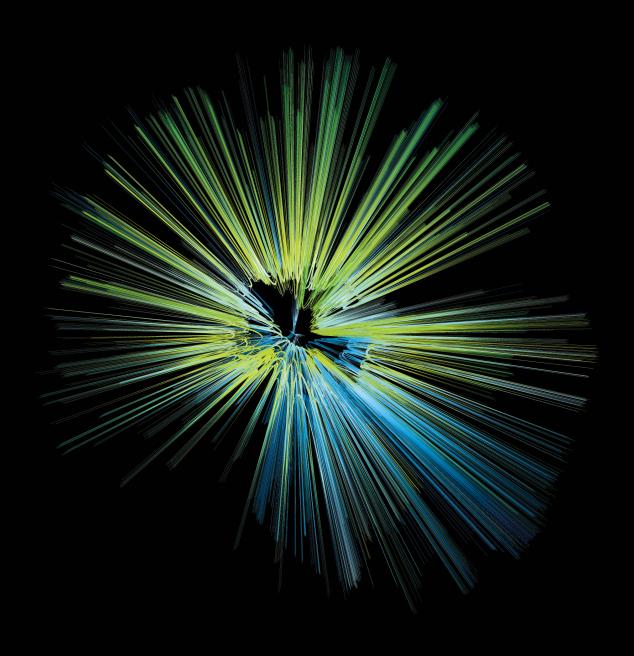
Deloitte.



Global mobile consumer trends, 2nd edition

Mobile continues its global reach into all aspects of consumers' lives

Mobile devices are now a fixture of modern life. So much so, that people without access to mobile devices are severely limited in their ability to participate in the full spectrum of today's economic and societal activities. Mobile is now enabling consumers all over the world to not only communicate more effectively, but pay bills, shop, and even remotely control devices in their homes and cars. And mobile continues to provide new opportunities to grow markets for those who are bold, innovative, and informed.

Deloitte's global Telecom sector practice has been taking the pulse of consumer attitudes towards mobile technology for six years. Covering 31 countries on 5 continents with 53,000 respondents, the second annual global comparison offers a wide-ranging view of mobile use in the developed world while offering a snapshot of consumer activity in some key developing markets. But whether in an emerging or mature economy, the survey confirms that mobile has become increasingly pervasive and indispensable, with consumers the world over enthusiastically embracing its potential.

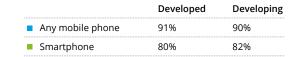
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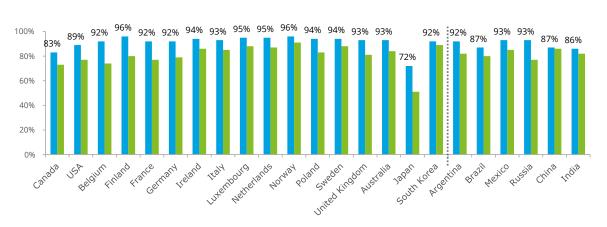
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Mobile: a part of modern life

Perhaps it's no surprise that roughly four decades after the introduction of the first mobile phone, almost every developed country surveyed has at least 90 percent mobile phone penetration.

Smartphone ownership





Q. Which, if any, of the following devices do you own or have ready access to?: Any mobile phone, Smartphone. **Base:** Avg. per country 2200

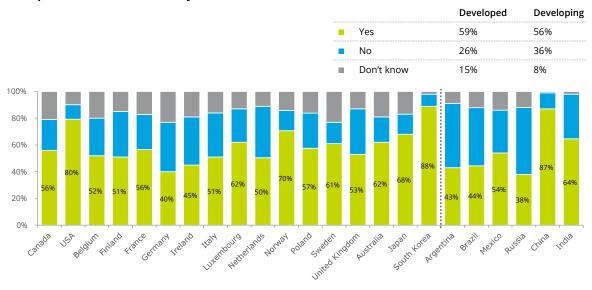
Walk down any street, enter any restaurant, sit on any bus, and you are sure to find at least 9 out of the 10 people on their mobile phone. Whether it's for texting, surfing the Internet, or watching a favorite show, the mobile device is now a fixture of modern living.

