Explore the report

Always on line, wherever we are.

Report **Trends in internet use 2016**

SIDN Your world. Our domain.

Contents

1 Introduction

SIDN, .nl and internet use

As registry for the .nl domain, SIDN is responsible for the domain's functional stability and continued development. Working together with about 1,400 internet service providers and other professionals who act as 'registrars', we register .nl domain names and make sure that they can be reached. The .nl domain has been around for thirty years and now includes more than 5.6 million domain names, making it one of the biggest country-code domains in the world. Which is quite impressive for a small country like the Netherlands.

Every day, we handle more than a billion search queries for internet users as they visit websites and exchange e-mail. The .nl domain is one of the most reliable and secure domains anywhere, which is something we're very proud of. For us and our community, current and future developments in internet use are therefore very important. We therefore carry out a wide-ranging, in-depth study of developments once every two years.

Fourth edition

We published our original report *Trends in Internet Use* in 2012. As the first analysis of the relationship between internet use and the demand for domain names ever published, it received a warm response. The report included information about related topics, such as the role that new devices and social media played in the domain name market.
An update to the original study followed in the latter part of 2013. The 2014 edition of *Trends in Internet Use* featured another innovation: validation of the survey responses on the basis of data on the actual internet usage of thousands of people. The usage data provided numerous new insights into the relationship between users' attitudes and their actual on line behaviour.

On-line security and privacy more to the fore

The central question addressed by our research remains: what changes can we discern in the way that people use the internet, and what do those changes imply for the significance of and the demand for domain names? However, in the two years since our last survey, public interest in themes such as on-line security and privacy has increased considerably.
The latest survey therefore included a number of questions relating to those topics. After all, as an organisation we attach great importance to secure digital living.

Always on line, wherever we are

The expert panel that assisted the project expects 2017's internet use buzz phrase to be 'always on line'. People now use all kinds of devices side by side and remain on line at all times. What you do on line matters less than where you do it.

2 Methodology and design

Big Data

In recent years, the technical scope for passive monitoring of consumer behaviour has increased considerably. Special software provides us with insight into actual internet usage on all kinds of device. Because we now monitor use on a single-source basis (across multiple devices per person), we are able to break down the way people use the internet according to whether they are using a laptop/PC, a tablet or a smartphone. We are also able to obtain more reliable data on how respondents use the internet than in the past. The research reported here was carried out with the assistance of research agency GfK. All the data obtained from GfK's single-source panel (Crossmedia Link/GXL) was analysed: a total of more than 68 million items of data.

Surveys and expert panel

Along with the data from passive monitoring, the study made use of a great deal of actively acquired material. GfK surveyed 834 business market decision-makers and 4,117 consumers. The surveys focused on attitudes to internet use in general and domain names in particular. The survey findings and the analysed panel data were presented to an expert panel of seven internet specialists for comment.

The research yielded important findings across a wide range of topics. The most important of those findings are presented in this report on a thematic basis.

3 Mobile internet comes of age

General picture: smartphones on the rise

In 2012, accessing the internet using a mobile device was definitely on the rise, but PCs and laptops still dominated the usage statistics. Four years later, it's crystal clear that we are now in the mobile internet era, with the smartphone centre stage. The usage statistics and consumer preferences highlight the drivers:

- Introduction of 4G
- Increased wi-fi availability
- Bigger data bundles
- Wider variety of devices, such as phablets

Mobile dominates time spent on lineg

People spend even more time on line than they did in 2014. The amount of time spent on line with a smartphone has risen particularly sharply. The main driver: more intensive use of a smaller number of apps. That trend is apparent in users of all ages, from youngsters to over-65s. The amount of time spent on line with tablets and PCs/laptops has actually fallen since 2014.

› Figure 1: Comparison of internet usage in 2014 and 2016

Everyone has a smartphone; tablets' market penetration slows down

The number of consumer survey respondents who have smartphones has risen considerably over the last two years. In 2014, 68 per cent had smartphones with internet access; now the figure is 82 per cent. Most of the growth was accounted for by older consumers: the proportion of over-65s with smartphones went up from 33 per cent to 55 per cent. Over the same period, tablets' market penetration barely increased.

It should be born in mind, however, that the smartphone statistics include 'phablets': devices with screen sizes midway between a smartphone and a tablet.

› Figure 2: Possession of various devices amongst respondents 18+ (consumer survey 2016, n=4,117)

More people now prefer smartphones

Given the significant rise in smartphone use, it's no surprise that the popularity of these devices has increased considerably across the board. Asked which device they preferred to use for various purposes, the percentage of respondents who said the smartphone was their favourite increased in all categories. There was little change in the percentages expressing a preference for a tablet, but PCs and laptops declined in popularity for most purposes. The one exception was internet shopping, where a PC or laptop remains the overwhelming favourite: 80 per cent of people prefer to use one for shopping on line.

› Figure 3: Percentage of respondents who prefer using a smartphone for various purposes (consumer survey 2016, n=4,117)

PCs and laptops are the big losers

The extra time that people spend on line with mobile devices is partially at the expense of the time spent using more traditional access devices. By nearly all measures – usage time, number of websites visited and number of unique domains visited – PCs and laptops have lost ground. The only PC and laptop usage indicator that went up was the amount of time per unique domain name. In other words, the average person visits fewer sites per month from a PC or laptop, but spends longer looking at each site.

People are using smartphones more to go on line

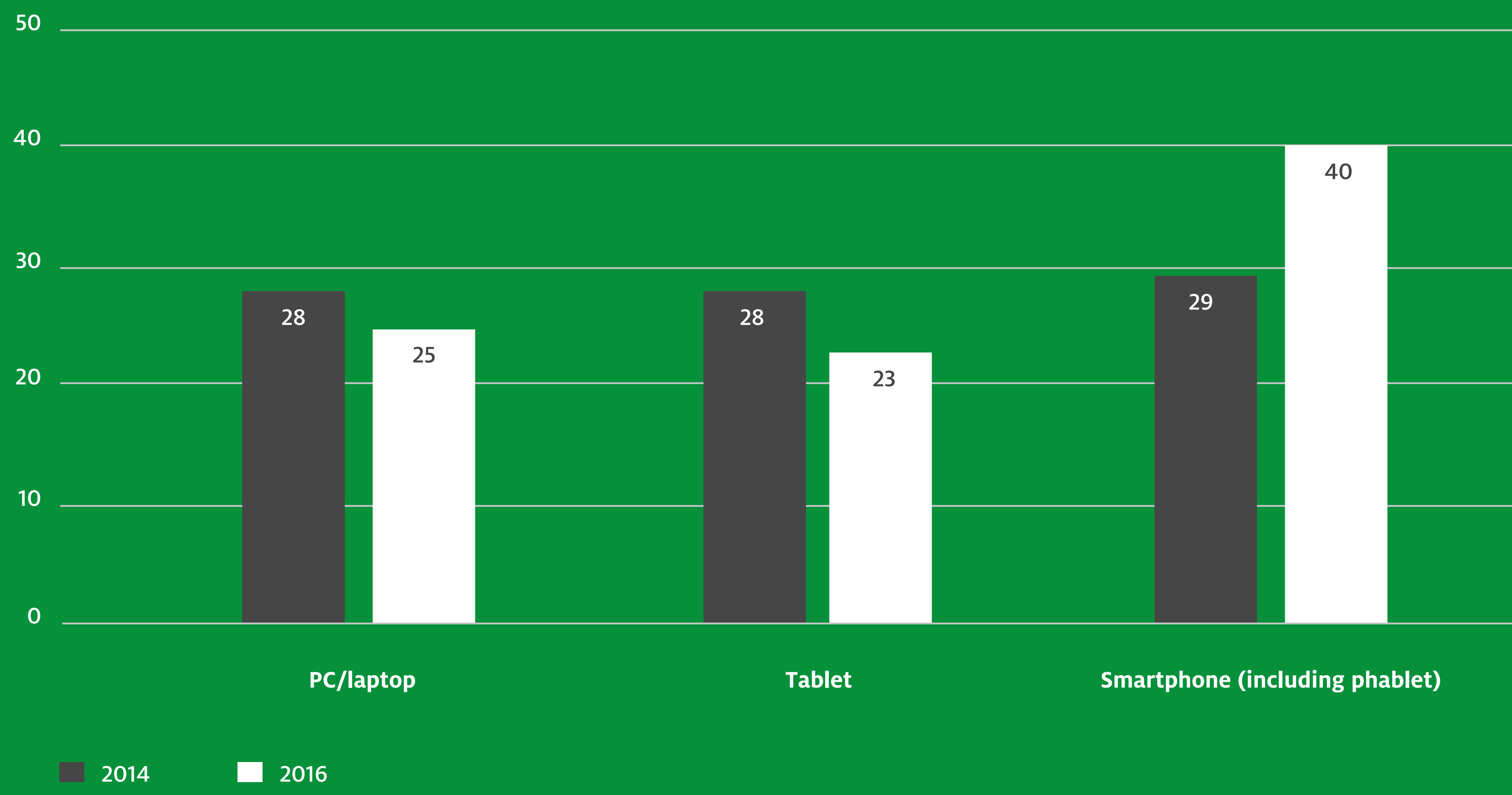

Figure 1: Comparison of internet use in 2014 and 2016, in hours on line per device per month (GXL usage data, June 2014 - June 2016)

