I’m delighted to share with you this third report from our unique research which tracks the uptake and impact of digital technology in Ireland since 2012. The findings underline the many benefits of high speed broadband as an enabler of life and living in a rapidly moving society and economy. The report highlights significant opportunities and some challenges for people and businesses everywhere as we continue towards an increasingly connected future.

Tony Hanway, CEO, Virgin Media
Executive Summary

We’re at a fascinating juncture in Ireland’s journey to the digital future where digital technologies are having a pervasive impact on almost every aspect of our lives.

The monetary value we place on our broadband connections has tripled since 2014 – the average consumer would now demand compensation of €390 per month if their broadband service was removed.

This report focuses on three aspects of that journey: the Digital Economy; Digital Lives; and Digital Media. You can see more detailed information online at Virginmedia.ie/Insights.

Digital Economy
In value terms, the digital economy is now worth about 6% of Ireland’s GDP and every indication is that its growth will continue to outpace total GDP growth over the rest of the decade.

Some 94% of Irish internet users now shop online with average adult online spending per month rising by 13% since 2014, from €71 to €80 per month per person. Overall consumer spending grew by just 9% over the same period.

The share of Irish consumer spending accounted for by the digital economy is expected to grow from 7.7% in 2016 to 12.4% by 2021.

We predict that the value of online spending will almost double between now and 2021, rising from an estimated €7.5bn to €14.1bn. Unfortunately, about 60% of Irish online shopping still goes abroad.

Digital Lives
The report reveals that consumers are still adjusting to both the positive and sometimes not so positive effects of digital technologies on their personal lives. Promoters of digital solutions will in future need to focus on the emotional and relational impact of those solutions on their customers’ lives – creating an overall wellbeing effect will be important for the future.

Digital Media
Digital media is changing the relationship between consumers and media, in how they select their news and information and form opinions. This study provides strong evidence that consumers want more control over their use of and exposure to media.

This means that media owners and advertisers must continue to provide more choice to consumers while persuading them to remain open to receiving their messages.

Overall conclusions
Growth in the digital economy continues to outpace that of the overall economy while digital technologies are having an increasingly widespread effect on our working and personal lives.

There will be winners and losers in the digital future. The goal of all stakeholders should be to ensure that citizens and consumers are among the winners and that the economic growth necessary to underpin sustainable national progress is achieved.
As a nation, Ireland is at a critical juncture in its digital development. We already enjoy many of the benefits of a digital economy and society with the vast majority of consumers utilising advanced digital technologies and services in their daily lives at home and at work. But our digital journey is just beginning when it comes to realising the full potential for economic growth, job creation and higher standards of living.

Compensation required every month if a consumer’s broadband was ‘removed’:

2014 = €130
2016 = €390

The report also highlights changes from previous studies in this series¹, giving an indication of just how far we have come in terms of our digital development.

The report also highlights in stark terms our increased level of digital dependence – the degree to which we have become dependent on digital technologies in our everyday lives.

One simple measure of this dependence is the ‘consumer surplus’ – the amount of compensation an average consumer would want if their broadband service was cut off. That is the difference between the monetary value we place on our broadband connections and what we actually pay for them. In 2014 this difference or ‘surplus’ stood at €130 per month; now just two years later it has tripled to €390.

This offers proof, if any were needed, of the extraordinary speed at which we have adopted, and adapted to, digital technologies.

We hope you find the Virgin Media Digital Insights report helpful and informative as we continue our shared journey towards Ireland’s digital future.

Methodology

This study was commissioned by Virgin Media Ireland. As in the previous studies carried out in this series in 2012 and 2014, Amárach conducted an online survey of a representative sample of 1,000 adults throughout the Republic of Ireland exploring their experiences, behaviours and intentions in relation to the digital future.

This latest survey, allows us to make direct comparisons with previous studies, as well as to look in detail at the different experiences and attitudes of various age groups, social classes and regions throughout Ireland.

The Digital Economy

What is it?

Ireland’s economic growth has been among the fastest in Europe in recent years.² But this wasn’t always the case. When we started this series back in 2012 Ireland’s economic recovery was fragile and patchy at best.

However, one part of the Irish economy has consistently flourished and is set to continue growing at a faster rate than the rest. This is the element known as the digital economy.

The digital economy comprises those products and services which are purchased online, the businesses and employees who deliver them, as well as those aspects of wider business activity and government spending conducted over the internet.

Our 2014 report predicted strong growth for the digital economy and recent estimates³ valued it at €12.3 billion in 2015 which was broadly in line with our 2014 forecast. In value terms, the digital economy is now worth about 6% of Ireland’s GDP and every indication is that its growth will continue to outpace total GDP growth over the rest of the decade.

