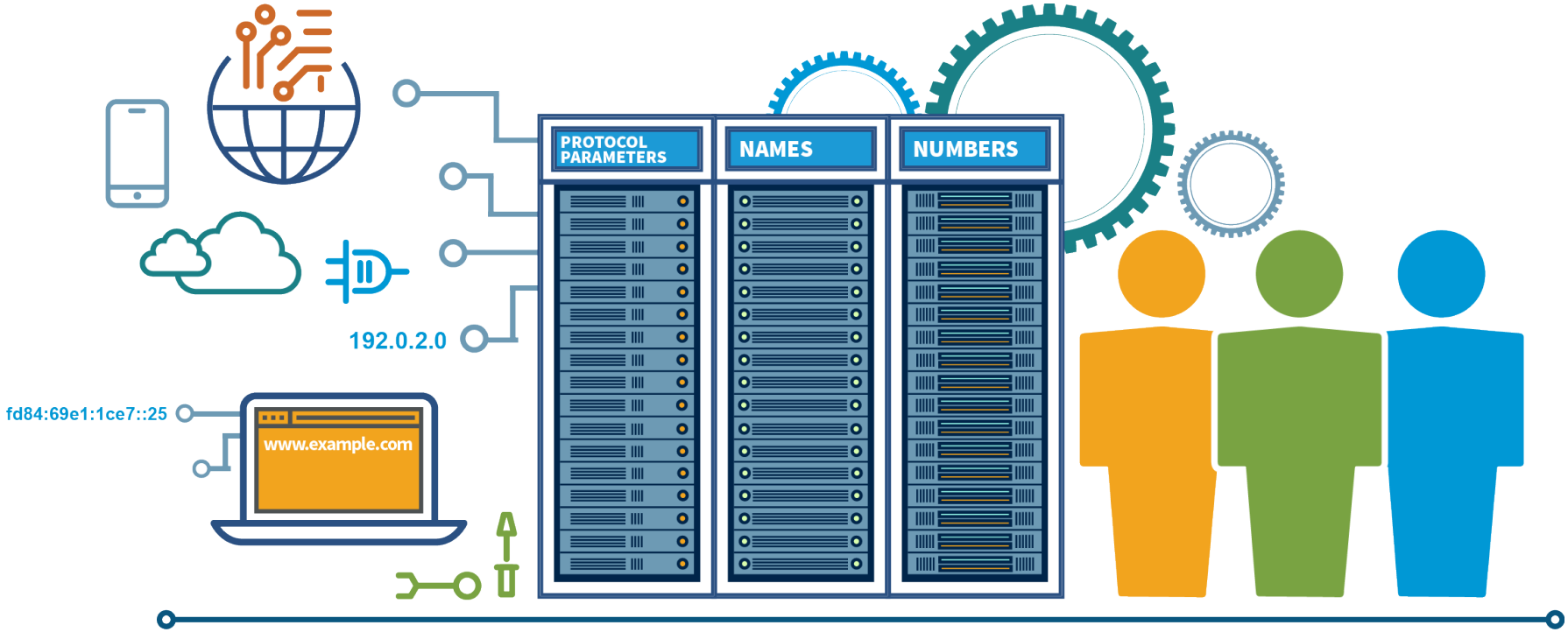


Jon Postel at the Information Sciences Institute (ISI), University of Southern California (USC)

What is Internet Corporation for Assigned Names and Numbers (ICANN)?

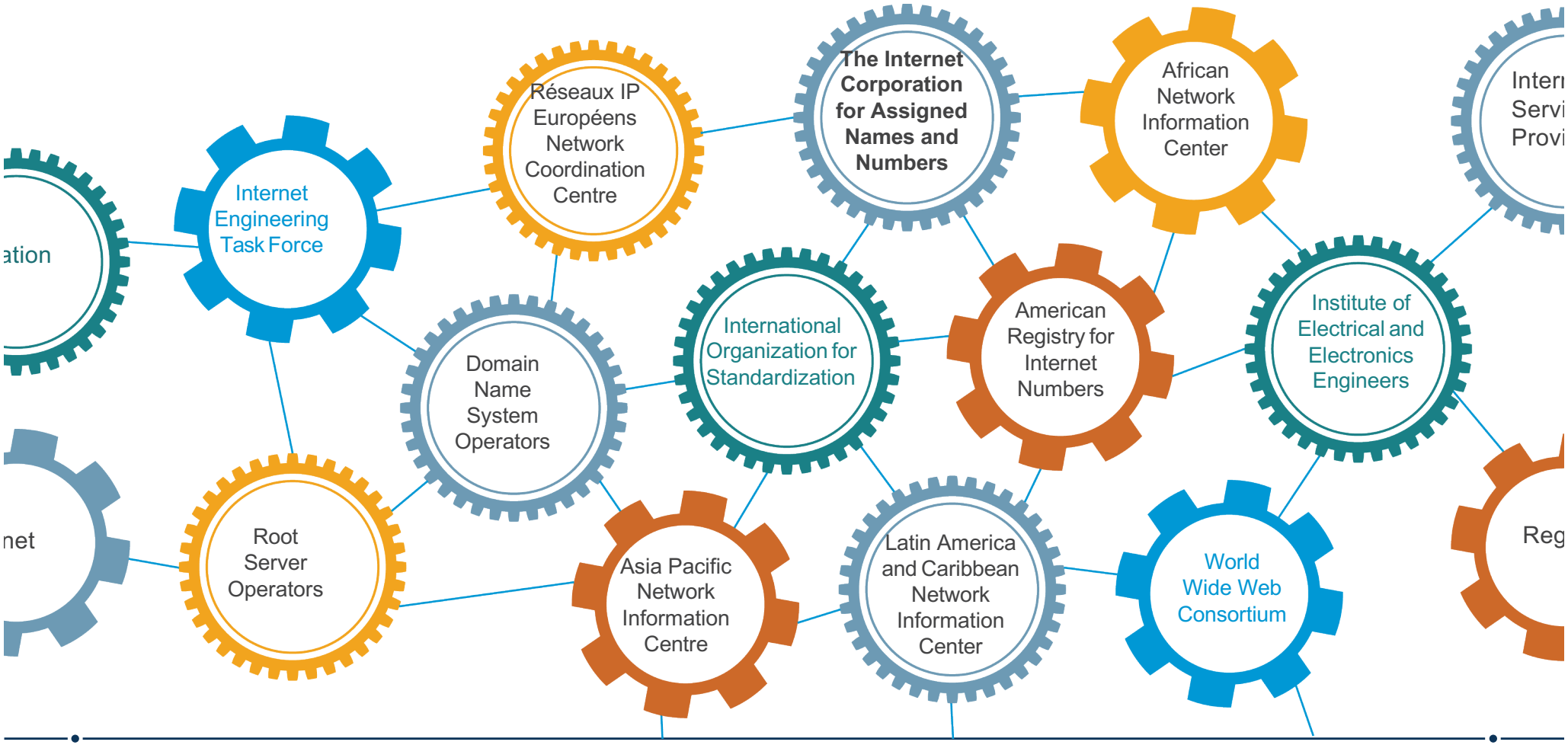
Overview

Coordinating with our partners, we help make the Internet work.



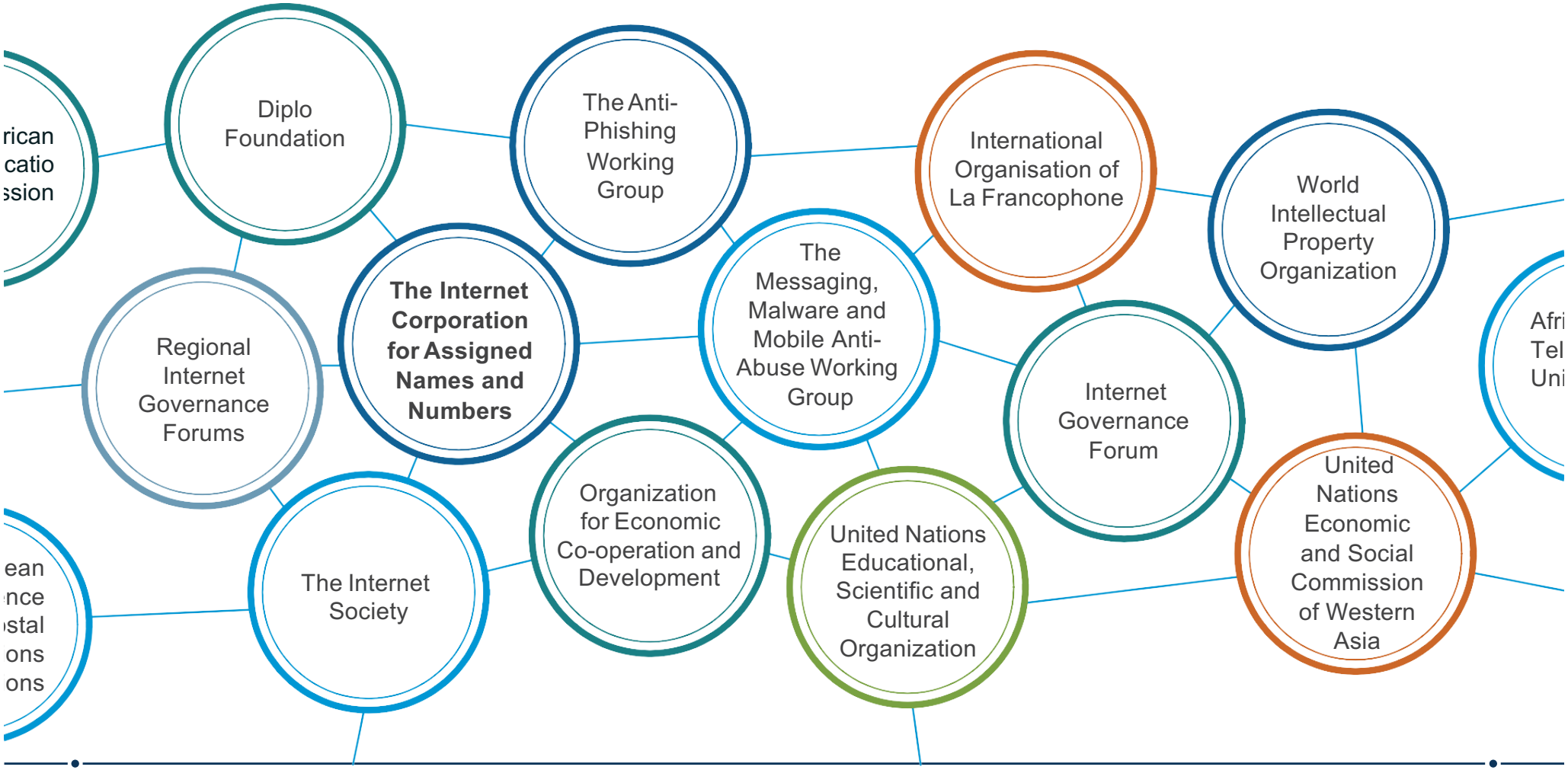
Our Technical Partners

Coordinating with our technical partners, we help make the Internet work.



Our Other Partners

We all work together in different ways to help make the Internet work.



ICANN Ecosystem

Some of What ICANN Organization Does

Domain Name System

The domain name system provides addressing for the Internet so people can find websites, send email, and other tasks. The ICANN organization also supports the stability of the DNS through its work, and also its contracts and accreditations.

Policy Development

The ICANN organization supports inclusive, open and transparent multi-stakeholder bottom-up consensus based policy development mechanisms.

L-Root

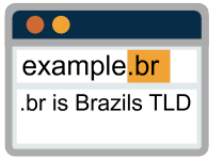
The ICANN organization hosts and supports one of the 13 L-Root infrastructures. At over 160 locations worldwide, L-Root is critical to infrastructure that helps reduce latency and improves performance of the DNS.

Support and Grow the Community

The ICANN organization engages, nurtures and supports interested stakeholders for active and meaningful participation in ICANN. ICANN connects with stakeholders through outreach and engagement, and meeting & event support.

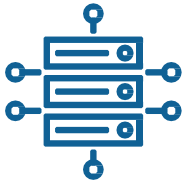
Generic Top-Level Domains

The ICANN organization manages the domain name system's top-level domains. ICANN helps promotes competition and choice in the gTLD marketplace.



Country Code Top-Level Domains

The ICANN organization delegates top-level domains identified with a country code. Management is done by national ccTLD operators.



Protocol Parameters

The ICANN organization, in coordination with the Internet Engineering Task Force, manages protocol parameters by maintaining many of the codes and numbers used in Internet protocols.