Lots more people have smartphones

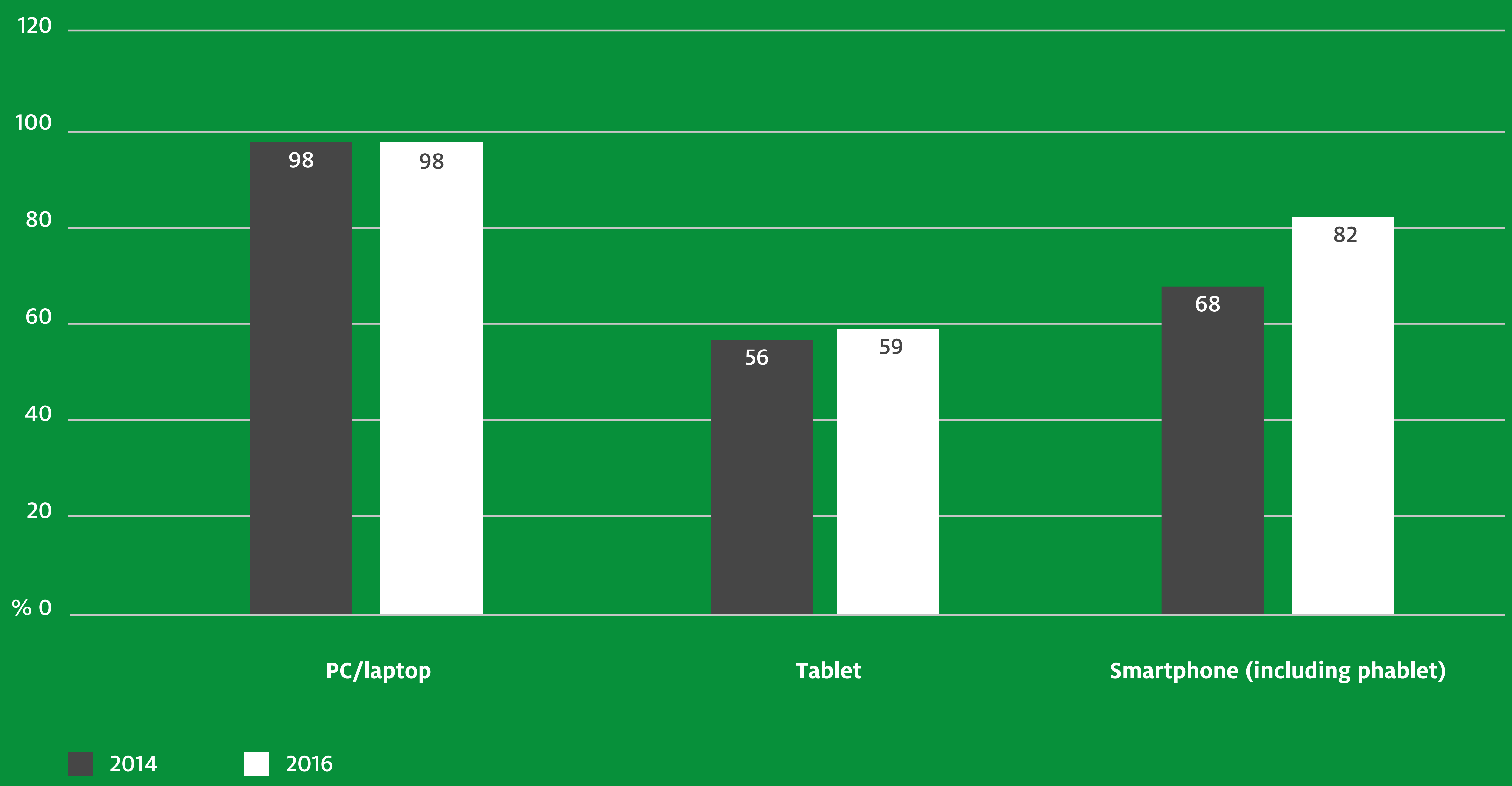

Figure 2: Possession of various devices amongst respondents 18+ (consumer survey 2016, n=4,117)

Smartphones more often the preferred option

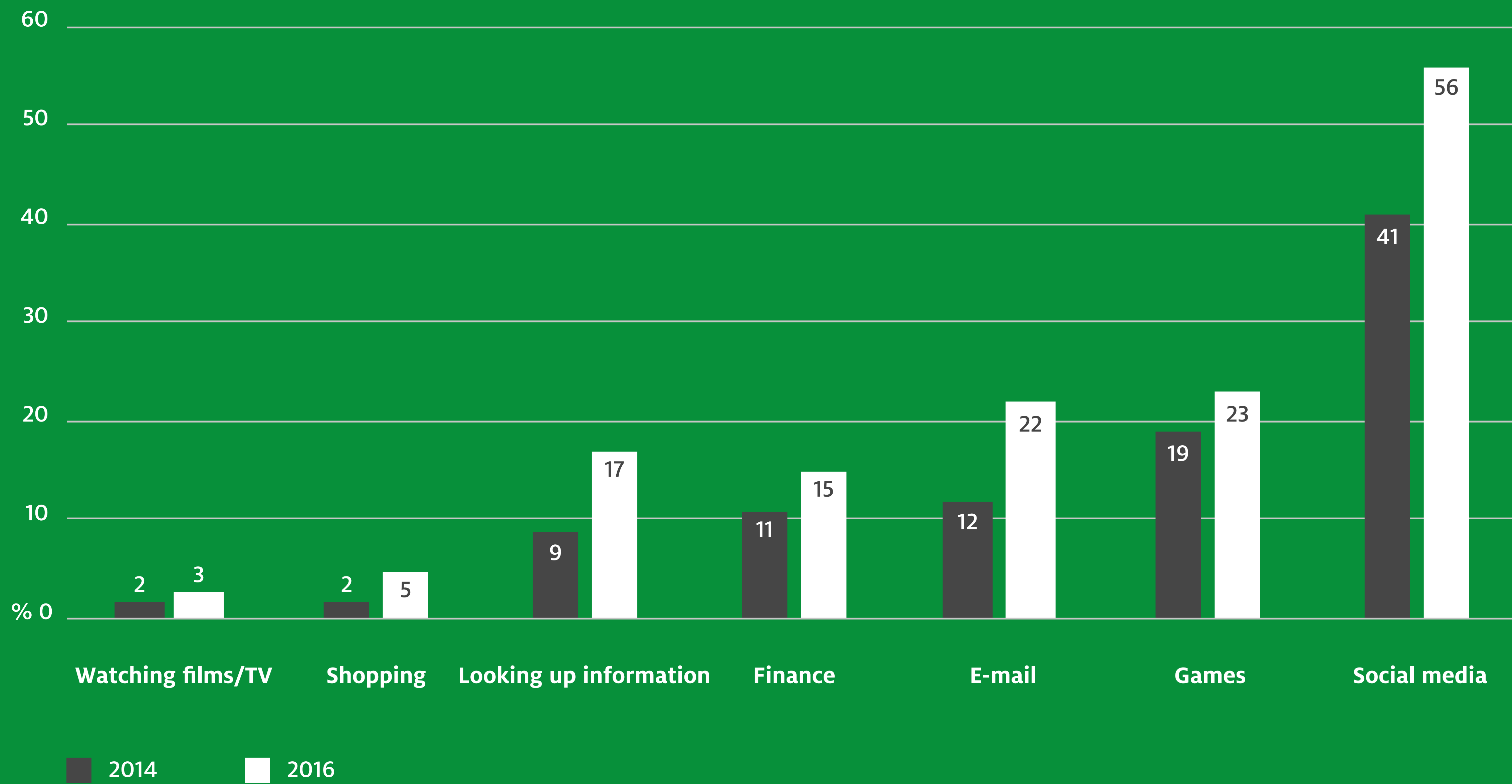

Figure 3: Respondents who prefer using smartphones for various purposes (consumer survey 2016, n=4,117)

4 People aren't using more apps, but they're using them for longer

Concentration of use

Last year, Facebook said that usage duration was the most important indicator of use. A look at the data makes the reason clear: although the total amount of time that we spend on line has gone up considerably, we are visiting fewer websites and using fewer apps. In other words, internet use is more concentrated than in 2014. Meanwhile, app usage duration is increasing at the expense of website usage duration.

Browser use declining on PCs, laptops and tablets

The absolute amount of time that people spend using browsers on PCs, laptops and tablets is declining. Users are also visiting fewer unique domain names from these devices. By contrast, the corresponding smartphone usage figures are up.

› Figure 4: Numbers of websites and apps per device (GXL usage data)

Apps have to fight harder to get on the consumer's screen

It seems that, as people spend more time on line but less time using browsers, it's apps that are gaining ground. Does that imply boom times for app builders? Apparently not. Although the total amount of time spent on line with apps has gone up considerably, people are using fewer and fewer different apps. Consumers are becoming more selective. The fight to get onto the user's screen is increasingly fierce.

