



Rialtas na hÉireann
Government of Ireland

Mobile Phone & Broadband Taskforce

Quarterly Progress Report

Q2 2019

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1. Introduction

1.1. Background

The Mobile Phone and Broadband Taskforce (the Taskforce) was established in 2016 from a commitment arising from The Programme for a Partnership Government. Now in its third year of operation, the Taskforce continues to identify solutions to barriers to the rollout of telecommunications infrastructure and aims to improve mobile phone and broadband coverage nationwide.

The Taskforce is chaired by Séan Canney T.D., Minister of State with responsibility for Community Development, Natural Resources and Digital Development and it is co-managed by the Department of Rural and Community Development and the Department of Climate Action and Environment. The current membership of the Taskforce is as follows:

- Department of Rural and Community Development (DRCD)
- Department of Communications, Climate Action and Environment (DCCAE)
- Department of Transport, Tourism and Sport (DTTAS)
- Department of Housing, Planning and Local Government (DHPLG)
- Transport Infrastructure Ireland (TII)
- Local Government Management Agency (LGMA)
- County and City Management Association (CCMA)
- Commission for Communications Regulation (ComReg)
- Advertising Standards Authority for Ireland (ASAI)
- ESB Networks
- Office of Public Works (OPW)

The Taskforce is also supported in its work by Ibec (TII-Telecommunications Industry Ireland), representing the Telecommunications Industry.

Each year, a suite of new actions is agreed and progressed by Taskforce members.

This is the second quarterly progress report of the 2019 Work Programme. Reports previously published are available at www.drcd.gov.ie and www.dccae.gov.ie

2. Progress Update

2.1. Summary of progress made

IBEC (TII)

All telecommunications operators now have a designated senior point of contact with responsibility for engagement with Local Authorities/Broadband Officers on problematic planning applications. This will streamline engagement between the operators and local authorities (LAs) to reduce the number of challenging applications under the MapRoad Licensing System.

In addition, a workshop will take place between telcos, infrastructure providers and Broadband Officers to give the opportunity to all involved to discuss and explore issues and potential approaches to agree a standardised procedure for seeking planning permission for new mast sites. When a standardised procedure has been agreed, and implemented, it will facilitate faster and cheaper development.

DRCD

DRCD continues to work closely together with all LAs to improve the implementation of free WiFi connectivity through the country. DRCD has been supporting the local authorities in registering and applying to the European Commission initiative WIFI4EU and in the second call for applications, Ireland secured 22 vouchers, each worth €15,000. Combined with the results of the first call for applications, Ireland secured a total of 84 vouchers, amounting to €1,260,000. This will significantly increase access to public WiFi throughout the country. It is expected that at least 36 WIFI4EU deployments across 12 LAs will be completed before the end of Q4.

Additionally, a draft communication strategy has been finalised between DRCD and DCCAIE and is already being implemented with a view to raising the profile of the Taskforce. Broadband Officers have begun referencing the Taskforce in relevant communications, especially on social media, and this will improve the visibility of the actions and improvements being delivered by the Taskforce at local level.

DRCD also continues to support all LAs in the development of their Local Digital Strategies. Indecon has been organising workshops attended by all LAs and is also in the process of completing tailored sessions with individual LAs, if requested by BBOs. Approximately 18 LAs to date have taken part in these sessions. It is predicted that between 15 and 20 LAs will have published their digital strategy by the end of the year.

DCCAE

DCCAE's National Digital Strategy team continues to work closely with Broadband Officers, identifying local opportunities to increase awareness of the Digital Skills Scheme. Revised information leaflets will shortly issue to all Broadband Officers, for distribution amongst local networks. Since January 2019, over 8,000 people have received training, which is an increase of 20% on the number of people trained between January and end May 2018. DCCAE also continues to support LAs on a range of digital initiatives, including in public libraries.

DCCAE is also working with legal advisers to finalise legislation to ensure that all new-builds are broadband enabled.

COMREG

ComReg is continuing to monitor the mobile coverage map. ComReg has received updated data from the mobile operators and is currently processing that data for the next release of the map. In addition, ComReg is working on developing an app of the mobile coverage map which should be available in Q3.

The Regulator also continues to provide and promote information for consumers through ComReg's Consumer Engagement Programme. Consumer guides are now being displayed in libraries, county council offices and medical waiting rooms nationwide and ComReg is monitoring take up. Valuable information for consumers is also provided through www.comreg.ie.

ComReg's market surveillance team continues to monitor the release of unlicensed equipment through the State. In addition, ComReg has now established the Spectrum, Intelligence and Investigation Forum (SII), attended by key stakeholders, aiming to improve collaboration and information sharing. An initial meeting took place in June, engagement from all stakeholders has been very positive and agreement was reached on the Terms of Reference of the Forum and the draft new reporting procedures. The next meeting is planned for September.

