



State of the smart

Consumer usage patterns of the smartphone

Global Mobile Consumer Survey
Belgian edition 2017

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Executive summary

Welcome to the 2017 edition of Deloitte's mobile consumer survey. As in 2016, Belgium participated in Deloitte's global study, which features some exciting insights about our relationship with mobile devices. A representative sample of Belgian mobile consumers was asked about a range of topics relevant to customers, manufacturers, operators, and service providers who support the ecosystem. The topics covered include: device ownership, usage patterns, future purchase intent, mobile operators, privacy and security, to name a few. This report highlights some key findings about the Belgian market. However, it only scratches the surface of the wealth of information gathered.

How much time do you spend on your smartphone? Our survey shows that on average Belgians look at their smartphone 34 times a day. The truth is we have become completely dependent on our phone and rely on it every second of the day, whether it is to tell us what time it is, where to go or what is going on in the world. For some age groups, this addictive behaviour continues after bedtime as one out of four 18-24 year olds is checking social media in the middle of the night. Surprisingly people are not just using their smartphones during idle time such as when using public transportation or walking, we also see a clear increase during busy time (e.g. at work, watching TV, shopping,...). Companies have to realise and be ready to deal with consumers that are connected always and everywhere. There is no such thing as being offline anymore.

Are smartphones about to outnumber laptops soon? The contest between the smartphone and the laptop continues and it's getting very close this year. Whereas in 2013 the smartphone reached 39 per cent market penetration, we see a steep rise to 80 per cent this year, compared to 81 per cent for the laptop. Nevertheless, the smartphone is by far the most used device and usage is likely to become even more intensive over the coming years. And it is not only the smartphone that is gaining territory. Since last year, market penetration for the majority of connected devices doubled, landing at 12 per cent.

Smartphones are unfortunately not made to last for a lifetime. Malfunctioning hardware and software, broken screens or poor battery life make for a relatively short lifespan of the smartphone, contributing to the increasing propensity to buy a smartphone. As a result, 60 per cent of the Belgian population bought a smartphone in the last 18 months, most of them in a physical store. Long live brick-and-mortar! It seems to be relatively hard for the online merchants operating in Belgium to conquer the hearts of its inhabitants as only one out of five orders their phone online.

In the offline channel, mobile operators' stores are losing market share compared to other stores. 30 per cent of smartphones and 53 per cent of iPhones have an afterlife and are sold second hand or passed on to a family member or friend.

Despite the rise of other communication channels, standard voice calls and sending an SMS are still the preferred communication channels on a smartphone. While email may be considered old-fashioned by some, nearly three out of four adults send emails with their smartphone every week. Market adoption of social networks and instant messaging has increased in the past years, closing the top five of communication methods.

Facebook owned applications (Facebook and Messenger, as well as WhatsApp and Instagram) are predominant. The market share of Snapchat and Instagram is at its highest with 18-24 year olds. Market adoption of mobile payments increased as well, which implies a growing conversion rate for retailers. Investments made by Belgian banks support further growth of in-store mobile payments and mobile banking.

With the booming popularity of smartphones, manufacturers and app developers are putting tremendous efforts into bringing the smartphone's intelligence to the next level. With awareness of most machine learning features not exceeding 30 per cent, adoption of mobile machine learning is still at its infancy in Belgium. While facial recognition use is still low, fingerprint reading has progressively taken up over the last few years. Today, one out of three smartphones has a fingerprint reader.

The smartphone's ubiquity and growing capabilities strengthen its strategic importance for the private and public sector. It is expected to increasingly become regarded as the primary way to communicate, interact and transact with customers and citizens. While 2017 is an exciting milestone for the smartphone, the best is yet to come.

Vincent Fosty

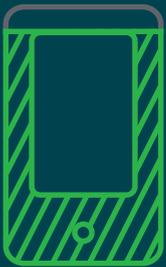
Partner

Technology, Media & Telecommunications Leader

What's age got to do with it?

Students (18-24 year olds)

Smartphone ownership
90%



70
phone checks per day

57%
think they use their phone too much

15%
think their parents use their phone too much



49%
check their phone within 5 minutes of waking up



44%
check their phone within 5 minutes of going to sleep

Daily usage of

Facebook



79%

Facebook Messenger



73%

SMS



71%

Personal Email



67%

Instant messages



62%

Email



57%

Snapchat



48%

Instagram



46%

Whatsapp



42%

Voice calls



29%

VoIP



13%

Video calls



8%



35%

NOKIA

2%

SAMSUNG

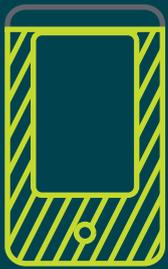
28%



14%

Young professionals (25-34 year olds)

Smartphone ownership
92%



46
phone checks per day

61%
think they use their phone too much

17%
think their parents use their phone too much



36%
check their phone within 5 minutes of waking up



33%
check their phone within 5 minutes of going to sleep

Daily usage of

Facebook



73%

Personal Email



73%

SMS



70%

Email



67%

Facebook Messenger



54%

Instant messages



48%

Voice calls



46%

Whatsapp



40%

Instagram



23%

Snapchat



21%

VoIP



17%

Video calls



8%



33%

NOKIA

1%

SAMSUNG

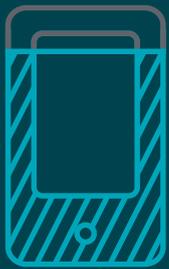
34%



12%

Parents (35-54 year olds)

Smartphone ownership
83%



28
phone checks per day

42%
think they use their phone too much

42%
think their kids use their phone too much



29%
check their phone within 5 minutes of waking up



25%
check their phone within 5 minutes of going to sleep

Daily usage of

Personal Email



66%

SMS



66%

Email



58%

Facebook



57%

Voice calls



49%

Facebook Messenger



40%

Instant messages



30%

Whatsapp



28%

Instagram



11%

Snapchat



6%

VoIP



9%

Video calls



5%



21%

NOKIA

7%

SAMSUNG

38%



15%

Grandparents (65-75 year olds)

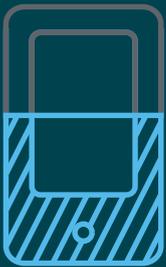
Smartphone ownership
56%



11
phone checks per day

20%
think use their phone too much

33%
think their kids use their phone too much



17%
Check their phone within 5 minutes of waking up



15%
check their phone within 5 minutes of going to sleep

Daily usage of

Personal Email



50%

Email



46%

Voice calls



45%

SMS



44%

Facebook



36%

Facebook Messenger



24%

Instant messages



20%

Whatsapp



20%

VoIP



10%

Video calls



5%

Instagram



4%

Snapchat



1%



13%

NOKIA

6%

SAMSUNG

33%



16%

10 years on: Can we imagine life without a smartphone?

Ten years ago, Apple launched its very first iPhone. This announced the start of a new era, in which several existing and new mobile phone manufacturers fought hard to bring the best smartphones to the market, and grab their share of the 1.5 billion smartphones sold annually worldwide (2016)¹. This fierce competition led to important technological improvements, which benefited consumers: existing features were enhanced, and new features were added. More and more the smartphone started to become a life companion, and today, we are fully dependent on it.

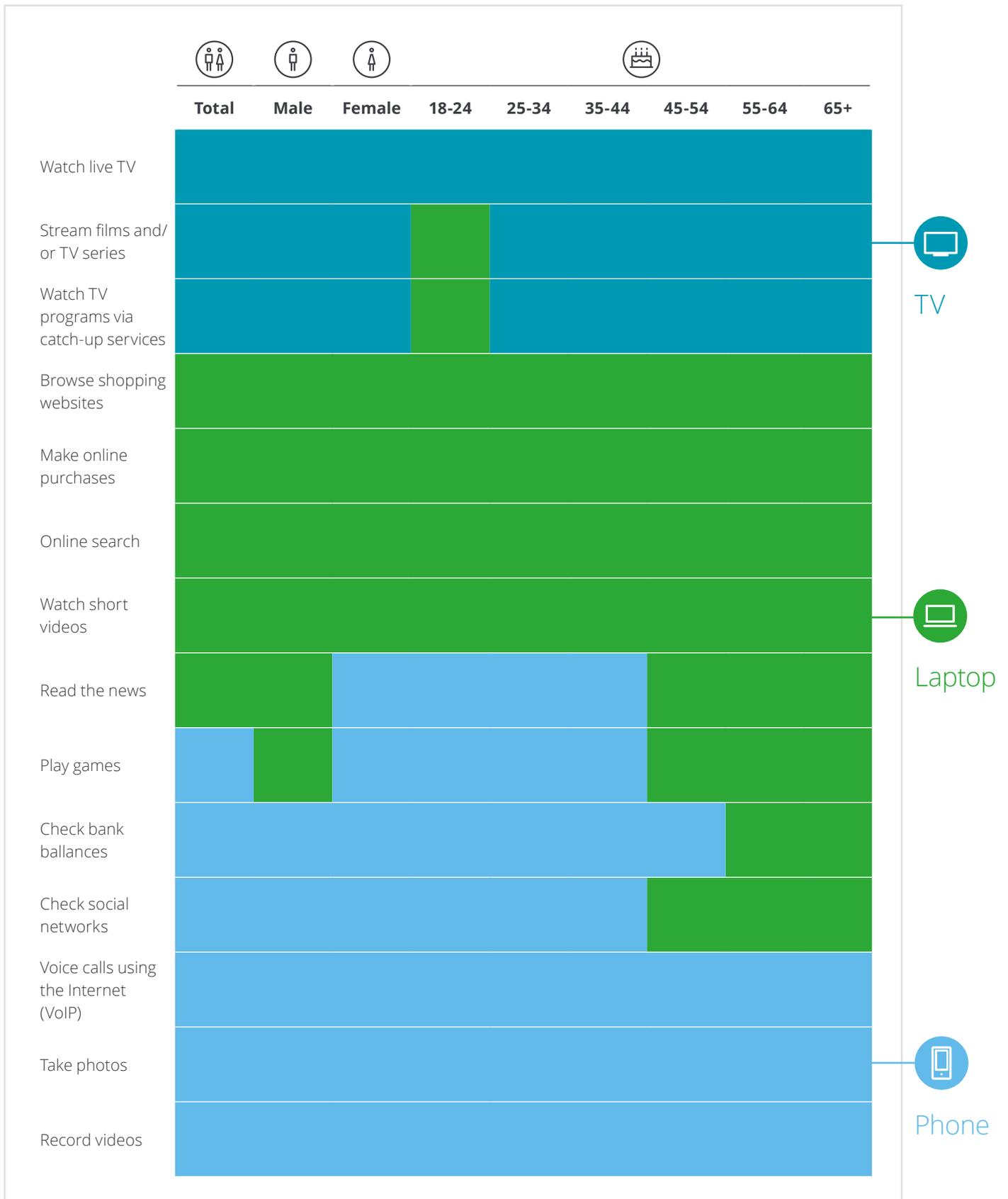
Over the past few years, the intensity of smartphone usage has strongly increased. On average, Belgian smartphone owners look at their phone 34 times a day.