› Figure 5: Comparison of app use in 2014 and 2016 (GXL usage data)

Google and Facebook dominate smartphone screens

On Dutch smartphones, apps from the Google and Facebook stables have the greatest penetration. With the acquisition of WhatsApp and the rise of its Messenger app, Facebook has further consolidated its leading position on users' screens. Google has the second biggest presence, with Maps, YouTube and Gmail. The absolute reach of such apps is increasing. It looks as if Google and Facebook are securing screen space by spreading functionality across various apps. For example, Facebook Messenger used to be partially integrated within the main Facebook app. However, acquisitions, e.g. Facebook's acquisition of WhatsApp have also played a role. We have to look down to tenth position to find a locally created app: Marktplaats.

› Figure 6: Top twenty smartphone apps by penetration (June 2016)

Usage duration: games, games and more games

While Facebook and Google apps are well ahead in terms of market penetration, games dominate in terms of usage duration. Strikingly, top spot in the rankings is still occupied by 2014's number one game: Wordfeud. Candy Crush Saga is the standout climber. In the gaming sector too, the battle for screen space has intensified. In 2014, there was only one Candy Crush app in the top twenty (in seventh position); now three versions of the game appear in the top ten. Facebook's main app and WhatsApp are the only non-game apps to feature in the top twenty by duration of usage.

› Figure 7: Top twenty apps by average usage duration (GXL usage data, per user per month)

Browser use on PCs, laptops and tablets down

	Unique domain names (per month)		Total duration (hours per month)	
	2014	2016	2014	2016
Pc/laptop	112	101	28	25
Tablet	104	63	6	3
Smartphone	53	66	2	3

Figure 4: Numbers of websites and apps per device (GXL usage data)

Consumers on line more but using fewer apps

	Number of different apps		Duration (hours per month)		Average duration per app (hours per month)	
	2014	2016	2014	2016	2014	2016
Tablet	24	15	22	20	0.9	1.3
Smartphone	33	25	27	37	0.8	1.5
Age 18-34	34	22	32	35	1.0	1.6
Age 35-49	33	24	30	34	0.9	1.4
Age 50-64	30	20	25	31	0.8	1.5
Age 65+	27	19	22	26	0.8	1.4

Figure 5: Comparison of app use in 2014 and 2016 (GXL usage data)

Google and Facebook dominate our smartphones

Position 2016	Position 2014	Changel	App	Penetration 2016 (%)	Penetration 2014 (%)	Change (%)
1	1	0	WhatsApp Messenger	60	48	12
2	2	0	Facebook	52	41	11
3	10	7	Facebook Messenger	42	16	26
4	4	0	Google Maps	40	24	16
5	3	2	YouTube	38	24	14
6	5	1	Google Search	36	23	13
7	6	1	Gmail	29	19	10
8	58	50	Drive	24	2	22
9	27	18	Google Play-services	23	7	16
10	16	6	Marktplaats	21	12	9
11	9	2	NU.nl	20	17	3
12	11	1	Rabobank Bankieren	20	14	6
13	8	5	Buienradar	19	17	2
14	7	7	ING Bankieren	17	18	1
15	12	3	Twitter	17	14	3
16	24	8	Instagram	17	7	10
17	13	4	NOS	17	13	4
18	19	1	Buienalarm	15	9	6
19	25	6	Dropbox	15	7	8
20	21	1	LinkedIn	13	8	5

Figure 6: Top 20 smartphone apps by market penetration (June 2016)

Games dominate in terms of duration of use

Position 2016	Position 2014	Change	App	Duration of use 2016 (minutes)	Duration of use 2014 (minutes)	Change (minutes)
1	1	0	Wordfeud	453	496	∨ 43
2	6	∧ 4	Facebook	400	292	∧ 108
3	43	∧ 40	Pet Rescue Saga	349	63	∧ 286
4	X	∧ 4	Candy Crush Soda Saga	320	X	-
5	X	∧ 5	Candy Crush Jelly Saga	293	X	-
6	7	∧ 1	Candy Crush Saga	280	275	∧ 5
7	15	∧ 8	Farm Heroes Saga	264	160	∧ 104
8	3	∨ 5	WhatsApp Messenger	263	354	∨ 91
9	49	∧ 40	Kik Messenger	257	53	∧ 204
10	2	∨ 8	Hay Day	229	381	∨ 152
11	12	∧ 1	Firefox. Browse Freely	209	177	∧ 32
12	36	∧ 24	Flitsmeister	189	80	∧ 109
13	14	∧ 1	Wordfeud Free	188	167	∧ 21
14	17	∧ 3	WordOn	178	132	∧ 46
15	118	∧ 103	eBay - Buy, Sell & ...	148	12	∧ 136
16	109	∧ 93	Solitaire	143	29	∧ 114
17	16	∨ 1	AD nieuws, sport en ...	143	156	∨ 13
18	143	∧ 125	Apple Weer	141	7	∧ 134
19	52	∧ 33	NOS	126	51	∧ 75
20	30	∧ 10	De Telegraaf	126	108	∧ 18

Figure 7: Top 20 apps by average duration of use (GXL usage data, per user per month)

5 Autocomplete: the new internet navigation method

Autocomplete joins domain names and search engines as leading navigation method

When our first survey was carried out in 2012 (the PC/laptop era), internet use was dominated by three navigation methods:

1. Search engines (Google)
2. Typing domain names
3. Bookmarks

By 2014 the use of bookmarks was clearly in decline. For our latest survey, we have distinguished autocomplete as a separate navigation method. By 'autocomplete' we mean typing a few letters into a browser, which then automatically suggests search terms or domain names.
In the past, because autocomplete was a search engine functionality, its use was regarded as a form of search engine use. However, the method is now one of the top three ways of reaching a site, along with typing a domain name and using a search engine. A third of all internet users now use autocomplete. Amongst young people, autocomplete is even more popular, with nearly half (46 per cent) using it.

Google is the most popular navigation method

It is also useful to consider which methods users prefer. Not surprisingly, Google scores very well. However, it is notable that Google's popularity numbers have been largely unaffected by the definition of autocomplete as a navigation method in its own right. Google is the preferred option for 56 per cent of users, down only slightly from 58 per cent in 2014.
Clearly, Google remains as popular as ever; indeed, it is perhaps *more* popular than ever.

Autocomplete particularly popular with young people

It is mainly young people who like using autocomplete: 25 per cent say that it is their preferred navigation method. Like more educated people, young people tend to explain their preference by saying that using autocomplete is faster. Older people are more likely to choose their navigation method on the basis of perceived reliability.

Typing a domain name is mainly a fall-back option

Bookmarks and portal sites continue to fall from favour. There has also been a sharp decline in navigating by typing a URL into a browser, probably because many users find autocomplete more convenient. People are, however, still inclined to type a whole domain name if it's short and easy to remember, or if they aren't confident that a Google search will yield the right result.

› Figure 8: Navigation methods used (consumer survey 2016, n=4,117, multiple answers possible)

Autocomplete: the convenient option

	2014 (%)	2016 (%)
Using a search engine, e.g. Google	88	82
Typing a website's full internet address	53	39
Typing a few letters and letting the browser suggest the rest(autocomplete)	-	33
Bookmarks	31	20
Links in e-mails or Messenger messages	30	17
Links in social media, such as Facebook and LinkedIn	20	14
Apps (applications)	19	12
Links on a portal website, such as Startpagina.nl	13	7
Don't know/don't want to say	2	3
Don't search for things on the internet	0	1
Other, i.e. ...	0	0.3

Figure 8: Navigation methods used (consumer survey 2016, n=4,117, multiple answers possible)

6 The consumer domain name market

Internet use is an important (indirect) indicator of the demand for domain names and websites. As well as seeking to identify usage trends, our research therefore also addresses people's plans regarding websites, app development and domain names.

Fewer people planning to register domain names

The percentage of people who anticipate registering a domain name in the next five years has halved since 2014, from 16 per cent to 8 per cent. Amongst people who aren't yet registrants, the percentage is less than 5 per cent (compared with 29 per cent amongst existing registrants). In other words, the people who do have registration plans are quite likely to already have a domain name.

› Figure 9: Comparison of registration intentions in 2014 and 2016 (consumer survey, n=4,117)

Personal websites remain the main reason for registration, but interest declining

Looking at the consumer market as a whole, setting up a personal website remains the main reason for registering a domain name. Older people are particularly likely to envisage using a domain name for that purpose. However, the popularity of personal websites is declining amongst all age groups. In 2014, 39 per cent of respondents said it was the main reason for registration, but the figure is now down to 35 per cent.

Important segment: young people registering domain names for professional use

Amongst young people, a personal website ceased to be the main reason for registering a domain name several years ago. By 2014, it was already apparent that the registration of domain names for professional use was taking over. In that regard, a marked difference has emerged between younger people and older people. Since 2014, the proportion of older people registering domain names for professional purposes has fallen from 30 per cent to 22 per cent.

The trends discerned in 2014 have continued in the intervening period, particularly amongst young people. Of the young people planning to register a domain name, 50 per cent have professional use in mind. That is likely to be linked to the growth of self-employment amongst the young. Looking at the consumer market as a whole, 32 per cent of all planned registrations are for professional reasons. Taking that figure in conjunction with the statistic that most (about 60 per cent) of the demand for domain names comes from businesses, it seems that about 75 per cent of the *total demand* is business-related.