While the smartphone's penetration is a bit less globally, the fact that the modern smartphone was introduced just about a decade ago and has already reached penetration rates into the mid-80s (%), is comparably astounding. Also, while several years back it would not have been surprising to see a vast disparity between countries in terms of smartphone penetration, we've seen the gap across the globe for smartphone penetration close considerably over the last few years. The average difference across most countries now amounts to roughly 10 percent or less.

4G: fueling the smartphone

Giving the smartphone a boost is the growing availability of 4G connectivity across the globe. Mobile networks such as 4G/LTE have begun to catch up with Wi-Fi as the preferred means of connecting to the Internet from mobile devices. While some countries began deploying 4G years ago and now have mass market coverage (i.e., the U.S.), the last year has seen 4G access grow across the board to more than 50 percent penetration in most countries.

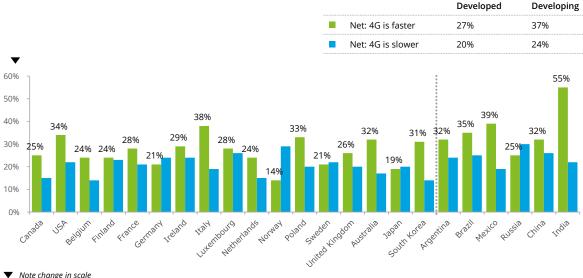
Smartphone network connectivity: 4G or not



Is your mobile on a 4G/LTE network? Base: Avg. per country 1587 (smartphone owners only)

What's even more shocking however, is that in a majority of countries that have 4G, its performance exceeds Wi-Fi—with 4G speeds rating "faster" than Wi-Fi.

4G vs. Wi-Fi at home: Is 4G faster or slower?



▼ Note change in scale

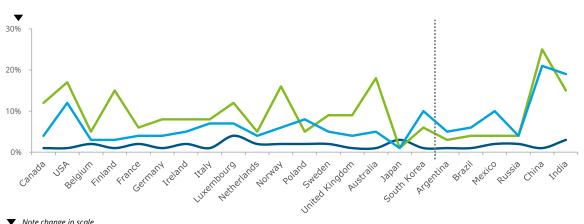
How do the 4G speeds on your phone compare with Wi-Fi speeds in the following places?: At home (FASTER, SLOWER: NET) Base: Avg. per country 919 (smartphone owners only)

This is especially true in the developing countries, where even more consumers—nearly 40 percent—say their 4G is faster than their at-home Wi-Fi connections.

4G is also enabling wearables, such as a fit band or a smart watch, which are gaining in popularity with consumers. Fit bands are taking the lead in most countries at 9 percent, with generally more expensive smart watches lagging a bit, with a few exceptions (South Korea seems to share a preference for smart watches with Argentina, Brazil, and Mexico). Of particular note is the popularity of both items in Russia and China, where uptake is greater than any other country—by a fairly large margin. Wearables are being seen as an important investment area given the penetration levels mentioned previously, approaching saturation points in many countries.

Device ownership: Wearables

	Developed	Developing
Smart watch	5%	11%
■ Fit band	9%	9%
Other wearables	1%	2%



Note change in scale

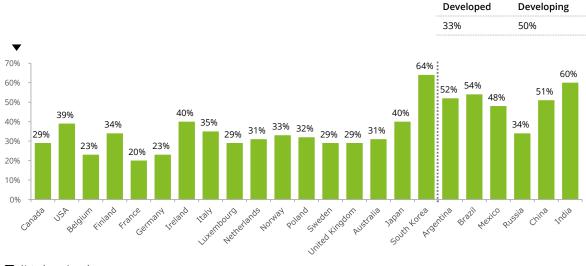
Which, if any, of the following devices do you own or have ready access to?: Smart watch, fitness band,

other wearable device. **Base:** Avg. per country 2200

Smartphone addiction

Consumers" (eliminate "While addiction may be a strong word, consumers today check their smartphones with an almost round-the-clock regularity. Consider that more than one-third of consumers worldwide said they check their phone within five minutes of waking up in the morning.