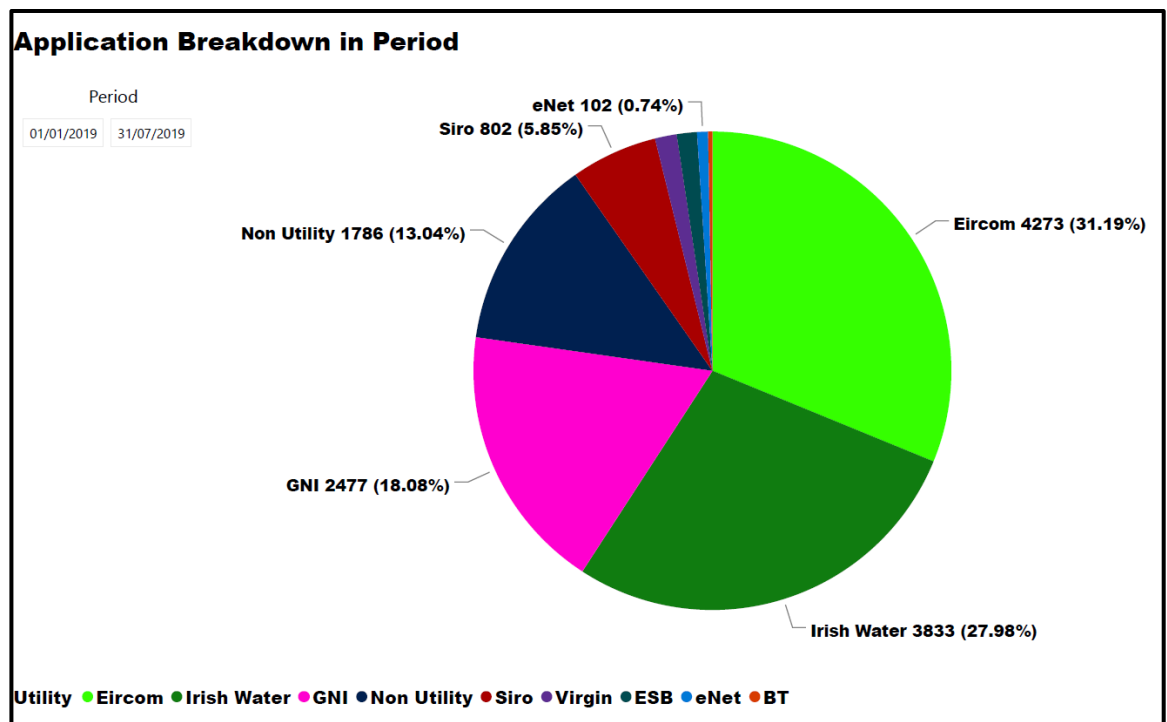
ASAI

The ASAI Draft Guidance, "Marketing Communications for mobile phone and broadband services" was circulated to stakeholders and a public consultation was conducted. Following on from this progression, additional time for submission of comments was requested by Ibec as well as a meeting with a number of telcos. Both the initial comments and the output from the meetings are being analysed and ASAI intends to finalise the Draft Guidance in the coming weeks.

ASAI plans to implement a lead-in period prior to the guidelines becoming effective to allow providers' current investments in advertising campaigns to end naturally. The Guidelines are likely to be effective in Q3 2019.

CCMA

The Road Management Office actively provides MapRoad Roadworks Licensing System (MRL) data extracts, on demand, to LAs. The MRL is the national online system for the management and processing of roadworks licence applications. MRL reports have also been incorporated into the MRL system. Those reports are also presented at JULA group meetings. This positive improvement in the sharing of data will allow for better engagement between LAs and telcos.



In addition, the CCMA continues to monitor the progress of the implementation of the national agreed pricing framework for road opening licenses. The CCMA holds regular meetings with utilities and the feedback has been positive so far. A review of the implementation is due for the end of the year.

2.2. Progress update – Q2 and Quarterly Reporting

Action 2			
Complete and evaluate the micro-trenching pilot programmes and develop a Method Statement, if appropriate, in line with industry best practice.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Underway	DTTAS	CCMA
Performance indicator:			Status:
<ul style="list-style-type: none"> Pilot programme completed and Method statement agreed. 			Underway
<p>Update: Pilot programmes are now complete and the technique has been evaluated. The RMO in consultation with Road Authorities and a Telco using the technique have sent a draft report to assist DTTAS.</p>			
<p>Next Steps: DTTAS have reverted to the RMO on the draft report with a number of queries, including that the CCMA consider this matter.</p>			

