



# From Web1 to Web3: The Transformative Evolution of the Internet

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RESEARCH



# Introduction

*Prepare to embark on a captivating journey through time, a journey that takes us back to the very roots of the digital world we now take for granted.*

Let's delve into the history of the Internet, starting from its beginnings, passing through the revolutions of Web1 and Web2, and finally arriving at the present day, with the advent of Web3.

We will explore how it marks a turning point in the evolution of the Internet, how it gave birth to a new era of domains and TLDs, and how it promises to transform the way we interact online.

Only by framing Web3 in the context of the Web's evolution can we begin to glimpse its revolutionary potential and how it might completely transform not just the Internet, but society itself.

This is a journey towards Web3 - **a journey filled with discovery and endless possibilities.**





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# Web1: The Dawn of the Digital Age and the Conquest of Cyberspace

The story of Web1 is the story of the earliest digital frontiers, an epic of engineering and forward-thinking visions. It all began in 1989, when an English physicist at CERN, Sir Tim Berners-Lee, envisioned a global hypertext information system - the embryo of what we now know as the World Wide Web.

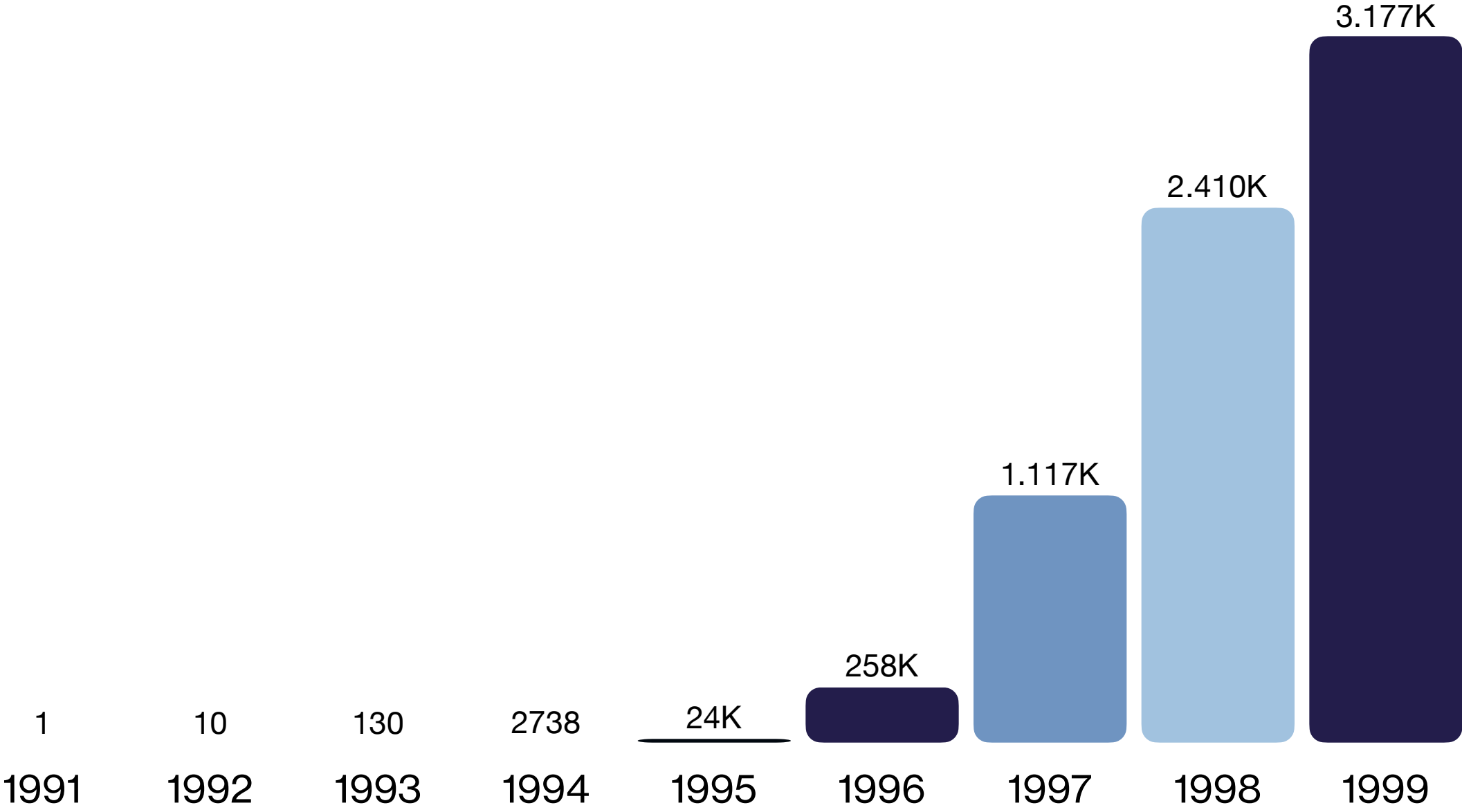
Berners-Lee's goal was to create a way for researchers to share and access information worldwide, irrespective of the hardware platform. What resulted, however, was so much more. Web1 laid the foundation for the global information infrastructure that we now take for granted.

During this time, websites were mainly static, consisting of HTML pages that allowed users to browse and read content, but with little or no interaction. Users were more spectators than participants. Yet, even in this primitive form, the Web was destined to radically transform the way humanity accessed and interacted with information.

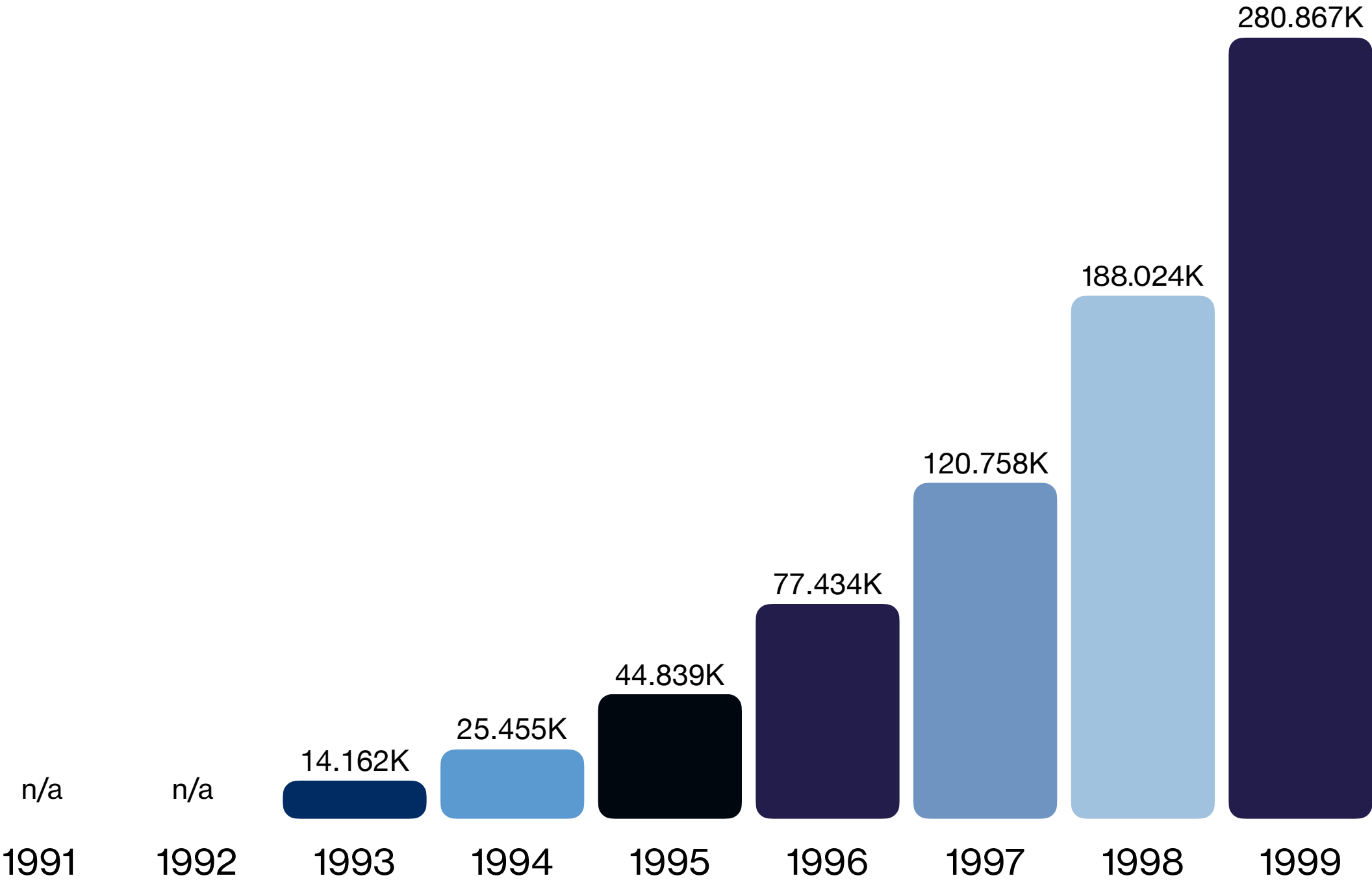
To understand the impact of this shift, consider the numbers: in 1991, there were hardly any websites. By 1995, that number had risen to 23,500 and, by the end of 1999, there were over 3 million websites. Simultaneously, the number of Internet users grew from a small group of researchers to over 280 million - roughly 3.5% of the world's population.

