

---

# EXECUTIVE SUMMARY:

## The Digital Top Ten

- » Digital globalization evokes the image of a seamless global marketplace. Reality is different. The digital revolution is global in its reach but uneven in its effects.
- » Advanced economies are nine times more connected to information and data flows than emerging economies. Digital connections between continents are thickest between Europe and North America.
- » Europe is not only the world's most globally connected region, 8 of the world's 10 most connected countries are European. Europe and North America account for 21 of the top 30 most connected countries.
- » Europeans and Americans literally can not afford transatlantic digital disconnects.

### 1. Digital and Digitally-Enabled Services

- » Digitally-enabled services between the U.S. and Europe have become critical to the competitiveness of manufacturing and retail operations on each side of the Atlantic.
- » Over half of digitally-enabled services imported by the U.S. from the EU is used to produce U.S. products for export, and vice versa.
- » America's trade surplus in digitally-enabled services totaled \$161.5 billion in 2015. Digitally-enabled services accounted for 61.6% of the overall U.S. trade surplus in services.
- » Europe is the #1 market for overall U.S. services exports, as well as U.S. exports of digital services and of digitally-enabled services, and is the main source of U.S. imports of digitally-enabled services.
- » The U.S. exported \$180 billion in digitally-enabled services to Europe in 2015, and imported \$109.1 billion, generating a trade surplus with Europe in this area of \$71 billion. The U.S. is the largest supplier of digitally-enabled services to Europe.
- » U.S. exports of digitally-enabled services to Europe were more than double U.S. exports to Latin America and almost double U.S. exports to the entire Asia-Pacific region.
- » The U.S. is the largest non-EU consumer of EU digitally-enabled services exports, accounting for more EU exports than the rest of non-EU Europe, and more than all digitally-enabled services exports from the EU to Asia and Oceania.
- » Digitally-enabled services supplied by U.S. affiliates in Europe were 2.3 times greater than U.S. digitally-enabled exports to Europe, and digitally-enabled services supplied by European affiliates in the United States were 2.4 times greater than European digitally-enabled exports to the U.S.

### 2. E-Commerce

- » Nearly half of all U.S. companies have an online trading relationship with the EU, and almost half say that Europe is the region outside North America where they focus their cross-border strategy first.
- » Over half of European companies focus first on North America as their primary e-commerce market.
- » In terms of business-to-business (B2B) and business-to-consumer (B2C) e-commerce, the U.S. is the #1 foreign e-customer for German and UK companies, and is among the top five for Swedish, Italian, French and Danish companies.

- » U.S. companies are the #1 foreign e-suppliers for customers in the UK and Turkey, and among the top five for customers in Germany, France, Italy, the Netherlands, Poland and Spain.
- » The UK is the #1 foreign e-market in the world for U.S. companies, accounting for almost a quarter of all U.S. e-commerce exports. Germany ranks fourth as an e-supplier to the U.S.
- » Americans are the #1 foreign e-customers for Chinese companies, and U.S. companies are the #1 foreign e-supplier to Chinese customers.
- » Germany is the #1 European market for Chinese e-commerce exports, and fourth overall; and also the #1 European e-supplier to Chinese customers, and third overall.
- » Per capita, the UK leads in B2C e-commerce; in 2015 the average e-consumer in the UK spent \$4,018 online, considerably more than the average e-consumer in the U.S. (\$3,428). The British conduct about 17% of their retail spending online. Americans and Germans each follow at about 14%, followed by France and Sweden each at about 9%, with Spain, Poland and Italy hovering near 3-4%.
- » In 2015, the British in total spent €157.1 billion online — more than France (€64.9 billion), Germany (€59.7 billion) and Russia (€20.5 billion) combined. The UK accounts for more than one third of the entire European B2C e-commerce market.
- » The U.S. and UK are each other's most important cross-border B2C e-commerce markets. In 2016 49% of all U.S. digital shoppers buying across borders purchased from UK-based companies.
- » Similarly, U.S. companies are the most important foreign online sellers to UK and German consumers. 70% of all UK digital shoppers buying across borders purchased from U.S. companies.