Whereas smartphone owners in Belgium used to prefer using their laptop for the majority of activities, the smartphone has gently been overtaking the laptop as the preferred device during the last few years (see Figure 1). The smartphone has always been, and continues to be, the preferred device for activities such as taking photos and making voice calls.



Figure 1: Preferred device, per activity

Question: Which, if any, is your preferred device for each of the following activities?



Weighted base: All adults 18-75 who have a phone or a smartphone, BE, in 2017, All (1898), Male (929), Female (969), 18-24 (230), 25-34 (345), 35-44 (364), 45-54 (386), 55-64 (329), 65-75 (245); in 2016, All (1836), Male (915), Female (921), 18-24 (228), 25-34(335), 35-44 (355), 45-54 (374), 55-64 (312), 65-75 (231)



Half of the smartphone owners check their smartphone **within 15 minutes of waking up**



Half of the respondents aged 18-24 year old check their smartphone **within 5 minutes of waking up**



33% admits to be busy with their smartphone occasionally **when talking to or spending time with family or friends.**

In the past, Belgians used their laptop for activities such as checking social networks, bank balances or reading the news. With larger screens and increased mobility overall, the smartphone has become the preferred device for these activities since 2017. People are using their smartphone more often to do all types of activities, at any given time of the day. We are inseparable from our smartphones. We use our smartphones more often to do all kinds of activities, at any given time of the day. We are inseparable from our smartphones. We take it to bed, we check it during the night, and it is the first thing we turn to after waking up.

Addictive behaviour

Half of the smartphone owners check their smartphone within 15 minutes of waking up (see Figure 2). Usage patterns vary across different brands and age groups. Our study shows that iPhone owners are more attached to their phone than owners of any other brand. 60 per cent of the surveyed iPhone owners reach for their phone within 15 minutes of waking up. 18- 24 year olds are even more addicted to their phone. Within this age group, half of the respondents check their phone within five minutes of waking up. Nearly half of the Belgians surveyed check their smartphone for the last time less than 15 minutes before going to sleep.

This addictive behaviour also goes on when people wake up in the middle of the night. More than 40 per cent of the surveyed population checks their phone when their sleep is interrupted, although the majority of them only check the time. About 10 per cent also check their messages, emails or social media notifications. Usage for 18-24 year olds is higher at night compared to the rest of the population. Within this age group, 60 per cent checks their phone in the middle of the night with 43 per cent checking the time, 25 per cent checking social media notifications, and 20 per cent checking instant messages.

Figure 2a:

Question: Typically, how long is the interval between waking up and looking at your phone for the first time?

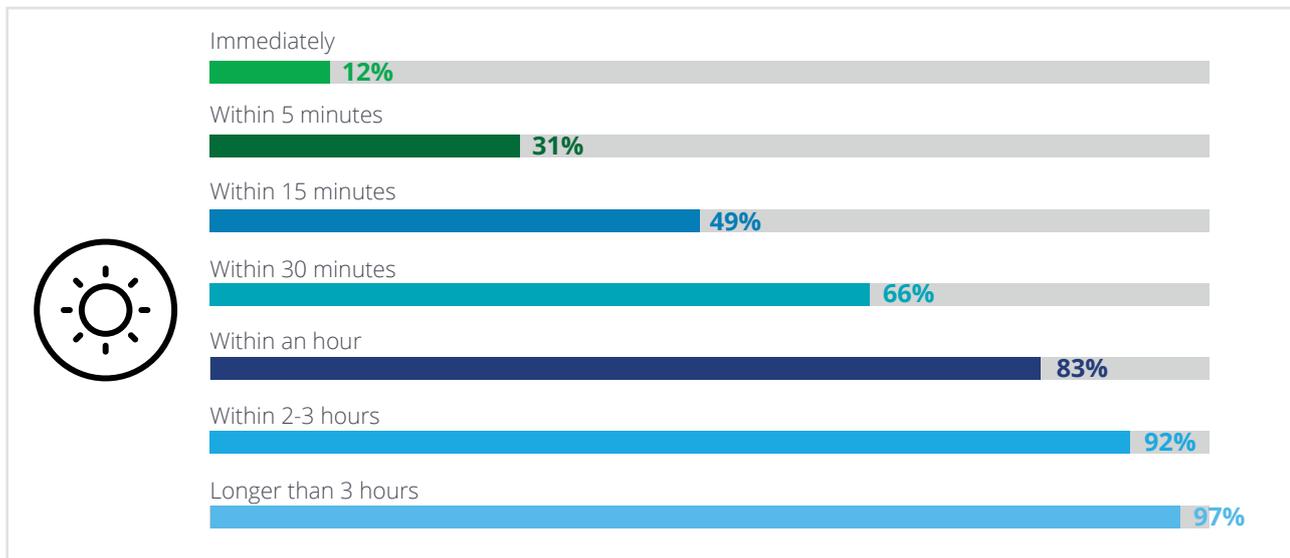
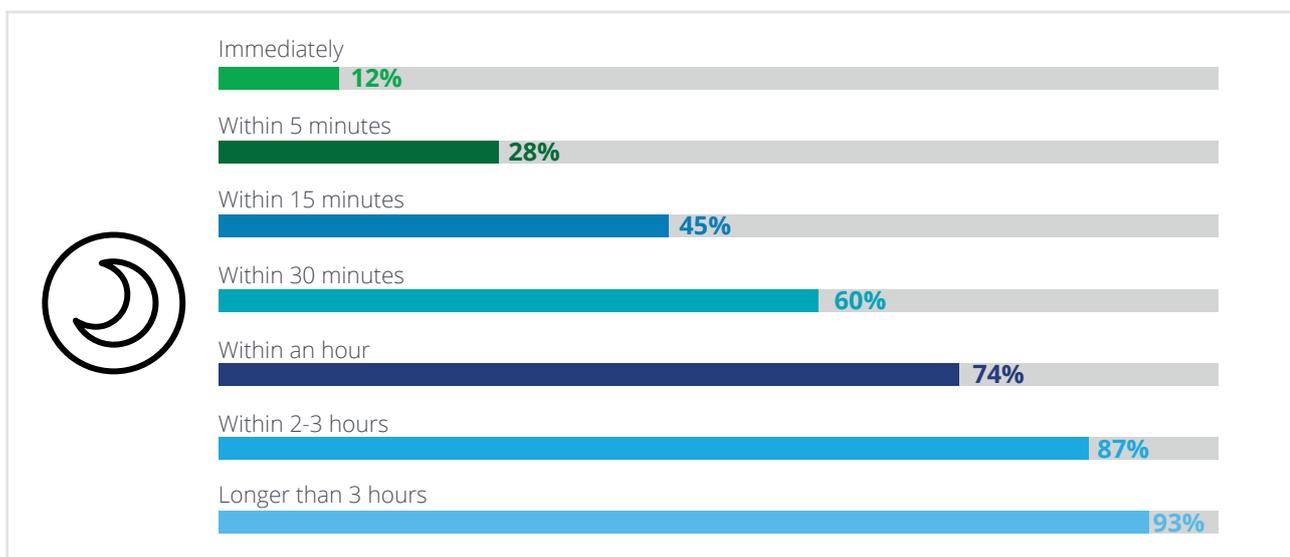


Figure 2b:

Question: At the end of the day, typically how long is the interval between looking at your phone for the last time and preparing to sleep?



Weighted base: All smartphone owners aged 18-75 years (1593)

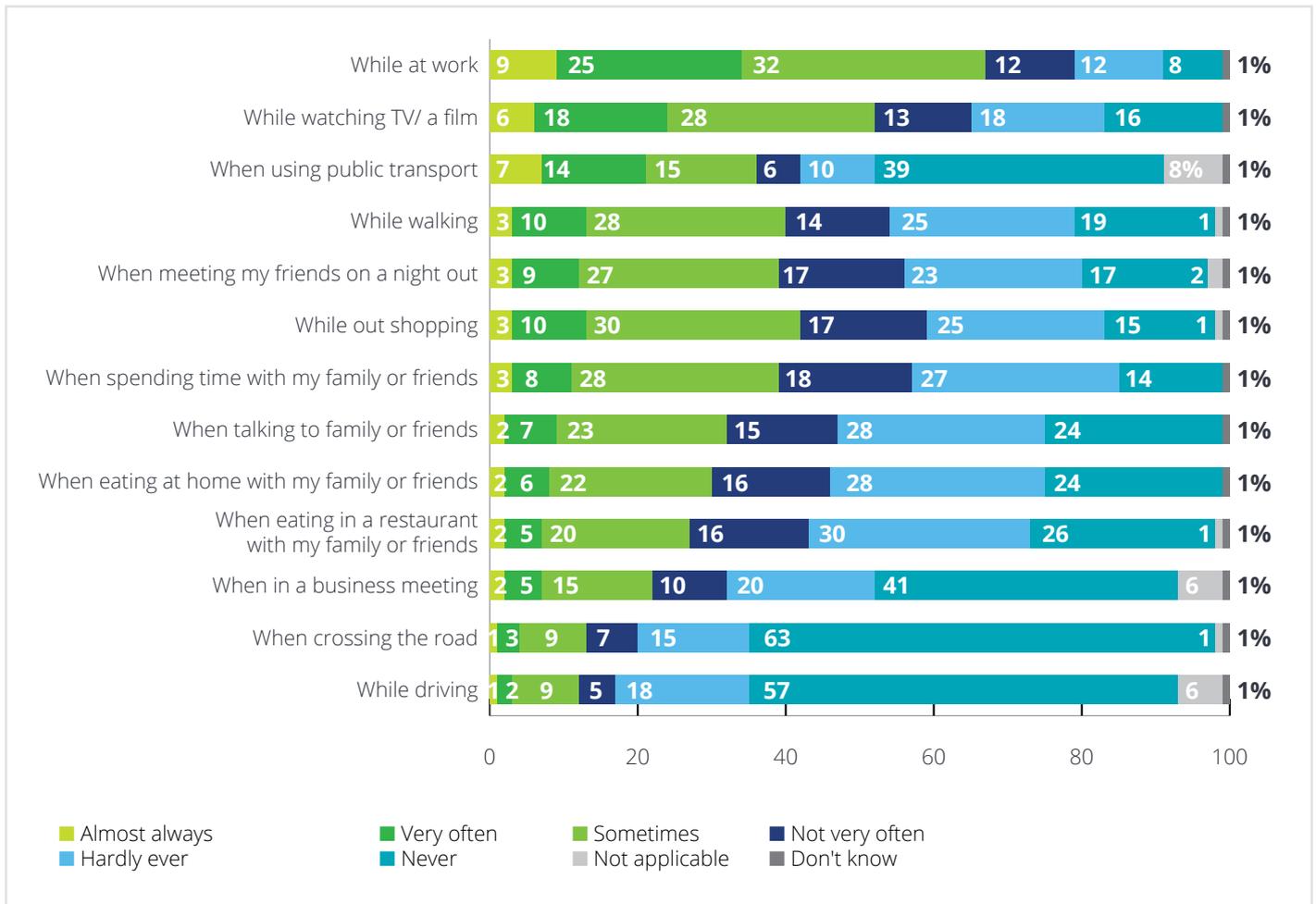
It is remarkable that people do not just use their smartphone during idle time such as when using public transportation. There is a clear usage increase during busy time, which we define as the time when people are busy with other activities. Why do people want to use smartphones during these activities? In addition to trying to 'buy time', the use of smartphones can also enhance the experience of these activities. Whilst watching TV, people can talk to friends about a specific programme or interact directly with a TV programme.