› Figure 10: Comparison of young people's reasons for registering domain names in 2014 and 2016 (consumer survey 2014, 2016)

Domain names for e-mail popular mainly amongst older people

The younger generation has largely stopped using e-mail. That is reflected in the fact that only 6 per cent of young people with registration plans want a domain name for e-mail. That compares with 23 per cent for the consumer market as a whole. It's mainly the over-65s who consider registering domain names for that purpose: 51 per cent of those with registration plans primarily want a personal e-mail address. However, it is worth noting that only a small proportion of over-65s do actually have registration plans.

Half as many consumers want domain names

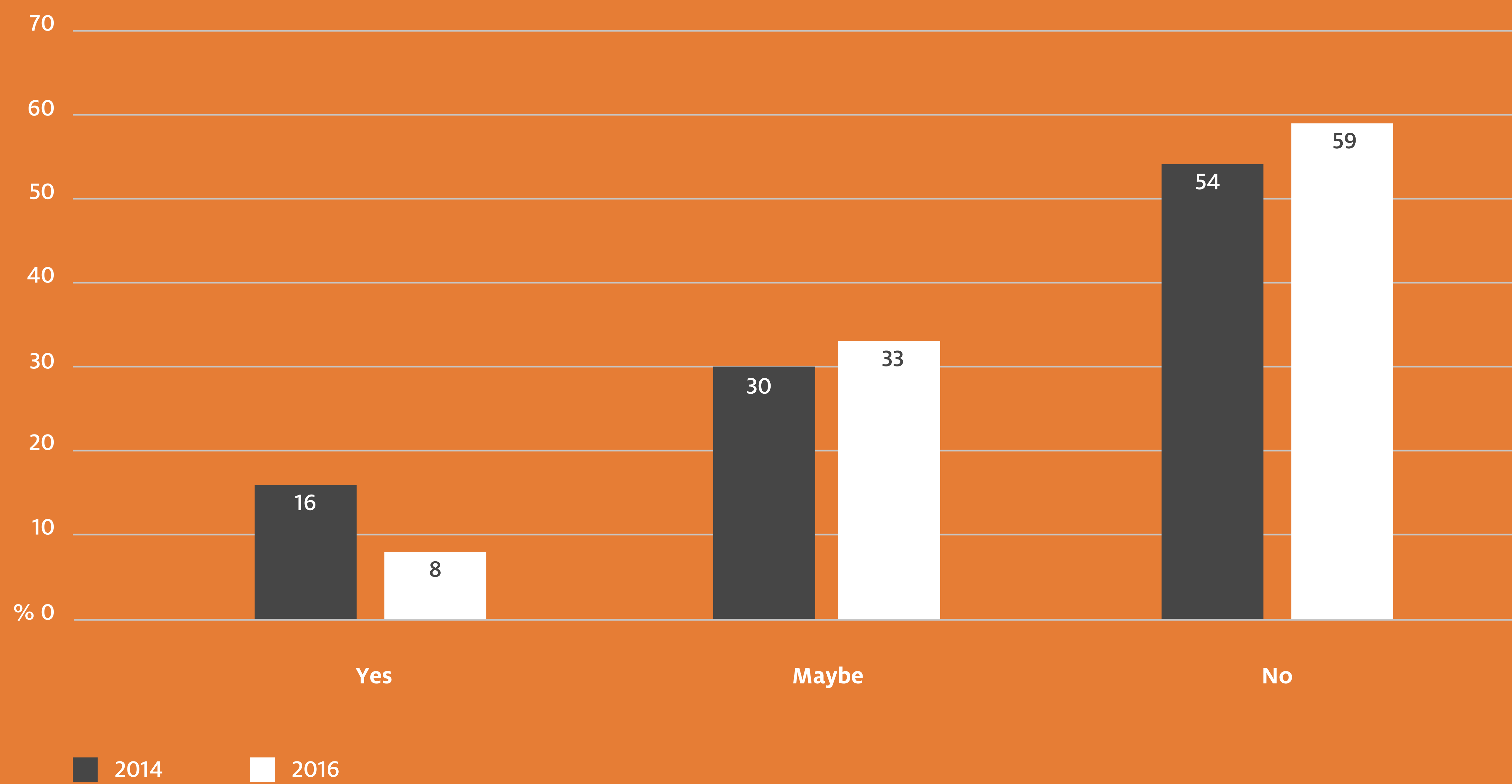

Figure 9: Comparison of registration intentions in 2014 and 2016 (consumer survey, n=4,117)

Demand from young mainly linked to professional use

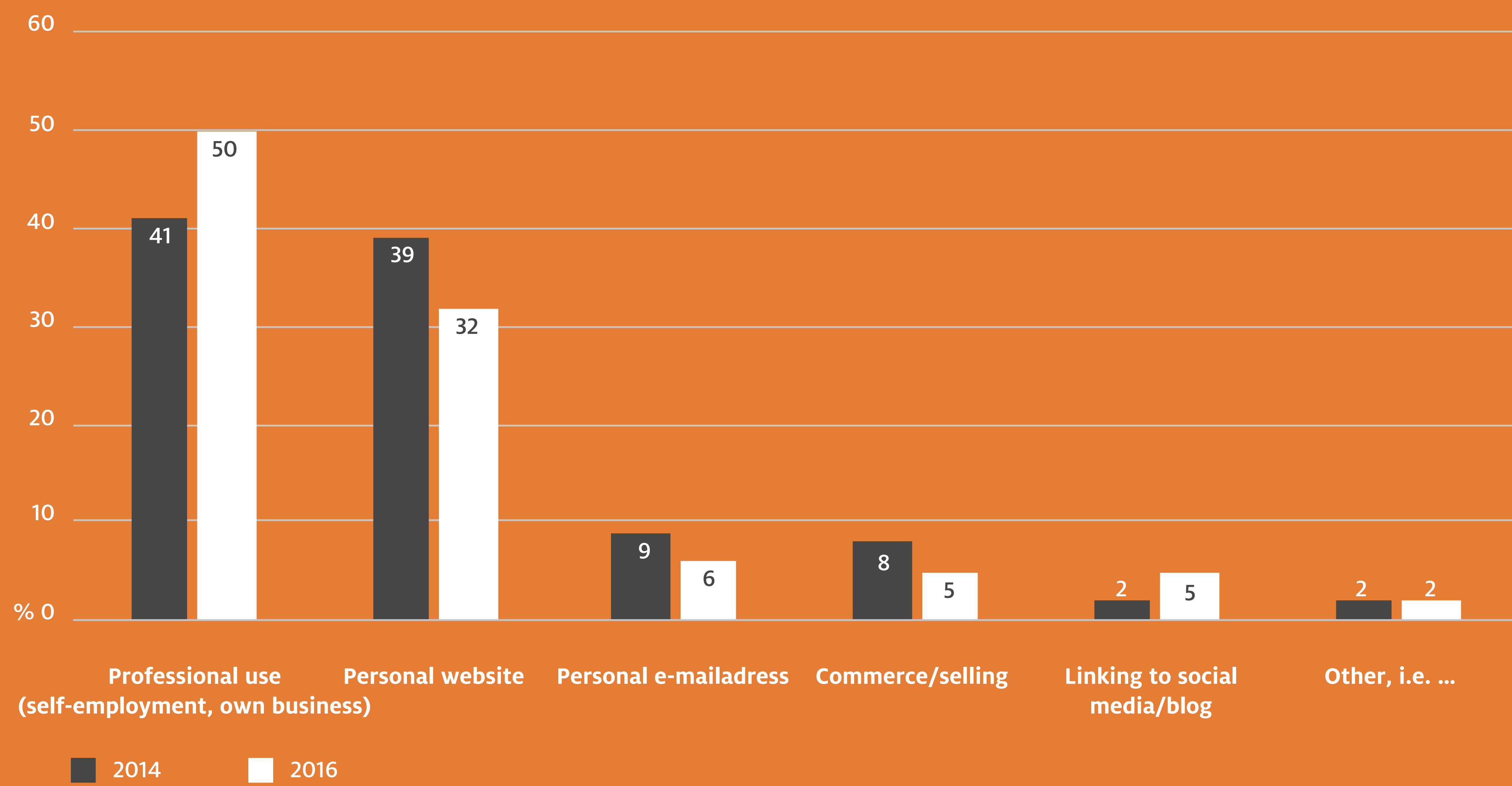

Figure 10: Comparison of young people's reasons for registering domain names in 2014 and 2016 (consumer survey 2014 and 2016)

7 Businesses: good prospects for e-commerce

Websites remain very important for businesses

Having an on-line presence remains important for Dutch businesses. Indeed, the importance is only increasing. It is striking that businesses of all sizes are using an increasingly wide range of on-line resources. However, the corporate website remains the centrepiece of most companies' on-line presence. Its importance has remained stable since 2014: 82 per cent of businesses regard their corporate site as important for or essential to their aims. The perceived importance of breadth in the resources mix has increased: more businesses now think it is important to have campaign sites, social media, apps and third-party platforms than in 2014. The business community also expects such resources to become more important in the next three years further.

› Figure 11: Importance of various resources for business operations (business survey, n=834)

Businesses and domain names: outlook better than in 2014

In 2014, businesses were more likely to expect their domain name portfolios to contract than to grow. That picture has changed significantly over the last two years. For every business that anticipates contraction, there are now four that foresee growth. Firms expecting growth tend to be larger companies that already have a significant number of domain names. Most of the businesses expecting contraction cite strategic motives, such as bringing all their trading names under one umbrella. Those that foresee growth point to the development of new business activities as the main driver.