Web1 marked the beginning of the digital age, laying the groundwork for Web2 and subsequently Web3. While its beginnings might seem modest compared to today's tech giants, the significance of Web1 in shaping our modern world is undeniable.

# Number of Websites from 91' to 99'



# Number of internet users from 91' to 99'



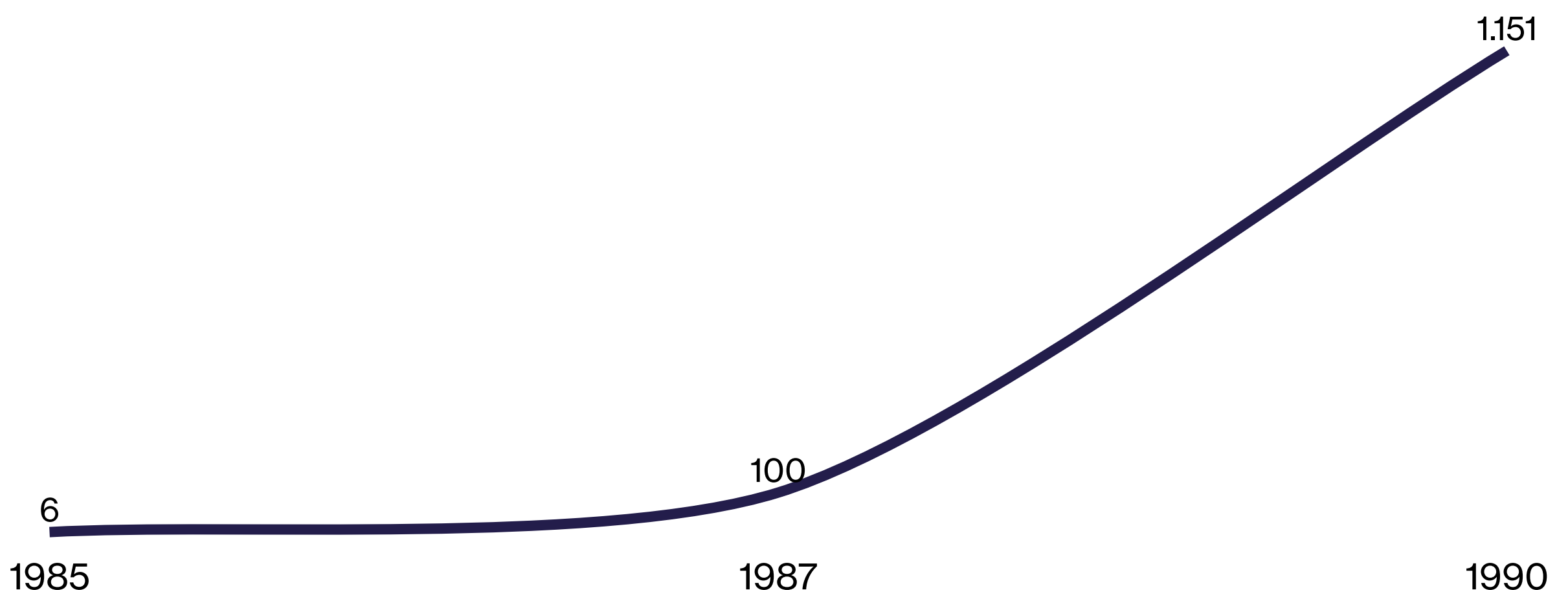
source: <https://www.internetlivestats.com/total-number-of-websites/>

# The First Domains Registered in the History of the Internet

The history of Internet domains dates back to the budding days of the online world. The very first domain ever registered was "Symbolics.com", marking a significant milestone in the digital realm. On March 15, 1985, Symbolics, a computer systems company, secured this historic domain, laying the groundwork for the domain registration system we know today.

In the following years, domain registrations began to gain ground, albeit at a gradual pace due to the limited scope of the Internet. In just under a year, around 10 domains had been registered. The list expanded to 100 domains by 1987 and surpassed 1,000 domains by 1990.

## Registered domains (approx.) between 85' and 90'



## First 10 domains in the history of the internet

March 15, 1985: **Symbolics.com**

April 24, 1985: **BBN.com**

May 24, 1985: **Think.com**

July 11, 1985: **MCC.com**

September 30, 1985: **DEC.com**

November 7, 1985: **Northrop.com**

January 9, 1986: **Xerox.com**

January 17, 1986: **SRI.com**

March 3, 1986: **HP.com**

March 5, 1986: **BellCore.com**



## **The Rise of ICANN: When the Network Required a New Order**

Before ICANN, the management of domain names and IP addresses was primarily in the hands of a single entity: the Network Information Center (NIC), overseen by the Stanford Research Institute (SRI) and, subsequently, by other entities like InterNIC. These organizations were overwhelmed by the rising demand and complexity of managing the domain system and often operated without a clear strategic vision or a uniform mandate.