Nearly a quarter (24 per cent) of the smartphone owners use their smartphone whilst watching TV almost always or very often, while another 28 per cent use it from time to time. This means that 52 per cent of the respondents use their smartphone whilst watching TV on a regular basis (see Figure 3).

Moreover, even when interacting with people, respondents are busy on their smartphone: one out of three admits to using their smartphone occasionally when talking to or spending time with family or friends.

Figure 3: Smartphone activity during other activities

Question: How often, if at all, do you use your mobile phone while doing the following?



Weighted base: All smartphone owners aged 18-75 years (1593)

42 per cent of respondents admit to using their phones from time to time while walking and 13 per cent do so while crossing the road. In response to similar findings, a number of cities in Australia and the Netherlands are making changes to accommodate this behaviour. One approach has been to place a set of traffic lights on the edge of the pavement to direct pedestrians who are constantly looking down at their screens as they walk, and not looking up at road signs². Another approach has been to segregate stretches of pavement, with one side reserved for those gazing at their devices³.

Students, aged 18-24, have grown up with a smartphone. They can't imagine a world without mobile connectivity. They have more contact with their friends over mobile devices than any other age group. 19 per cent of 18-24 year olds look at their smartphone at least 100 times a day. Four out of every five students occasionally use their smartphone while watching TV. Furthermore, young people use their smartphone intensively when they meet friends on a night out (63 per cent on a regular basis) or when they spend time with family and friends (56 per cent on a regular basis).

All these results show that the rise of the smartphone has reinvented the way we live our lives. Companies need to acknowledge this and be ready to deal with consumers that are connected always and everywhere. There is no such thing as being offline anymore.

Mobile phone overuse

43 per cent of smartphone users feel that they use their phone too much. Among 18-24 year olds, awareness of intensive smartphone usage is even higher as 57 per cent think they use their phone too much. Older age groups have a much lower incidence of over-usage. Only about one out of five 65-75 year olds believes he uses his smartphone excessively.

People are using their smartphone more often to do all types of activities, at any given time of the day

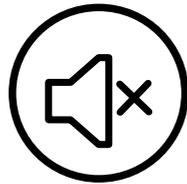




The actions that people take to control their smartphone usage have a common theme: removing temptation. The top five are:



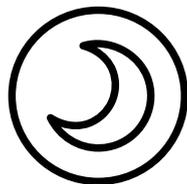
Keeping their device in a handbag or pocket when meeting people



Turning off audio notifications



Turning off data connectivity



Leaving their device outside the bedroom at night



Putting on 'do not disturb' or 'flight mode'

The smartphone has now established a clear lead as one of the most popular consumer electronics devices.

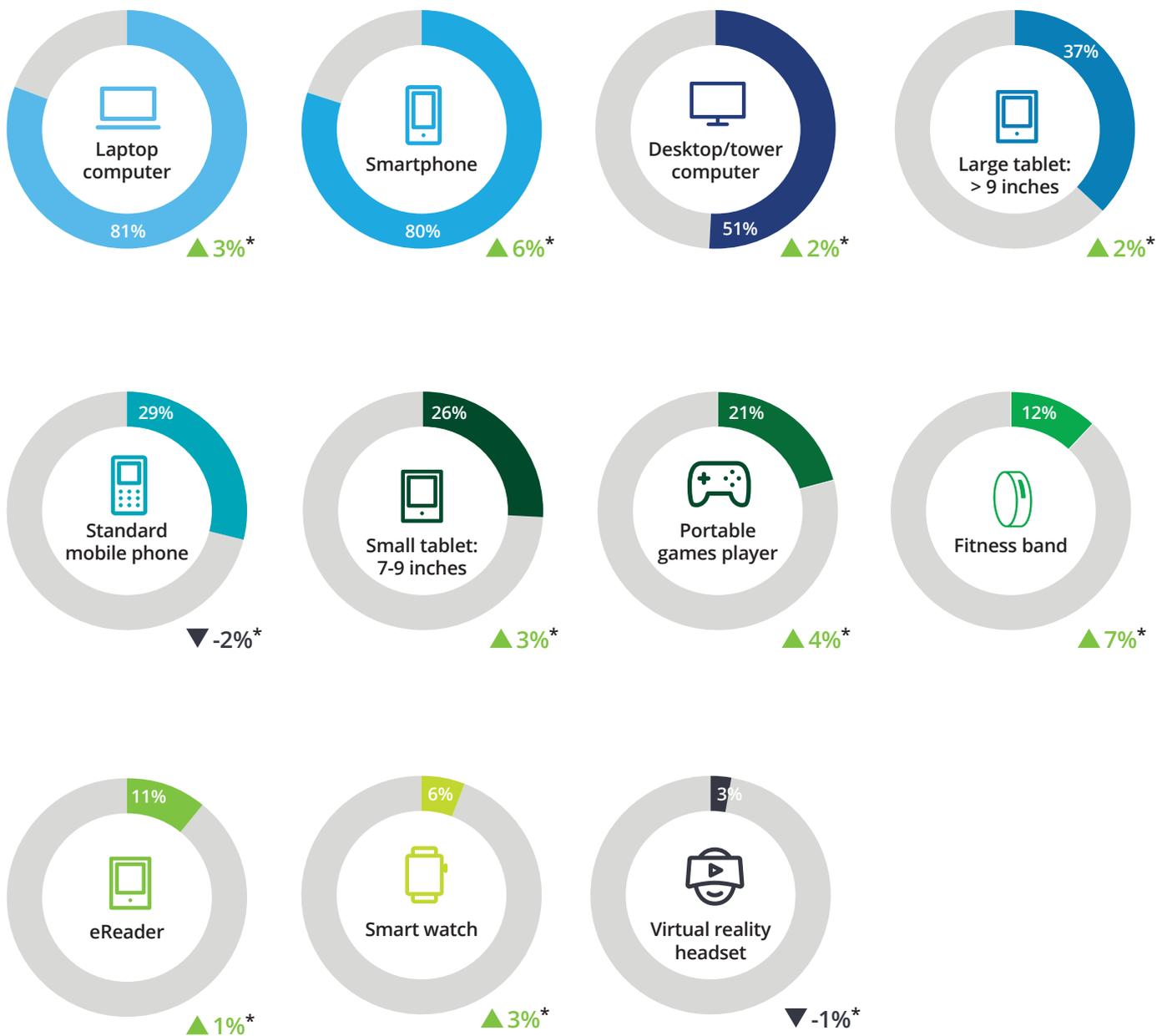
Smartphone establishes clear lead

Smartphone adoption among Belgian adults continues to rise with close to 80 per cent owning or having access to one as of mid-2017 (see Figure 4). Penetration increased year-on-year by six percentage points. Four years ago, adoption was at 39 per cent. Among younger age groups (18-34 year olds), smartphone adoption is over 90 per cent. This puts smartphone adoption just behind that of the laptop, which has a market penetration of 81 per cent in Belgium. Although the laptop remains the most popular consumer electronics device, its penetration rate has stayed relatively flat over the last four years (74 per cent in 2013).

The smartphone has now established a clear lead as one of the most popular consumer electronics devices, only one percentage point away from the laptop and over 24 percentage points more than the tablet. This should lead to more content, content creation tools and processes designed specifically for the smartphone, resulting in an ever-greater usage of and reliance on these devices. In turn, this should spur continued investment in enhancing smartphone capabilities and underlying networks.

Figure 4: Device penetration 2017, and year-on-year growth

Question: Which, if any, of the following devices do you own or have ready access to (i.e. it is readily available for you to use. For example, this may be a smartphone provided to you by your employer or a tablet owned by someone else in your household)



* 2017 versus 2016

Weighted base: All respondents aged 18-75 years, 2017 (2002); 2016 (2000)

The array of everyday or common applications that are being built for smartphones is already growing, ranging from paying for street parking, planning the best options for the journey home, booking a haircut, communicating with teachers (or other parents) or renewing a library book.

As the set of smartphone optimised applications continues to grow, the rationale for owning a smartphone should edge higher. It may become ever harder to live without one.

Among Belgian adults, the smartphone is, by a fair distance, the most intensively used device. 80 per cent of adults own a smartphone, and among these, 93% use their device daily. This means that just over 74 per cent of all adults aged 18-75 now use a smartphone daily (see Figure 5). In second place is the laptop, used by 61 per cent of adults daily (81 per cent have one).

Daily smartphone usage is now several times that of other devices. For example, 5 per cent of Belgian adults use an eReader daily (16 per cent of 18-75 year olds own one, among these daily usage averages 30 per cent).