First access with in 5 minutes

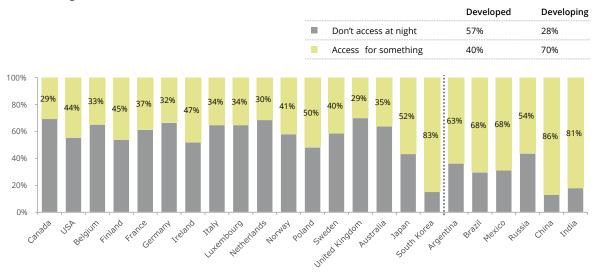


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Q. How many times would you estimate you look at your phone in a day?: NET 50+ times **Base:** Avg. per country 1965

Nearly half check their phone sometime during the night.

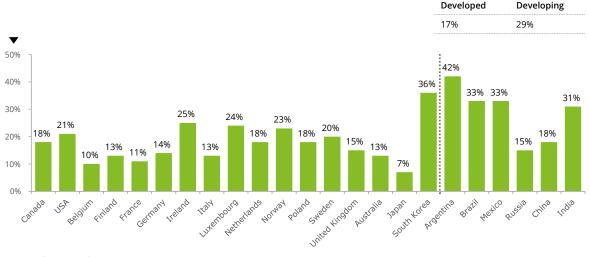
Access at night



Q. Which of the following activities do you do if you check your phone in the middle of the night? If you work during the night, please think about the time when you are sleeping during the day.

And around 20 percent of consumers check their phone more than 50 times a day—that's once about every 20 minutes of every waking hour—assuming these consumers aren't on their phones all night and get the recommended eight hours of sleep.

Percentage of people who access 50+ times in a day



▼ Note change in scale

 ${\bf Q.}$ How many times would you estimate you look at your phone in a day? : NET 50+ times ${\bf Base:}\,$ Avg. per country 1965

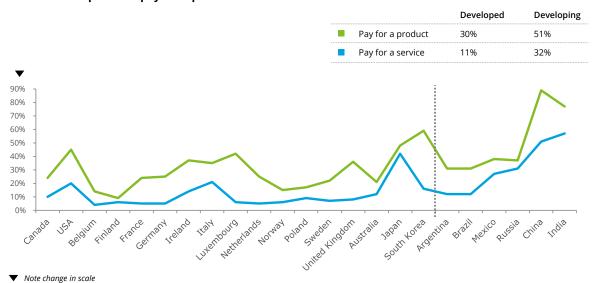
However, in an effort to see if this is really true, this year we also asked consumers whether or not their phones were a part of them waking up in the middle of the night. The results were surprising—more than 40% of consumers access their smartphone for some use in the middle of the night—*after* having gone to sleep, and before waking up (at the planned time in the morning, that is). The reliance on smartphones seems likely to increase as more features become available.

One indicator of where these usage levels are gaining is looking at developing countries in the survey—which represent a more tech-savvy, connected, urban population than a country's general population (by virtue of the survey being administered online)—and are hence typically higher than the full-country population figures. There, we find a full 50 percent of consumers check their phone within five minutes of getting up in the morning (compared with \sim 1/3 above) and 70 percent check their phone at night (compared to \sim 40% above). Will this level of reliance eventually become commonplace across the globe?