Internet Protocol Addresses

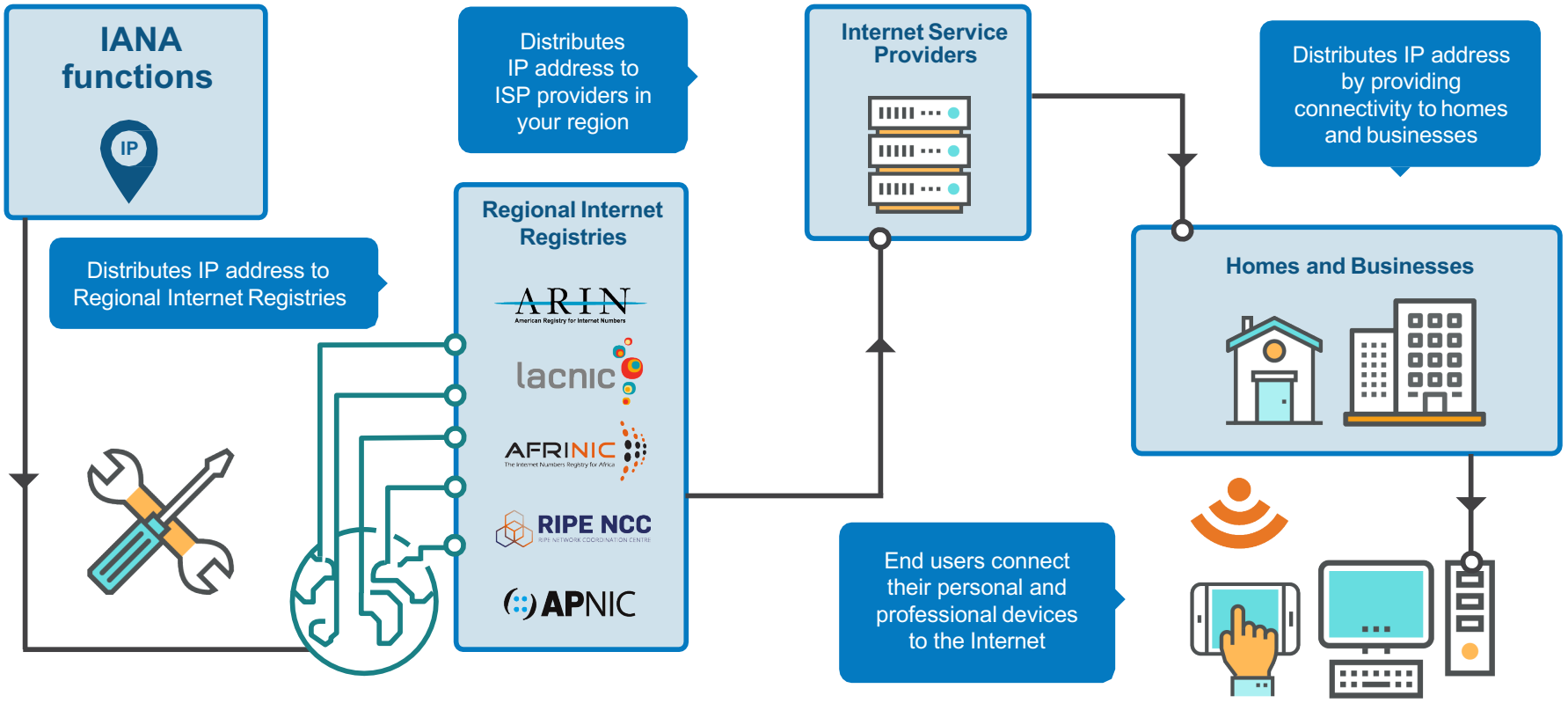
By serving as the central repository for IP addresses, the ICANN organization helps coordinate how IP addresses are supplied – preventing repetition and conflicts.

Root Zone Management

The ICANN organization helps manage the root zone through the IANA functions, which involves assigning the operators of top-level domains, such as .bank and .com, and maintaining the technical and administrative details.

IANA functions

How Internet Protocol (IP) Addresses are Distributed



ICANN's Global Presence

Call one of our regional offices or submit a question online

Contact us ▶

www.icann.org/contact

Regional Offices:
Los Angeles, U.S.A (Headquarters)
Brussels, Belgium
Istanbul, Turkey
Montevideo, Uruguay
Singapore

Engagement Centers:
Beijing, China
Geneva, Switzerland
Nairobi, Kenya
Washington, D.C., U.S.A.

Partnership Centers:
Asunción, Paraguay
Cairo, Egypt
Seoul, Republic of Korea

The ICANN Multistakeholder Community

ICANN follows a bottom-up, multistakeholder model in which individuals, non-commercial stakeholder groups, industry, and governments play important roles in its community-based, consensus-driven, policymaking approach.

Learn More ▶

https://www.icann.org/community

The ICANN Multistakeholder Community

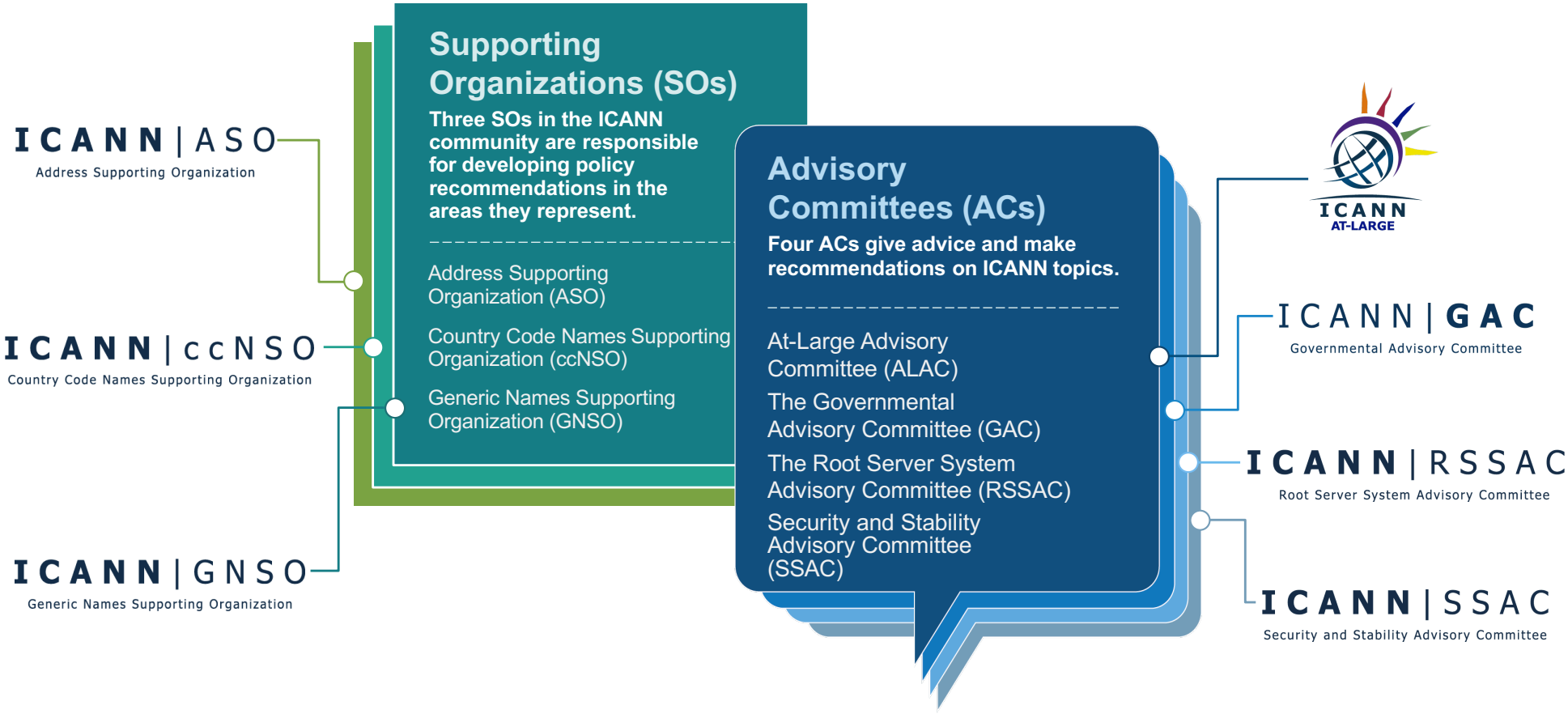
MAKING POLICY:

Three Supporting Organizations (SOs) in the ICANN community are responsible for developing policy recommendations in the areas they represent: IP addresses; generic top-level domains (gTLDs); and country code top-level domains (ccTLDs).

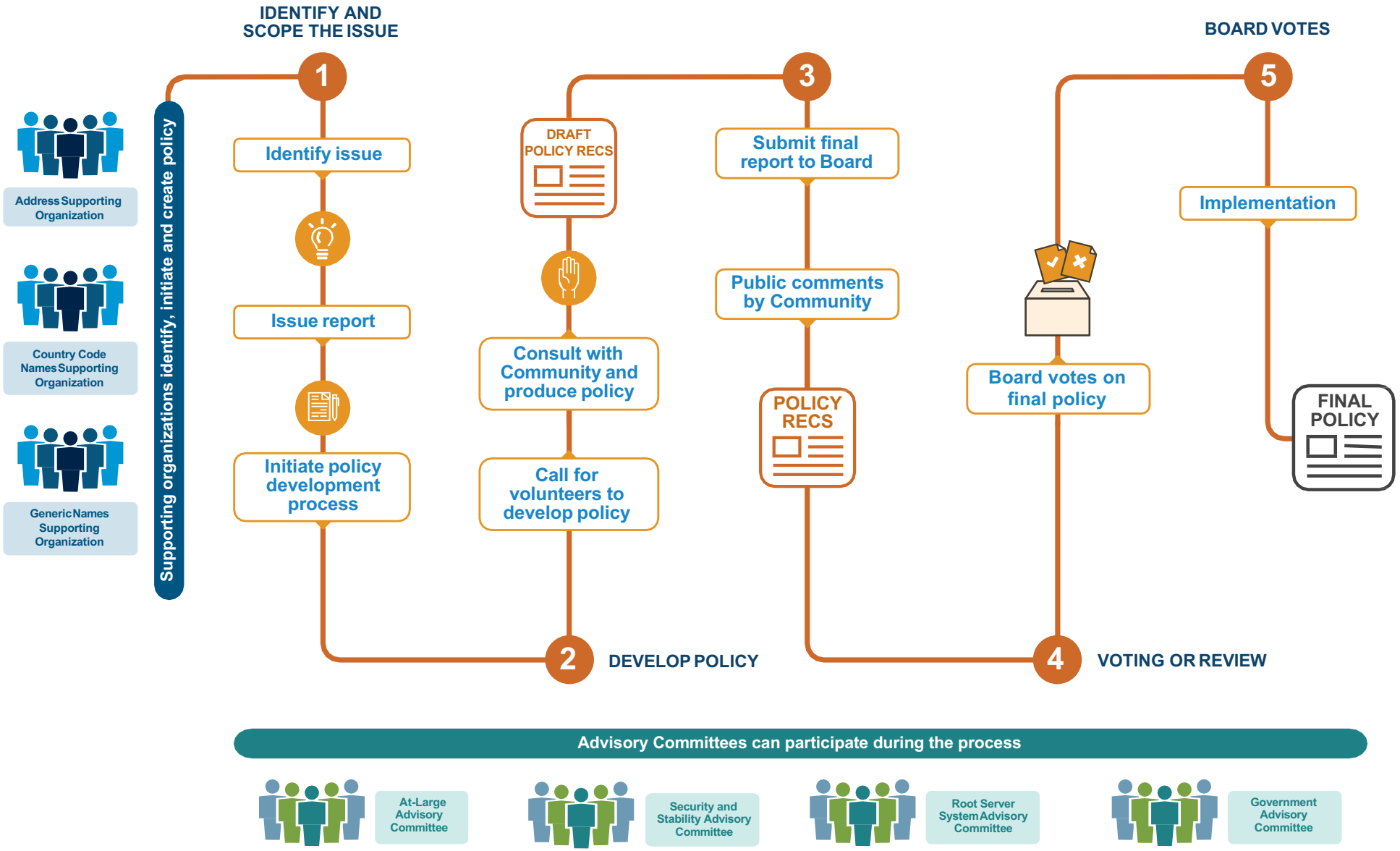
PROVIDING ADVICE:

Four Advisory Committees (ACs) give advice and make recommendations on ICANN topics. The ACs are made up of representatives from: governments and international treaty organizations; root server operators; Internet security experts; and Internet end users.

Exploring ICANN's Multistakeholder Community



How Does the Community Develop Policy?



Get Involved and Informed

Attend an ICANN Public Meeting. Three times a year, ICANN holds free and open public meetings in different regions around the world. Visit **meetings.icann.org** to learn more.

Visit **go.icann.org/journey** to learn how you can attend an ICANN Public Meeting as part of the NextGen@ICANN or ICANN Fellowship programs.

Take a free online course at **learn.icann.org**.

Attend events in your region.

Find and participate in an ICANN community group by visiting **icann.org/community**.

Sign up for ICANN news alerts and regional newsletters.

Programs Available

Fellowship	Global Capacity Building Program to support ICANN's Multistakeholder community; online application process 3x year around an ICANN Meeting (1 Mtg for Alumni only)
NextGen	Regionally based Program to create awareness and promote future discussions within universities and other regional forums; online application process 3x a year around an ICANN Meeting
Newcomer	Those just entering the ICANN community can self-educate using the Newcomer webpage or participate in person or remotely at the ICANN Meeting Newcomer Sunday

Video on Fellowship/NextGen: https://www.youtube.com/watch?v=nrV_ZkDEfIQ
Video on Newcomers: https://www.youtube.com/watch?v=da1RQt9-e-g

ICANN Learn

ICANN | LEARN

- ICANN Learn presents education and training, across a wide variety of topics that pertain to ICANN, to better educate stakeholders in the ICANN ecosystem.
- It is an online platform that is free to access and free to create course content to share with fellow ICANN community members.
- ICANN Learn is currently available in the six UN languages.