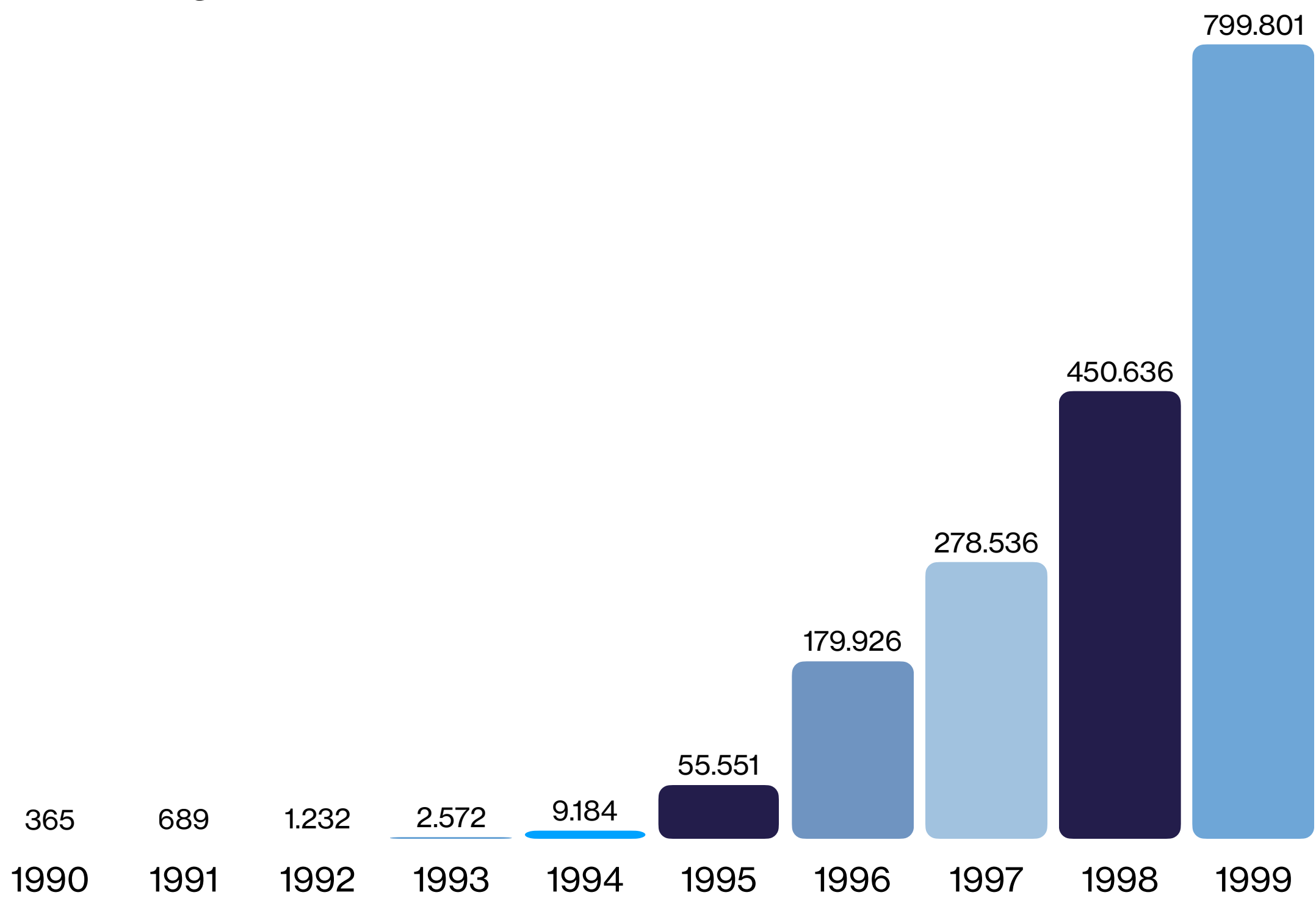
At the heart of the early days of Web1, as tension mounted over the NIC's ability to effectively handle its growing responsibility, a pivotal event redefined the Internet's infrastructure as we know it. In 1998, emerging in response to these challenges and with the endorsement of the U.S. government, ICANN (Internet Corporation for Assigned Names and Numbers) was born with the mission to bring order and transparency to the burgeoning domain network.

This entity, borne out of the need to manage the domain name system in a structured and uniform manner, took on the responsibility of assigning IP address spaces, identifying domain system operators, and managing the top-level domain name system (TLDs). Within just a few years, the number of registrars accredited by ICANN skyrocketed from a mere handful to hundreds, fueling a boom in the domain industry. For instance, by the end of 2000, there were already close to 100 registrars offering .com, .net, and .org domains.

# From 50,000 to Millions: The Domain Race in the '90s

The early '90s saw a significant surge in domain registrations as the Internet gained popularity and commercial usage increased. By 1995, the number of registered domains surpassed 50,000. The momentum continued, with the total count of registered domains reaching over 1.5 million by the year 2000.

Domain Registrations on .com from 90' to 99'





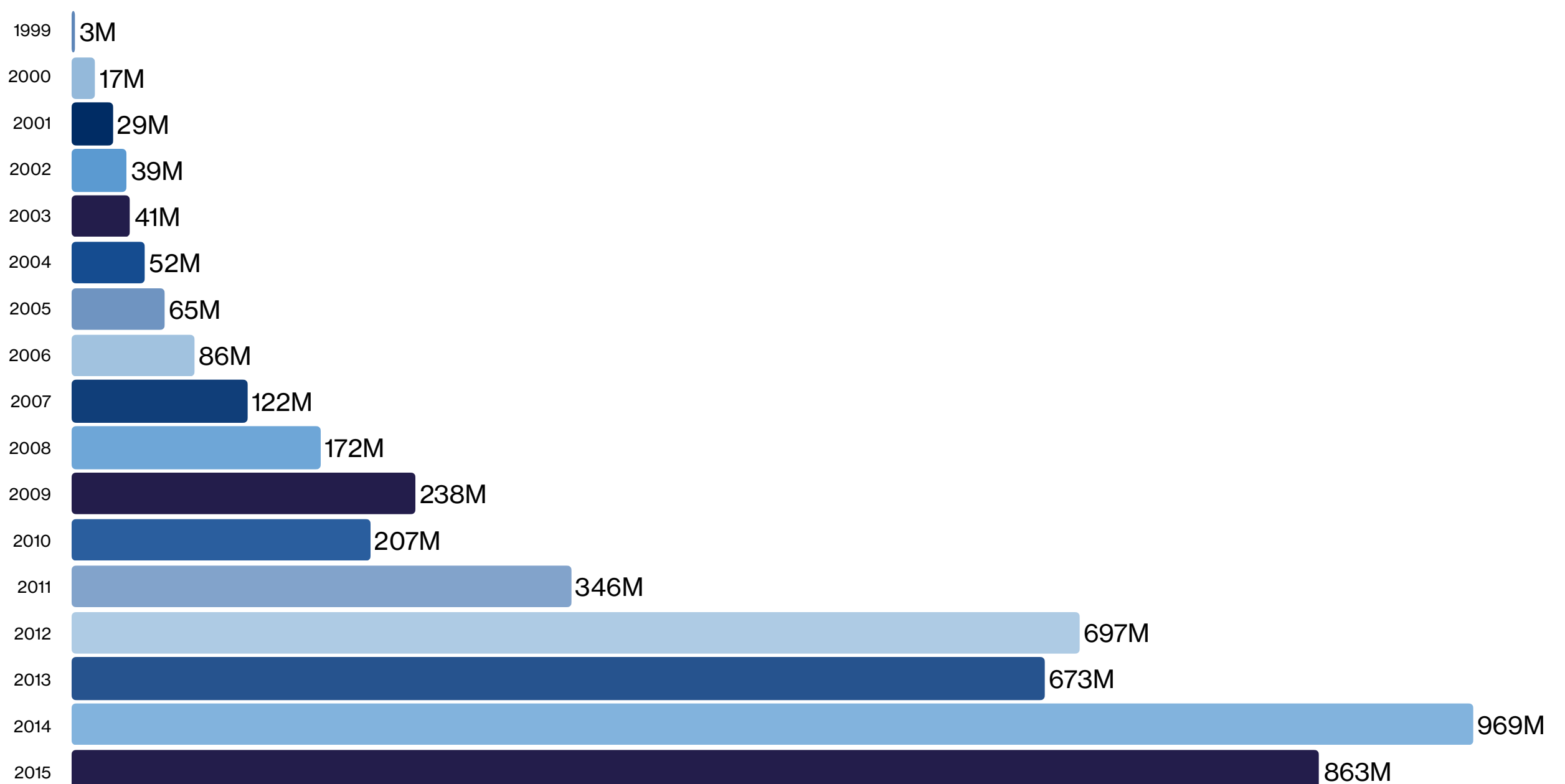
# Web2: Create, Share, Interact - The New Norm of the Internet



The advent of Web2 marked a significant turning point in the course of the Internet, with the promise of a dynamic and interactive Web surpassing the static nature of Web1. This evolution began in the early 2000s, with the concept of Web2 first being introduced by Tim O'Reilly at the O'Reilly Media Web 2.0 Conference in 2004.

Web2 was a response to the growing needs for user interaction and participation. Instead of merely being content consumers, users became active producers, engaging in content creation and sharing through blogs, social networks, and video-sharing platforms.