› Figuur 12: Explanations given by businesses that expect their domain name portfolios to grow (business survey, n=834, multiple answers possible)

Corporate websites remains very important

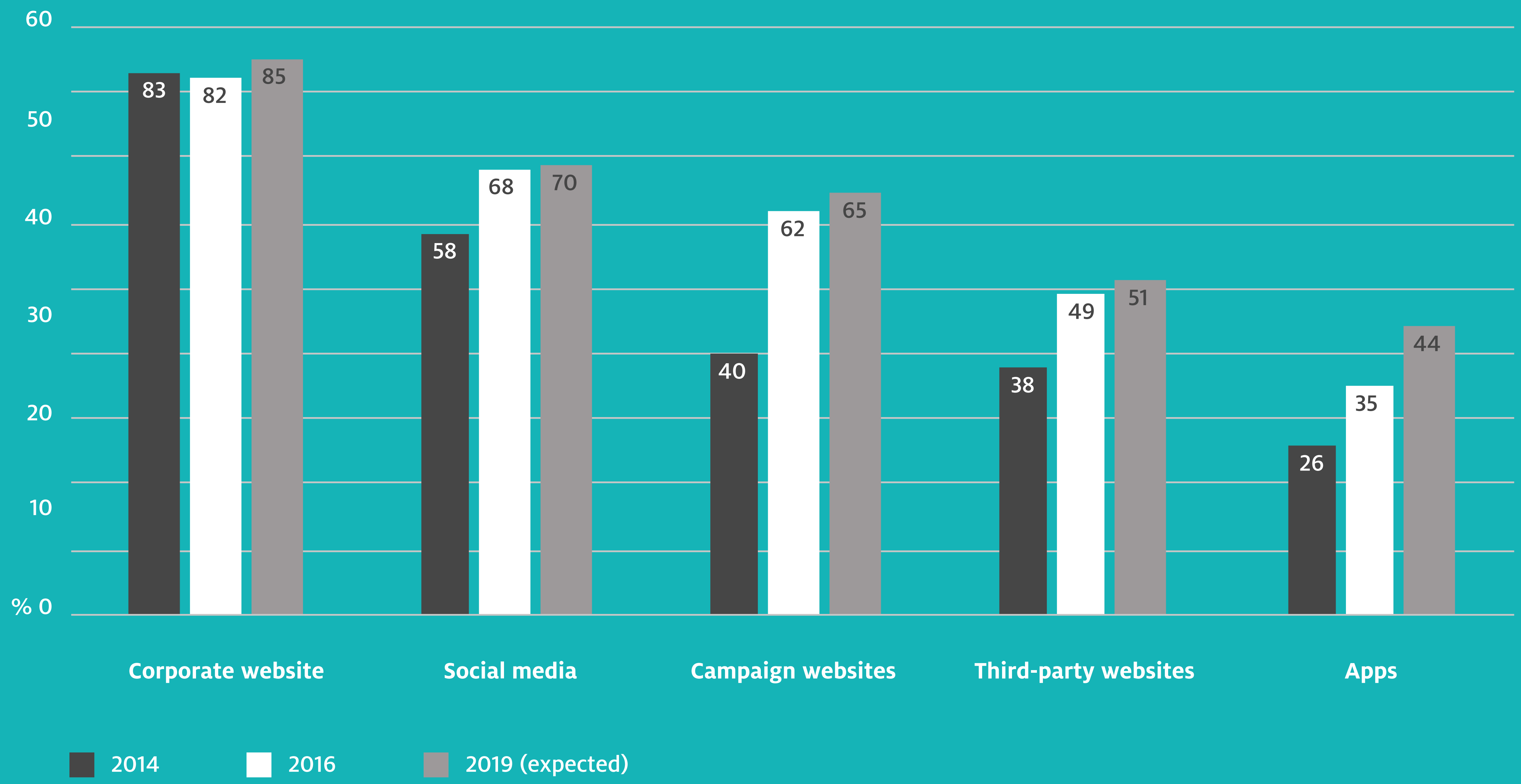

Figure 11: Importance of various resources for business operations (business survey, n=834)

New business activities driving demand

	2016 (%)
Development of new business activities	72
General growth of the business	26
Anticipated growth of on-line sales (e-commerce)	23
Increasing need to protect brand or trading name	12
Don't know/other, i.e. ...	4

Figure 12: Explanations given by businesses that expect their domain name portfolios to grow (business survey, n=834, multiple answers possible)

8 On-line security: a hot topic

Consumers worried about on-line security

On-line security has become a topical issue in recent years. Our research confirms that observation: 94 per cent of respondents said that they personally regarded it as an important or very important theme. Notably, consumers appear to become more concerned about on-line security as they get older. That is reflected in what they do to protect themselves: the over-forties are more likely to have anti-virus software on their devices than the under-forties.

In the last year, 72 per cent of the consumers surveyed had come across phishing scams. (Phishing is a form of internet fraud where people are tricked into giving sensitive data, e.g. by an e-mail with a link to a fake website.) Young people perceive the practice as less of a threat than older people do. That may be because young people make less use of e-mail.

› Figuur 13: Percentage of people who see on-line security as important or very important (consumer survey 2016, n=4,117)

Phishing is a widespread problem; DDoS is an issue for big businesses

Businesses also encounter cybercrime: no less than 80 per cent reported phishing incidents. DDoS attacks (where cybercriminals try to bring down computer systems by bombarding them with data requests) appear to be less common: only 7 per cent of companies reported being hit. It is mainly big businesses that are targeted by such attacks: 42 per cent of companies with more than 250 employees had experienced the problem. Overall, DDoS attacks are perceived to be nearly as much of a threat as phishing.

› Figuur 14: Businesses' experience of phishing and DDoS attacks and the perceived threat levels (business survey, n=834)

Concern about on-line security strongest in older people

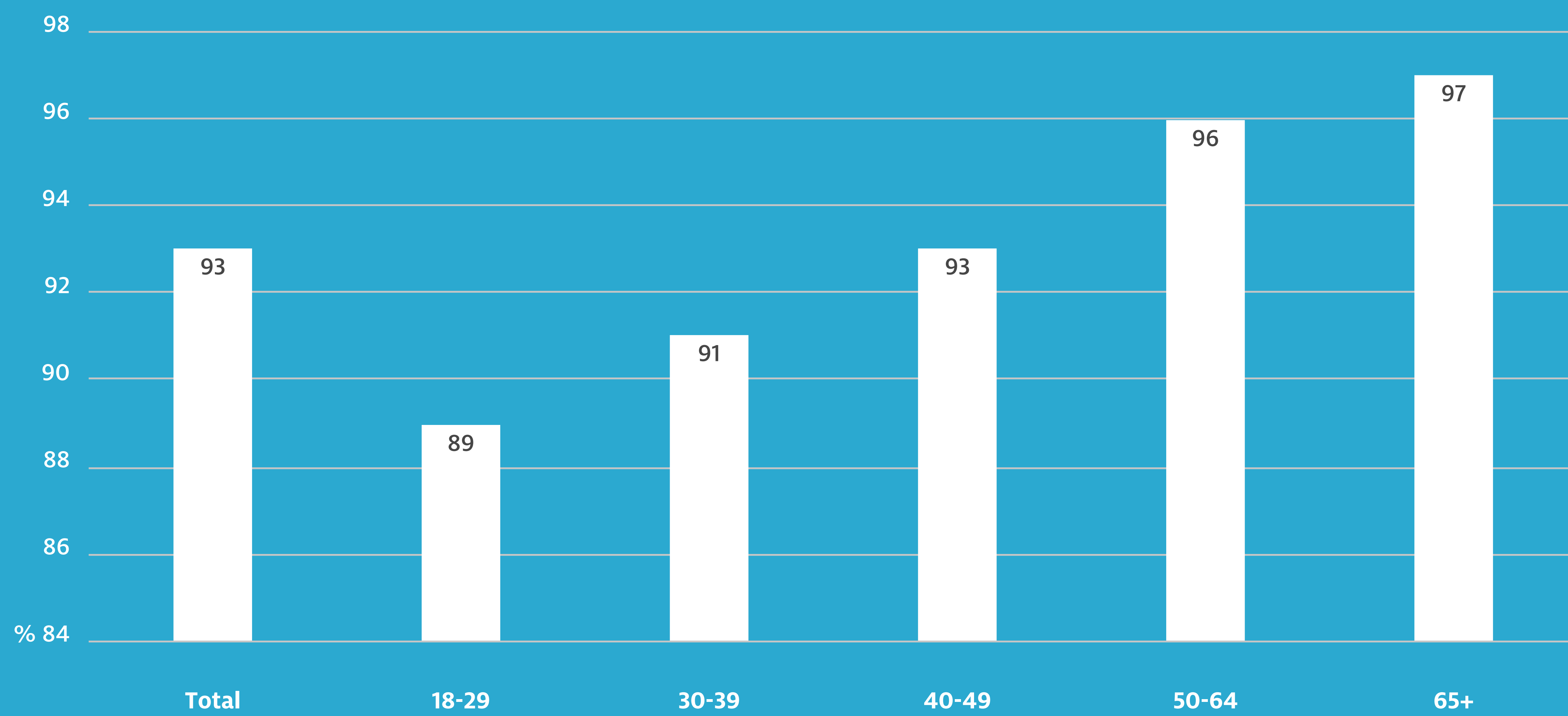

Figure 13: Percentage of people who see on-line security as important or very important (consumer survey 2016, n=4,117)