Learn more ▶

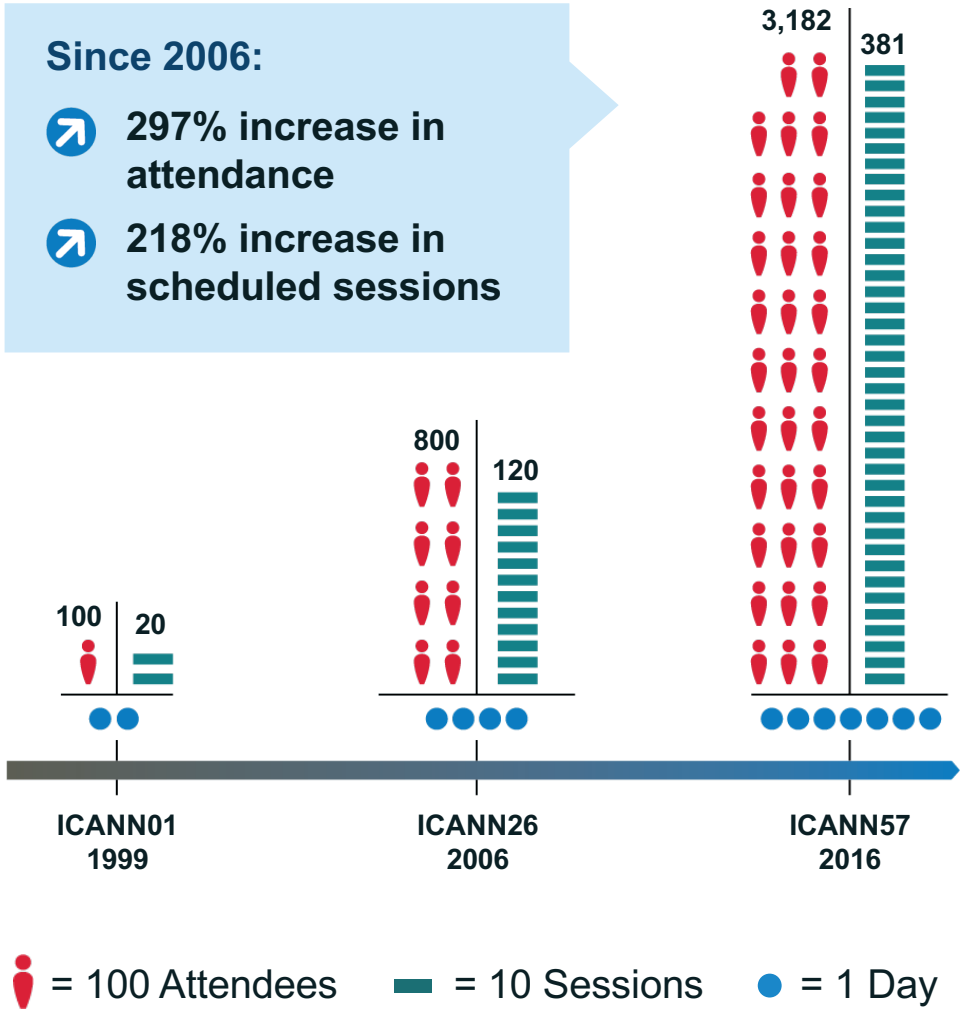
learn.icann.org

ICANN Meetings Overviews

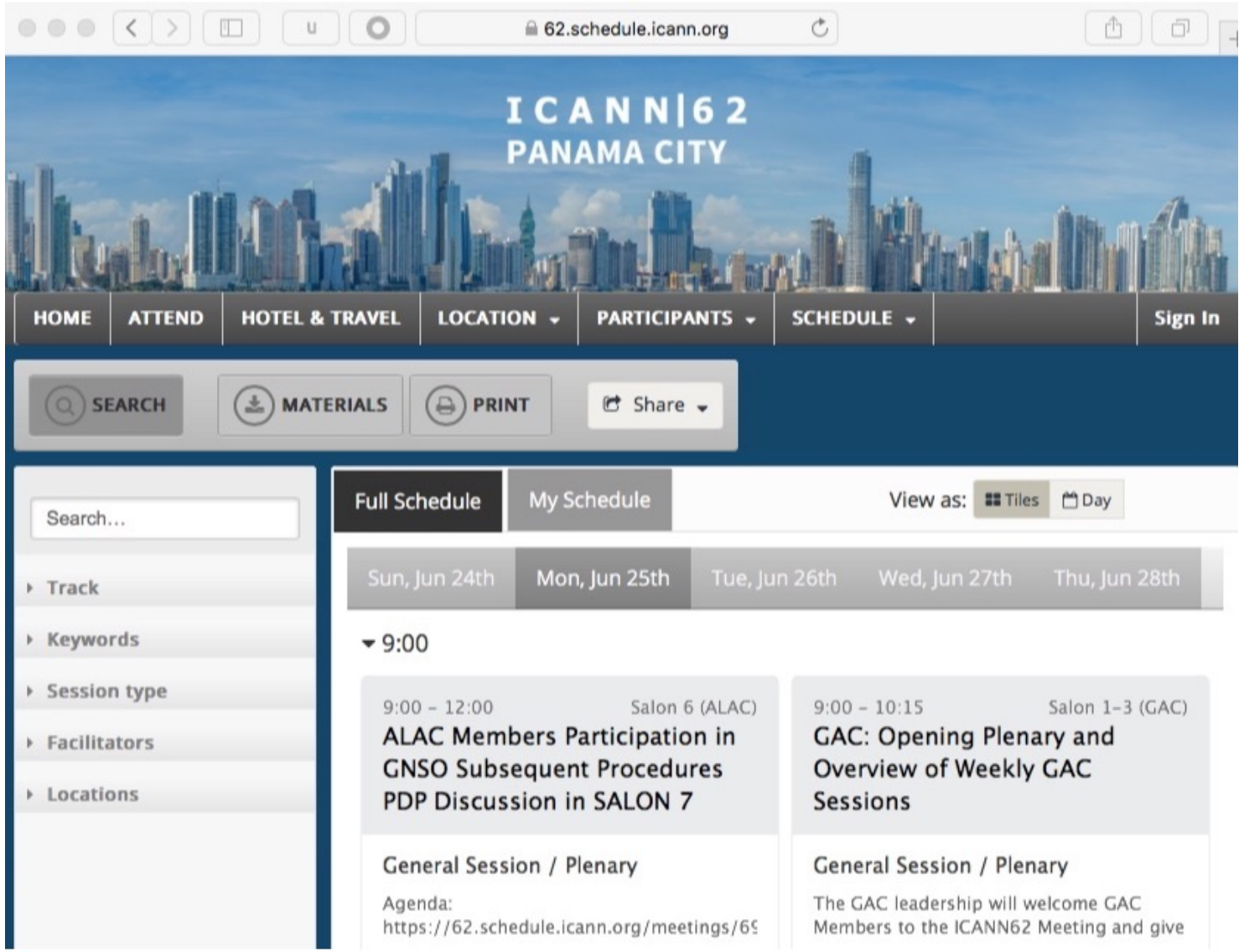
Three times a year, ICANN holds free and open public meetings in different regions around the world.

ICANN Public Meetings provide the opportunity for an internationally diverse group of individuals and organizations to come together to discuss and develop policies for the Internet's naming systems.

ICANN's international meetings have been a staple of ICANN's multistakeholder bottom-up consensus-building model since its formation in 1998.

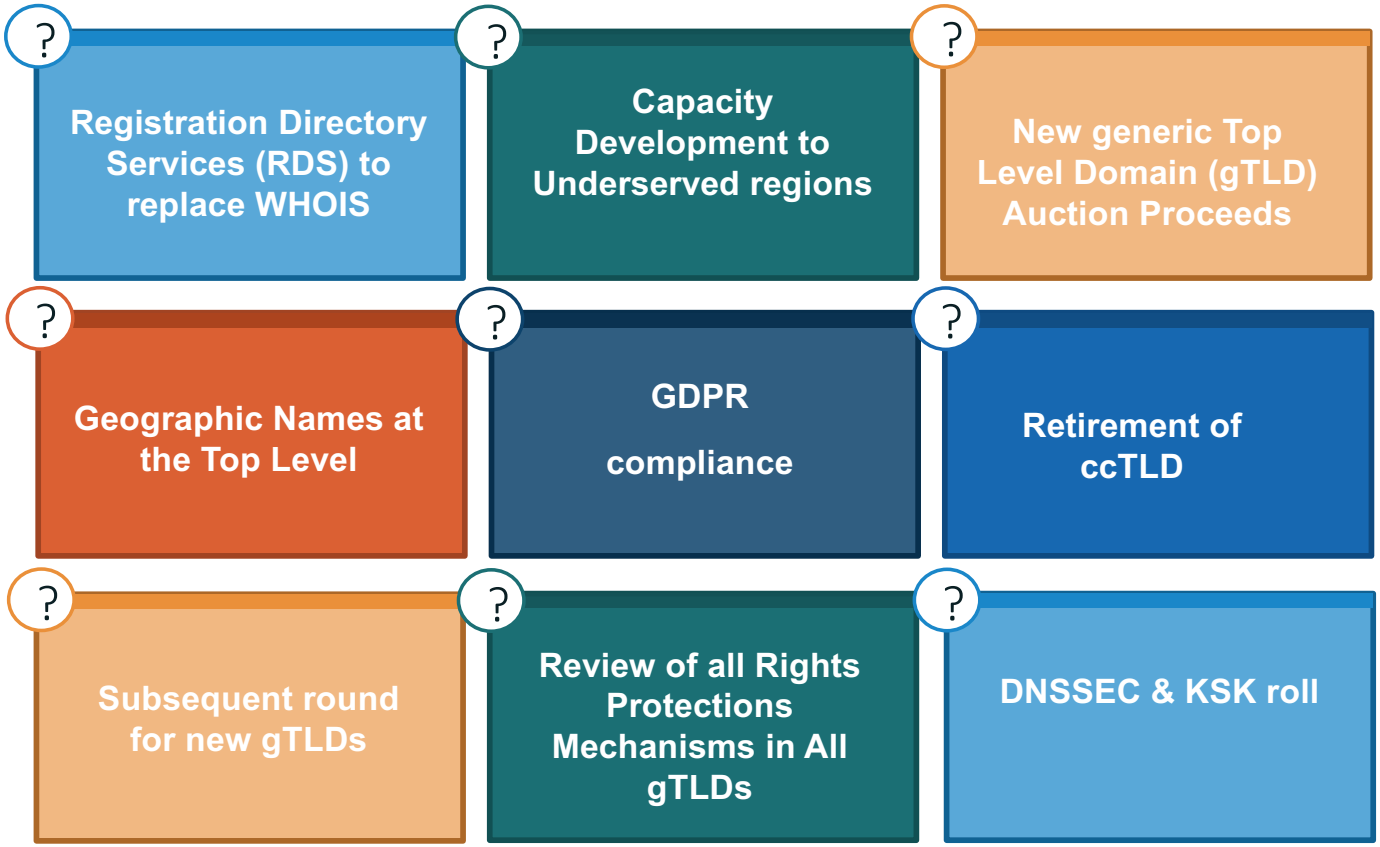


ICANN62 “Policy Forum” this week



- Remote participation available for live sessions or check recordings

Sample topics of discussion at ICANN62



What are Domain Names?

Why Domain Names?

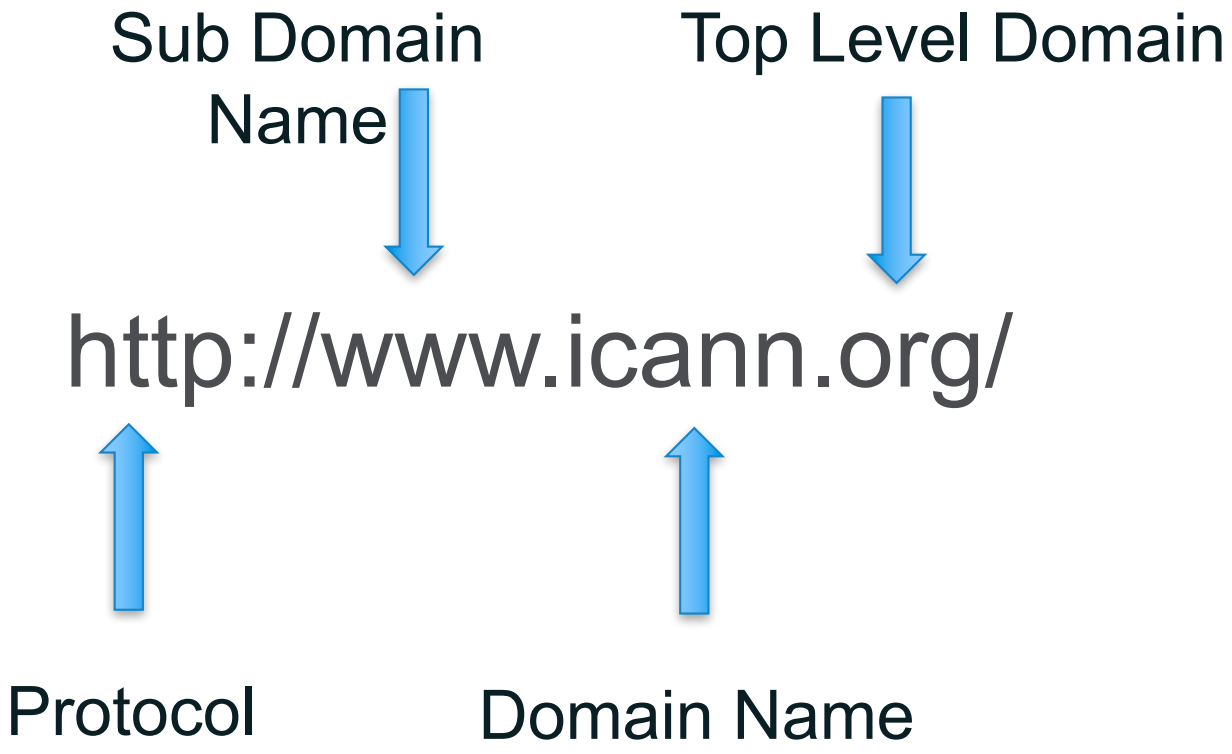
- Which is easier to memorize?