From function to fun

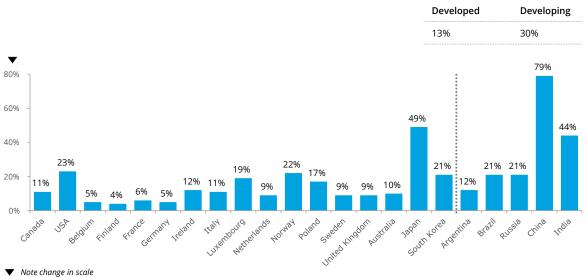
So what are consumers actually doing on their smartphones? In terms of commerce, about one-third are paying for a product through their smartphones. For about 10 to 20 percent, they are paying for a service or for public transport. In developed countries, fewer than 15 percent on average use their smartphone to make a payment in a store, with two major reasons cited—perception of lack of security and 'lack of benefit' by doing so. And while the developing countries of China and India use mobile or in-store payments at a much higher rate (in China nearly 90 percent in the 'urban' centers have used their smartphone at one point or another to buy a product), it seems for most consumers, smartphones are still not the option of choice when it comes to transactions that require some sort of payment.

Ever use smartphone to pay for a product or a service?



Q. Please state which, if any of these do you ever use your phone to do: Pay for a product/ Pay for a service (EVER USED: NET) **Base:** Avg. per country 2200 (smartphone owners only)

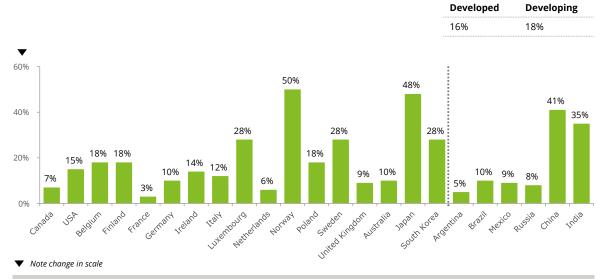
Ever use smartphone to make an in-store payment?



Q. Please state which, if any of these do you ever use your phone to do: Make an in-store payment (EVER USED: NET)

Base: Avg. per country 1587 (smartphone owners only)

Ever use smartphone to pay for public transport?

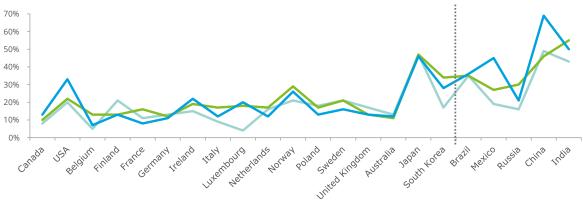


Q. Please state which, if any of these do you ever use your phone to do: Pay for public transport (EVER USED: NET) Base: Avg. per country 1587 (smartphone owners only)

This trend holds somewhat true for entertainment as well. Viewing content (watching live TV) on a small screen has not yet become the channel of choice for most consumers with the global average hovering around 15 percent. However, certain countries are showing more adoption than others—including the U.S. at 22%, South Korea and Brazil in the 30s (%), and Japan at a whopping 47%. Also, in some cases there is significant variance between demographic groups, with the younger groups (i.e., 25-34 year olds) over-indexing at up to double the average. So for certain regions/groups, the "content on any screen" strategy appears to be gaining a foothold.

Ever watch TV on a smartphone?

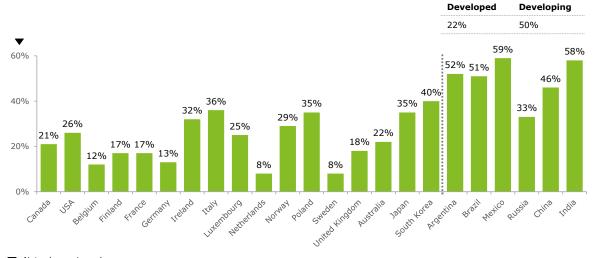
		Developed	Developing
	Stream Live TV	18%	37%
	Stream films or TV series	16%	42%
	Watch TV prgs. on demand via catch up	16%	27%
▼			
70% 7			A
50% -			
			/ X



▼ Note change in scale

Q. Please state which, if any, you ever use your phone to do: Watch live TV/ Watch TV programmes on-demand via catch-up services/ Stream films and/or TV series (Netflix, Now TV)(EVER USED: NET) Stream films or TV series not asked in Argentina
 Base: Avg. per country 1766

Ever watch virtual reality content on a smartphone?