Cybercrime poses a bigger threat to e-commerce

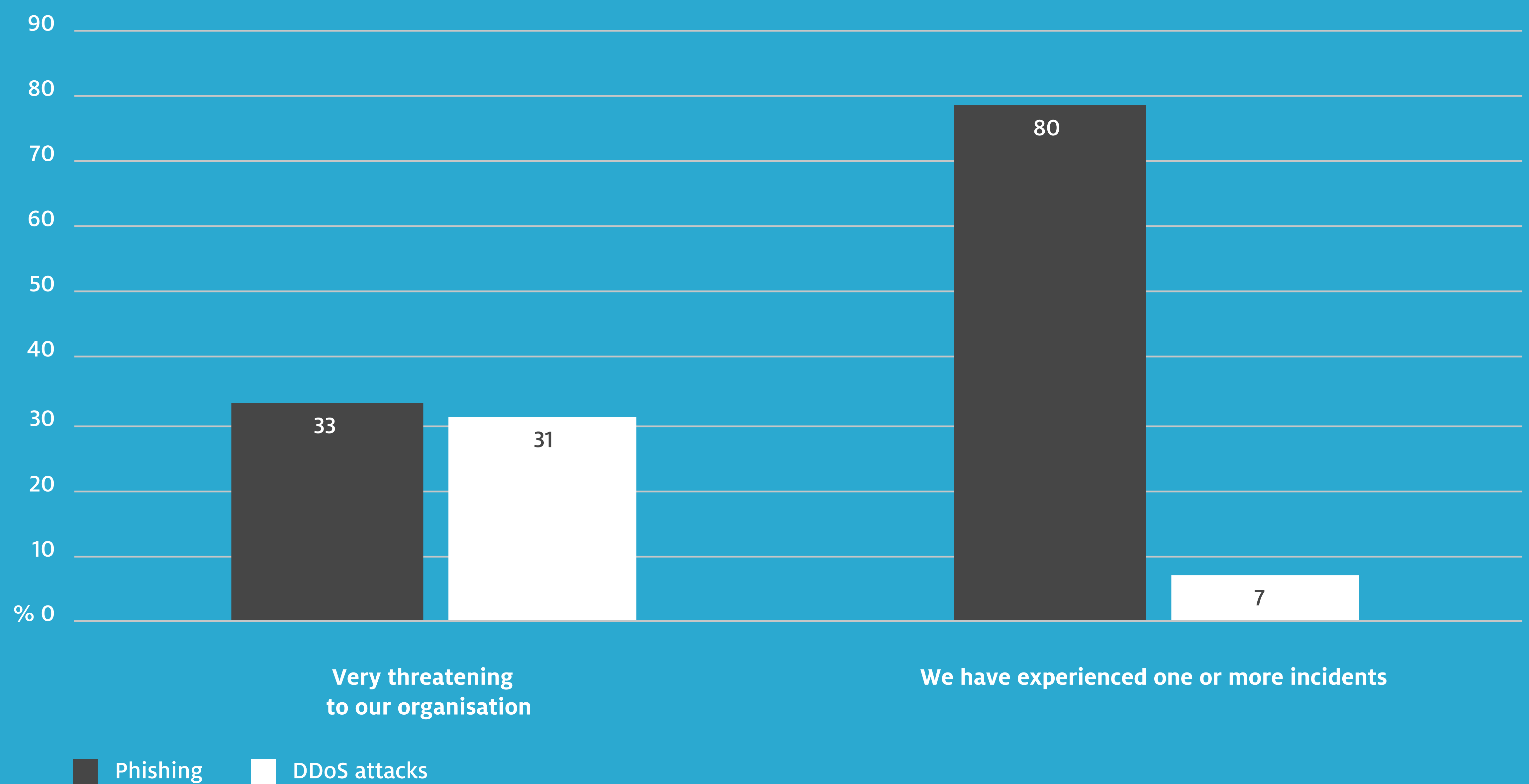

Figure 14: Businesses' experience of phishing and DDoS attacks and the perceived threat levels (business survey, n=834)

9 .nl: where the Netherlands does business

.nl more popular on mobile devices

With 5.6 million registered names, .nl dominates the market for domain names in the Netherlands. But what proportion of the websites that people visit have .nl addresses? The domain's visit share has declined since 2014, particularly where PC and laptop use is concerned. That is likely to be linked to the trend referred to earlier: people making more visits to a smaller number of websites. The most visited sites include quite a lot of .com domains (bol.com, facebook.com). People using mobile devices visit .nl sites slightly more often than people using PCs or laptops.

› Figure 15: .nl domain's share of unique domains visited (usage data, June 2016)

.nl's popularity with private and business registrants undiminished

Amongst both private individuals and businesses looking to register domain names, .nl remains the preferred option by far. If they had to register a domain name, about 70 per cent of all private individuals would choose a .nl name. Loyalty to a chosen extension is considerable: if their chosen domain name was not available with their preferred extension, consumers would rather choose another domain name than another extension.

› Figure 16: Extension preferences when applying to register domain names (consumer survey 2016, n=4,117)

Extension important for trust

Even though consumers nowadays type domain names less, a domain name's extension still influences the perceived reliability of a website: 63 per cent of respondents now say that it influences them, compared with 57 per cent in 2014. However, when assessing reliability, consumers pay more attention to:

- An approval mark (e.g. Thuiswinkel.org);
- Reviews by other users (e.g. on Trustpilot);
- The payment options offered

.nl the most reliable domain

In terms of perceived reliability, .nl is still the leading domain: 82 per cent of consumers view it as reliable now, compared with 76 per cent in 2014. The .com extension comes a strong second, scoring 74 per cent, compared with 71 per cent in 2014. Trust in new top-level domains (nTLDs) is generally significantly lower, with .tk the least trusted extension of all (regarded as reliable by only 6 per cent of consumers).

A similar picture emerges when consumers are asked to imagine buying something on line and to say where they would choose to buy it, given a list of options that differ only in their extension (e.g. webwinkel.nl, webwinkel.com and webwinkel.shop). The percentage opting for .shop (2 per cent) is particularly interesting, because the .shop domain wasn't yet live at the time of the survey, so consumers couldn't visit a shop with such an address.

› Figure 17: *Suppose that you want to buy something on line. Which of the following websites would you prefer to use?* (consumer survey 2016, n=4,117)

.nl more popular on mobile devices

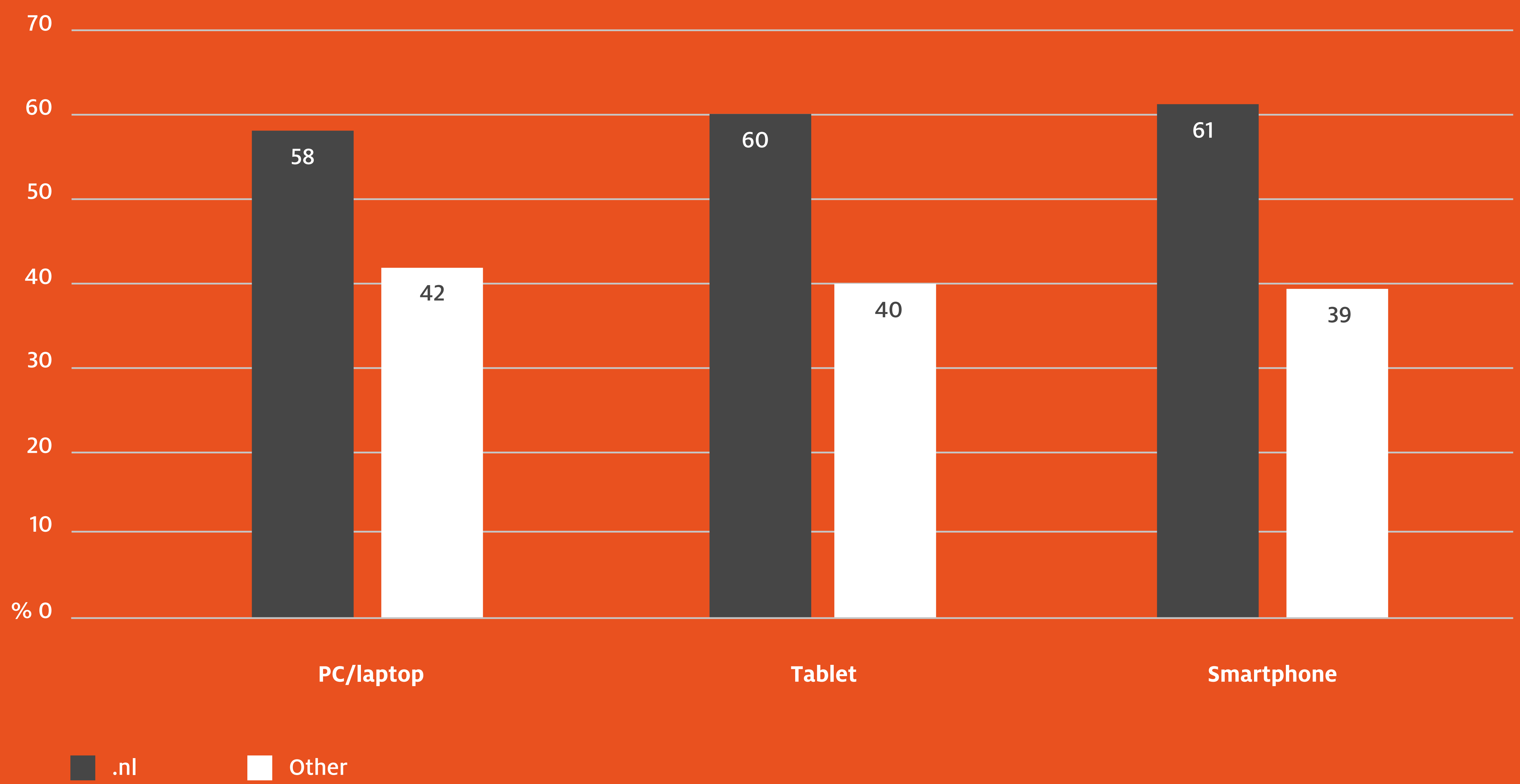

Figure 15: .nl's share of unique domains visited (usage data 2016, June 2016)