### 3. The Transatlantic Platform Economy

- » The U.S. and European economies, as well as the digital connections between them, are being reshaped by platform companies that connect individuals directly to each other via consumer-to-consumer (C2C) e-commerce. While services that serve as platforms are also B2C or B2B, and while C2C still commands a small share of the e-commerce market, platforms have supercharged C2C potential. Annual growth currently exceeds 25%, and some sectors are projected to even reach 63% by 2025.
- » The EU could gain €572 billion in annual consumption if it could harness the platform economy model to take more effective advantage of underutilized capacities across the Single Market. 46% of EU28 GDP is considered to be amenable to the C2C platform economy.
- » The U.S. remains the leader of the C2C platform economy, but it is also robust in the UK. A third of UK adults are engaging in C2C platform economy transactions, compared to 19% of U.S. adults.
- » London is the C2C platform economy capital of Europe. San Francisco and New York are the only cities to have produced more C2C platform economy startups than London. The UK is home to 10% of global C2C platform economy companies — more than France, Germany and Spain combined.
- » The San Francisco Bay Area is home to one out of every four digital platforms in the world.

### 4. Transatlantic Data Flows

- » Global data flows are increasing at rates approaching 50 times those of the last decade, far outpacing goods trade and financial flows, according to McKinsey.
- » The U.S. ITC estimates that the internet reduces average trade costs by 26%.
- » Used cross-border bandwidth between North America and Europe is far thicker than that between any other two continents.

## 5. Under the Sea: The Infrastructure of the Transatlantic Digital Economy

- » Undersea cables transmit 99% of all intercontinental telecommunication traffic, and transatlantic cable connections represent the densest and highest capacity cable routes, with the highest traffic, in the world.
- » Between 2011 and 2016 total available transatlantic capacity increased 240%. 2 new transatlantic cables will be needed every year between now and 2025 just to keep up with demand.
- » Private networks, mainly providers of content and cloud services, are displacing backbone operators as the major buyers of international capacity and the major investors in transatlantic subsea cables.
- » Europe is the global leader in cross-border interconnection hubs. Frankfurt, London and Amsterdam substantially outpace North American and Asian cities. Frankfurt's connected capacity is over 3 times greater than that of New York and almost 5 times greater than that of Singapore, the Asian leader.
- » South Americans rely almost exclusively on international interconnections routed through U.S. data centers, and Africa and the Middle East rely heavily on European centers.
- » Frankfurt, Amsterdam and London are the largest non-profit entrepôts for the world's Internet Exchanges (IXs), with more than double the average throughput of IXs elsewhere outside the U.S., and U.S. for-profit IXs are large and central to the digital economy.
- » Data centers are also concentrated in the transatlantic space. Of 24 data centers slated to begin operations in the next two years, 17 will open in Europe (9) and the U. S. (8), compared to one each in Brazil, India and China, and four in the rest of Asia.
- » New York and London are the primary colocation markets in the world, followed by San Francisco and Hong Kong, and then Frankfurt and Singapore.

## 6. The ICT Sector

- » 18 of the top 25 economies in the annual ICT Development Index are from Europe or North America, and 8 of the top 10 economies are from Europe.
- » Denmark is Europe's top performer. Countries in northern and western Europe mostly are ranked higher than those in southern and eastern Europe.
- » The U.S. ranks first in Huawei's Global Connectivity Index; 6 of the top 10 are European.

## 7. Digital Density and Investment in Intangible Assets

- » When it comes to “digital density” – the amount of data used per capita in an economy – the U.S. clearly leads, followed by Sweden and the UK.
- » If “digital density” is defined more broadly as the extent to which economies or industries use digital technologies for economic activity, then 11 of the top 17 economies globally are from North America or Europe. The Netherlands ranks as the most “digitally dense” country in the world, followed by the U.S. and Sweden.

## 8. Apps, Bots and the Conversational Economy

- » As of January 2016 Europe and the U.S. had each generated similar numbers of App Economy jobs, 1.64 million versus 1.67 million, respectively. This corresponds to 0.7% of all jobs in Europe and 1.2% of all U.S. jobs – still small, but growing fast.
- » By 2018, the App Economy will employ 4.8 million people in Europe, contributing €63 billion to the EU economy. Globally, the App Economy could double in size to \$101 billion by 2020.