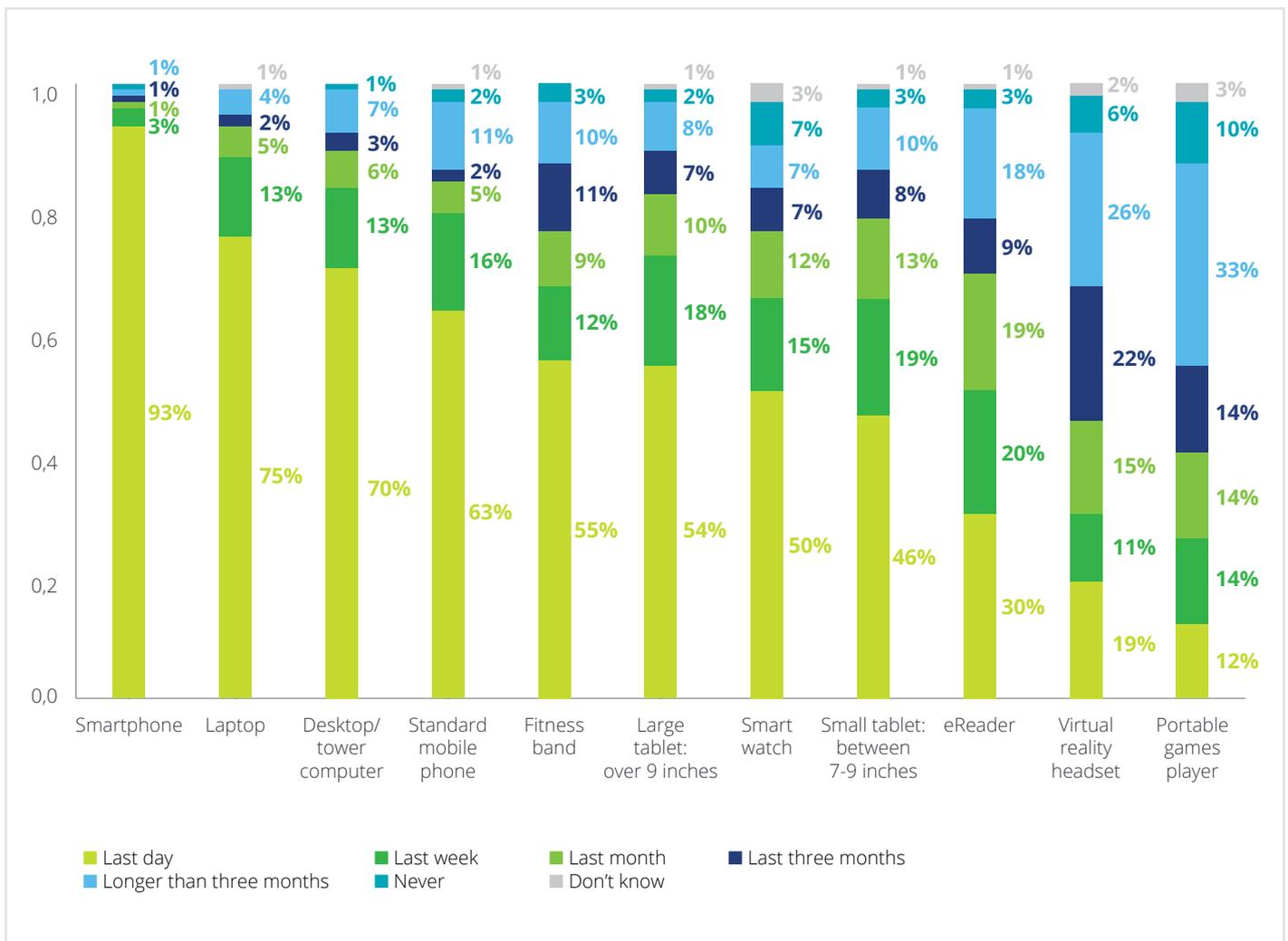
What about connected devices?

Last year, demand for connected devices (other than smartphone or tablets) appeared to be in its infancy with Belgian consumers and had yet to gain traction. Connected devices such as smart thermostats, smart watches, and smart TVs can connect to the internet or to each other, allowing users to consume less energy, check their mail on their watch, and stream their favourite movies on their TV.

While they are still far from reaching the market penetration of laptops or smartphones, nearly all connected devices reached at least ten per cent in 2017, doubling their market penetration since last year (see Figure 4). The “connected entertainment” category is the clear leader in connected device ownership, with 34 per cent of surveyed consumers owning a smart TV, while 28 per cent owns a game console. Other products that are gaining market share are fitness bands (12 per cent), video streaming devices (10 per cent) and connected car systems (9 per cent).

Figure 5: Frequency of usage, by device

Question: When did you last use each of the following devices?



Weighted base: All respondents aged 18-75 years and I have access to Laptop (1,613), Smartphone (1,593), Desktop/tower computer (1,012), Large tablet over 9 inches (741), Standard mobile phone (586), Small tablet between 7-9 inches (519), Portable games player (422), Fitness band (238), eReader (216), Smart watch (115), Virtual reality headset (54)

Purchasing & replacing: Why, when and where?

Issues trump preferences

With an overall market penetration of 80 per cent, the smartphone is not likely to experience the same penetration growth as over the past few years. However, while smartphone penetration is plateauing, we do not expect a decrease in smartphone sales as one out of three (27 per cent) is likely to buy a mobile phone within the next year.

Knowing that around 60 per cent of the population bought a smartphone in the last 18 months and 83 per cent bought one in the last 30 months, the smartphone has a relatively short life span. Several reasons push people to replace their smartphone. Malfunctioning or broken hardware (59 per cent), broken screens (49 per cent) and reaction time of the smartphone (36 per cent) are the most common.

Surprisingly, the release of a new model does not appear to be one of the main drivers to change smartphones. 72 per cent declared that it does not prompt them to change phones. For three out of four respondents, the willingness to change phone brands is also not a reason to buy a new smartphone. In general, Belgians are loyal to their smartphone brand. More than half of Samsung, iPhone and Sony owners stated that their previous smartphone was from the same brand.

Online commerce on the rise, or not?

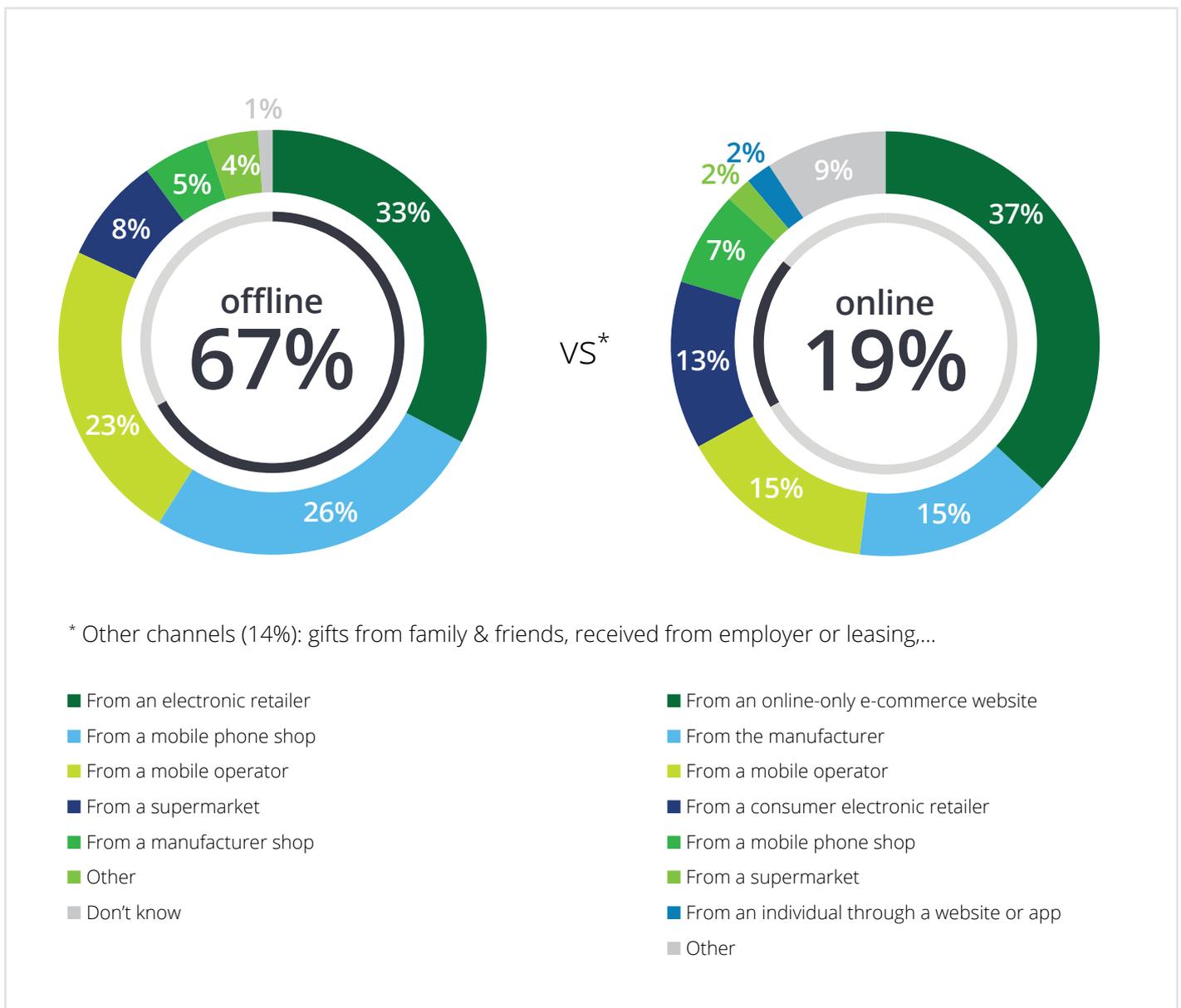
At a national level, e-commerce sales are growing rapidly. Internet retailing in Belgium grew by 17 per cent in current value terms to reach €5.7 billion in 2016⁴. A growing number of retailers with a high street heritage are strengthening their online visibility or downsizing their street presence. Nevertheless, the smartphone market does not seem to follow this rising trend. Only 19 per cent used an online purchasing channel when buying a new phone (see Figure 6). The most popular online channel is undoubtedly online-only e-commerce websites (37 per cent of online sales). Other favored online vendor channels are manufacturer's websites and mobile operator's websites (both 15 per cent of offline sales), and consumer electronic retailer's website (13 per cent of offline sales).

When people do not buy online, they get their smartphone through an offline channel (67 per cent) or other channels (14 per cent). These other channels can be a gift from family or friends, received from employer or leasing, amongst other.