Action 3			
Develop the GIS module of the MRL to incorporate more geo-spatial data in respect of road openings and underground infrastructure.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Not started	CCMA	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Module developed and implemented. 			Not started
<p>Data will be displayed in the portal set out for Action 1.¹</p>			
<p>There is a requirement to agree a data-transfer protocol between utilities/telcos and the sector. This item is to be tabled at the next meeting of the JULA group.</p>			

Action 4			
The RMO to publish a regular (quarterly) report on the MapRoad Licensing System.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	CCMA	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Reports issued on a quarterly basis. 			Underway
<p>RMO actively supplying extracts on demand and reports have/are been incorporated into the MRL system. These were presented at the recent JULA group meeting. Further report</p>			

¹ Action 1: Local authorities to share list of all scheduled Road Improvement and Restoration Programmes with all Telecom's operators to assist in scheduling of network improvements.

templates can be requested from the RMO. High level stat report has been developed for the Taskforce Quarterly progress report.

Action 6			
Each telco to produce a quarterly report to the Taskforce Implementation Group on network enhancements, new services and future plans and the benefits to consumers of their products and services.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	Ibec	Telcos
Performance indicator:			Status:
<ul style="list-style-type: none"> Quarterly report published. 			Underway
<p>Each operator is willing to continue to supply updates to the Taskforce for inclusion in information to be sent to Broadband Officers.</p> <p>The template proposed at our previous meeting has proved impractical. Many of the heading sought much more detailed information than we have available. It was agreed that the template was not workable in practice. Therefore, operators agreed to provide updates on historical information to DRCD on quarterly basis. Format to be agreed.</p>			

Action 8			
DRCD and DCCAE will work together to improve public awareness of the work and impact of the Taskforce.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	DRCD/DCCAE	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Increased media engagements throughout 2019. 			Underway
<p>A draft communications strategy has been finalised and is already being implemented. To date, a communications calendar and stakeholder list have been produced and the use of social media and the Gov.ie website has commenced. A press release highlighting the work of the Taskforce issued this quarter and local authority Broadband Officers have begun referencing the Taskforce in relevant communications.</p>			

Action 9			
ComReg to continue to provide and promote information for consumers through ComReg's Consumer Engagement programme, including via ComReg's consumer website pages and using ComReg's outreach programme.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	ComReg	Ibec/ASAI
Performance indicator:			Status:
<ul style="list-style-type: none"> Consumer Information provided on ComReg's website and directly to consumers by ComReg consumer engagement activities. 			Underway
<p>ComReg displayed consumer guides in county libraries and County Council Offices and in over 1,300 medical waiting rooms nationwide and ran targeted public awareness campaigns in Q2.</p> <p>ComReg continues to provide current and useful information to consumers through www.comreg.ie and the services available there, including ComReg Compare, which was updated in Q2, Service Checker and the Mobile Coverage Map.</p> <p>In Q3 ComReg plans to continue outreach initiatives, guide display, and run targeted public awareness campaigns.</p>			

Action 10			
ComReg will develop and implement a programme of enhancement of the National Coverage Map.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	ComReg	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Programme enhancement developed and implemented. 			Preparation underway
<p>ComReg is continuing to monitor the mobile coverage map. ComReg has received updated data from the mobile operators and is currently processing that data for the next release of the map and app which ComReg plans to be available in Q3.</p>			

Action 14			
Telecommunication operators to appoint a senior person to take responsibility for engagement with local authorities as a designated first point of contact for problematic applications.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q1	Completed	Ibec	Telcos
Performance indicator:			Status:
<ul style="list-style-type: none"> Appointment of senior person to role by each telco operator. 			Completed
All telcos have designated a first point of contact for engagement with Broadband Officers on applications which are particularly problematic with the understanding that routine communications between local authorities and telcos is to continue along established channels.			

Action 16			
Telecommunication sector to work with local authorities to agree a standardised procedure for seeking planning permission for new mast sites –including: taking account of County Development Plan, pre-planning meetings and standardised Application Pack.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Underway	Ibec	Telcos/CCMA
Performance indicator:			Status:
<ul style="list-style-type: none"> Standardised procedure agreed and implemented. 			Underway
The telcos are working with DRCD and will participate in a workshop/discussion to explore issues and potential approaches. The workshop will include telcos, infrastructure providers and Broadband Officers.			

Action 17			
Telecommunication operators to agree a national standardised process for T5s from application to signoff in discussion with LGMA/CCMA including completion of relevant sections on MRL-Works Programme Schedule and Maps and relevant documentation/photographs to improve the timeliness of the application life cycle from open to close.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Underway	Ibec	Telcos
Performance indicator:			Status:
<ul style="list-style-type: none"> Standardised procedure agreed and implemented. 			Underway
The telcos recommend that Action 17 is best dealt with through the work of the Joint Utility and Local Authority User Forum (JULA), which is currently reviewing the T5 process.			