http://www.icann.org/

or

192.0.32.7

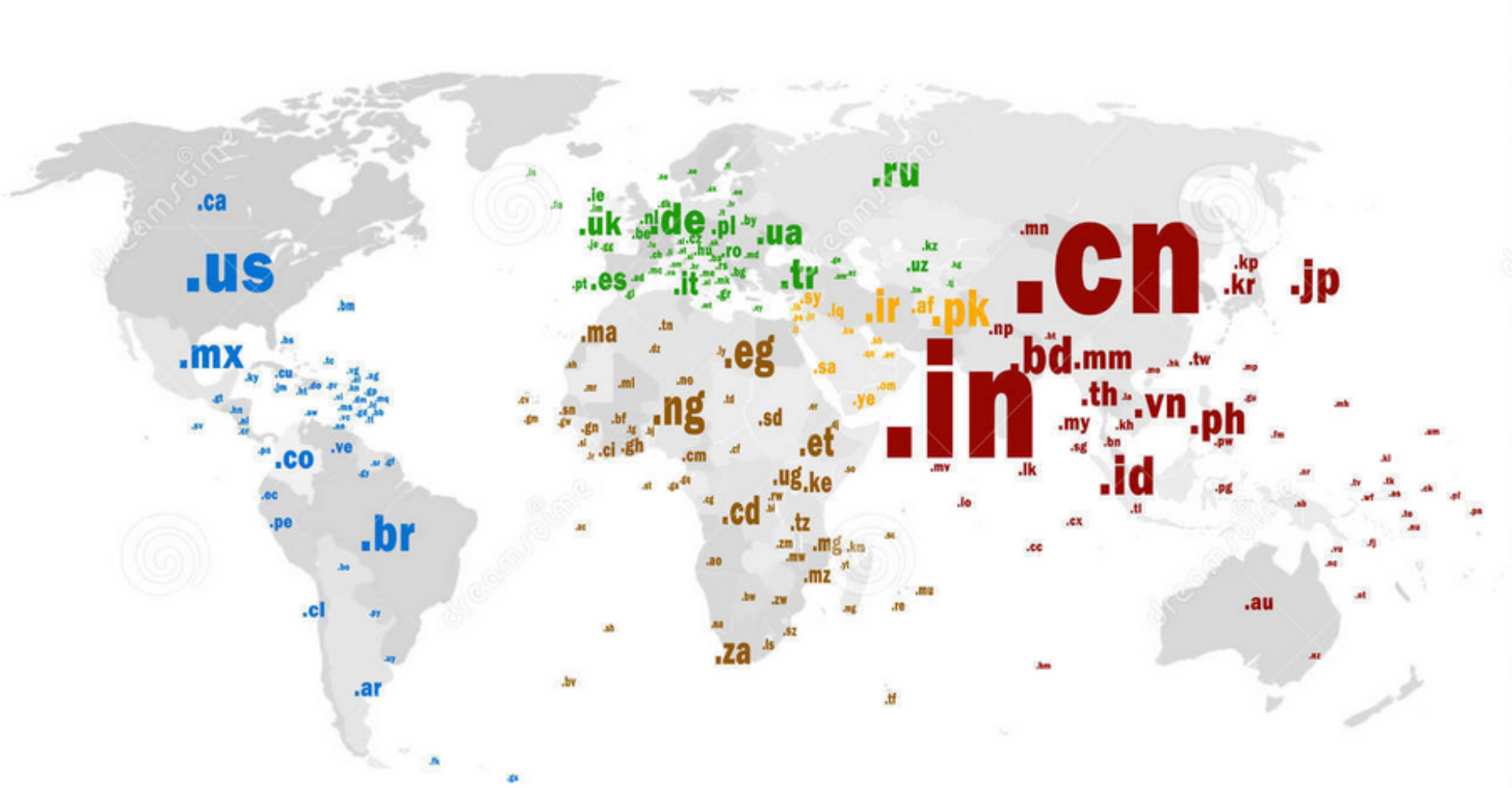
Parts of a Domain Name?



Top Level Domains (TLDs)

- Exists at the highest level of the DNS hierarchy
- It is the entry installed into the root-zone
- Consists of various groups:
  - ccTLDs (.sb, .tv, .fm, .to, .fj, .ki)
  - gTLDs
    - Sponsored (.asia, .cat)
    - Unsponsored (.com, .net, .org)
    - New (.apps, .shop, .موقع ,.شبكة .)
  - IDN TLDs (.عمان ,.بازار .، .ابوظبي .)

Country Code TLDs (ccTLD)



Source at http://dreamstime.com/

Where do ccTLDs get Their Code From?

- The ISO-3166 provides 2-letter codes and 3-letter codes of countries or a grouping of countries
- 249 assigned 2-letter codes
  - According to the UN, the world has 196 countries
- More at https://www.iso.org/obp/ui/#search

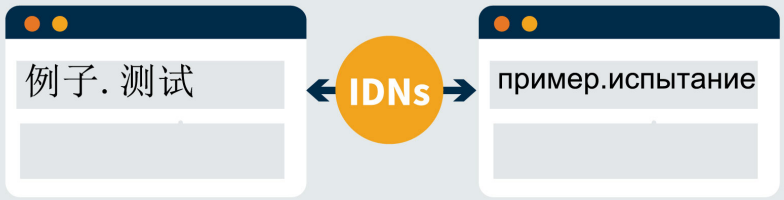
What are IDNs?

An Internationalized Domain Name (IDN) uses a particular encoding and format to allow a wider range of scripts to represent domain names.

Until late 2009, Top-Level Domains were restricted to only the Latin letters a to z without accents or symbols. After 2009, IDN TLDs were introduced in other scripts including Arabic, Chinese and Cyrillic scripts.

IDN TLDs can be either ccTLDs or gTLDs.

Internationalized Domain Names
Domain names with non-Latin characters or Latin characters beyond letters (a to z) digits (0 to 9) and hyphen (-), as allowed by relevant protocols.



What has changed with Top-Level Domains?

DOMAIN NAME

Latin letters a to z without accents or symbols.

2009

INTERNATIONALIZED DOMAIN NAMES ADDED

Characters from different scripts.

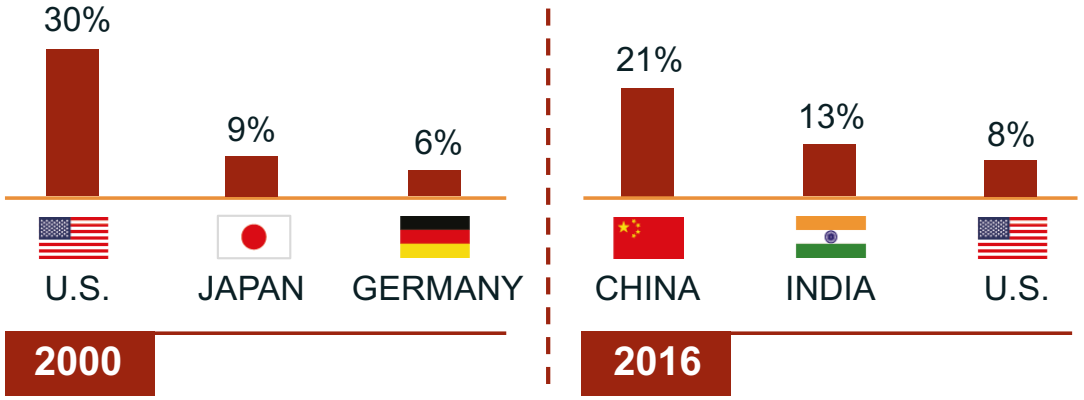
Why Internationalize Domain Names?

More and more people around the world, once unconnected, are online.

Number of Internet Users Worldwide*

IDNs allow people around the world to access domain names in their local languages.

Top Three Countries by % of Total Global Internet Users*



*Source: Internet Live Stats (www.InternetLiveStats.com) 2016

New gTLD Program

What is the New gTLD Program?

The goal of the New gTLD Program is to foster competition, innovation and choice in the domain name industry.

- This is an Internet community-driven initiative that is enabling the largest expansion of the domain name system, ever.
- The New gTLD Program is managed by ICANN, which means it has taken shape through the multistakeholder model.
- Over **1,200** new generic top-level domains have now been introduced into the Internet over the next few years.

What is the New gTLD Program?

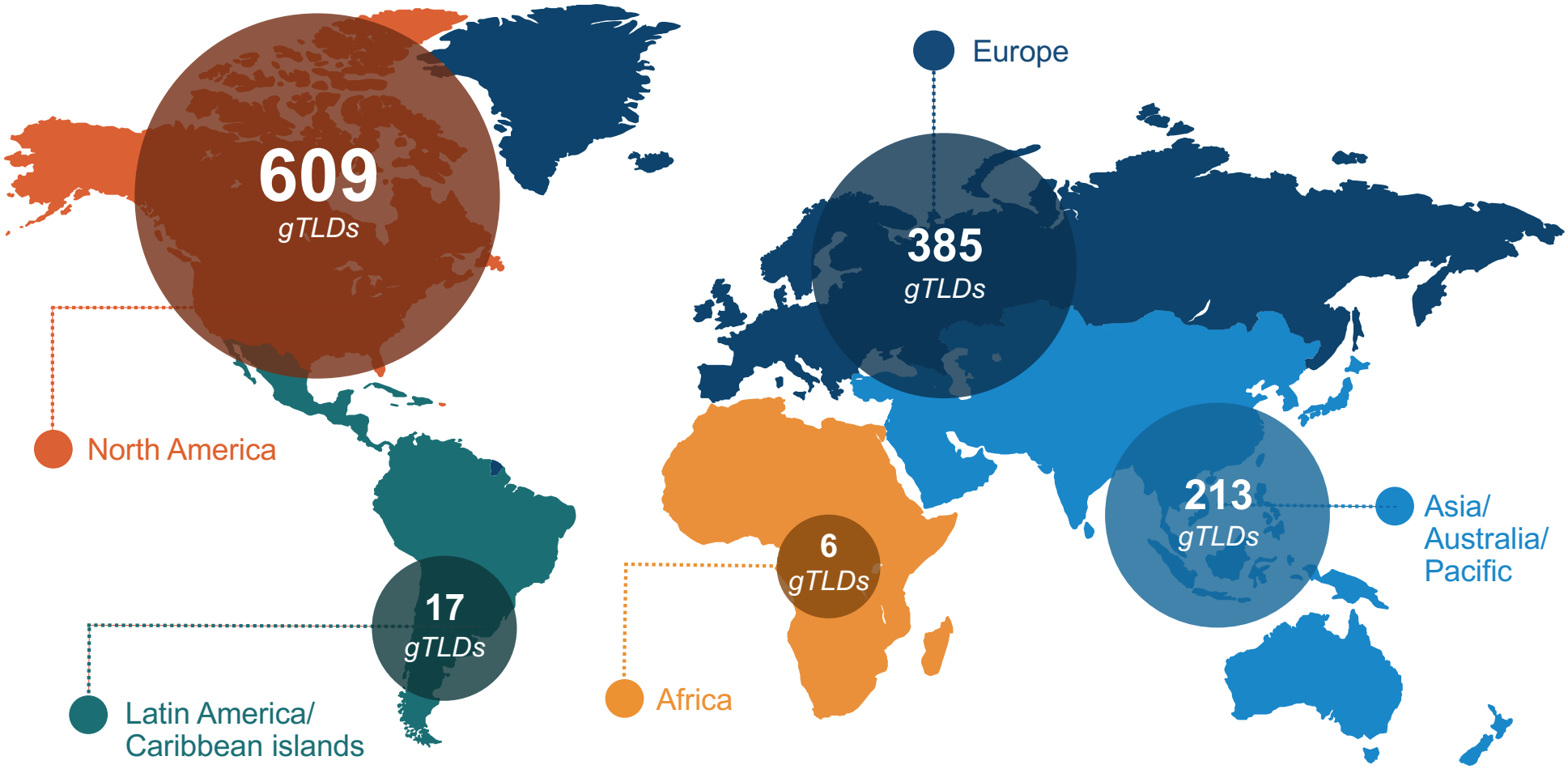
Largest-ever expansion of the Domain Name System → **Innovation**

Introduction of **Internationalized Domain Names** → **Global restructuring**

Managed by ICANN = **Multistakeholder input** → **Security & stability**

2012 Round Delegated gTLDs by ICANN Region

1230 Delegations as of May 2018
Region based on Registry Public Contact



The gTLD Landscape

Universal Acceptance

Definition

All domain names should be treated equally.