▼ Note change in scale

Q. Please state which, if any, you ever use your phone to do: Watch virtual reality content (EVER USED: NET)

Base: Avg. per country 1766

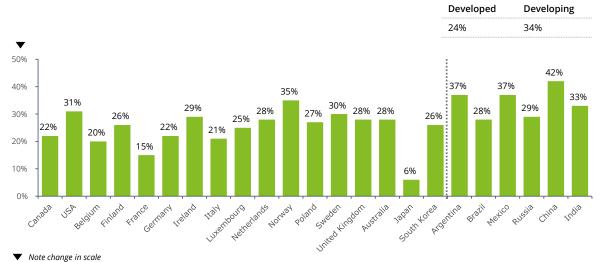
Though overall many consumers are still not using a smartphone for entertainment, those who are still amounts to some pretty big numbers. When you consider that there is expected to be 6 billion smartphones in the world by 2020¹, even 20 percent of their owners using it for entertainment results in an impressive number.

IoT's incipient opportunity

If one in four people in your workplace seem bleary-eyed from binge-watching their favorite show, that's because between 25 to 35 percent of consumers worldwide now own a smart TV (a television that can connect to the Internet). But that's where the love affair with IoT in the home appears to end—for now. Uptake of smart home devices that can be controlled via an app is still relatively low, ranging from 3 to 10 percent each for the most common items—thermostats, lighting, and appliances. People do seem concerned with protecting the smart items they do have, with a slight uptick for use of smart surveillance security systems.

Using IoT devices to keep healthy also seems to be a market segment still in up-and-coming mode: owning or accessing wearables to track vital signs averages 3 percent in most countries and slightly higher, at 7 percent, in the developing countries. Smart cars rate about the same, with around 5 percent of consumers owning or having access to a connected vehicle (unless you are in China or India, which jump to 18 and 15 percent, respectively). But if these numbers seem less than thrilling, just remember that accessing the Internet on your phone seemed like a ridiculous indulgence 15 years ago—and now most of us can't live without 24-hour access to the web. IoT devices that enhance lifestyles have just as much potential and a lot of market to grow in.

IoT: Own or access to a smart TV



Q. More devices or "things" can now connect to the Internet. Typically, these devices can be controlled via an app on a

smartphone or tablet. Which, if any, of the following connected devices do you own or have ready access to?: Smart TV (a TV that can connect to the internet)

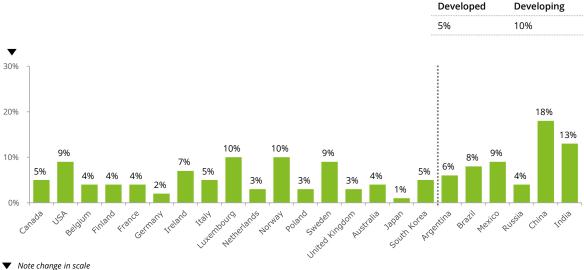
IoT: Own or access other Smart home devices that can be controlled

			Developed	Developing
		Smart Thermostat	3%	6%
	-	Smart lighting system	3%	7%
		Smart home appliance	3%	10%
▼ 30% -				
10% -				
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▼ Note change in scale

Q. More devices or "things" can now connect to the Internet. Typically, these devices can be controlled via an app on a smart-phone or tablet. Which, if any, of the following connected devices do you own or have ready access to?: Smart thermostat/ Smart lighting systems/ smart home appliance that can be connected to internet or can be controlled with an app
 Base: Avg. per country 2204

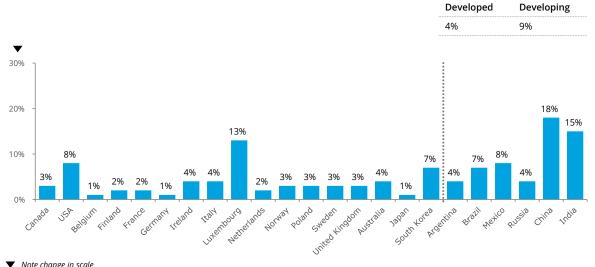
IoT: Own or access surveillance security system