Why does it matter?

The digital economy has proven to be remarkably resistant to the economic volatility experienced in recent years and it accounts for an increasing share of consumer spending and business activity. For businesses and government, the growth in the digital economy will create new opportunities as well as posing substantial challenges in the years and decades ahead.

All available medium and long term forecasts for the digital economy at a global level and for Ireland point to strong and sustained growth in both its value and the number of jobs reliant on it.⁴

Ambitious companies and start-ups will find their prospects for success and growth enhanced as a result of the availability of digital channels as a platform for selling goods and services.

But success will require a deep understanding of the needs, wants and preferences of online customers who for the most part will be consumers but could also be other businesses, at home or abroad.

The Virgin Media Digital Insights Report offers just such insights for ambitious Irish entrepreneurs, business leaders and policy makers.

³ Assessment of the Macro Economic Impact of Internet Digital on the Irish Economy, Indecon report for Department of Communications, Energy and Natural Resources, March 2016
What do we know?

Our study illustrates how quickly the Irish economy is changing and how rapidly consumer demand is shifting towards digital platforms.

For example, the average adult online spend per month has risen by 13% over the 2014 level. That’s considerably ahead of the overall 9% growth in total consumer spending over the same period.

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of Online Spend (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>€71 per person per month</td>
</tr>
<tr>
<td>2016</td>
<td>€80 per person per month</td>
</tr>
</tbody>
</table>

While rising incomes and improved connectivity are undoubtedly playing a role in this trend it’s clear that it is also driven by online spending complementing offline consumption (e.g. Netflix and Spotify subscriptions replacing the purchase of DVDs/CDs).

In these circumstances, we expect a continuation to at least the end of the decade of the trend of digital spending rising faster than total spending.

As a result, we believe that the value of online spending by Irish consumers could almost double between 2016 and 2021.

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency of Purchasing Goods Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>€7.5 BILLION</td>
</tr>
<tr>
<td>2021</td>
<td>€14.1 BILLION</td>
</tr>
</tbody>
</table>

A particularly interesting finding from the survey is the fact that the share of online purchases accounted for by Irish websites is almost unchanged from the 2014 survey – rising just 1% to 41%. A lot of online shopping is still going abroad.

There has been a notable shift in the reasons for buying online rather than in a store, however.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage 2014</th>
<th>Percentage 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product not available in local shops</td>
<td>41%</td>
<td>53%</td>
</tr>
<tr>
<td>I can get it online at a lower price</td>
<td>59%</td>
<td>72%</td>
</tr>
<tr>
<td>More convenient to purchase online</td>
<td>55%</td>
<td>48%</td>
</tr>
</tbody>
</table>

Price still dominates consumer motivations for shopping online, but the lack of local availability is now the second most important influence, with convenience falling to third.

One intriguing finding from the study is that nearly 6 in 10 online shoppers say they would not buy a product online if they knew they could buy it at the same price in a local shop. This suggests that Irish retailers need to do a better job of using digital channels to connect with potential customers in order to attract them to their stores.

There is evidence in our study of a new dynamic driving online shopping; the impact of web chat on customer experiences. Over 4 in 10 Irish internet shoppers have interacted with customer service agents on a website via web chat when shopping online and 92% of them found it to be a helpful part of the shopping experience.

This may reflect the growing familiarity and comfort of Irish consumers with interactive social media and messaging tools such as WhatsApp and Twitter.

4 in 10 use webchat → 92% find it helpful.

As a result, we believe that the value of online spend for those independent retailers and SMEs offering their products online to better target Irish consumers. It also, of course, provides opportunities for the same SMEs and start-ups to grow their sales overseas.

With online spending by Irish consumers set to almost double in value in the next five years, there will be even more opportunities for digitally-savvy Irish SMEs and start-ups to capture their share of the fastest-growing sector in the economy.

Implications

In this section we step back from trends and survey findings to explore some of the implications for different stakeholders in the successful development of Ireland’s digital economy.

SMEs & Start-ups

What should Irish SMEs and start-ups do to benefit from the trends/forecasts for the digital economy?

We have seen that the share of Irish websites in online sales has remained static. This may mean that there is a ‘substitution’ opportunity for those independent retailers and SMEs offering their products online to better target Irish consumers. It also, of course, provides opportunities for the same SMEs and start-ups to grow their sales overseas.

With online spending by Irish consumers set to almost double in value in the next five years, there will be even more opportunities for digitally-savvy Irish SMEs and start-ups to capture their share of the fastest-growing sector in the economy.