The smartphone is, and is likely to remain, an inherently tactile, and also for many an expensive, purchase. Therefore, consumers like to go into a shop and see, touch and play with devices, often to convince themselves that they are making the right decision, even when they ultimately purchase online. The materials used, the weight of the handset, the positioning of the fingerprint reader and the reflectiveness of the screen are all aspects of a smartphone that are hard to evaluate solely through a website.

Figure 6: Smartphone purchasing channels (6A+6B)

Question: How did you purchase your current phone? You said you purchased your current phone online/offline, which of the following best describes where you purchased it from?



Weighted base: Smartphone owners who have bought/received a new phone through online purchase (296), offline purchase (963), other (327)

Do people still go into mobile operator stores?

Of the 67 per cent buying smartphones offline, the most popular shops to acquire phones are electronics retailers (33 per cent) and mobile phone shops (26 per cent). The popularity of the mobile operator stores strongly decreased.

Only 23 per cent of offline smartphone purchases happen in a mobile operator’s store. Last year, this was 33 per cent. This raises questions about the importance of street presence for Belgian telecom operators.

Over the last year, slightly over half of Belgian respondents aged 18-75 visited a mobile operator’s store; 15 per cent visited in the prior month for one of the following services (see Figure 7):

- To get information about mobile phones
- To renew a contract or purchase a mobile phone
- To obtain help or advice with technical issues
- To get information about contract/tariffs or query a bill

So, what is the role of the operator’s store today? Although mobile is becoming firmly mainstream, it has been in a state of constant evolution over the last two decades in terms of networks, handsets and applications. Making sense of this complexity is challenging. Stores may be needed simply to explain the units by which mobile data – the fuel for smartphones – is sold, that is in blocks of bytes. Mobile’s evolution is likely to continue over the next few years. As of 2017, there are three generations of mobile networks (2G, 3G and 4G) operating concurrently. By 2020, 5G should be available. Between now and then, iterations of 4G networks are likely to be launched⁵.

There is however definitely a need for mobile operators to maintain a physical retail presence, to be able to explain mobile networks’ rising capabilities. Over the years, mobile phones have become more similar on the outside and more differentiated on the inside. Choosing a smartphone is, and is likely to remain, daunting. The wrong decision, for example with regard to operating system, memory size or colour, can lead to two years and twenty-five thousand glances of regret⁶.

Figure 7: The last time respondents went into an operator's store

Question: When was the last time that you visited a mobile operator’s store?



Note: The results refer to respondents who have been into an operator store for any of the following reasons: 'To get information about mobile phones', 'To renew my contract or purchase a mobile phone', 'To obtain help or advice with technical issues', 'To get information about contract/tariffs or query my bill'.

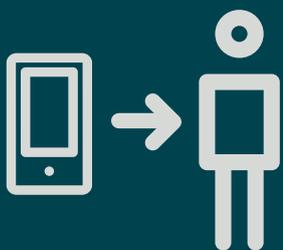
Weighted base: All respondents aged 18-75 years (2002)

Mobile operators' stores popularity as purchase channel for smartphones has dropped from 33 per cent to 23 per cent. Nevertheless, slightly over half of Belgian adults visited an operator's store in the last 12 months for issues or questions.



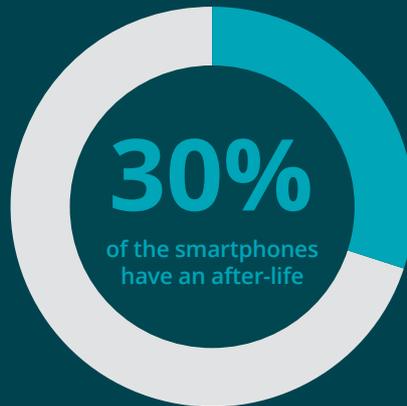
The smartphone afterlife

We mentioned that the lifespan of the smartphone is rather short today. People have many reasons to change mobile phones, but what happened with the old model when a new phone was purchased? Nearly half of the respondents (43 per cent) kept their old phone as a spare. However, 19 per cent of used smartphones were given to a family member or friend, and 11 per cent were sold or traded. We say that these 30 per cent of smartphones have an afterlife. Last year, only 25 per cent of old smartphones had an afterlife. Other phones, accounting for approximately 27 per cent of used phones, were mostly thrown away, recycled in another way, stolen, lost, etc.



19%

Gave it to a family member or friend



11%

Sold it/traded it

43% Kept it as a spare

1% It was stolen

1% Lost it

8% Threw it away

1% Returned it to my employer

3% Can't remember

6% Recycled it in another way

1% I did not have a mobile phone before

5% Other

Smartphone usage: What do we do with it all day?

A smart phone, but what about traditional voice calls?

The main purpose of the phone was once to make standard voice calls. Today's smartphones have many different features and use cases. Despite the rising number of these other features, making standard voice calls is still a popular communication method in Belgium. On a weekly basis, 83 per cent of the smartphone owners use their phone to make voice calls (see Figure 9). Across generations, this pattern is relatively similar. Moreover, weekly usage has increased by 12 percentage points since last year (71 per cent), which makes it the strongest growing communication method.

Looking more specifically at daily voice calls, we observe different behaviours. Close to 50 per cent of the older age groups make a voice call at least once a day. These numbers are increasing compared to last year (except for the 55 year olds or above). Daily usage in the youngest age group (18-24 year olds), however, is significantly lower. Only 29 per cent of this generation makes voice calls every day (31 per cent in 2016).

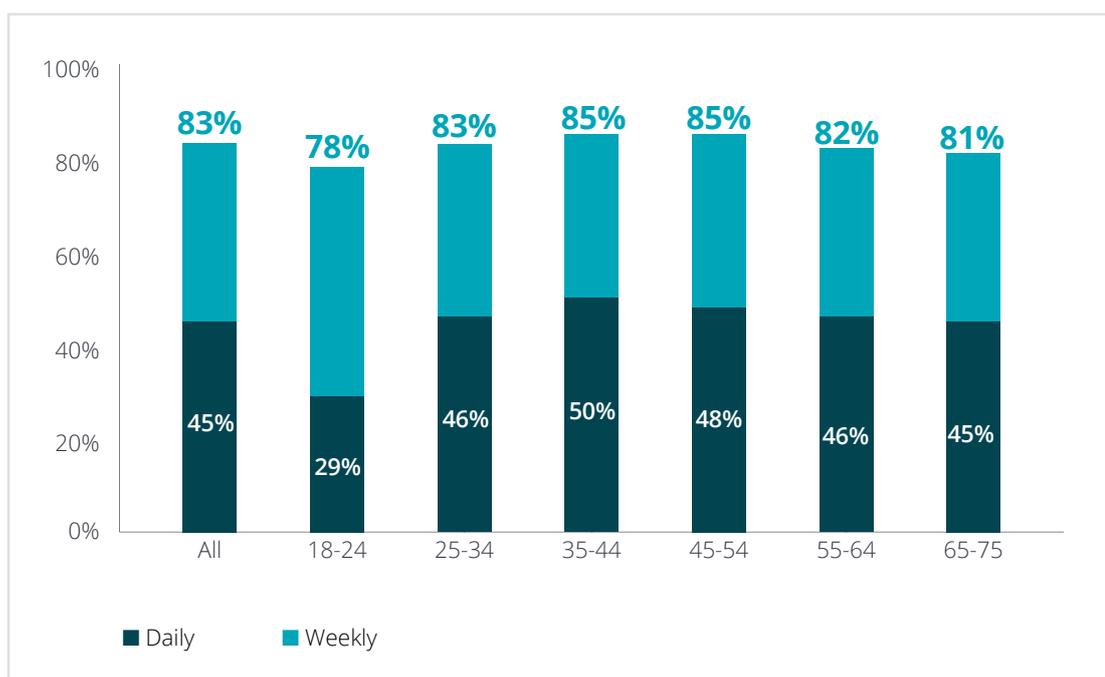
Generation smartphone – those born in 2000 or after – may struggle to understand why those born just a decade before used to use their mobile phones principally to make traditional phone calls, much as those born in the 1990s are bemused by the sight of corded telephones.

Our survey reveals that over the last 12 months most forms of data communication have become more widespread, as the respondents reported more frequent use of channels such as instant messaging, social networks and Voice over Internet Protocol (VoIP).

These new communication channels are data intensive. As a result, consumers' demands for mobile carriers and smartphone vendors are changing. From network operators, they expect monthly plans with high volumes of data and improved data networks. From smartphone manufacturers, they expect larger screens, faster connectivity, more powerful processors, and higher-quality cameras.

Figure 9: Usage of standard voice calls, by age group

Question: How often, if at all, do you use voice calls on your mobile phone?



Weighted base: All smartphone owners aged 18-75 (1593), 18-24 (218), 25-34 (334), 35-44(333), 45-54 (317), 55-64 (243), 65-75 (148)

Data communication, more and better

People are using their smartphones more to communicate compared to last year (see Figure 10). They do so across different communication methods, all of which complement each other. Consumers do not regard them as substitutes.

The traditional text message, an SMS, has seen a prudent growth in usage compared to last year. Nevertheless, it has remained the most popular communication tool on a smartphone across age groups over the last two years, and is used by 88 per cent of the smartphone users on a weekly basis. The youngest generations are the most intensive users of SMS.

While email may be considered by some as old-fashioned, weekly usage on mobile (73 per cent) increased by four percentage points since last year. Email's appeal lies in its universality: every smartphone includes an email app. The email format has changed little over the last few years, yet it remains a simple and useful way to send and receive any type of communication quickly.