## Number of Websites from 99' to 2015

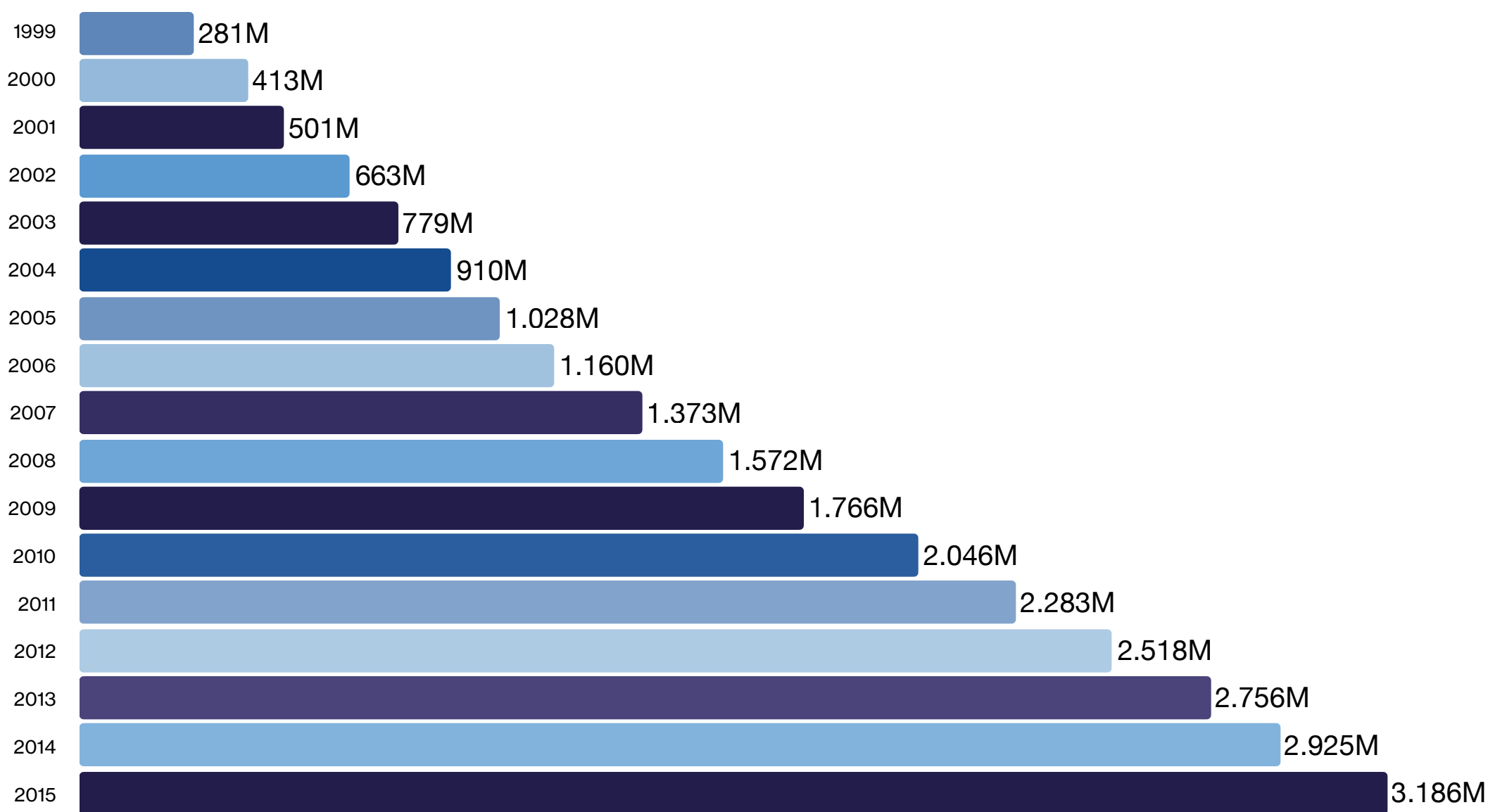


This shift led to an explosion in the amount of content and websites available. Whereas in 1999 there were about 3 million websites, by 2005 that number had grown to over 64 million. Concurrently, Internet usage boomed, rising from 280 million users in 1999 to over one billion in 2005, and then increasing by 300% in just 10 more years.

Significant events of this era include the birth of game-changing platforms like Facebook (previously 'Thefacebook') in 2004, YouTube in 2005, Twitter (future 'X') in 2006, and Instagram in 2010. These platforms transformed how people communicate, learn, and share information, playing a pivotal role in shaping today's Internet landscape.

Web2 signified a fundamental shift from the Internet as a place to find information to the Internet as a place to create and share information. This transformation laid the foundation for the continuous evolution of the Web and paved the way for Web3, an even more interactive and personalized Internet.

### Number of internet users from 99' to 2015



# A Giant Spanning the Web Eras: The .Com

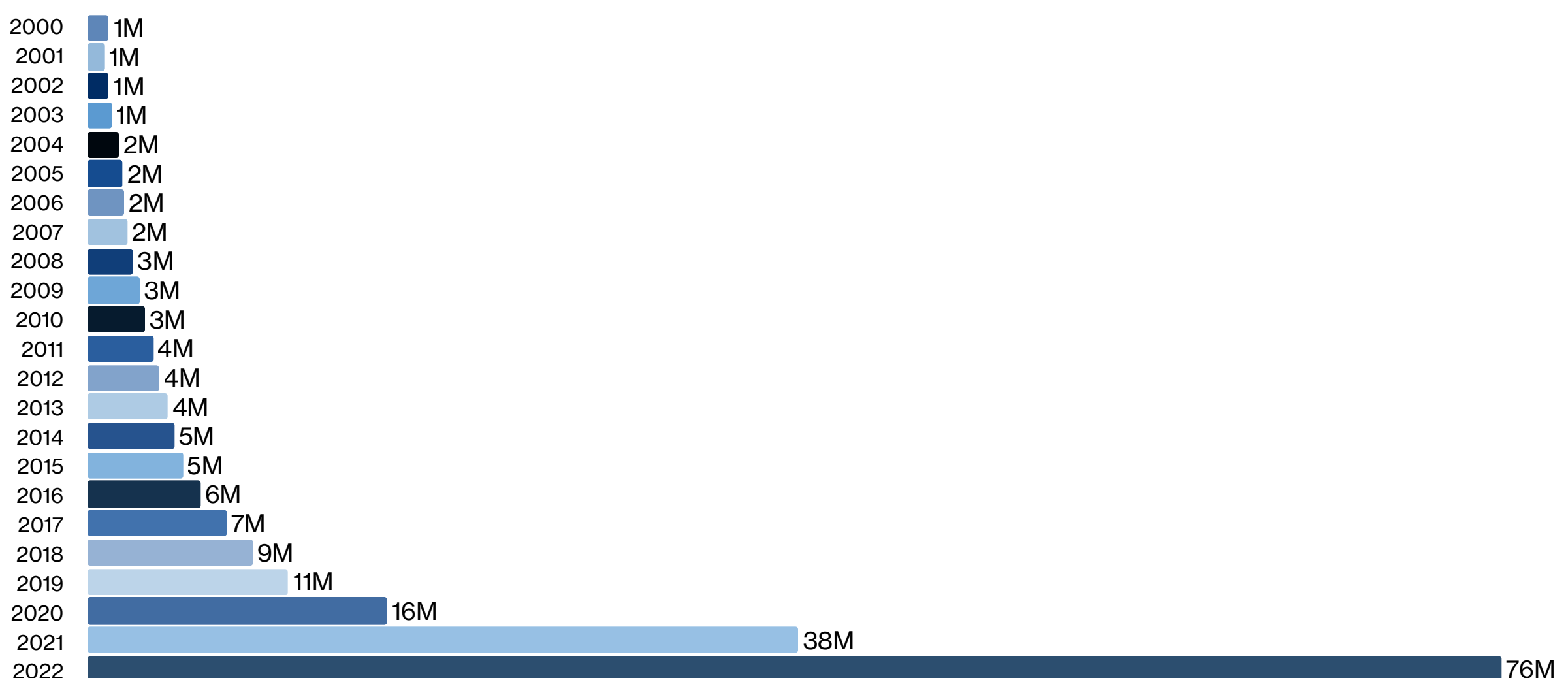
Since its debut on the global Internet scene in 1985, the top-level domain .com has woven an extraordinary success story, establishing itself as a dominant and influential presence in the vast landscape of the web.