- » EU citizens download more computer apps than Americans — although less than the Chinese.
- » EU and U.S. app companies each account for 42% of app revenue across the U.S. and the EU.
- » One important difference between the U.S. and European App Economy is that the success of EU app companies is still largely confined to national markets.
- » Roughly half of Europe’s App Economy jobs are in just three countries — the UK, Germany, and France.
- » California accounted for 22.7% of U.S. App Economy jobs in 2015, down from 29% in 2012; New York, Texas, and Illinois quadrupled their App Economy jobs.
- » If one compares European countries and U.S. states in terms of “app intensity” — i.e. App Economy jobs as a percentage of all jobs — then California, the District of Columbia and Massachusetts rank as the most “app intensive” in the transatlantic space. Finland ranks 4th, and tops in Europe. Norway ranks second in Europe, just behind New York, followed by the Netherlands. Washington. New Jersey, Virginia and Sweden round out the top spots.
- » The Bot Economy is growing faster today than the App Economy did when it began. Bots may be the new apps.
- » Chatbots are opening the door to the emerging “conversational economy.” Here, Asia — not the United States or Europe — is leading the way.

## 9. Crowdworkers in the Gig Economy

- » The digital economy is changing work on both sides of the Atlantic, yet there are currently no reliable ways to estimate the number or nature of digital jobs of jobs affected.
- » Despite these limitations, the total value of skilled freelance crowd work online is estimated to reach \$5 billion by 2018 and the value of the online gig economy could increase to as much as \$47 billion by 2020.
- » Roughly 1% of the U.S. working-age population, or about 2.5 million people, is estimated to participate each month in contingent work transacted on a digital marketplace. For many online giggers, crowd work is not their main job.
- » Over a three year period between 2012 and 2015, 4.2% of U.S. adults, an estimated 10.3 million people — more than the total population of New York City — earned income on the platform economy, and this number increased 47-fold over that period.
- » As in the U.S., many Europeans use crowd work to supplement their income; it is not their main occupation. However 5% in the UK, Netherlands and Sweden perform crowd work at least weekly and 6% monthly. Germany 6% weekly, 8% monthly. Austria is tops — 9% weekly, 13% monthly.

## 10. Digital America, Digital Europe

- » The U.S. has become highly digitized, but McKinsey estimates that the U.S. economy as a whole is reaching only 18% of its digital potential, which it defines as the upper bounds of digitization in leading sectors of the economy.
- » The U.S. ranks 5th in the 2016-2017 Networked Readiness Index, moving up from 7th in 2015 and 9th in 2013.
- » Americans who *are* online lead highly digital lives. But U.S. households and individuals, on average, are less wired than those in northern Europe, Japan, South Korea, New Zealand and Israel.
- » Like Americans, Europeans are heavily engaged in the digital world, but McKinsey estimates that Europe overall operates at only 12% of its digital potential.
- » Europe accounts for seven out of the top ten countries in the 2016-2017 Networked Readiness Index. Nonetheless, Europe’s divisions run essentially between “network-ready” western and northern Europe and less-ready countries in southern and eastern Europe.

- » Overall, Europe underperforms on its digital potential relative to the United States. The European digital frontier is only 60% as digitized as the U.S. frontier. There are also large differences among Europe's countries. The UK operates at 17% of its digital potential, France at the EU average of 12%, and Germany at only 10%.
- » In sum, McKinsey estimates that, due to the digital gap between leading and lagging sectors and countries, Europe's economy operates at only 12% of the digital potential exhibited by companies at the U.S. digital frontier.
- » The U.S. is the dominant supplier of digital technologies to the world, including Europe. Among all publicly listed companies in the global ICT sector, U.S.-based firms account for nearly half of worldwide sales and two-thirds of post-tax profits. European firms generate 17% of global revenue and 14% of worldwide profits. Of the 250 largest ICT firms in the world, 75 are from the U.S., 50 from Japan, and 45 from the EU-15.
- » Nevertheless, the smaller number of European companies account for 22% of global sales, only slightly less than U.S. firms' 30% share.
- » U.S. companies account for a 74% share, and European companies for a 21% share, in Internet of Things companies globally, compared to only a 5% share by Chinese and Japanese companies.
- » U.S. companies account for a 60% share, and European companies for a 32% share, of big data companies, compared to only a 6% share by Chinese and Indian companies and a 2% share by Japanese and Korean companies.
- » 42% of all online services trade volume in the EU is domestic; 54% comes from the U.S. Two-thirds of all EU online services suppliers do not operate in more than four countries.