Including:

пример.рф

Internationalized Domain Names

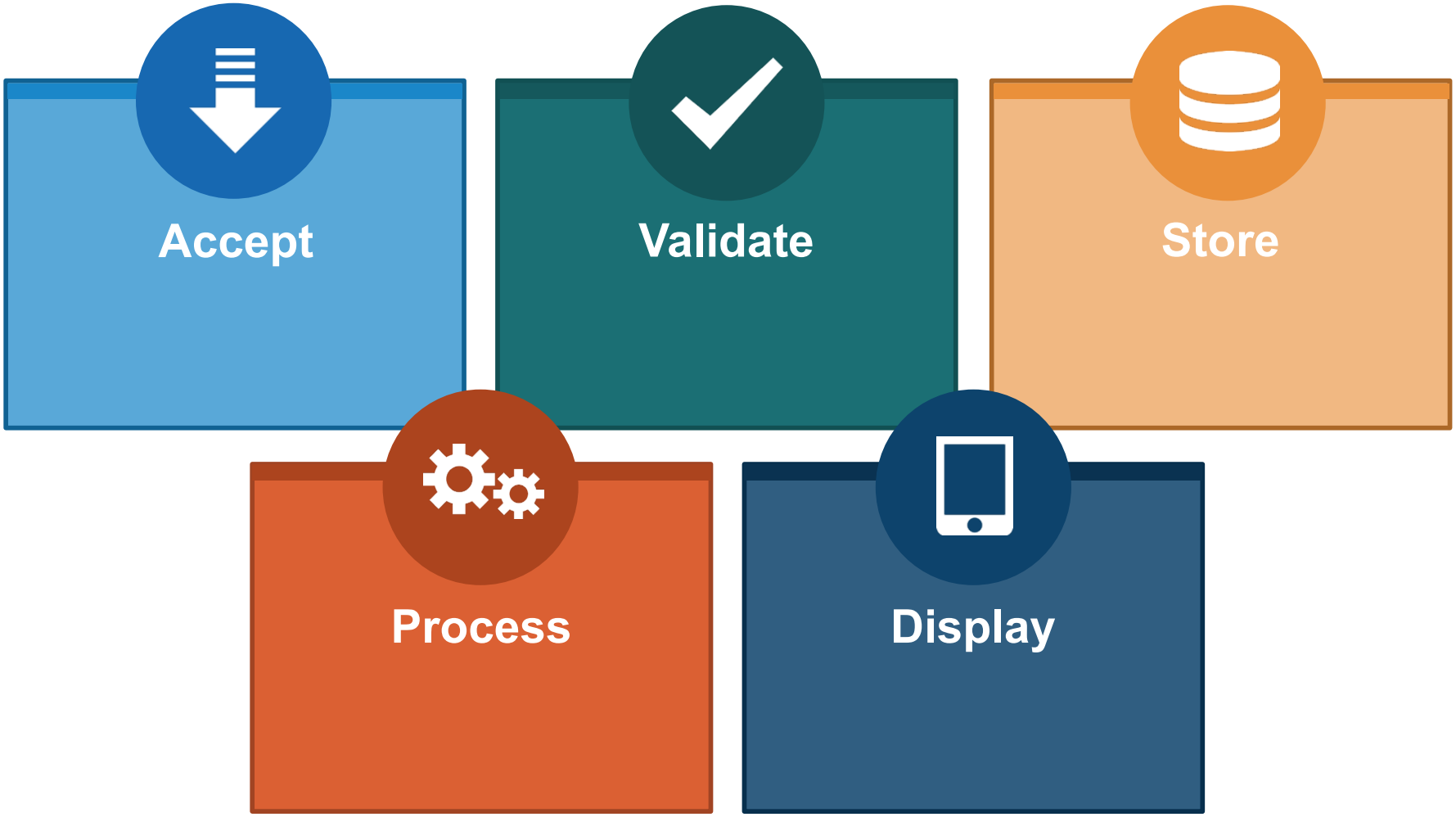
site.example

New gTLDs

名称@网站.域名

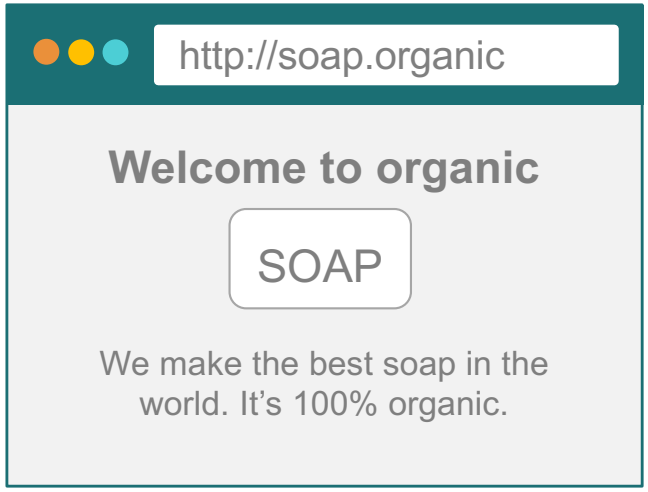
Internationalized Email Addresses

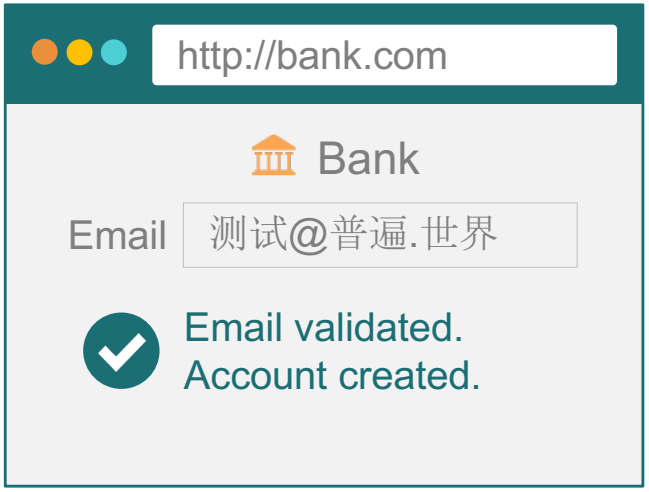
Key Principles of UA Readiness



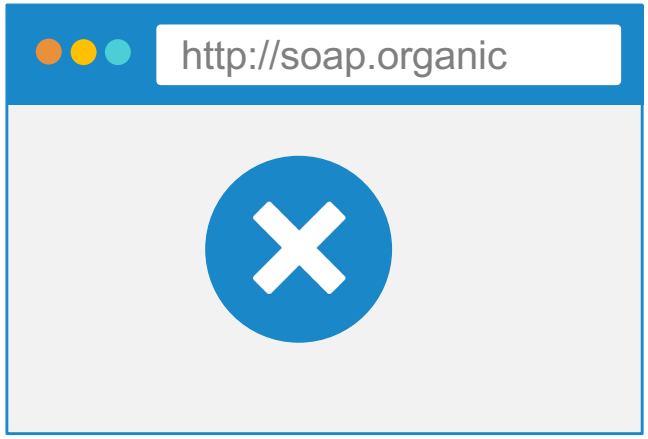
The Role of Universal Acceptance

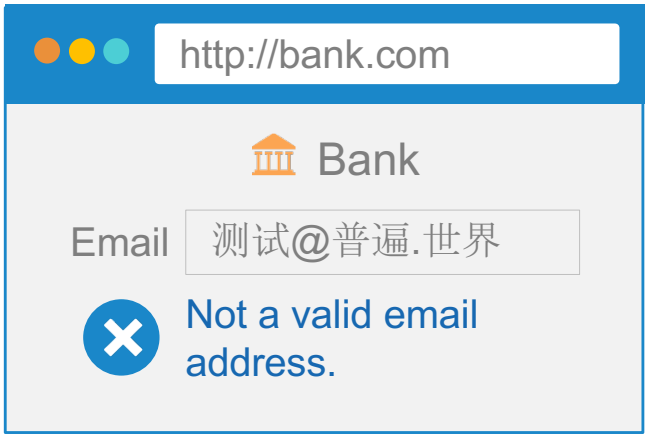
UA-ready





Not ready





Get Involved

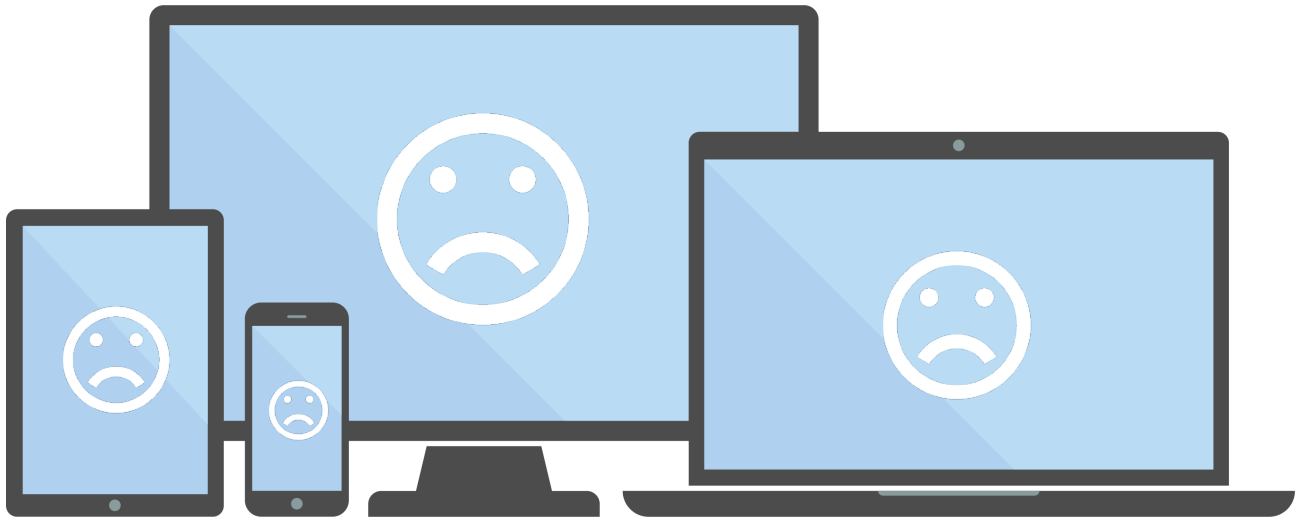
Universal Acceptance Steering Group

Helping software developers and website owners understand how to update their systems.

Learn more ▶ **http://uasg.tech**

Report an Issue

Found an application or system that's not Universal Acceptance-ready?



Submit a ticket ▶ **uasg.tech/global-support-centre**

Domain Names and Entrepreneurship

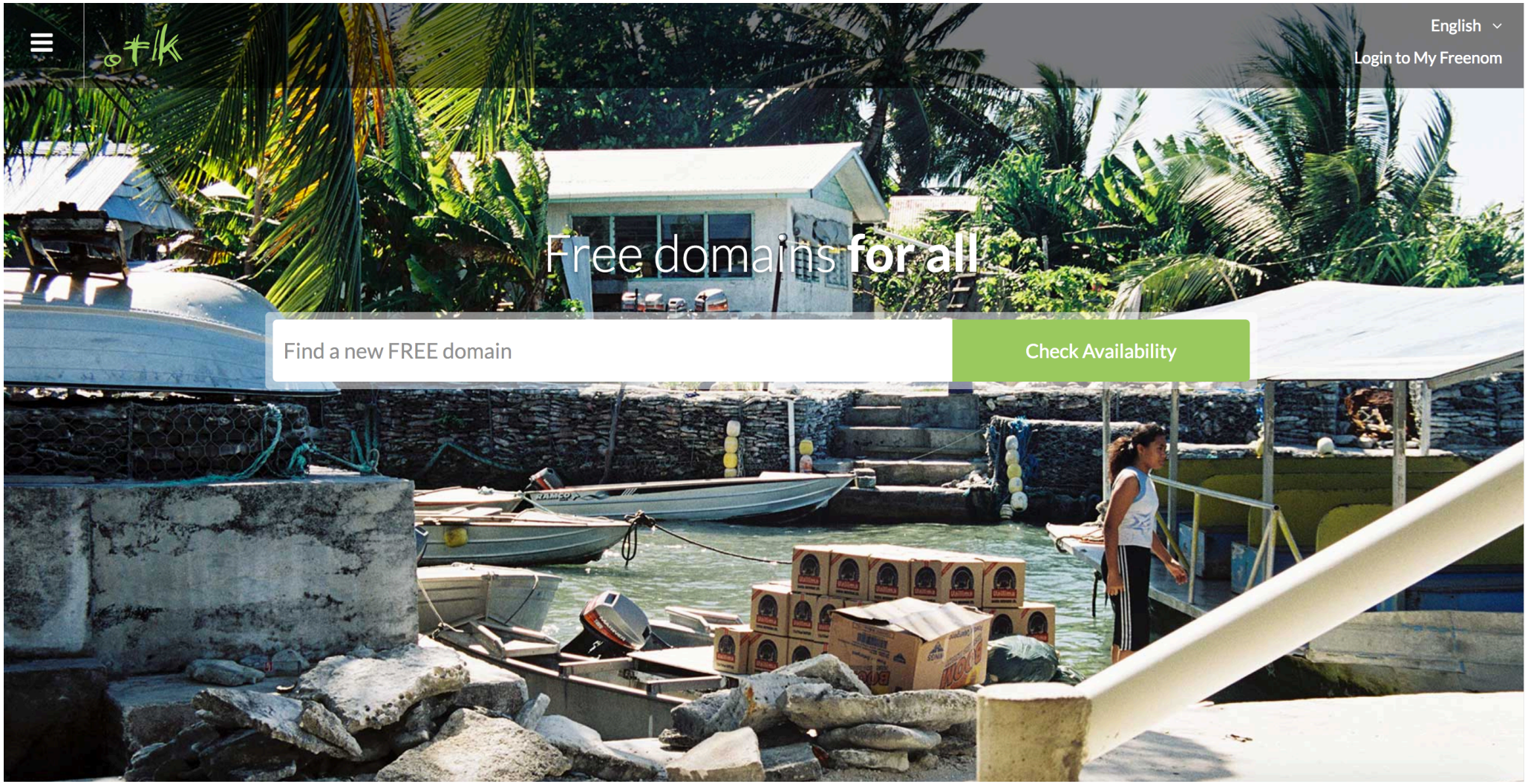
Registry/Registrar/Registrant

- **Registry** – The entity that operates a TLD
- **Registrar** – A middle-agent that sells domain names to registrants on behalf of a TLD Registry
  - ICANN Accredited Registrar vs. Resellers
  - ccTLDs vs. gTLDs
- **Registrant** – Entity registering a domain name