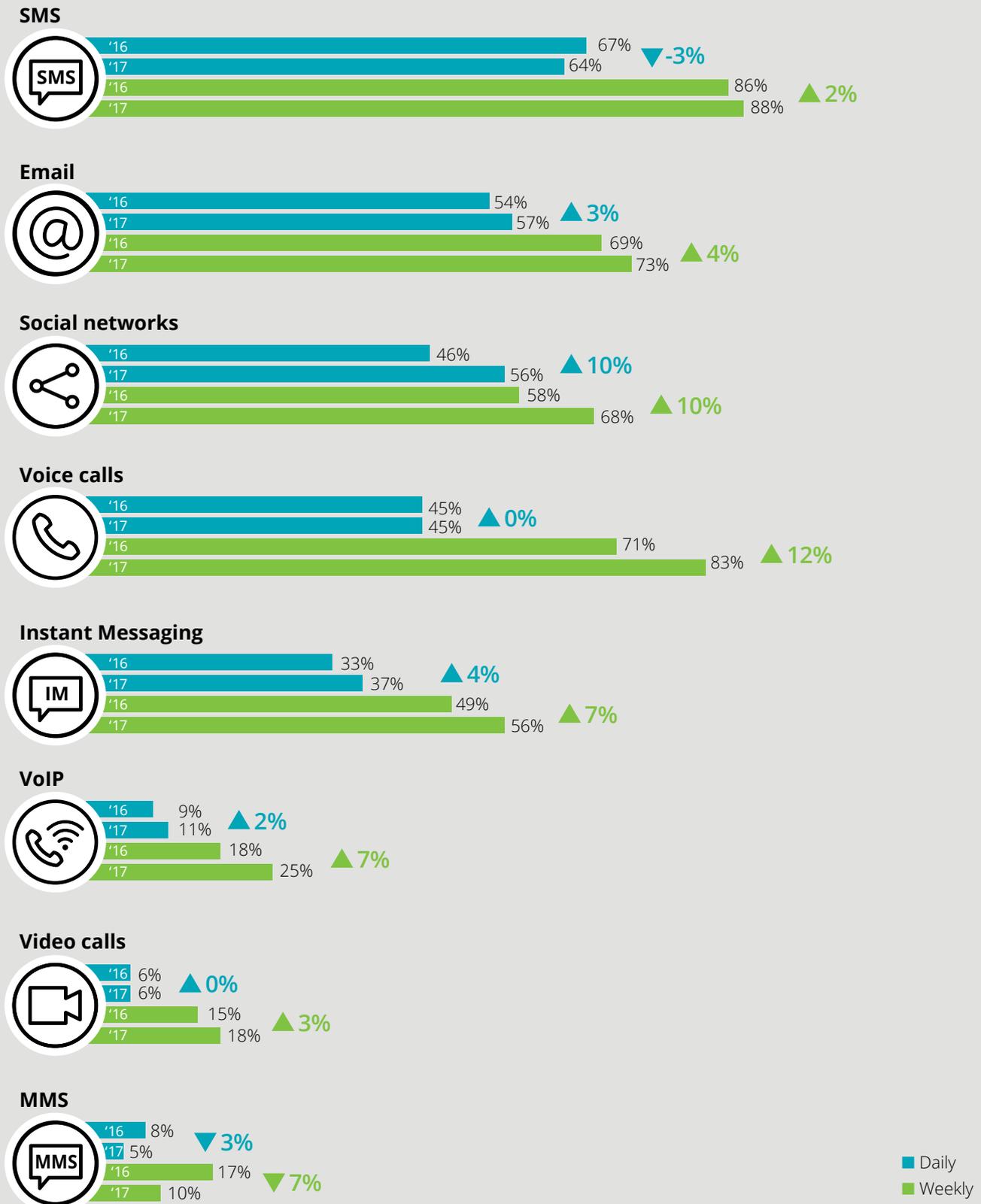
There has also been a significant year-on-year increase in usage of each of the other communications tools. Across age groups, 68 per cent of the smartphone owners use social networks on a weekly basis. This is an increase of ten percentage points compared to last year. Usage of instant messaging grew by seven percentage points, closing the top five of most used communication methods. The youngest age group (18-34 year olds), in particular, contributes to the intensified use of social networks and instant messaging.

This indicates that young people are looking for the fastest way possible to communicate. They often use SMS, instant messaging or social media, but they are not keen on making standard voice calls. Young people are spending a lot of time on their smartphone, time that needs to be divided across all their applications. Therefore, they want to be as efficient as possible and use short-form communication methods. Other, less popular, non-standard voice applications include voice over IP (VoIP) and video calls.

Whereas 50% of older age groups make a standard voice call at least once a day, only 29% of young people (18-24 year olds) call daily.

Figure 10: Most used communication channels, year-on-year evolution

Question: How often, if at all, do you use each of these on you mobile phone?



Weighted base: All smartphone owners aged 18-75 in 2017 (1593); in 2016 (1482)

Dazzling array of apps

One of the main drivers of the “smartphone sensation” is the breadth and utility of the apps available to consumers. Apps allow consumers to easily conduct activities on their smartphone such as checking the weather, social networking, email messaging and navigating. Apps are preferred to mobile web browsers when the content is uniform, or accessed daily.

The quantity of apps downloaded on smartphones has increased slightly compared to last year. In addition to pre-installed apps, Belgian smartphone users have installed on average 20 applications on their smartphone. The 18-24 age group has the most apps. The main reason why people do not download additional apps is because of the limited utility of these extra apps in the eyes of the user.

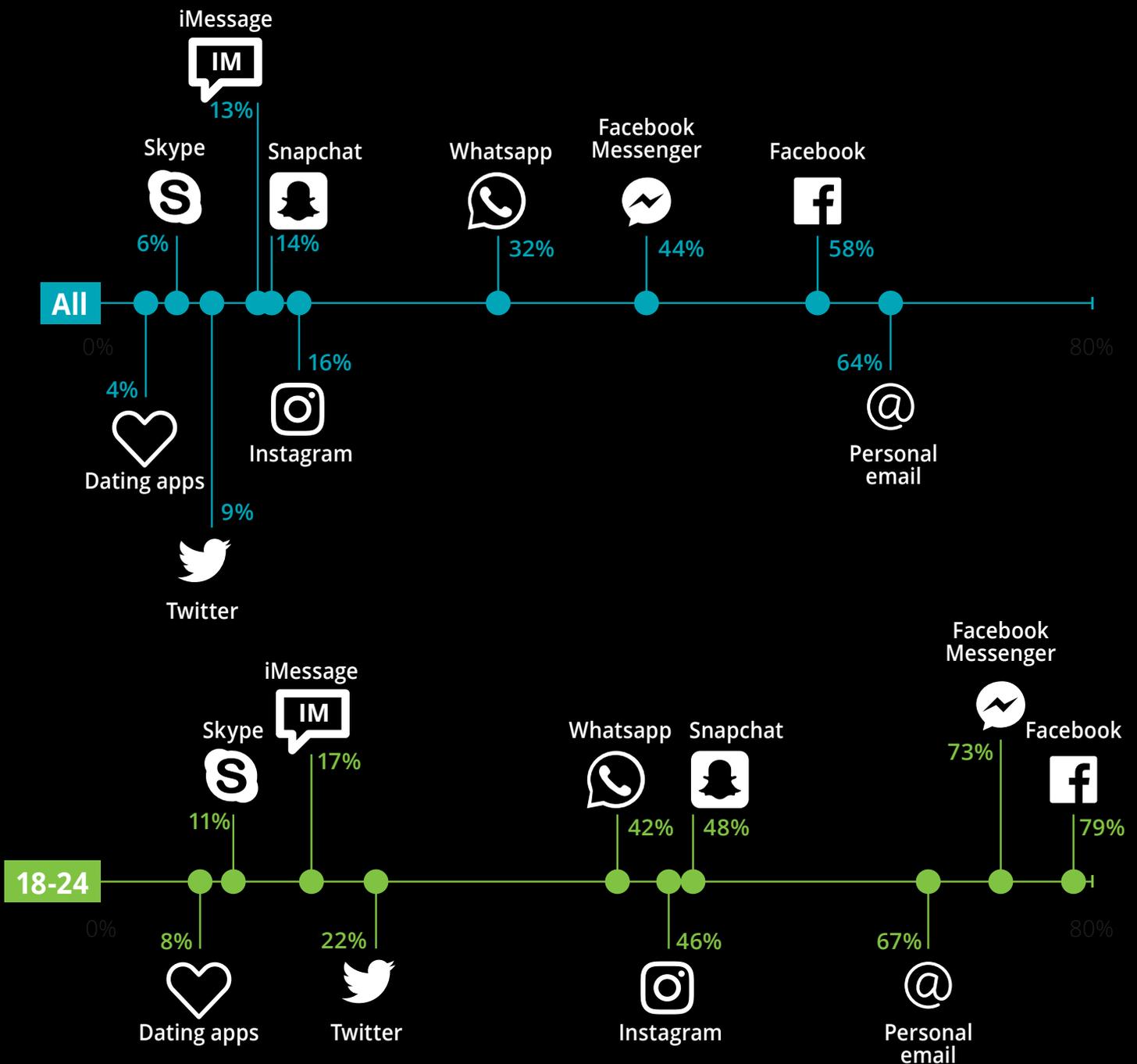
This trend for a limited number of apps installed and maintained by mobile device owners represents a challenge for app developers: they are required to have an app installed and monetised over time. Access to the digital world through smartphone apps has created fragmentation in many countries. Aggregation of smartphone activities is the next frontier for media companies and there are few successful attempts to date. One effective example of this aggregation can be found in China with the app WeChat, which has 800 million users⁷. The app, operated by Tencent, is a portal of web services that allows users to conduct a number of activities such as sending instant messages, posting life events, hailing rides, shopping online, sending payments, as well as a series of business focused activities. Offering customers a sole interface for everything they do on their smartphone may be the route to owning the mobile consumer of the future.

Zooming in on messaging apps, personal email, Facebook, Facebook Messenger and WhatsApp are popular among all age groups. Snapchat and Instagram are most popular with the 18-24 demographic (see Figure 11).

Without consideration
of pre-installed apps,
on average Belgian
smartphone users have
installed 20 applications
on their smartphone

Figure 11: Most used communication applications, across age groups

Question: Below is a list of apps which you may have on your mobile phone. Please state which you use on a daily basis



Weighted base: All smartphones owners aged 18-75 (1593); aged 18-24 (218)

In 2017...