Note change in scale

More devices or "things" can now connect to the Internet. Typically, these devices can be controlled via an app on a smartphone or tablet. Which, if any, of the following connected devices do you own or have ready access to?: Surveillance security system and/or camera (for monitoring or burglar alarms) **Base:** Avg. per country 2204

IoT: Own or access connected car system

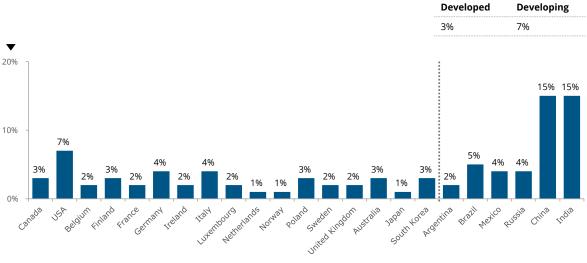


▼ Note change in scale

More devices or "things" can now connect to the Internet. Typically, these devices can be controlled via an app on a smartphone or tablet. Which, if any, of the following connected devices do you own or have ready access to?: Connected

Base: Avg. per country 2204

IoT: Own or access wearables for tracking/vital signs



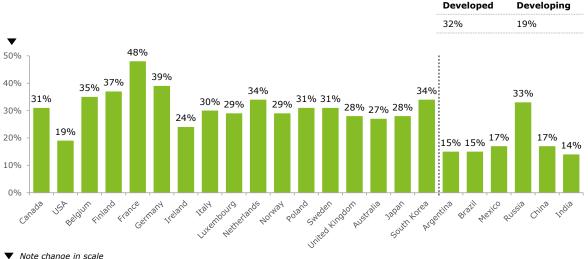
Note change in scale

More devices or "things" can now connect to the Internet. Typically, these devices can be controlled via an app on a smartphone or tablet. Which, if any, of the following connected devices do you own or have ready access to?: Wearables for tracking/ vital signs

Safe and secure?

Our phones are a virtual dossier, containing considerable amounts of personal data. They are also the conduit for transmitting that data. With the possibility of accessing so much sensitive information, it would seem security and privacy should be high priorities for consumers and their mobile devices. While security concerns do rate as substantive reasons why some consumers don't adopt various kinds of new technology, it may come as a surprise that when it comes to privacy, most consumers aren't as guarded as you would think: around 70 percent of consumers in developed countries have shared some kind of personal information online. In the survey's developing countries, it's more than 80%.

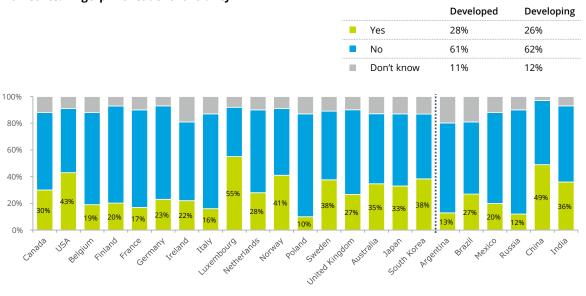
Privacy: Claim never to share personal information online



▼ Note change in scale

As far of you are aware, which, if any of the following types of information do you already share with at least one organisation online? (e.g. Facebook, rail network for free Wi-Fi, clothes brands etc.): I never share any of these forms of personal information Base: Avg. per country 2204

Biometrics: Fingerprint reader availability



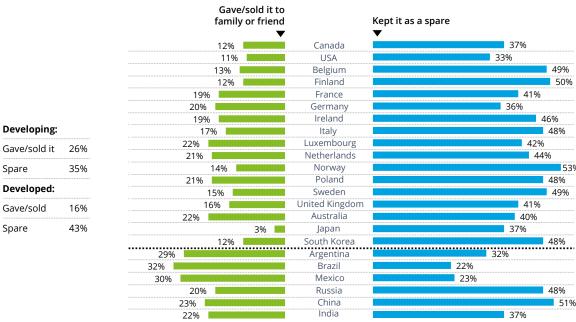
Does your mobile phone have a fingerprint reader?