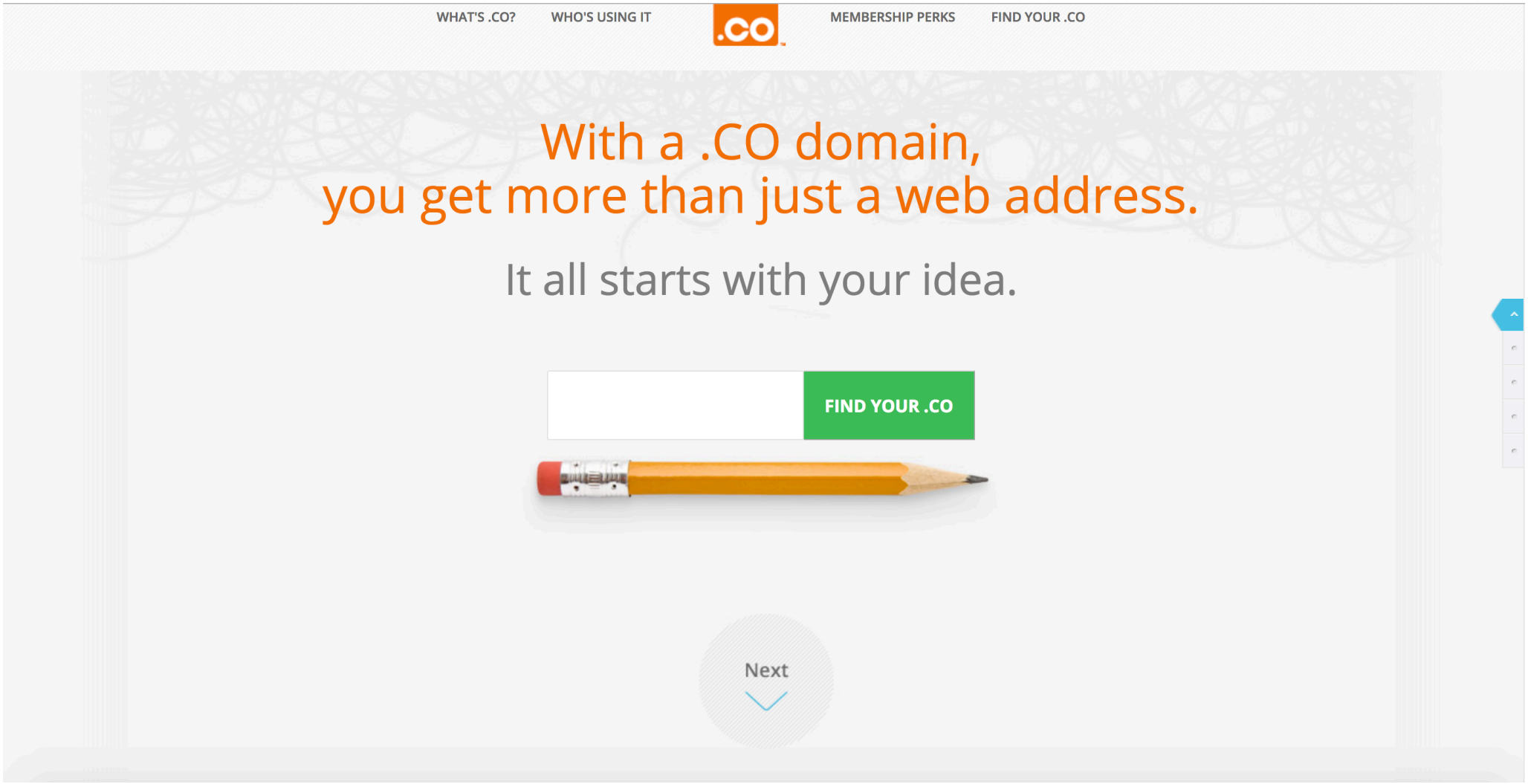
Levels of Entrepreneurship in the DNS Industry

+ Entrepreneurship at the ccTLD Level
+ Entrepreneurship at the gTLD Level
+ Entrepreneurship at the Registry Level
+ Entrepreneurship at the Registrar Level
+ Entrepreneurship at the Domain Name Level