.nl as popular as ever

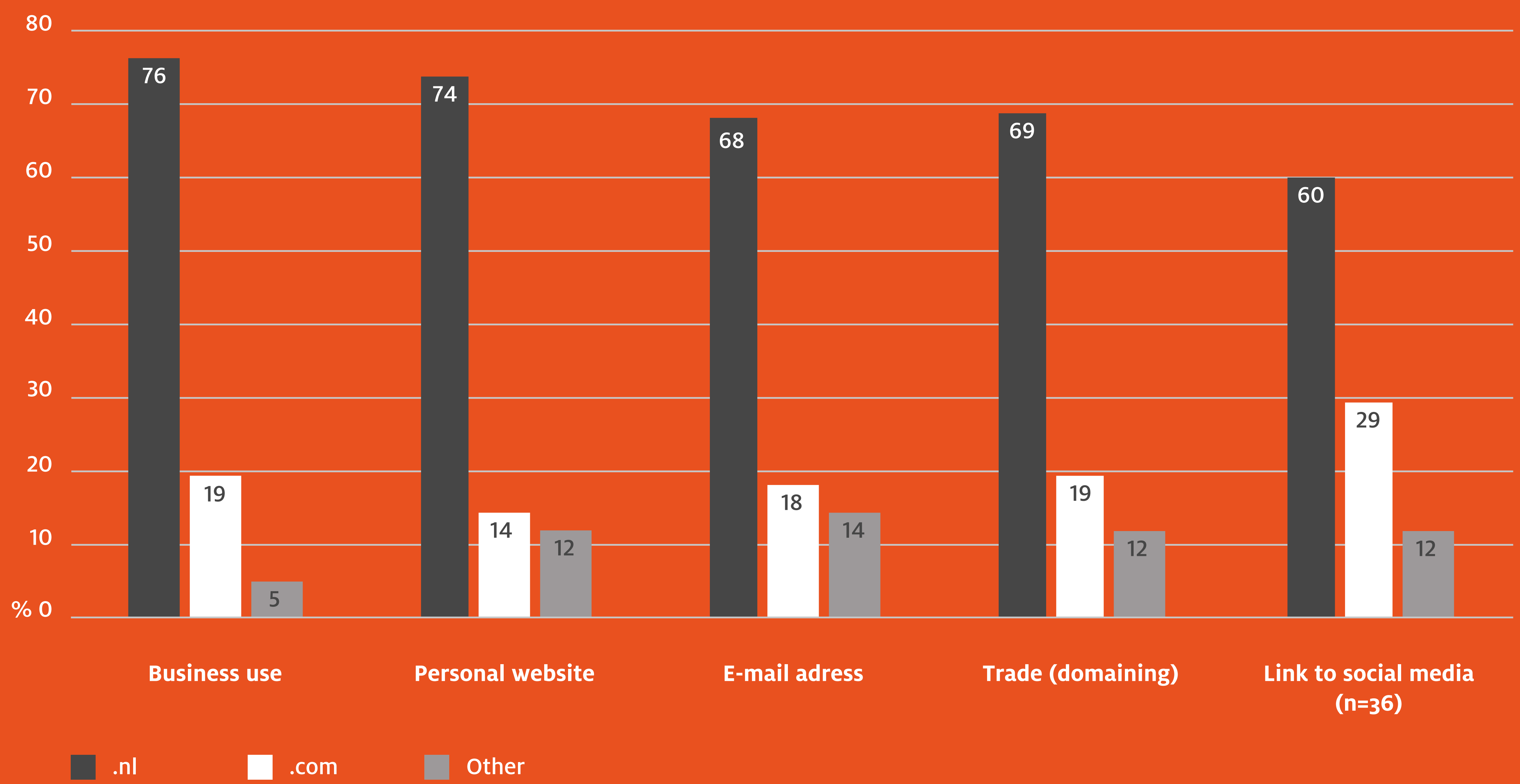

Figure 16: Extension preferences when applying to register domain names (consumer survey 2016, n=4,117)

.nl still seen as most reliable

	2016 (%)
webwinkel.com	17
webwinkel.eu	1
webwinkel.shop	2
webwinkel.nl	80
webwinkel.bank	0
webwinkel.amsterdam	0
webwinkel.tk	0

Figure 17: *Suppose that you want to buy something on line. Which of these websites would you prefer to use?* (consumer survey 2016, n=4,117)

10 nTLDs play a peripheral role

New extensions introduced since 2013

Since 2013, more than a thousand new domain name extensions (‘new top-level domains’, or ‘nTLDs’) have been introduced around the world. An estimated 200,000 domain names with new extensions have been registered to people and organisations in the Netherlands. But are the domain names in question actually being used? Of the ten thousand internet users surveyed, 97 per cent make at least one *qualitative* visit a month to a website with a .nl or .com extension. (A qualitative visit is a visit of more than five seconds, made using a browser.) None of the nTLDs were visited once a month by more than 7 per cent of our respondents: .club was the most popular, attracting visits from 6.8 per cent of respondents.

› Figure 18: nTLDs attracting most Dutch internet users (usage data, June 2016)

No great market penetration by nTLDs

	Fixed reach 18+ qualitative Q2 2016 %	Number of unique domains	Examples of top-five domains
.club	6.8	234	healthplans.club
.xyz	6.8	316	omgwut.xyz nl-download.xyz
.online	5.0	112	new-game-everyday.online raspberryformula.online
.website	3.2	78	opensubtitles.website onepage.website
.top	3.1	263	Chinese website (niet leesbaar in ASCII)
.site	2.9	65	postcode.site hlnieuws.site

Figure 18: nTLDs attracting most Dutch internet users (usage data, June 2016)

11 Conclusions

More use of mobile internet; smartphones preferred; concentration on fewer sites/apps

Usage data suggests that the end of the PC/laptop era is now in sight: Dutch internet users are using their mobiles more and more. However, they are using fewer different apps and visiting fewer different websites than they used to. In other words, there appears to be a trend towards concentration in our on-line activities. The smartphone, in all its forms, is increasingly the preferred device.

Autocomplete use growing, with Google stronger than ever

A shift in people's navigation habits is apparent. People type domain names into their browsers less than they used to, and increasingly prefer to use autocomplete. Autocomplete is particularly popular with young people. Google's position appears unassailable.

With the exception of young professionals, people are less interested in having their own websites

The market for domain names is changing as well. The demand for domain names for personal websites continues to decline. However, amongst young people, the demand for domain names for professional use is growing rapidly. Older people with domain registration plans are more likely to be motivated by having their own e-mail addresses.

Businesses foresee domain name portfolio growth

Businesses are more positive about the prospects for on-line activity than in 2014. More of them plan to set up new websites, and the importance of on-line resources (social media, apps, campaign sites, etc) is expected to increase. Where on-line activities are expected to contract, the reasons are usually strategic, e.g. plans to consolidate activities under a single brand name.

Cybercrime is a worry both for businesses and for private individuals

On-line security is an issue that attracts widespread interest.
Both consumers and businesses are concerned about security. Amongst private individuals, it is mainly older people who take security seriously and try to protect themselves. Businesses regard phishing and DDoS attacks as major challenges. DDoS attacks are an issue mainly for big businesses: no fewer than 42 per cent of businesses with more than 250 employees have been targeted.

.nl remains a beacon of reliability; new extensions are generally disregarded

The position of the .nl domain remains largely unchanged. The nation's strong preference for this domain is mainly down to its reliable image. Only .com is anywhere near as trusted. New extensions have not yet had any great impact on the Dutch market.

12 Expert panel

On 4 November 2016, we presented the study findings to a panel of seven experts for discussion. The experts have different backgrounds but share a special passion for everything to do with the internet, mobile communications and electronic gadgetry. Their particular interest is not so much the technology itself, but the way people use it.