Making the most of mobile device sales

While a mobile device is all about untethering, most consumers ironically seem to like buying their devices face-to-face in an old-fashioned brick-and-mortar setting. More than half of consumers bought their phone in a store. With the advent of big box, one-stop-shopping, phones can be bought almost anywhere you buy your paper towels and shampoo.

Online purchases are still meaningful, coming in at around 30 percent. Nearly one-third of mobile phone consumers is a significant number, and manufacturers and carriers alike may be curious to know that just a little over 20 percent in developed countries bought their phone from an online-only e-commerce website. That leaves close to 80 percent who did not buy their phone from an e-commerce site. Cultivating relationships with these online consumers and beefing up their web presence could prove fruitful for manufacturers and carriers.

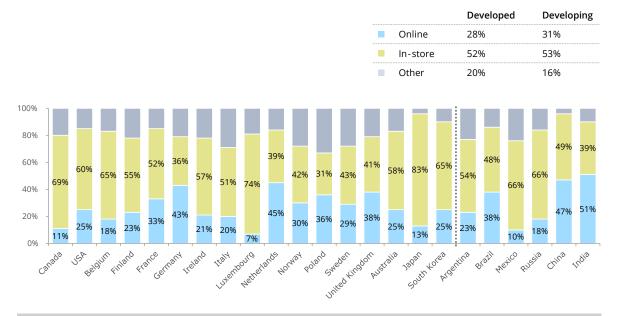
Status of previous mobile phone



Q. What happened to your previous mobile phone when you bought or received your current phone? **Base:** Avg. per 1965

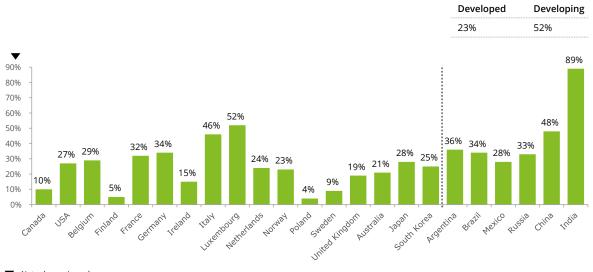
The growing popularity of second-hand sales of mobile phones also presents a new market opportunity. Upwards of 25 percent of phones are sold back into the marketplace. With stronger and targeted trade-in programs, manufacturers and carriers can build ongoing relationships with those consumers looking to upgrade by selling their current phone. This also keeps second-hand sales in-house—something to think about as smartphones sales inevitably level.

Phone purchase channels: new phones



Q. Which, if any, of the following apply to how you got your current phone? : new phone. **Base:** Avg. per country 1765

Phone purchase channels: online, from an online-only e-commerce website



▼ Note change in scale

Q. You said you purchased your current phone online, which of the following best describes where you purchased it from?: From an online-only e-commerce website.

Phone purchase channels: in-store, from a mobile phone shop

							Developed	Developing
							18%	24%
50%						42%		44% 46%
40% -			240			42%		
30% -		29%	31%	:	30% 25%			25%
20% -	15%	139	20%	15% 15%		21	1%	
10% - 9%	5% 2%	11%	99		7%		7% 4%	
Canada	15th Belding Fungue France	The stand the stand	Intourd House	Poland Sweden United Kings	of Rustralia Japan	Lores Ridellin	s Bratil Metico B	uesia China India

▼ Note change in scale

Q. You said you purchased your current phone in-store, which of the following best describes where you purchased it from?: From a mobile phone shop.
 Base: Avg. per country 968

(Endnotes)

1. Digital in 2017 Global Overview from We Are Social

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