Over these decades, the TLD .com has transformed into a network giant, casting its shadow over myriad websites and planting its roots deep within the digital world. Like a beacon standing tall amidst the sea, .com has shone brightly, lighting the way for entrepreneurs, innovators, and dreamers.

2022 marked an epochal year for this TLD. The .com domains reached an impressive peak, with over 200 million registrations, bearing witness to its pervasive power. This achievement is no small feat, considering it represents over 30% of all global Internet domain registrations.

This extraordinary figure embodies the essence of .com's success, showcasing how it has captured the collective imagination of Internet users. Its ubiquity has become synonymous with reliability, turning .com into an indispensable benchmark in the digital landscape, a kind of compass for those navigating the vast ocean of the web.

## Domain registrations on .com 2000 to 2022

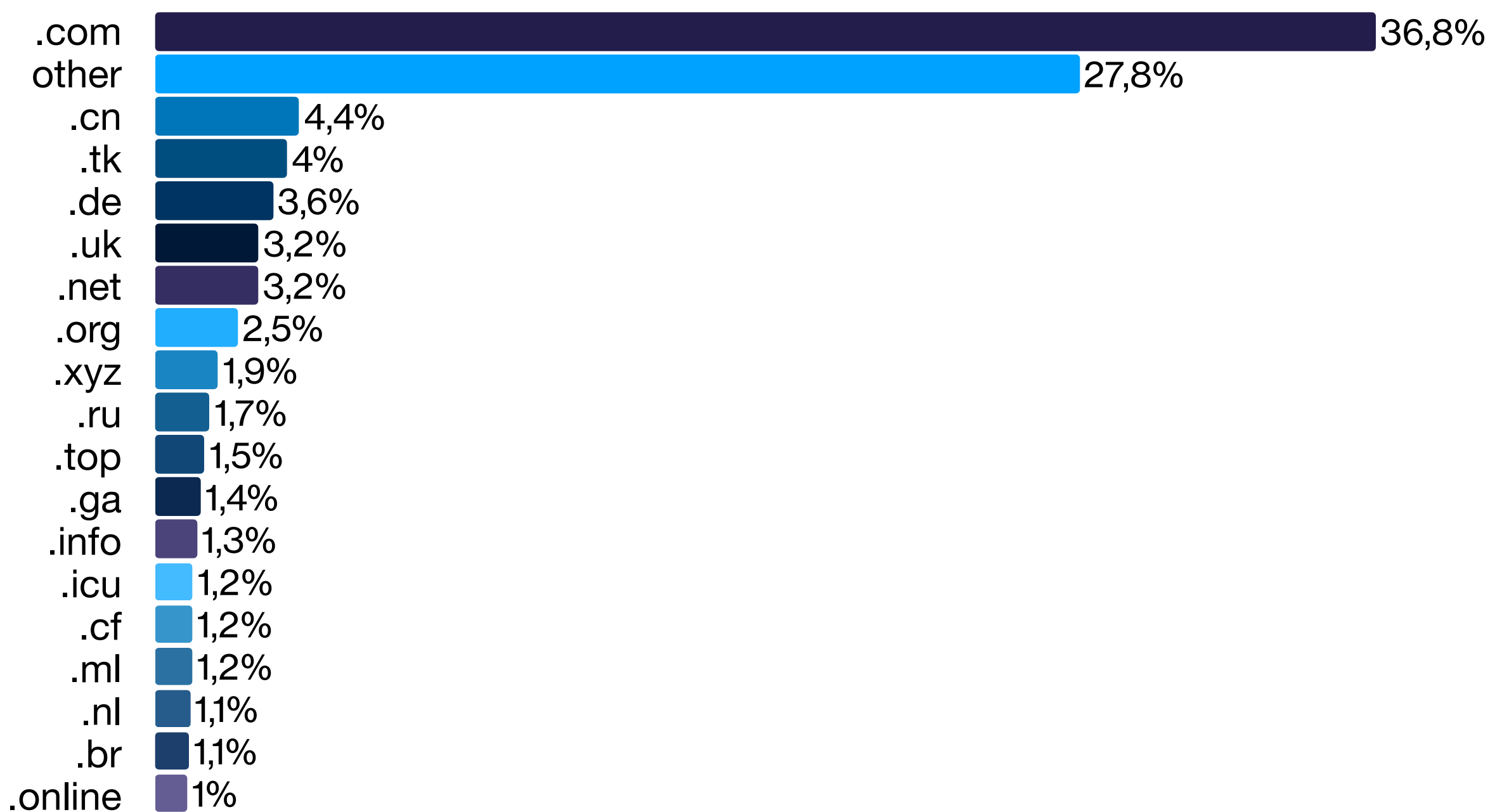


# The Birth of New TLDs in Response to Saturation

Amid the triumph of the .com, the growing demand for unique and memorable Internet domains posed a pressing challenge. As the vast ocean of .com became increasingly crowded, the availability of distinctive .com domains proved more and more limited, giving rise to a new emerging trend: the ascent of new top-level domains (TLDs).

In the current landscape, there has been a proliferation of over 1,600 new domain extensions to date, an unprecedented expansion of the digital domain. Of these, more than 15 TLDs alternative to .com have achieved notable success, each individually garnering over 1% of the total registrations of existing traditional domain names.