Government

Just as SMEs can expect new opportunities to emerge in the digital economy, so also can the Government and its Departments and agencies. Citizens have already demonstrated an extremely strong preference for online engagement with public service providers. That preference is likely to grow further in the years ahead.

Our research shows that Government is pushing on an open door with regard to digital channels and eCitizen engagement and that it should move ahead to reap the rewards of better public services and more efficient and lower cost delivery.
### Digital Lives

#### What is it?

Digital technologies are now so embedded in our daily lives that we are often not even aware of how integral they have become to how we work, relax, learn and socialise.

Even as the digital economy continues to flourish and grow, the ways in which it impacts on consumer lifestyles, spending patterns and our overall wellbeing are set to change dramatically due to these new opportunities.

For example, by 2020 nearly half of all entertainment viewing in the EU will be time-shifted or non-linear, and the average global viewer will spend 24 hours a week watching online content.⁵

Another example is ‘The Internet of Things’. As digital intelligence becomes embedded in many of the physical products and devices that we use every day, so will our ‘offline’ lives become more integrated into the digital world. The clear implication is that the distinction between offline and online may actually become redundant in the fairly near future. The Internet of Things as we currently describe it will be the digital catalyst for our relationship or connectedness with technology in all its guises.

In this section we look at just some of the opportunities which are already evident today and likely to become even more prevalent by 2021.

### Why does it matter?

Many of the products and services we take for granted nowadays – Facebook, Hailo, and Netflix to name but a few – have only emerged because of an existing infrastructure of connectivity and technology that made it easy and simple for consumers to start using them.

The impact on Irish lifestyles is already quite advanced: consumers claim that over a third of TV viewing in Ireland is recorded or replay TV. We expect to see a similar dynamic shaping the next generation of digital products and services as they build on a new generation of technologies.

‘The Internet of Things’ and other aspects of the next wave of digital innovation will present all of us with exciting new outlooks in terms of addressing emerging needs (some of which we didn’t know we had!) and sustainable growth prospects.

There is also an important requirement to take stock of how digital technologies are already impacting us. We forget sometimes how quickly we have adopted digital technologies – the smartphone is less than ten years old and smartphones have only been adopted by the majority of adults in the past few years.

Add to that the rapid adoption of broadband (fixed line as well as mobile) and it seems appropriate to ask how we are doing as a result of our enthusiastic embrace of digital technologies.

### What do we know?

Our survey of 1,000 Irish adults took a deeper look at the behavioural and emotional impacts of digital technologies on our lives and on our wellbeing, our relationships and moods.

Turning first to relationships, it is apparent that Irish consumers are still adjusting to both the positive and sometimes not so positive consequences of digital lives. This was evident in responses to our question about the extent to which digital technology helps or hinders different aspects of our lives:

<table>
<thead>
<tr>
<th>Do you feel your use of digital technology (e.g., internet/smartphone) helps or hinders:</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying/learning new skills</td>
<td>☑ 71%</td>
</tr>
<tr>
<td>Your Work</td>
<td>☑ 53%</td>
</tr>
<tr>
<td>Watching TV</td>
<td>☑ 50%</td>
</tr>
<tr>
<td>‘Switching off’ from work</td>
<td>☑ 50%</td>
</tr>
<tr>
<td>Relaxing in General</td>
<td>☑ 55%</td>
</tr>
<tr>
<td>Relationships with partners (current or previous)</td>
<td>☑ 39%</td>
</tr>
<tr>
<td>Reading Books</td>
<td>☑ 42%</td>
</tr>
<tr>
<td>Relationships with kids</td>
<td>☑ 33%</td>
</tr>
<tr>
<td>Being intimate with your partner (current or previous)</td>
<td>☑ 24%</td>
</tr>
<tr>
<td>Going to sleep</td>
<td>☑ 28%</td>
</tr>
</tbody>
</table>

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**Most preferred services and solutions for the future:**

- **27%** Control home security via smart phone
- **25%** Monitor electricity use through smart phone
- **22%** Use smart phone to make payments instead of cash
- **20%** Control home heating through smart phone
- **16%** Food ‘alerts’ from your fridge to your phone
- **13%** Cars connected to internet

However, there is some evidence in our study of potential barriers to realising the full potential of technology in our digital lives. Indeed, the percentage of Irish internet users who say their broadband speed is sufficient for their household needs has fallen significantly since 2014.

Nevertheless, our research suggests that the impact of digital technologies on relationships and lifestyles is broadly positive. This bodes well for the future impact of new and emerging digital products and services.