41% **▲12%***

Browse shopping websites/apps monthly



18% **▲10%***

Make online purchase of product monthly



44% **▲16%***

Conversion rate

* Compared to 2016

The power of mobile money

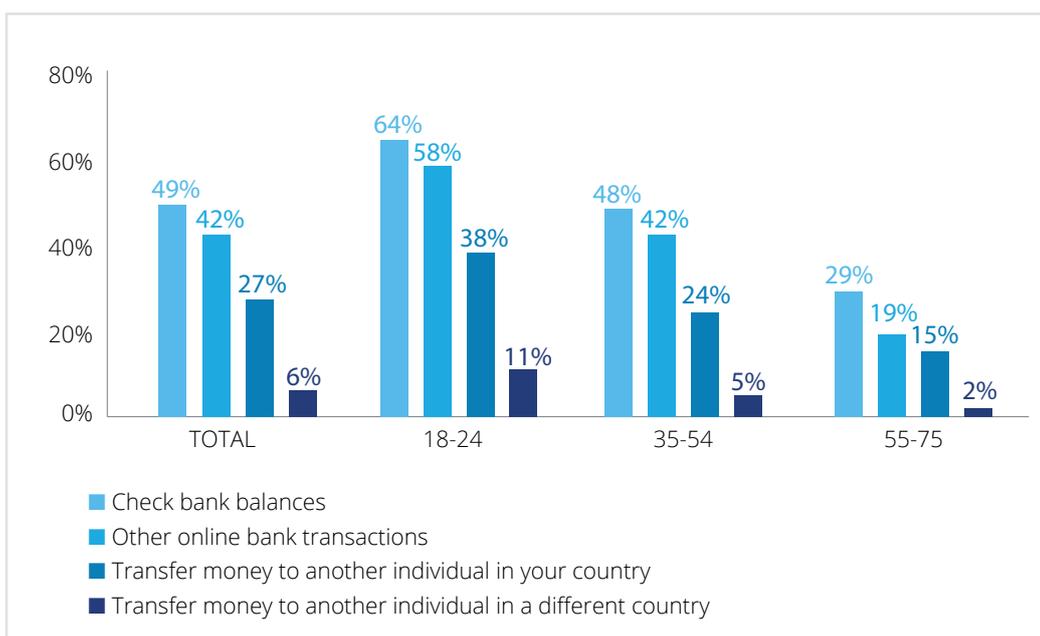
Belgian smartphone owners enjoy mobile shopping. The most performed shopping-related activity on a phone is researching a product. On a monthly basis, 47 per cent of smartphone owners research a product or service on their smartphone, 41 per cent browse shopping websites or apps, and 18 per cent have paid for products online using their smartphone. This translates into a 'conversion' rate of 44 per cent, which increased with 16 percentage points against last year.

Mobile payments have increased and are expected to increase again next year thanks to the developments in the market. Most of the major retailers have convenient check-out options for mobile purchases, which allow the payment to be done frictionless. For example, Amazon saves card details in their app so the customer can execute 'one-click' payments. Applications or websites often provide an option to go directly to the Bancontact or bank app to execute the payment. In Belgium, two of the major banks, Belfius and KBC, followed the example of ING by becoming a shareholder of Payconiq⁸, a Belgian mobile payment app. These sorts of frictionless payment experiences considerably increase market adoption of mobile payments in Belgium and allow e-commerce platforms to increase their conversion rate.

Mobile in-store payments will be the next wave of evolution, as Android pay was introduced in March 2017 on the Belgian market and Apple is expected to launch in 2018. The Bancontact app allows contactless payments with smartphones since October⁹.

Figure 13:

Question: In the last month, have you used your phone to do any of the following activities?



Weighted base: All smartphones owners aged 18-75: 1593; aged 18-34 (552), aged 35-54 (650), aged 55-75 (391)

Banking on the go

Mobile banking is the number one way to interact with a bank in Belgium, surpassing internet banking or visiting a bank branch¹⁰. Nearly half of the smartphone owners in Belgium check their bank balances on a smartphone, while more than one out of four (27 per cent) use their smartphone to transfer money to another individual in the same country (see Figure 13). Mobile banking activity is higher for Millennials (aged 18-34). More than 60 per cent of Millennials check their bank balances on their smartphone on a monthly basis.

It is expected that this trend will only increase in the coming years. New players are entering the banking market with mobile-first offerings (e.g. N26, Revolut). Orange, a leading mobile operator in Belgium, acquired Groupama Banque in 2016¹¹. They launched Orange Bank in France in 2017 and will enter the Belgian market in 2019.

Video, the rising star?

One last remarkable comment on smartphone usage: the appearance of mobile videos in our lives. The proportion of Belgian adults watching videos on their smartphones was only 2 per cent in 2013. In 2017, 38 per cent of the smartphone users watch short videos on their smartphone every week.

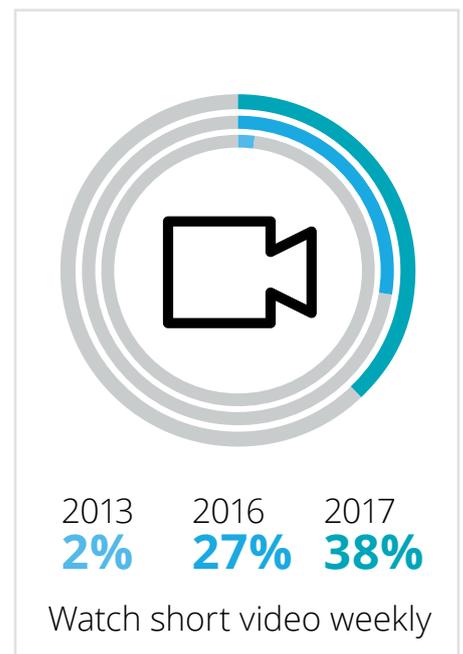
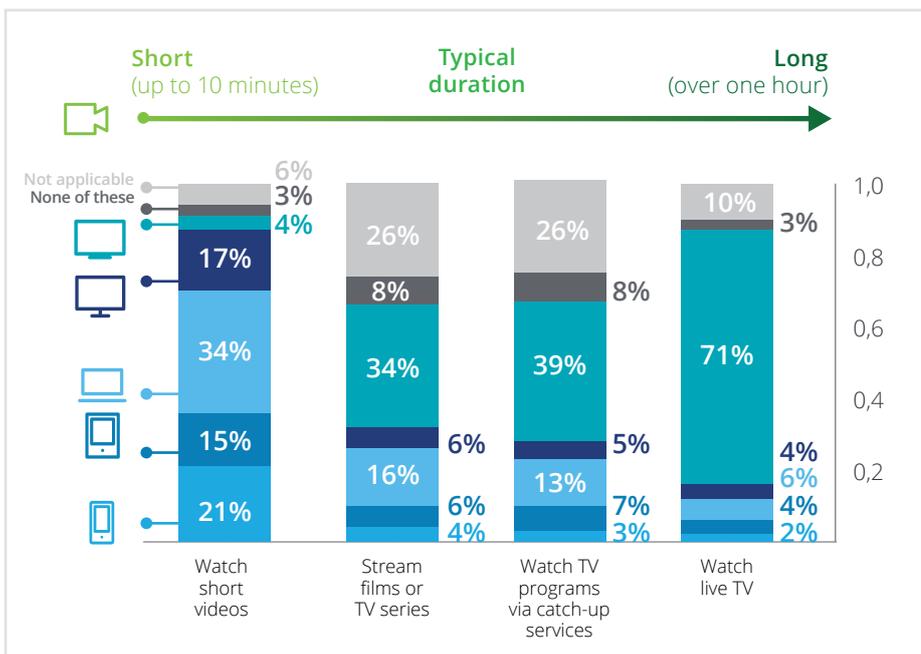
Overall, consumption of video via a smartphone remains relatively infrequent, particularly for long-form content such as television programmes and movies, for which respondents tend to turn to bigger screens (see Figure 15).

The smartphone is becoming more important for video, but it is likely to remain a fallback screen, and not the screen of choice. Among all age groups, the TV remains the preferred device for consuming long form live TV and video content.

Overall, consumption of video via a smartphone remains relatively infrequent, particularly for long-form content such as television programs and movies, for which respondents tend to turn out to bigger screens

Figure 15: Preferred device for watching videos

Question: Which, if any, is your preferred device for each of the following activities?



Weighted base: All smartphones owners aged 18-75 (1593)

Unlocking the true smart in smartphone

Historically, smartphones were considered smart because beyond the mobile phones' traditional voice call and SMS functionalities, the devices were enhanced with more computing power and wireless connectivity. This opened doors to features that before could only be found on a personal digital assistant or a computer – for example browsing the internet, reading and responding to email, editing documents, navigation, etc.

With the booming popularity of smartphones, manufacturers and app developers are putting tremendous efforts into bringing the smartphone's intelligence to the next level. Machine learning, assistant apps, fingerprint readers and

facial recognition are great examples of the potential for smartphones to become truly smart devices.

Machine learning is the process by which computers can get better at performing tasks through the exposure to data rather than through explicit programming. At the basis of artificial intelligence, machine learning is an increasingly popular topic.

In the context of smartphones, machine learning is the process where the device and its apps leverage usage data to customise applications for the user. For example, machine learning can help to type faster by predicting the next words based on patterns found in previously sent

messages. It can also help a navigation app to predict when it is time to go to the office based on location history, and push a reminder accordingly. Several other data points are also commonly used as inputs for machine learning, including app usage history, common numbers called/texted, photographs taken, etc.

Our survey indicated that a majority (59 per cent) of users are ignoring this background data collection activity and accept terms and conditions without reading (see Figure 16).

Figure 16: Reading terms and conditions

Question: How often, if at all, do you accept terms and conditions without reading them?



Nearly 60 per cent (almost) always accept terms and conditions about data usage without reading them.

Weighted base: All smartphone owners aged 18-75 (1593)



The most common machine learning applications, as of 2017, are:



Predictive text: the smartphone predicts the remainder of the current word, or next words, to be typed. It may also correct grammar or accents



Automated calendar entries: the smartphone suggests events to add to the device's calendar based on the content of emails and other messages received



Route suggestions: the smartphone suggests the quickest route for the user to get to his destination and updates this dynamically during the journey



Automated photo classification: photos on a phone can be sorted by type (such as people, selfies, animals) or by theme (food, scenery, flowers)



Automated news or information updates: the smartphone shows news, weather, financial updates, etc. based on previous articles read or searches made



Voice-to-text: dictation, instead of typing



Voice assistant: a more sophisticated variant of voice search; the best known services include Apple's Siri voice recognition software, Google's OK, Google and Microsoft's Cortana



Email classification: emails are automatically sorted by theme such as retail, promotions, social, retail, personal, financial, etc.



Voice search: speaking a search, rather than typing



Location-based app suggestions: the smartphone suggests useful apps when in a location where they can be used, e.g. Apple Pay mobile payments solution/Android Pay when in a shop that allows to pay with them, an airline app when at the airport, Starbucks app when near a Starbucks, etc.



Translation apps: the smartphone translates via an app, such as Google Translate. Inputs can be spoken, typed or photographed



App suggestions: the smartphone suggests which of the apps on a device a user may wish to open or use based on the time of day. For example, weather and radio apps may be suggested first thing in the morning. This removes the chore of finding the app

Many apps already incorporate some form of machine learning. 75 per cent of the surveyed smartphone users are aware of at least one feature on their phone that incorporates machine learning (see Figure 17). About 60 per cent of smartphone users use at least one machine learning feature. However, taken individually, awareness of each machine learning feature is mostly around 20 per cent and 30 per cent, and usage between 5 per cent and 15 per cent. Adoption of mobile machine learning is therefore still at its infancy in Belgium.