### Registration distribution by TLD

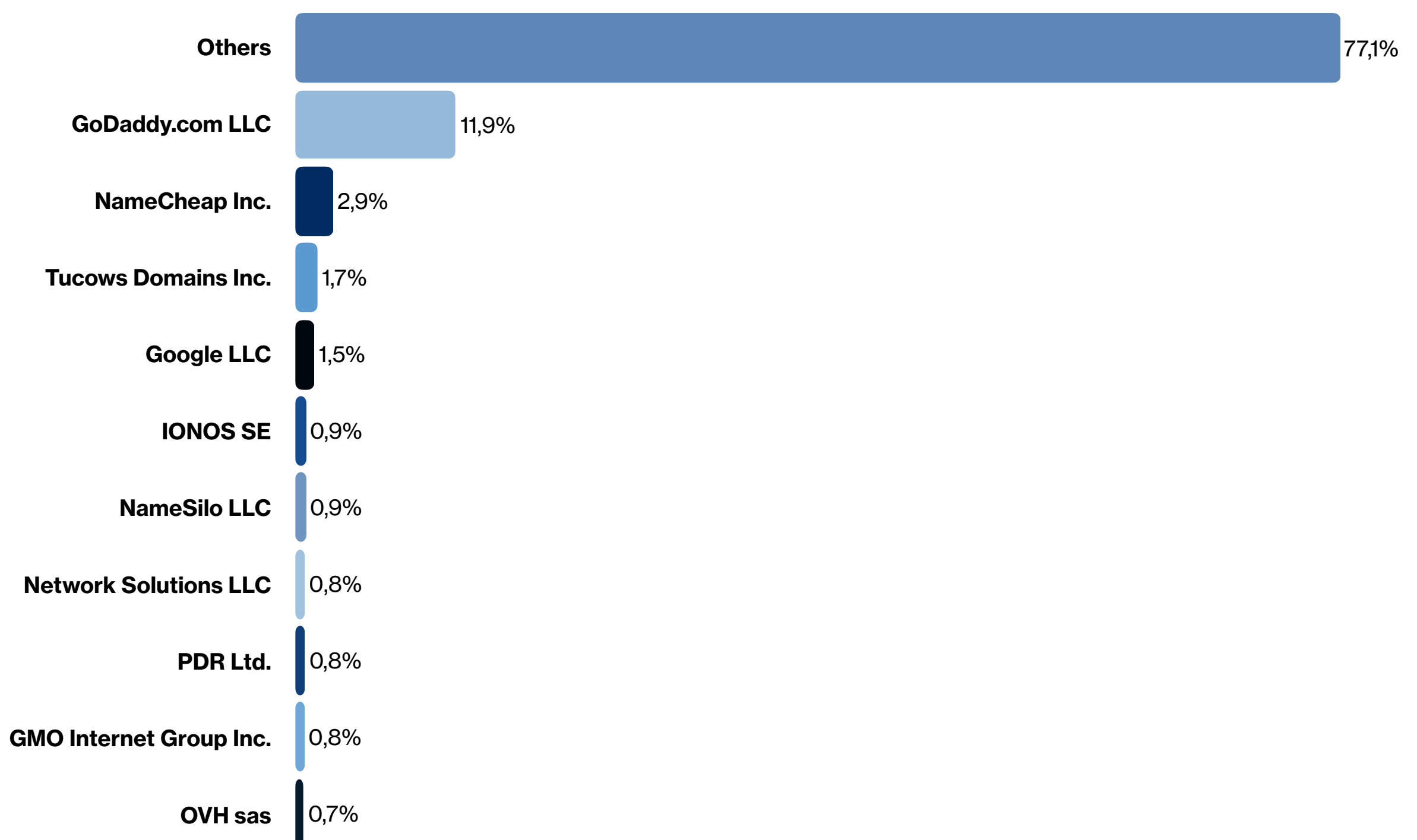


# Digital Centralization: Cracks in the Foundation of Traditional Domains

As the digital age advanced, the domain name structure, once seen as the stable foundation of the Web, began to show evident cracks. Centralization, one of the most debated topics in the digital realm, found fertile ground in the traditional domain system.

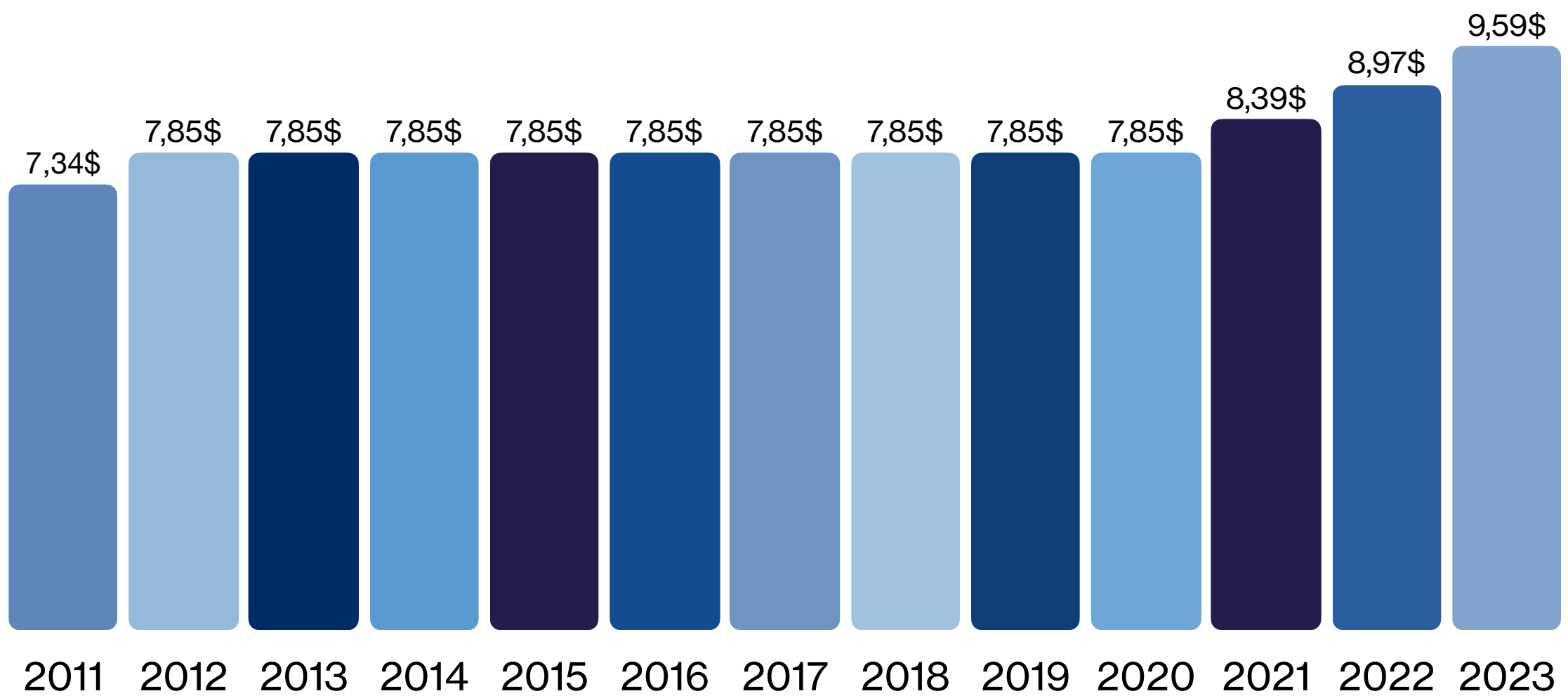
Recent statistics reveal that over 20% of global domains are managed by just ten major domain registries. This concentration has led to growing concerns about censorship, lack of transparency, and potential abuse of power. Furthermore, it has been noted that the average domain renewal cost has increased by at least 7% in the past year and by more than 30% since 2011, a possible consequence of centralized power.