We also need to be aware of the emotional impact of technologies on our lives, especially in terms of key positive emotions such as happiness, control and connection. The results from our study are encouraging in terms of emotional impact:

| How use of digital technology makes you feel: | |
| Happy | Sad | 80% | 20% |
| Popular | Unpopular | 80% | 20% |
| Calm | Stressed | 80% | 20% |
| Modest | Vain | 80% | 20% |
| Empowered | Enslaved | 79% | 21% |
| Content | Frustrated | 79% | 21% |
| In control | Out of control | 79% | 21% |
| Connected | Disconnected | 78% | 22% |
| Confident | Insecure | 77% | 23% |
| Sociable | Anti-social | 76% | 24% |
| Safe | Unsafe | 73% | 27% |
| Energized | Drained | 72% | 28% |

**% who say home broadband speed sufficient for needs:**

- **2014:** 75%
- **2016:** 69%

There are some concerns, however, with almost half of Irish consumers expressing worry about the impact of digital technology on their privacy – broadly unchanged since 2014.

The potential importance of the Internet of Things was noted earlier. We asked how appealing potential new digital services and solutions might be in the future, and a fairly clear hierarchy of preferences emerged:

- **20%** Cars connected to internet
- **27%** Food ‘alerts’ from your fridge to your phone
- **16%** Control home security via smart phone
- **22%** Monitor electricity use through smart phone
- **25%** Use smart phone to make payments instead of cash
- **27%** Control home heating through smart phone

But this doesn’t mean they are open to absolutely anything in the future. As they seek to consolidate the gains from the digital economy in terms of work, leisure, shopping and their social lives, they may well become more discriminating about which additional products or services they let into their lives.

Perhaps one of the biggest challenges to SMEs, start-ups and even to large companies in the future will be that of persuading already satisfied customers that they should try the new products and services that digital technology will make available in the coming years.

The brands and designs that shape digital technology may become even more important influences on consumer choices.

**% worried about impact of digital technology on privacy: 49%**

There are some concerns, however, with almost half of Irish consumers expressing worry about the impact of digital technology on their privacy – broadly unchanged since 2014.

The potential importance of the Internet of Things was noted earlier. We asked how appealing potential new digital services and solutions might be in the future, and a fairly clear hierarchy of preferences emerged:

| % who feel more connected to family through digital communications: 65% |
| Using digital technology to communicate with family | |
| **2014:** 58% | **2016:** 65% |

**Implications**

We are at a fascinating point in the story of Ireland’s journey towards the digital future. The past decade – even the past half-decade – has seen remarkable rates of adoption of digital technologies by grateful Irish consumers. Whether in our homes, workplaces, schools, or on the move, we have found benefits from the plethora of hardware, software and apps that are now so important to our daily lives. So what are the implications for those who will shape our future lives?

**SMEs & Start-ups**

Those seeking to catch the wave of the next generation of digital trends would do well to focus less on technology and more on psychology. They should look at what has worked already in technologies that make us feel happier, more in control and more connected than before; and maybe sleepier as well (thinking of the 6 in 10 for whom smartphones hinder going to sleep!)

Bringing new technologies to the marketplace will demand an even greater understanding of the needs and circumstances of Irish consumers, especially their emotional drivers and expectations.

Against the background of an improving health of our families and communities, the digital economy will make available in the coming years.

**Government**

There are implications in our findings for government too. So much of what government does in our lives – through education, health, social welfare and other services – is focused on making us better, happier and more productive citizens. But when it comes to our digital lives, government remains relatively peripheral to our needs and hopes for the future.

If government takes a leaf out of the play book that entrepreneurs and businesses are adopting for the digital future, there is no reason why the next generation of public services and eGovernment could not make a huge contribution to our wellbeing - as citizens and to the health of our families and communities.
Digital Media

What is it?

We noted in the section on Digital Lives that Irish consumers have enthusiastically embraced social media as part of their daily lives. As a result of this and other trends, digital media is changing the relationship of how consumers select their news, opinions and information.

Digital media is changing the relationship between consumers and media

Irish advertisers will spend more than €1 billion in 2017 as consumer spending continues to grow. Understanding the sources of influences on consumers’ opinions and behaviours is therefore extremely important.

Why does it matter?

This year’s report comes against a backdrop of renewed concerns about the future of the news industry, the rise of ad-blocking and the role of social media. The use of adblocking is already significant:

- Aware of adblocking: 61%
- Installed adblocking: 32%

Irish advertisers will spend more than €1 billion in 2017 as consumer spending continues to grow. Understanding the sources of influences on consumers’ opinions and behaviours is therefore extremely important.