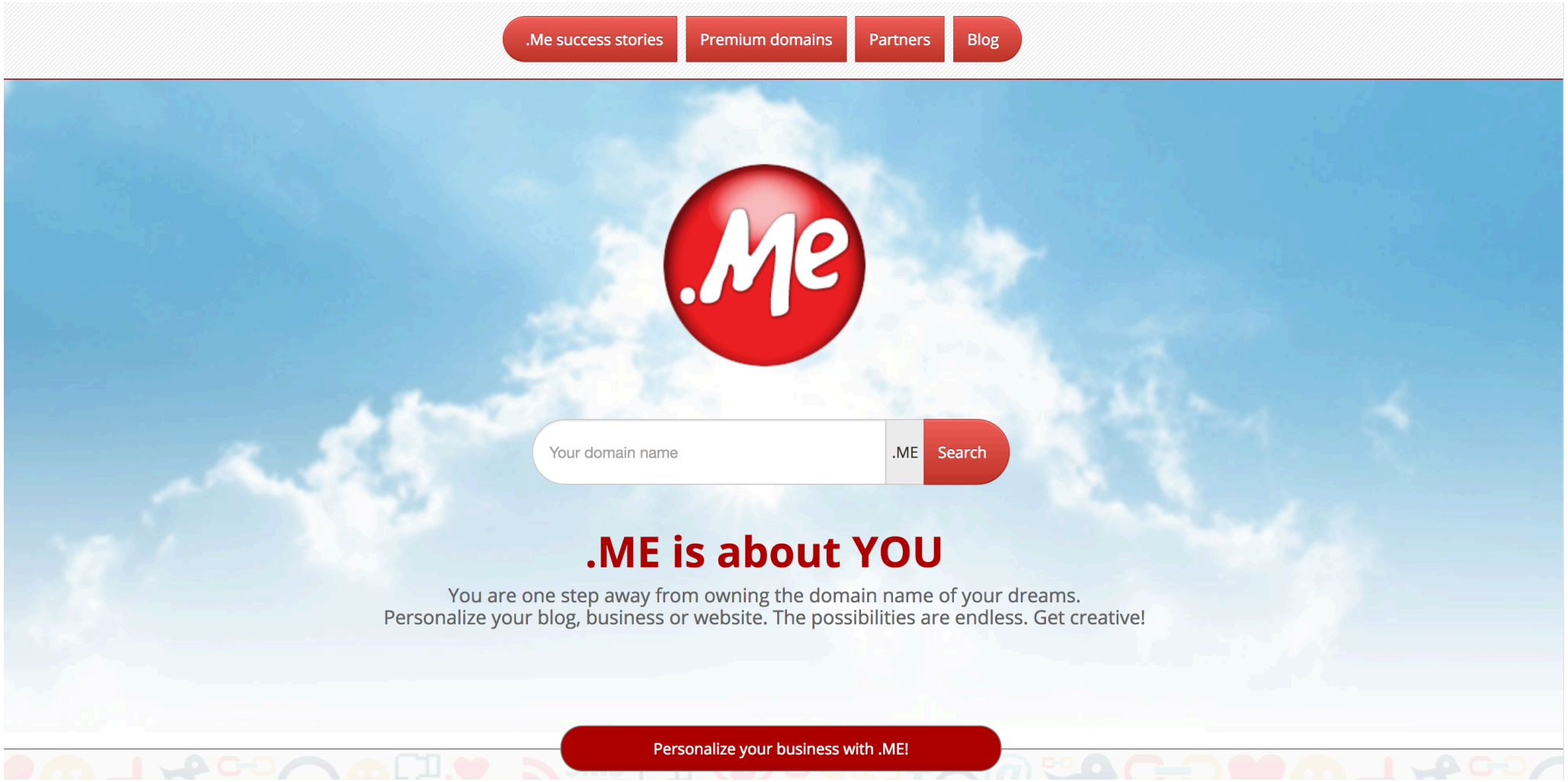
Entrepreneurship at the ccTLD Level



Entrepreneurship at the ccTLD Level



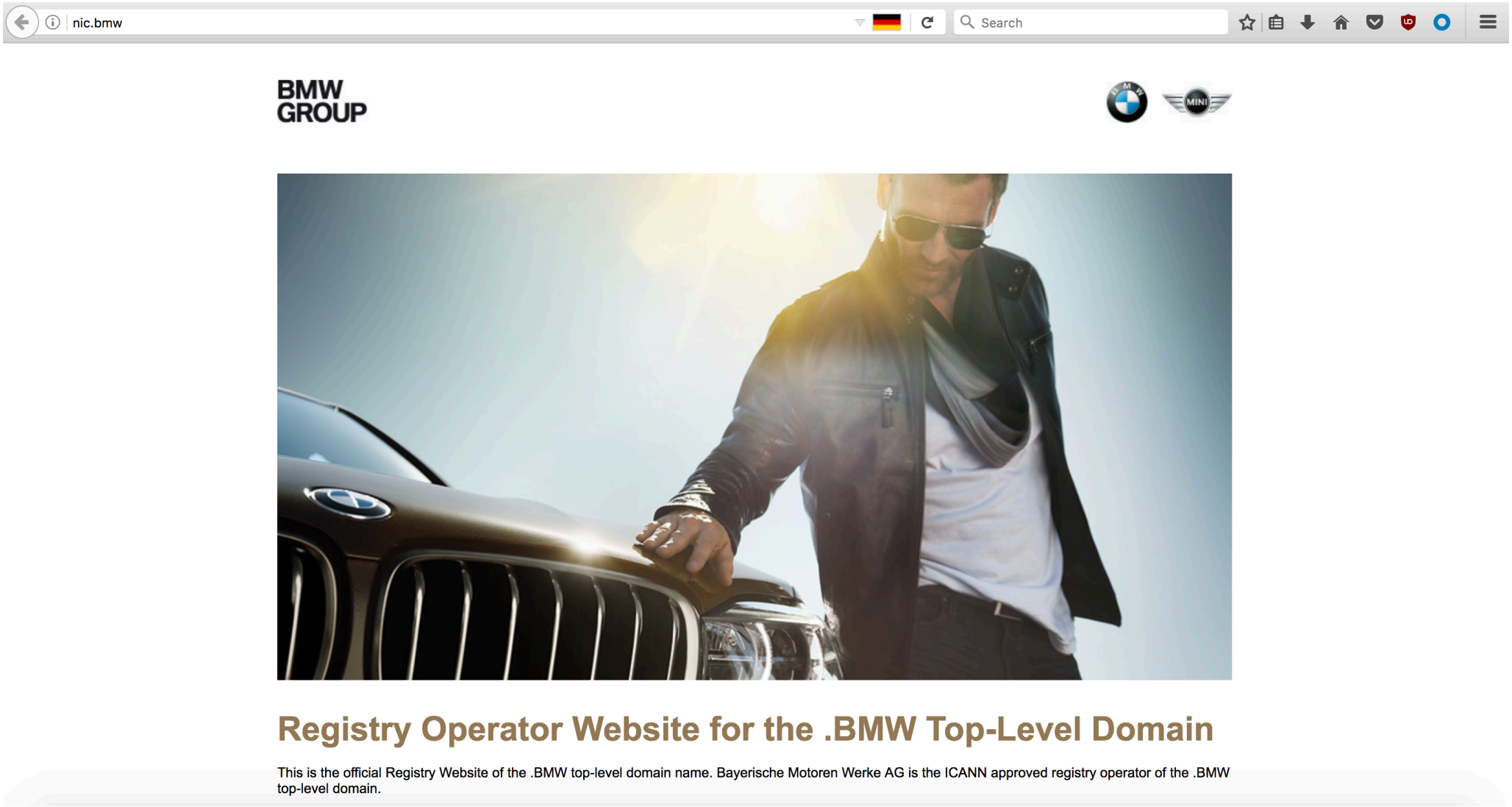
Entrepreneurship at the ccTLD Level



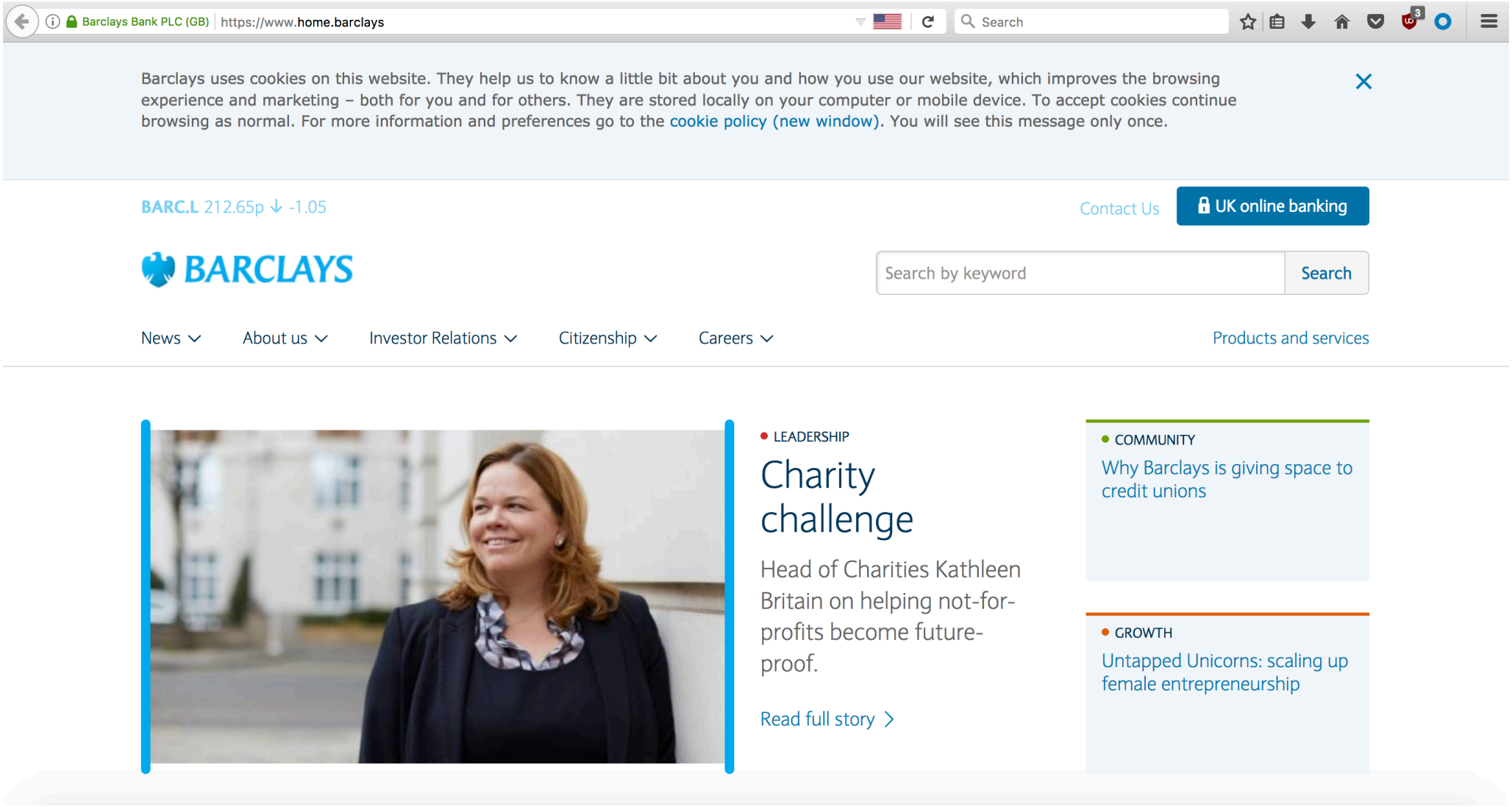
Entrepreneurship at the gTLD Level

Entrepreneurship at the gTLD Level

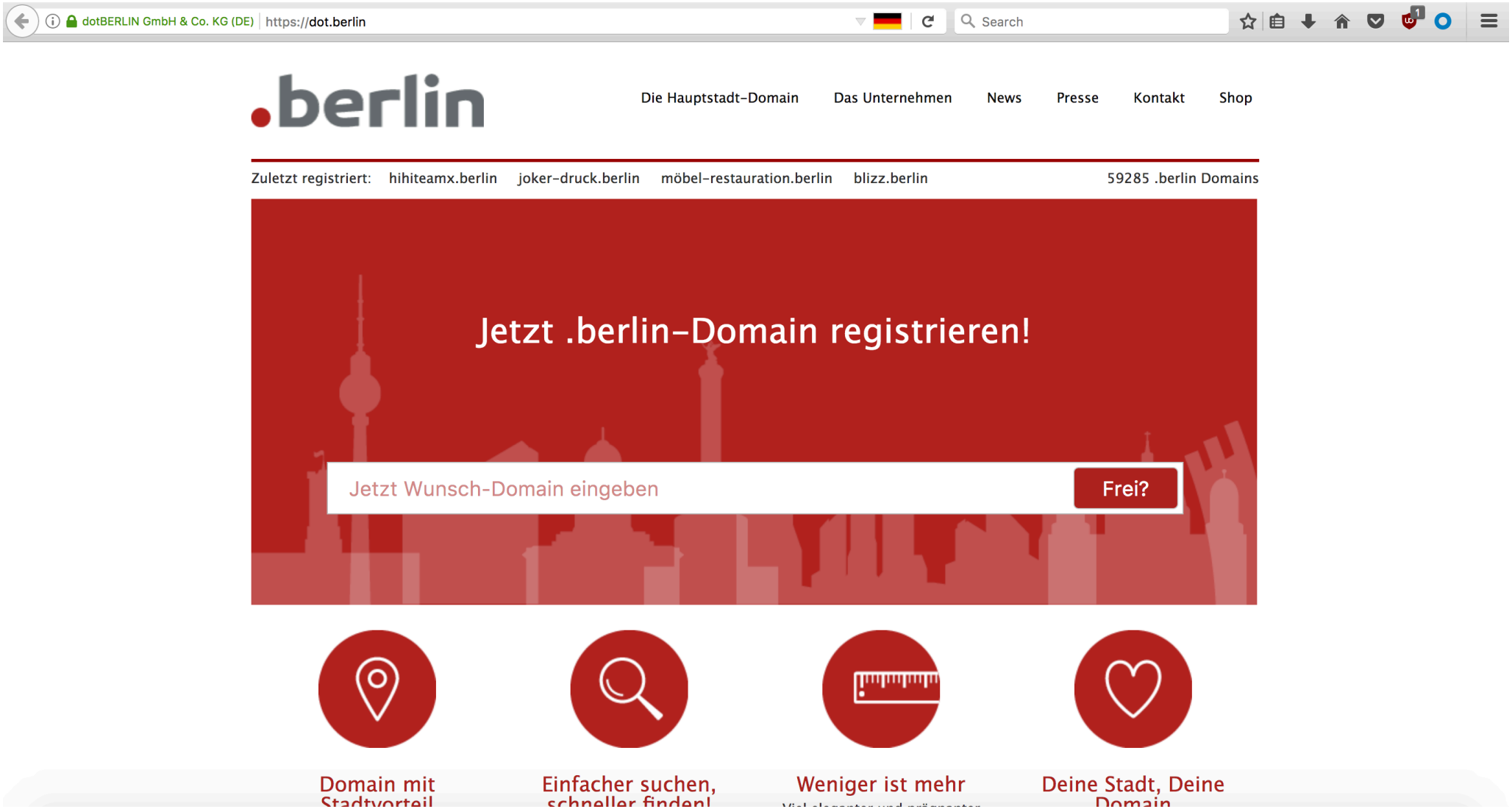
Entrepreneurship at the gTLD Level



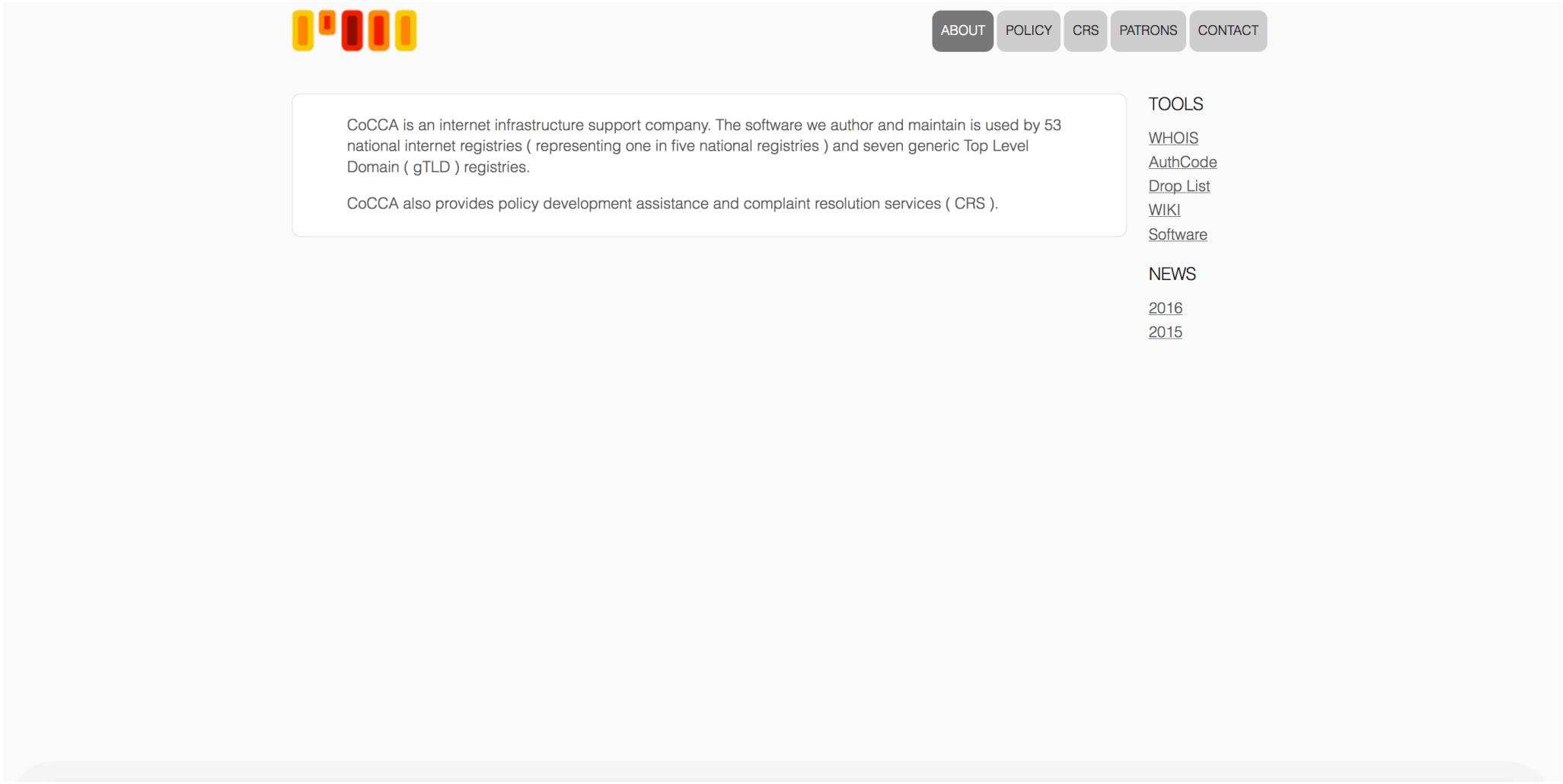
Entrepreneurship at the gTLD Level



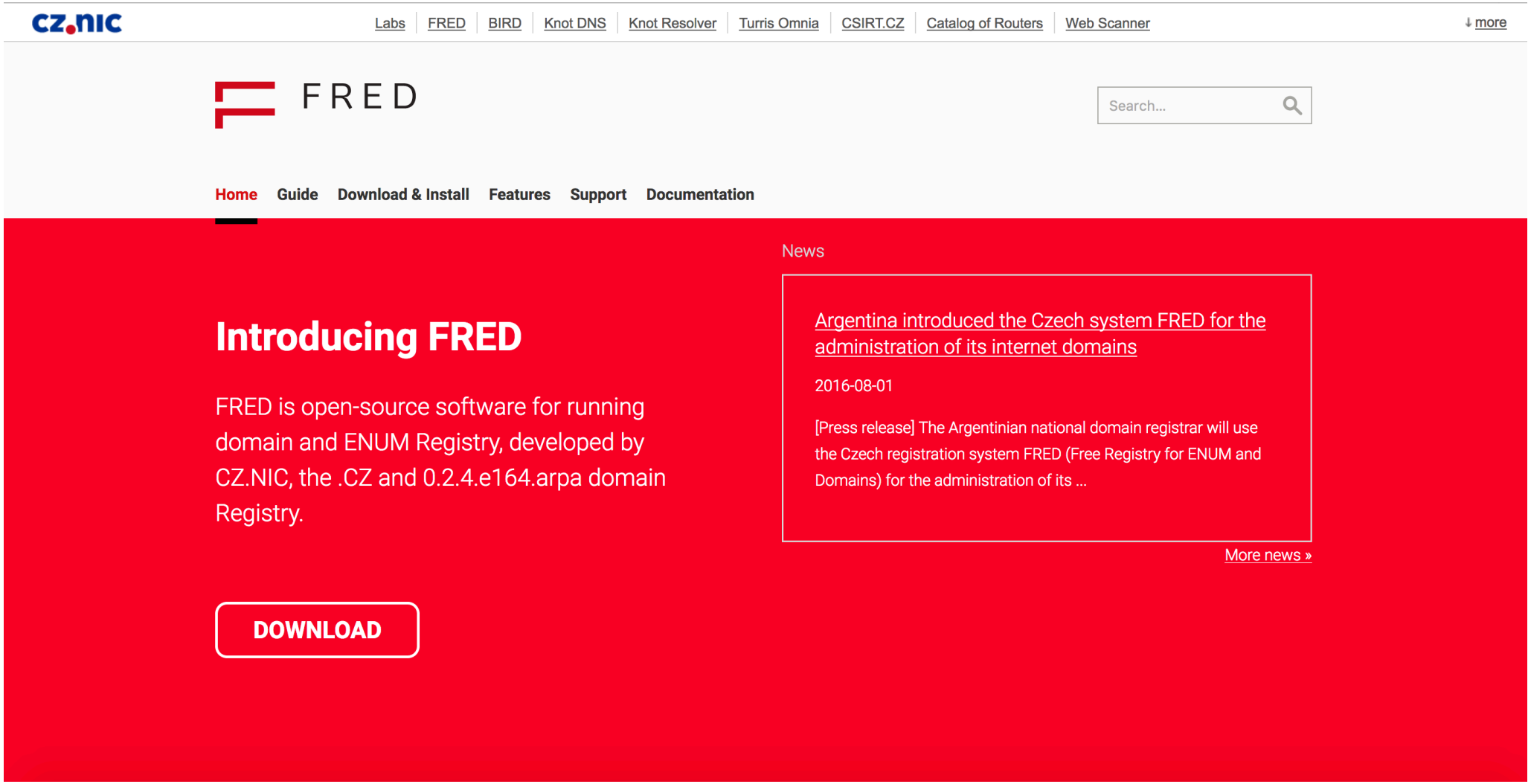
Entrepreneurship at the gTLD Level



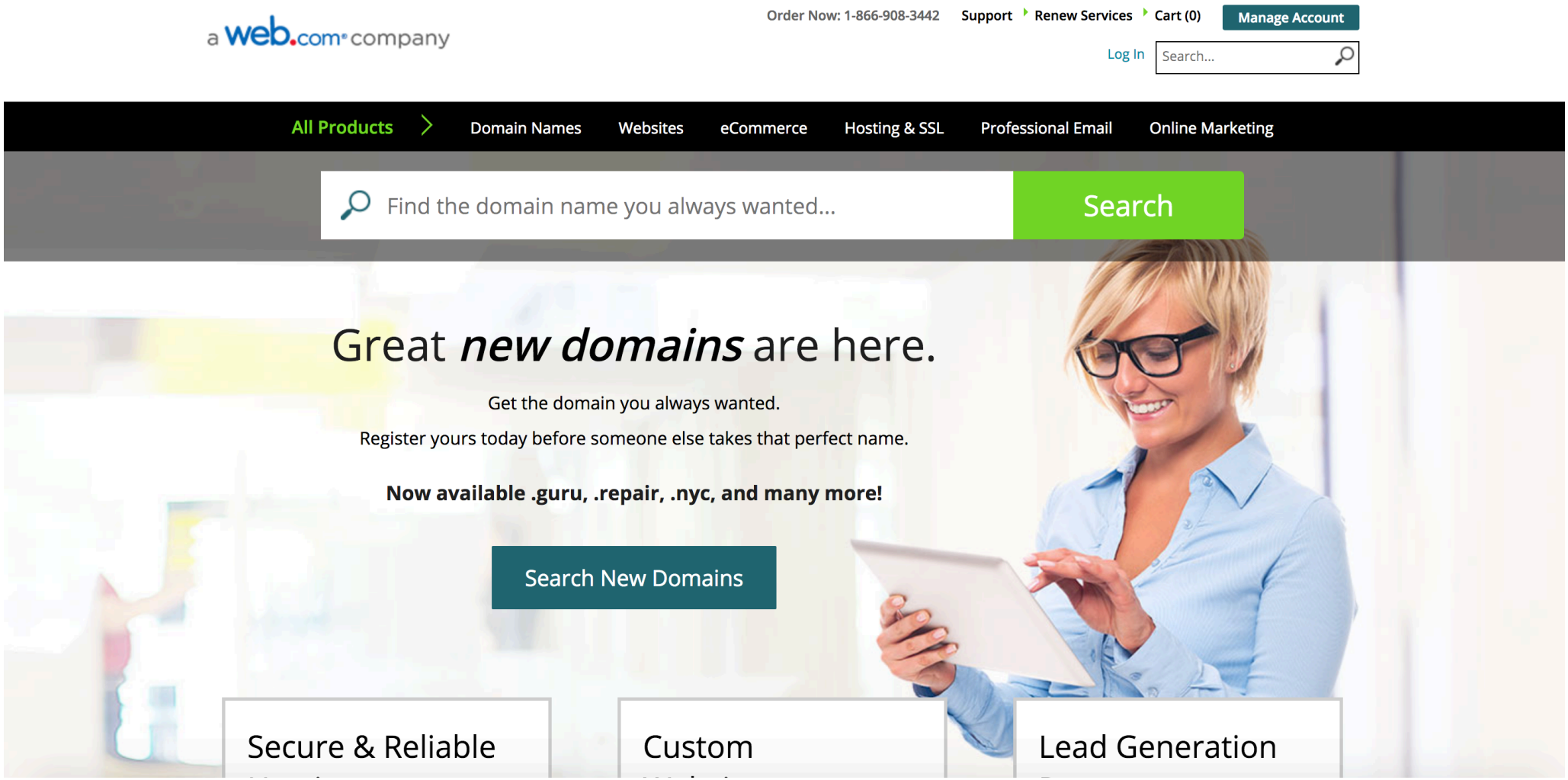
Entrepreneurship at the Registry Level



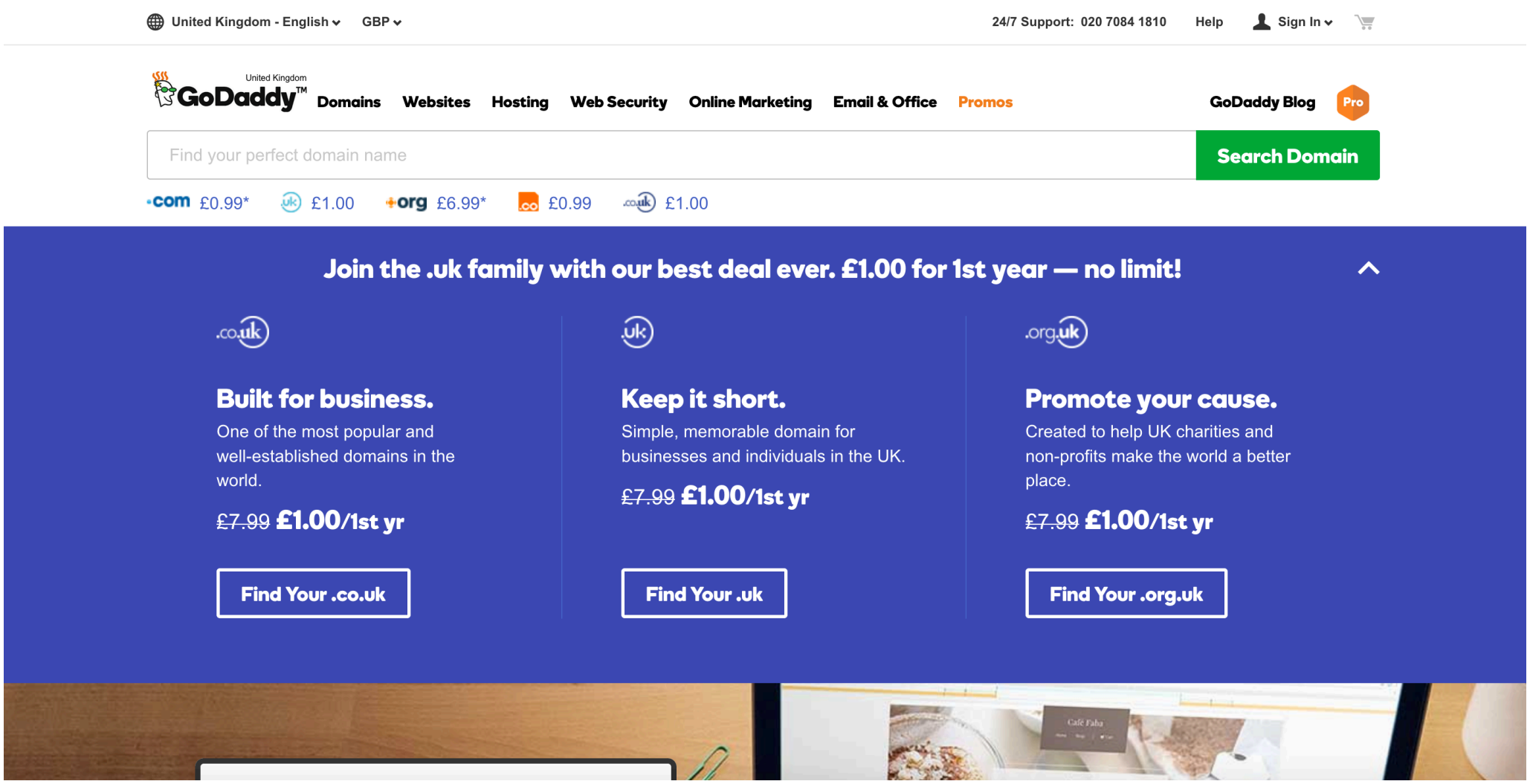
Entrepreneurship at the Registry Level



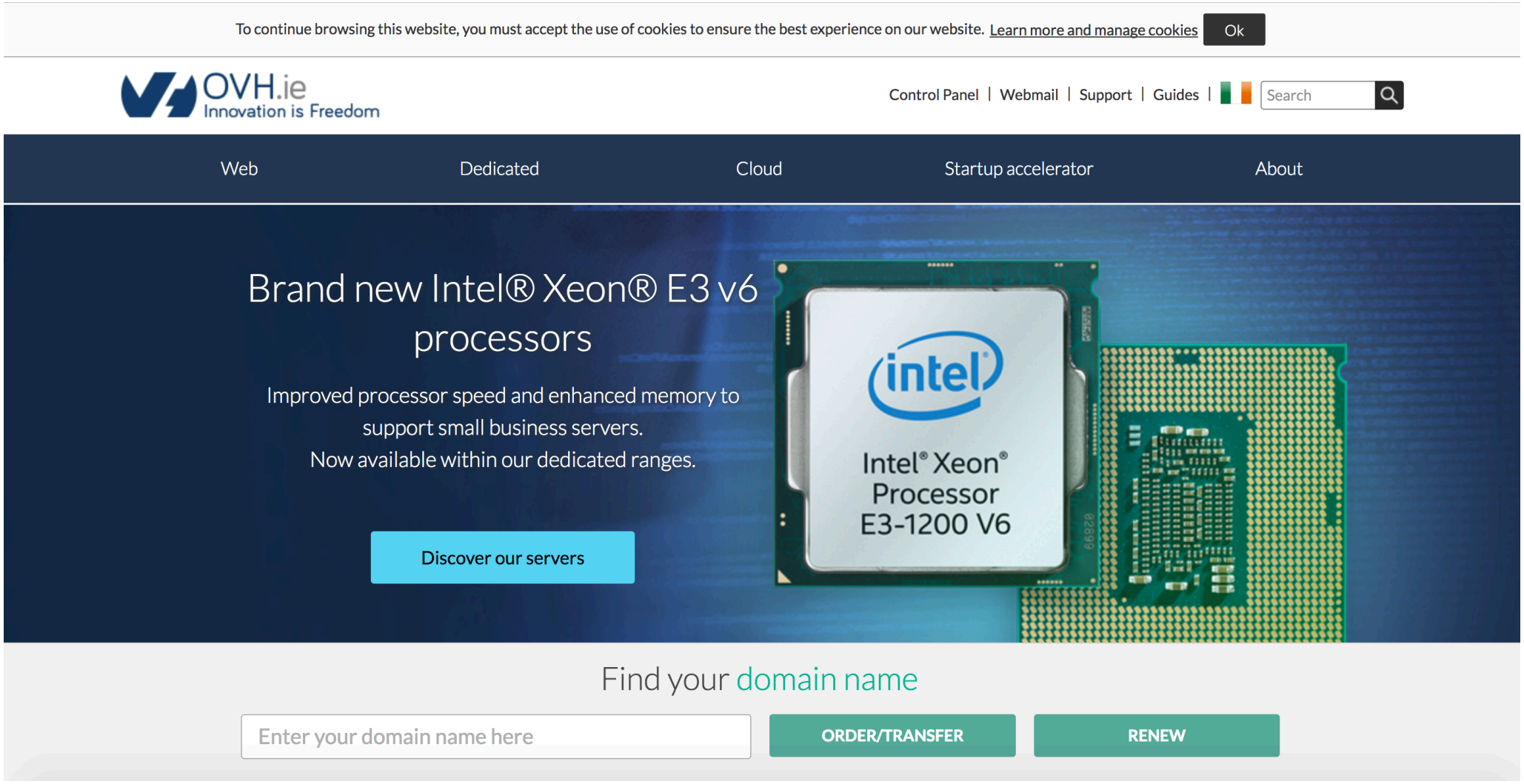
Entrepreneurship at the Registrar Level



Entrepreneurship at the Registrar Level



Entrepreneurship at the Registrar Level



Entrepreneurship at the DN Level

Domain Name	Price (USD Million)	Year of Selling
Insurance.com	35.6	2010
VacationRentals.com	35	2007
PrivateJet.com	30.1	2012
Internet.com	18	2009
360.com	17	2015
Insure.com	16	2009
Hotels.com	11	2001
Fund.com	9.99	2008
FB.com	8.5	2010
Business.com	7.5	1999
Diamond.com	7.5	2006

** Note: DNSSEC & KSK roll to be covered in afternoon session

Engage at ICANN

- Do you want to be in the vanguard of Internet expansion into new markets?
- Do you want to shape open standards development and new technology?
- Do you already devote resources to lobbying about Internet policy at the global level?
- Do you already devote resources to lobbying about Internet policy at the national level?
- Do you want to shape policy at the global level and know what is on the horizon?
- Do you know if your competitors are already participating?
- Do you want to be part of a growing and active community?
- Do you see the Internet as a global shared resource worth supporting?
- Do you want to defend the multistakeholder model?

Engage with ICANN

Thank You and Questions

Visit us at **icann.org**
Email: save.vocea@icann.org

@icann

facebook.com/icannorg

youtube.com/icannnews

flickr.com/icann

linkedin/company/icann

slideshare/icannpresentations

soundcloud/icann