## Domain name registrations by registrar

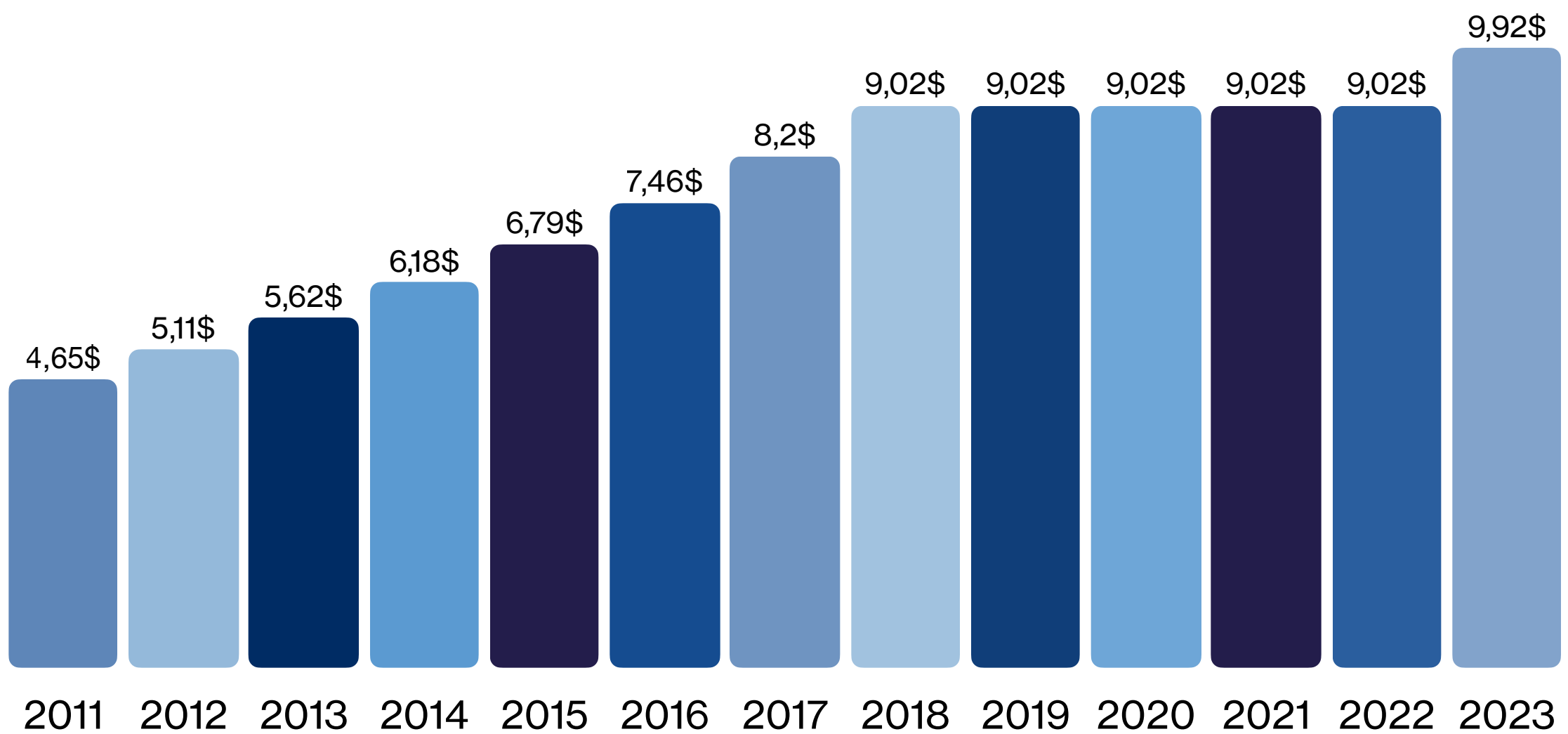


With Web3 on the horizon, promising a decentralized architecture, tensions between the old and the new web landscape are set to intensify. The increasing centralization of traditional domains might be the catalyst driving more and more users and developers towards decentralized solutions, putting a brake on the era of centralized domains and heralding a new age of digital freedom.

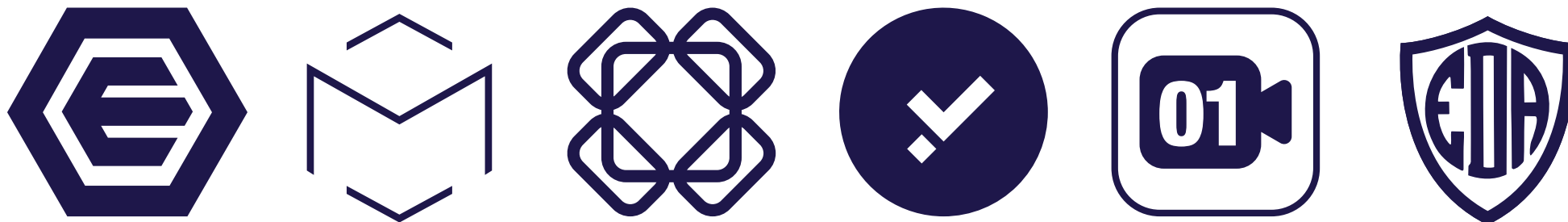
### Verisign .com prices yearly rise



### Verisign .net prices yearly rise



# Web3: Rethinking Domains and TLDs in a Decentralized Internet



In 2013, the vision of a more open and decentralized Internet began to take shape with the emergence of the Web3 concept. This new era of the Internet, which sees a growing focus on the decentralization of domains and TLDs, has been driven by a series of pioneers and innovators, including the computer visionary Gavin Wood, one of the co-founders of Ethereum, who first introduced the term "Web3" in reference to this new phase of Internet development.

This evolution was driven by two main factors. The first is a growing concern for online privacy and security, leading people to seek alternatives that offer more control over their information. The second has been the realization of the potential of blockchain technology to create secure, transparent, and censorship-resistant networks.

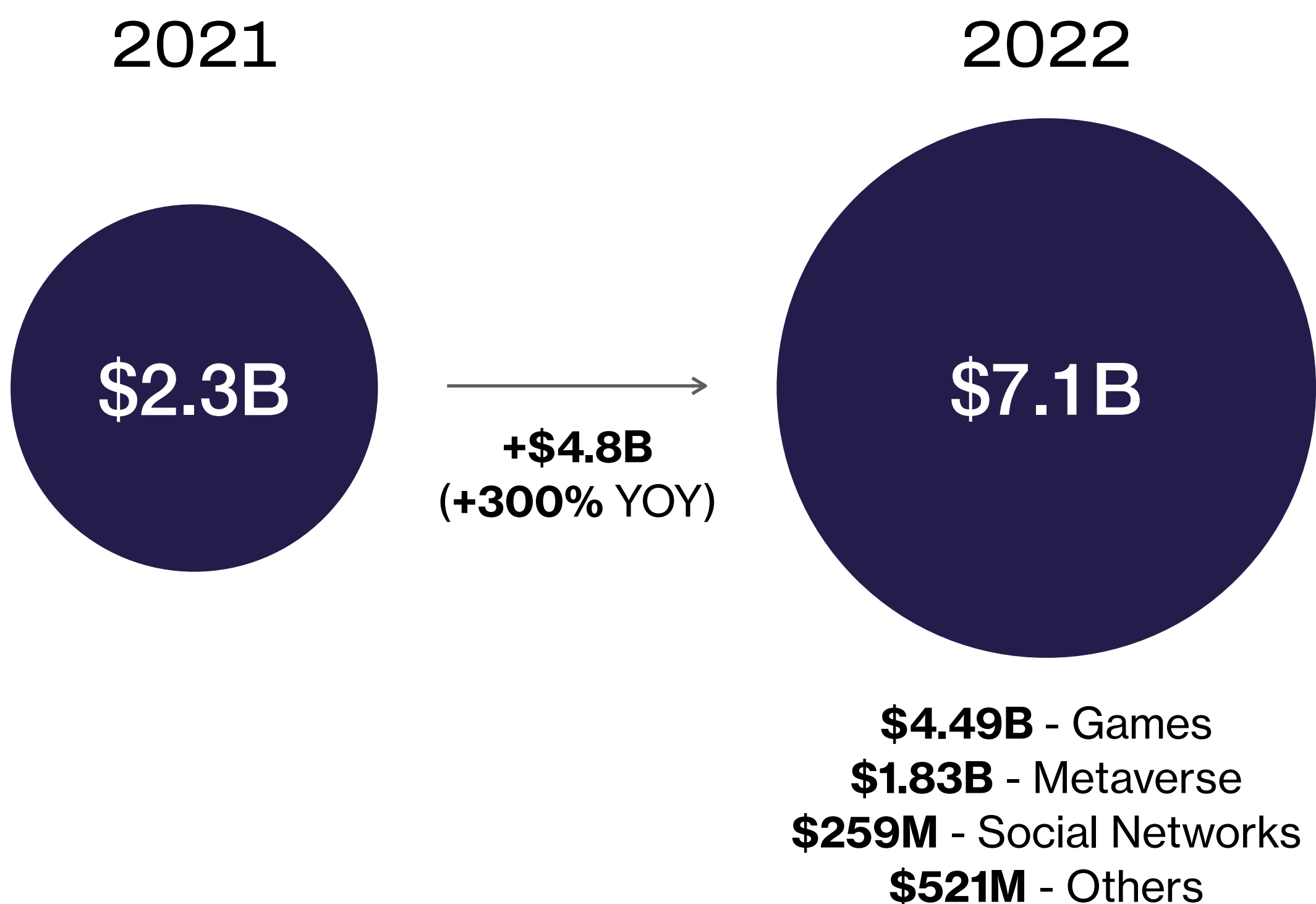
The emergence of Web3 TLDs/domains represents a turning point in the history of the Internet. With the promise of enhanced privacy, security, and control for users, this evolution marks the beginning of a new and exciting era for the online world - where power is returned to the users, giving birth to an Internet truly by and for the people.