But identifying how consumers consume media is an increasingly difficult task as Irish consumers adopt more complex and diverse media consumption patterns.

Not only are consumers confronted with a widening choice of media options, the ways in which they consume old and new media is changing as well. Moreover, there is growing evidence from the Virgin Media Digital Insights study and other studies that consumers want more control over their exposure to media in general and to advertising in particular: adding another level of complexity to the task.

As new online content value-chains emerge, the consumer will enjoy even greater choices than today, but the content industry (from creators to broadcasters) will have to navigate a fast-changing and more fragmented media landscape in the meantime.

Change is usually evolutionary rather than revolutionary. Television and online channels remain the primary news sources for most people but the biggest change in digital media has been the growth of news accessed through social media sites such as Facebook, Twitter, LinkedIn and Instagram.

What do we know?

Main sources of news and current affairs – ranked in order of importance:

- TV: 59%
- News or current affairs web sites/apps e.g. Irish Times or Independent.ie: 43%
- Radio: 41%
- Newspapers or magazines (in paper form): 38%
- Social media e.g. Facebook or twitter: 36%

% who have posted comment or dialogued on different media:

- Facebook: 43%
- Twitter: 11%
- Instagram: 8%
- None: 51%
The rise of ad-blocking is beginning to resonate among consumers. As this software is becoming more ubiquitous, even the current relatively new revenue model for digital media will have to change again.

One option might be to offer a subscription to digital media content that is ‘advertising free’ for the user, alongside ‘free’ content but with advertising as part of the package. About 12% of adults would be interested in the ‘advertising free’ option, but again this suggests that the vast majority would rather be exposed to advertising than pay for an online media service.

Another important dynamic, evident in our study, is the extent to which consumers of digital content want to interact online. What we are seeing is that a sizeable minority of consumers are now active contributors to social media. In the future, digital influencers will comprise both media owners and media consumers.

One example of the increasing complexity and diversity of the digital media ecosystem is the growth and consumption of video streaming content. While most of this consumption is entertainment oriented, some is also news and current affairs related (e.g. documentaries etc).

However, not all video streaming services are consumed in the same way, most users of the RTE and TV3 players watch the streamed content on their TV (as opposed to their laptop or smartphone), but in the case of YouTube content, only a minority view it on their TV.

At the moment, it’s too early to tell if the expanding availability of video streaming choices is complementing other TV viewing, or simply increasing the overall amount of time people spend watching TV. Our study shows that those who spend more time viewing streamed content also spend more time viewing TV in general.

Nevertheless, all of these trends are driven by the steady improvement in broadband access and broadband speeds. As noted earlier, Irish consumers have never faced a richer choice of news and content sources, nor a greater range of channels and devices to access such content. But with choice comes challenges both for incumbents and for new entrants, as the speed of disruption⁸ in the digital news space in particular appears to be accelerating.

61%
% spending up to 4 hours a week watching video streaming content

% who watch video streaming mainly on mobiles/tablets/laptops:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>YouTube</td>
<td>61%</td>
</tr>
<tr>
<td>3player</td>
<td>41%</td>
</tr>
<tr>
<td>RTE player 6</td>
<td>37%</td>
</tr>
<tr>
<td>Netflix</td>
<td>19%</td>
</tr>
</tbody>
</table>

Implications

As the digital economy continues to grow and technology becomes more integral in our lives, the development of new and existing sources of digital media will become an even more important part of how we keep ourselves informed, and how we allow others to inform us.

So what are the implications for those in the digital influence business?

The strategic role of Media Owners & Advertisers in the value chain

A key message coming through our research is that consumers want to be in control of the news and content they choose to access. For some, control means the use of ad-blocking while for others it means being able to avoid subscription costs in return for seeing advertisements.

The implication for media owners and for the advertisers who communicate through them is that they must continue to provide more choice to consumers while persuading them to remain open to receiving their messages.

Consumers

There are implications in our findings for consumers too. While digital consumers have enjoyed something of a ‘free lunch’ in recent years thanks to the burgeoning availability of digital content and devices for accessing it, that may be coming to an end as more viable economic models are sought by digital influencers everywhere.

Consumers already enjoy a substantial ‘surplus value’ from the digital services they consume (in terms of the difference between what they pay as opposed to what they would demand in ‘compensation’ if the same services were removed). Don’t be surprised if some of the creators of that surplus seek new ways to keep more of it for themselves.

What else?
Find out more about the Virgin Media Digital Insights study at:

Virginmedia.ie/Insights