The best-known and most used machine learning-based feature is predictive text. But despite this, less than half of respondents are aware of the availability of predictive text, and only one in three believe they use it. Predictive text has widespread opportunities, as text entry is core in smartphone usage. It is amongst others used in instant messaging, text messaging, email, and social networks. Most of these apps are used on a daily basis.

The second best-known feature is route suggestion. Just over one in three are aware of the availability of route suggestion, but only 22 per cent use it. The third best-known feature is automated news

or information updates. 29 per cent are aware of its availability, and 16 per cent use it.

Another machine learning feature is voice assistance, which is mainly used in assistant apps (such as Siri, Google Assistant, Alexa, Cortana and Bixby). Although 28 per cent is aware of its availability, only 9 per cent use it.

So, what about fingerprint and facial recognition? While adoption of facial recognition is still in its very infancy, fingerprint reading has progressively been taking up over the last few years. Last year for example, only 19 per cent of smartphones had fingerprint readers. Today, 33 per cent of smartphones have one (see Figure 18). 67 per cent of smartphone owners that have a fingerprint reader also use this technology. This corresponds to 22 per cent of the smartphone population.

Amongst those who use their fingerprint reader, the most common uses are: unlocking their device (93 per cent), logging into apps (46 per cent), authorising payments (42 per cent), and authorising money transfers (25 per cent).

Figure 17: Awareness and usage of applications featuring machine learning among respondents aged 18-75

Question: Which of the following features/apps do you own and/or use on your smartphone?

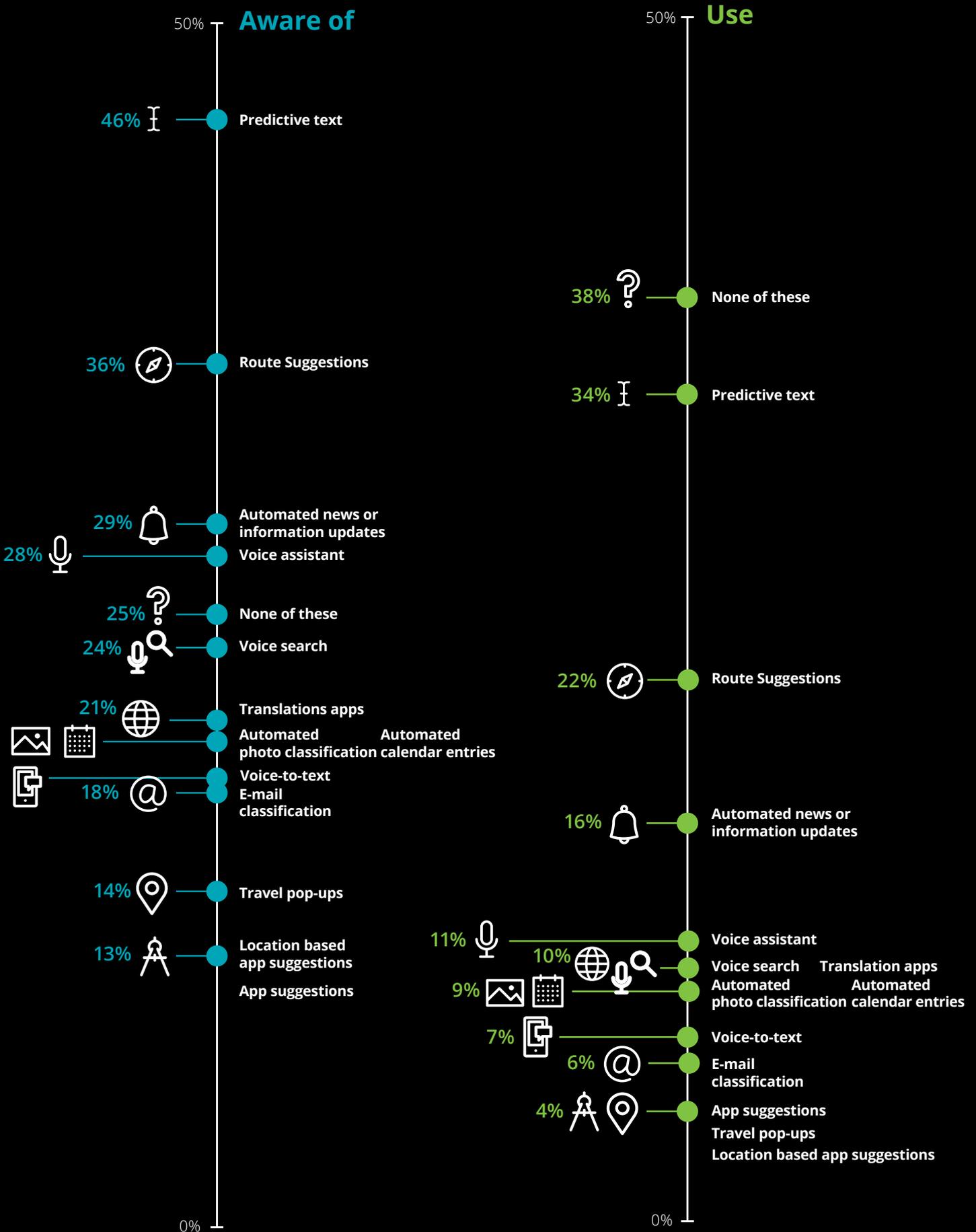
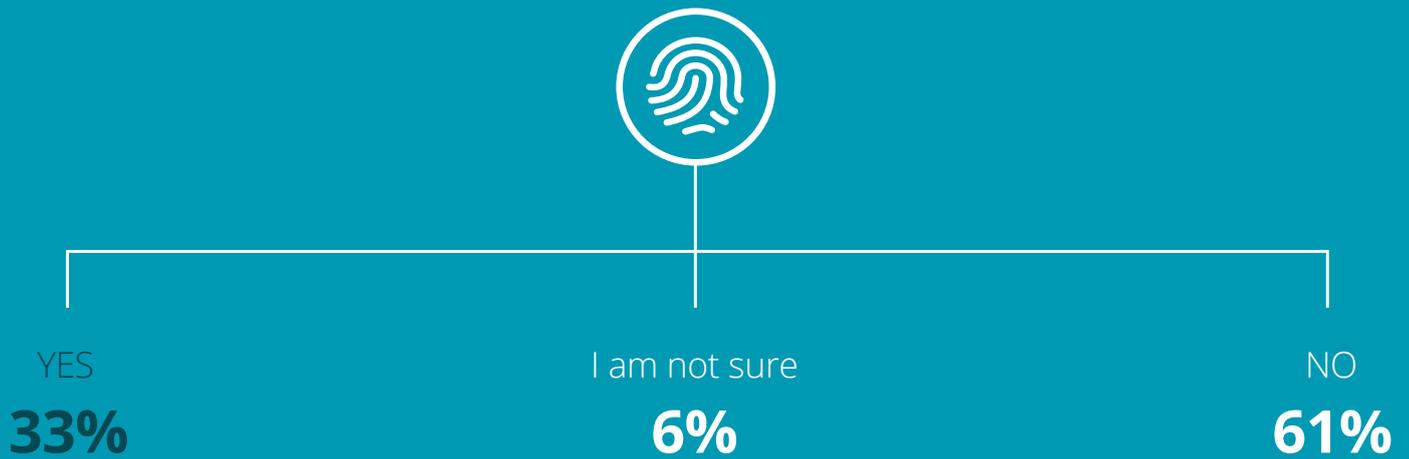


Figure 18: Does your mobile have a fingerprint reader?



What do you use your fingerprint reader for?



Endnotes

- 1 Gartner (2016): <https://www.gartner.com/newsroom/id/3609817>
- 2 Why did the Dutch smartphone user cross the road?; The Guardian, 15 February 2017: <https://www.theguardian.com/technology/2017/feb/15/dutch-led-scheme-smartphone-traffic-lights-whatsapp>; Australia installs pavement traffic lights for mobile phone-distracted pedestrians, The Guardian, 3 June 2016: <https://www.theguardian.com/world/2016/jun/03/australia-pavement-traffic-lights-mobile-phone-pedestrians>
- 3 Chinese city opens 'phone lane' for texting pedestrians, The Guardian, 15 September 2014: <https://www.theguardian.com/world/shortcuts/2014/sep/15/china-mobile-phone-lane-distracted-walking-pedestrians>
- 4 As stated in Euromonitor International: Internet retailing in Belgium, December 2016
- 5 Upgrades to 4G networks will enable higher speeds to be attained through aggregating licensed and unlicensed spectrum
- 6 This estimate assumes a user looks at their phone 34 times a day, each day, over a two-year period
- 7 Forbes, Tencent's 'Super App' WeChat is Quietly Taking Over Workplaces In China, August 2016, <http://www.forbes.com/sites/ywang/2016/08/19/tencents-super-app-wechat-is-quietly-taking-over-workplaces-in-china/#95d60e1c620f>
- 8 Payconiq is an electronic payment system in Belgium, aimed at executing mobile payments. It was launched by ING, but recently KBC and Belfius joined as well. http://www.standaard.be/cnt/dmf20161202_02603935?_section=62413889&utm_source=standaard&utm_medium=newsletter&utm_campaign=biz&M_BT=505213020320&adh_j=ce5d2cf46c386ac80aad7f31c3cc38a3&imai=
- 9 <http://geeko.lesoir.be/2017/10/26/application-bancontact-permet-desormais-de-payer-ses-achats-en-magasin/>
- 10 <http://moneytalk.levif.be/finance-et-bourse/epargne/pourquoi-le-mobile-banking-est-il-plus-populaire-que-le-pc-banking/article-normal-637895.html>
- 11 <https://www.orange.com/en/Press-Room/press-releases/press-releases-2016/Orange-to-acquire-a-65-stake-in-Groupama-Banque-which-will-become-Orange-Bank>

About the research

The Belgian cut is part of Deloitte's Global Mobile Consumer Survey, a multi-country study of mobile phone users around the world. The 2017 study comprises approximately 53,000 respondents across 33 countries and six continents.

Data cited in this report are based on a nationally representative sample of 2,002 Belgian consumers aged 18-75. The sample follows a country specific quota on age, gender, region and socio-economic status. Fieldwork took place during May to June 2017 and was carried out online by Ipsos MORI, an independent research firm, based on a question set provided by Deloitte.

This brief report provides a snapshot of some of the insights that the survey has revealed. Additional analyses such as reasons for joining/leaving mobile operators, the smartphone at work, attitudes towards refurbished phones are available upon request.

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