# Investment Boom: Web3 Startups Rake in Billions

In 2022, the Web3 industry witnessed remarkable growth, with total investments reaching \$7.1 billion.

Gaming dominated the investment scene, accounting for \$4.49 billion, followed by the metaverse sector with \$1.8 billion and social networks with \$259.1 million. Compared to the previous year, there was a significant increase in investments by \$4.8 billion.

Paradigm was the most active Venture Capital firm, investing \$2.5 billion in 31 projects. Andreessen Horowitz, Sequoia China, and Matrix Partners China were other major investors. These trends underscore the strength and potential of the Web3 sector.

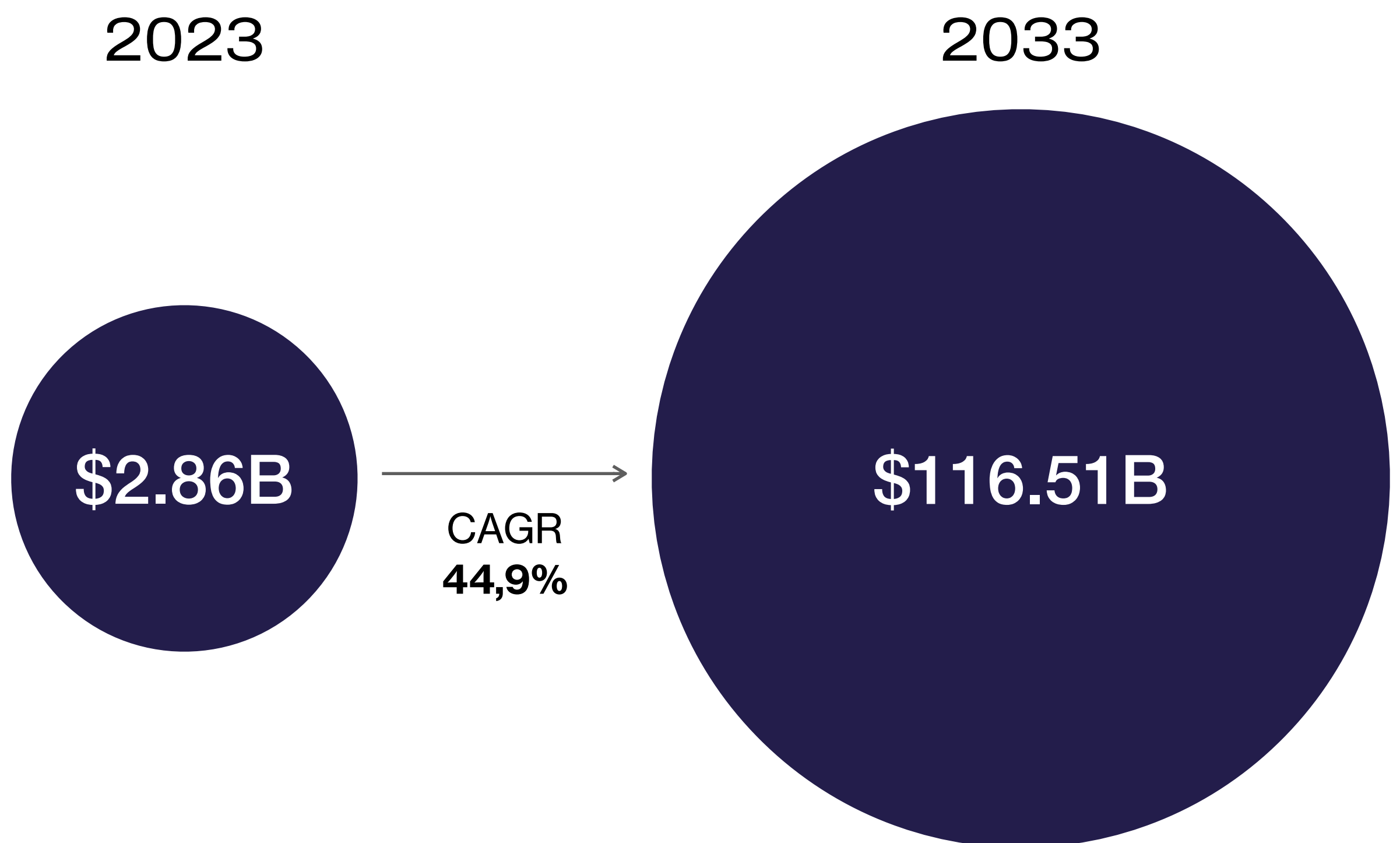




# From 2023 to 2033: The Inexorable Growth of the Web3 Blockchain Market

The dawn of 2023 saw the Web3 Blockchain market valued at a staggering \$2.86 billion. But, if you think this number is impressive, the future holds even greater surprises.

According to forecasts, by 2033, we expect a surge in the market valuation, with a moderate compound annual growth rate (CAGR) of 44.9%, pushing the value to a whopping \$116.51 billion.



This extraordinary growth is not coincidental. Instead, it's supported by a series of key factors shaping the modern digital landscape:

**Decentralization and Identity Protection:** In an era where the protection of personal information has become paramount, Web3 offers an innovative solution: decentralized identity. This technological advancement allows individuals to have greater control and enhanced security over their data.

**The Advent of 5G and 6G Networks:** With the rapid adoption of advanced communication networks such as 5G and 6G, the capability to fully harness the potentials of Web3 has become a tangible reality.

**The Rising Value of Cryptocurrencies:** As the currency of the future, the increasing importance and value of cryptocurrencies have further bolstered the adoption of blockchain solutions.

**The Proliferation of Internet-connected Devices:** Our modern reality is populated by a myriad of Internet-connected devices, further expanding Web3's domain of influence.

**Improvements in Transaction Procedures:** Efficiency, security, and transparency are at the heart of transactions in Web3, making operations smoother and more reliable.

With such a convergence of factors, the projection for the Web3 Blockchain market is not just optimistic, but seems a natural progression towards a more secure, efficient, and decentralized digital future.

# The Rebirth of Digital Sovereignty in the Age of Decentralization

At the heart of the Web3 revolution is a deep-seated desire to reclaim control from the increasing centralization that marked Web2. History teaches us that concentration of power leads to vulnerabilities, lack of transparency, and potential abuses.

Centralization has created fertile ground for censorship, privacy breaches, and high costs. Web3, with its decentralized architecture, promises a solution.





Using blockchain technologies, Web3 enables decentralized payments, surveillance-resistant encrypted emails, and censorship-proof websites.

The shift to Web3 is not just a technological advancement; it's a cultural movement that recognizes the Internet as a global common resource, which should be accessible, transparent, and free from manipulation. It's a call to take back control and bring to life a truly democratic web, where the individual rediscovers their digital sovereignty.

# Revisiting the Web: A Comparison Between the Digital Ages of Web1, Web2, and Web3

The Web is an ever-evolving structure that has undergone profound transformations since its early days. From the initial version of a unidirectional and static Web (Web1) to the dynamism and interactivity of Web2, to the current vision of a decentralized and sovereign future with Web3, each of these phases marked a radical shift in how we access and interact with digital information.

Below, we present a comparison between Web1, Web2, and Web3, highlighting their distinctive features, allowing us to better understand the development journey of the Web and its possible future directions.

	<b>Web1</b>	<b>Web2</b>	<b>Web3</b>
 <b>Communication</b>	Unidirectional	Bidirectional	Multidirectional
 <b>Architecture</b>	Centralized	Centralized	Decentralized
 <b>Access</b>	Static	Dynamic	Sovereign
 <b>Content</b>	Static and read-only	Dynamic and interactive	Programmable

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## Welcome to the future of the Web3.

Web3 TLDs/Domains  
Yours, Forever

Decentralized payments, websites, secure emails, lifetime royalties, and so much more.

Our community is the beating heart, and together we are building a more open and decentralized Web.

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