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Measurement Lead Benelux for Facebook
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Jorij Abraham
Managing Director of the Ecommerce Foundation
> More information

Frank Meeuwsen
Community architect at Triggi
> More information

Sander Duivestein
Speaker, trend-watcher, internet entrepreneur, advisor, author and columnist on the impact of new technology
> More information

Matthijs Roumen
Strategy Director at M2Media
> More information

Anne Helmond
Assistant Professor and Director of the MA programme in New Media & Digital Culture at the University of Amsterdam
> More information

Klaas Weima
Founder of Energize
> More information

Background expert panel

Jorij Abraham
Jorij Abraham is Managing Director of the Ecommerce Foundation, a non-profit organisation that helps people and businesses with e-commerce. He also works for Thuiswinkel.org as Shopping Tomorrow Programme Manager and for Ecommerce Europe as Director of Research & Advice. Jorij has overall responsibility for Ecommerce Europe's research programmes and lectures at Tio University.

Sander Duivestein
Sander Duivestein is a speaker, trend-watcher, internet entrepreneur, advisor, author and columnist on the impact of new technology. He has written a number of books and reports in recent years for VINT (the Vision, Inspiration, Navigation and Trends lab of ICT service provider Sogeti). Subjects have included the Internet of Things, wearables, big data, social media, mobile, cloud computing and the economic crisis.

Anne Helmond
Anne Helmond is Assistant Professor and Director of the MA programme in New Media & Digital Culture at the University of Amsterdam. For her doctoral thesis, she investigated the process of 'platformisation': the development of the platform as the dominant economic and infrastructural model for the social web. She is currently researching the history of apps and the relationship between the web and apps. Anne lectures on software culture, app stores, big data and social media. As a social media expert, Anne is regularly asked to comment on topical issues in the media.

Olav Lijnbach
Olav Linebach works for Facebook as Benelux Measurement Lead. He has thirteen years' experience in branding and communication, data and technology, consultancy and research. Olav grew up in a family of IT entrepreneurs, learnt to program while young and studied economics and psychology at university.

Frank Meeuwsen
Frank Meeuwsen is Community Architect at Triggi. He is a hard-core internet expert and internet lover. He is dedicated to helping brands and organisations make considered, constructive use of digital media. Frank is also founder of the website Lifehacking.nl and regularly blogs on digital trends and insights.

Matthijs Roumen
Matthijs is Strategy Director at M2Media, an independent media agency. He advises on brand positioning, branding and campaigns. Matthijs is a strategist at heart and a creative thinker. He's also a lover of sharp copy and allergic to double spaces.

Klaas Weima
Klaas Weima is founder of Energize, a creative bureau that helps brand owners generate 'earned attention'. He's also a regular contributor to several Dutch trade journals for the marketing industry. Klaas is a respected conference speaker on digital marketing and runs workshops for NIMA and RSM. He also hosts the podcast show CMOtalk.

Smartphone – key to the digital world

The average internet user now spends about ten hours a month longer on line than in 2014. The increase is mainly down to higher smartphone use linked to growth in the number of users. Two years ago, 68 per cent of the Dutch population had a phone with internet access, but the figure is now 82 per cent. And the amount of internet use that's smartphone-based has almost caught up with PC/laptop-based use.

Although smartphones are very much on the rise, people don't use them for everything. Phones are popular for gaming and e-mailing, but when it comes to shopping or watching films and TV, other devices win out. That may be due to technical constraints, such as the screen size and the absence of a keyboard.

Because of the smartphone's increasing use and prominence on the internet landscape, various commentators have suggested that we are now in the smartphone era. Is that assertion correct? And will the observed trends continue, or can we expect smartphone use to plateau?

Smartphone era has already ended

Although smartphones are as popular as ever, one can argue that the smartphone era has already ended. After all, we are now so used to smartphones that we almost take them for granted. The smartphone has become an integral part of our daily lives. We use our phones for everything: from banking to reading the news, from watching films to playing games. "The smartphone has become the remote control for the digital world. Our lifeline to the outside world, as it were."

It's not what you use that matters, but where you are

If we're no longer in the smartphone era, what era are we in? *Always on*. It doesn't matter what device you use, just as long as you are on line. The smartphone just happens to be the most portable option, so it gets used the most. "We have to stop thinking in terms of technical specifications, and start thinking in terms of consumption patterns. A tablet is for long reads, and a smartphone for short articles, videos and vlogs."

Adopting that approach is also useful for distinguishing the various devices. That had become more difficult with the arrival of devices that aren't easily placed in traditional categories, such as phablets and laptops with detachable screens. "A computer is now just a production machine: if you need to type a large document, you don't do that on your smartphone. But your PC is somewhere at home; it's no use to you when you're on the move. And you don't bother powering it up to watch a YouTube clip. In other words, it no longer matters so much what you use to go on line, but *where* you go one line."

Trust

Despite the dominance of the smartphone, some people don't like using phones for certain things, such as banking. Older people in particular tend to prefer laptops for such purposes. However, that pattern is changing as well. "As soon as big players such as Facebook and WeChat manage to integrate a reliable and simple payment function into their apps, we'll start to see people shopping more by mobile. That goes for everyone, including older people. That will only drive up the use of smartphones further."

Apps – Internet of the few

According to the statistics, internet usage has gone up considerably. However, that doesn't actually mean that we are spending longer surfing the net. The time that we spend on line is now spread across fewer unique websites and apps than two years ago. The average usage duration per app has also increased – almost doubled in some cases. In other words: internet use has become more concentrated.

If we look at the ten apps with the biggest reach, we see that consumers are concentrating more on Facebook and Google products. Only one of the top ten doesn't come from either of the two tech giants: the home-grown Marktplaats app. The duration statistics are also dominated by a homogenous group of apps: eight of the ten apps we devote most time to are games, including three versions of Candy Crush.

Conclusion: a handful of American developers control the Dutch app market, particularly in terms of reach. New apps can find it hard to break through. So do we now have an 'Internet of the Few'? And, if we do, what does that imply for the app industry and app users?

Silicon Valley

Facebook and Google dominate our screens. They cover smartphone users' basic communication needs. "You could say that Silicon Valley provides the basic infrastructure of our digital lives. The Dutch contribution is in the form of more specialist apps and separate channels on big platforms, such as YouTube, which provide services in fields such as banking, news and weather. But the local providers are really just filling in the details; they aren't on anywhere near the same scale as the big players."

Newcomers no match for the big four

There are plenty of gaps in the connectivity market, which small developers with innovative apps can fill. But the 'big four' (Google, Facebook, Apple and Twitter) aren't inclined to stand for serious competition. They have the resources to adopt the functionality of upstart apps or to buy out smaller rivals. That's how they maintain their power. "Periscope is a good example: a new, fresh, innovative app, which was swallowed up by Twitter immediately before it was launched. Or WhatsApp, acquired by Facebook."

Nevertheless, there are opportunities for newcomers. Take Snapchat, an app that wasn't from the Facebook or Google stable, yet quickly made a big impact. However, even if they manage to push their way in amongst the big boys, independent apps aren't guaranteed a long lifespan. "Users need a strong incentive to switch to something new yet again. Okay, we all moved from Hyves to Facebook, but people often like to stick with a medium, because everyone else is using it."

Digital oligarchy

In some ways, therefore, it's reasonable to say that we have an Internet of the Few. Certainly where the internet's primary functions – e.g. communication, information and entertainment – are concerned. Recently, however, we've seen an interesting development, mainly amongst teenagers. "Young people are moving away from WhatsApp and taking to new apps, such as House Party. For the moment, the newcomers are being used alongside WhatsApp, but it's possible that they'll soon take the lead. First amongst the younger generation, and later amongst other age groups."

Navigation – autocomplete is the future

Over the last two years, the way that people reach their digital destinations has changed. 'Traditional' navigation methods, such as typing URLs and using search engines and bookmarks, are less popular than they used to be. They are being pushed aside by autocomplete. With autocomplete, you start typing where you want to go, and your search engine suggests websites and searches that fit the bill. If the site you're after is in the list, it saves you time. It's no surprise, then, that autocomplete has become so popular.

Not everyone is happy about the arrival of autocomplete, though. Some domain marketeers are concerned that it may make their domain names less visible. People no longer need to type a complete URL, so they pay less attention to a website's address. The panel members give their views on the rise of autocomplete. Do they share the domain marketeers' concerns? And just what changes do they expect the rise of autocomplete to bring?

Domain names less visible

Autocomplete technology is improving all the time and becoming more ubiquitous. As a result, people are able to find things more quickly. For the consumer, it's great: a shortcut to their destination. For people who provide and manage domain names, however, the rise of autocomplete is worrying. "As the technology gets smarter, the URL structure becomes less visible to the user. Because we type addresses less often, we are becoming less aware of domain names. We now visit websites because our browsers suggest them, not because of a premeditated intention to reach a particular page."

Extension market benefits

People paying less attention to web addresses does have an upside, however. It opens the way for a wider range of extensions to thrive. Whereas people are currently suspicious of domains with extensions other than .nl and .com, the autocomplete users of the future will be less concerned. That will mean more opportunity for extensions such as .shop and .app. "Autocomplete makes the extension less significant for website selection. It's no longer essential to have a name that ends with an abbreviation such as .nl or .com, because people don't have to type the whole address any more. The extension is at best an element in the branding of your organisation."

Colophon

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