Action 19

ComReg's market surveillance team proactively monitors the release of unlicensed equipment into the State through preventive means and with the cooperation of various stakeholders including online selling platforms.

Additionally, ComReg will now establish a quarterly forum with key licenced stakeholders including for example:

- Tetra/Gardaí
- Broadcasters
- MNOs
- Link Operators
- Business radio dealers
- Wireless Broadband Providers

Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Completed	ComReg	None
Performance indicator:			Status:
<ul style="list-style-type: none"> • Improved collaboration and information sharing. 			Completed
<p>The SII (Spectrum, Intelligence and Investigation) Forum has been established and the first meeting took place on June 18. There were 20 participants representing 14 organisations in attendance representing a wide range of stakeholders including fixed, wireless and mobile operators as well as the emergency services and the Irish Aviation Authority (IAA). There was positive engagement from all parties with agreement being reached on the Terms of Reference of the Forum and draft new reporting procedures. The next meeting is scheduled for 24 September 2019.</p>			

Action 21

Formulate legislative proposals that may be required to deal with issues arising from the review of legislation governing TII's and the road authorities' statutory roles and functions in so far as they relate to telecommunications operators accessing the assets under their control or TII fully exploiting such assets: -the Communication Regulation (Premium Rate Services and Electronic Communications Infrastructure) Act 2010; and -the Road Acts.

Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Underway	DCCAIE	DTTAS
Performance indicator:			Status:
<ul style="list-style-type: none"> • Legislative proposal agreed. 			Underway
<p>TII has repeatedly raised concerns regarding the inadvertent layer of bureaucracy created by the Communications Regulation (Premium Rate Services and Electronic</p>			

Communications Infrastructure) Act 2010. Inter alia, the provisions of the Act require that TII must consult with the local authority (for up to 21 days) before granting a licence.

One possible option identified to address this matter is to amend the Act of 2010. The question is raised as to whether this also requires corresponding amendments to the Roads Act, with all parties cognisant of the need to avoid any further unintended consequences. To this end, DCCAIE requested guidance from DTTAS as to which aspects of the Roads Act may be affected.

DTTAS has liaised with TII on this matter and it is expected that DCCAIE will be advised in the coming weeks of the outcome of that consultation.

Action 22			
TII and DTTAS to evaluate the feasibility of changes required to TII's statutory mandate in order to allow TII to actively promote the use of its ducts.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	DTTAS	TII
Performance indicator:			Status:
<ul style="list-style-type: none"> Clarity over what changes are required to TII's legislation. 			Underway
Update: DTTAS is working with TII on options that will allow TII to improve the use of its ducts.			
Next steps: A short note will be prepared that will cover a range of options.			

Action 24			
Utilising the model of the JULA group to look at and propose options for a similar group to address over ground road infrastructure.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2	Underway	DRCD/DCCAIE	DTTAS/DHPLG/ CCMA
Performance indicator:			Status:
<ul style="list-style-type: none"> Delivery of recommended options. 			Underway
Following extensive discussions between stakeholders, the DRCD will convene a pilot working group to potentially advance both this Action and Ibec's Action 16. The workshop will include telcos, DRCD, infrastructure providers and Broadband Officers and will examine which issues require attention and how these issues might be most effectively addressed.			

Action 27			
Increase access to publicly available WiFi through EU, Government and private sector initiatives.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	DRCD	Telcos/LAs
Performance indicator:			Status:
<ul style="list-style-type: none"> Number of WiFi points installed. 			Underway
<p>In respect of the WiFi4EU initiative, the DRCD is continuing to support local authorities to procure the equipment and services necessary to roll-out free WiFi in centres of public life across the country. Indications are that at least 36 WiFi4EU deployments across 12 local authority areas will complete before end Q4. In addition, a further 22 WiFi4EU vouchers were successfully obtained in the most recent call.</p> <p>DRCD continues to engage proactively with DCCAE, local authorities and other stakeholders on the roll-out of the BCP programme, which will provide free public WiFi access at locations nationwide within the intervention area.</p>			

Action 28			
DCCAE will continue to explore legislative solutions to ensure that all new-builds are broadband enabled, including mandating that ducting is in place to facilitate connection to high-speed networks.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q2/Q3	Underway	DCCAE	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Appropriate legislative solution identified and agreed. 			Underway
<p>DCCAE is working with legal advisers to finalise legislation to ensure that all new-builds are broadband enabled.</p>			

Action 29			
Install ducting on new national primary/secondary roads and engage in consultation with industry on where additional ducting is required to improve coverage.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Not started	TII	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Ducting installed where required. 			Not started
<p>A meeting with IBEC TII has been scheduled for 4th July to discuss, among other agenda items, the issue of additional ducting requirements. TII has an ongoing and ambitious duct</p>			

installation programme for both new and established roads and will continue to engage positively with industry.

Action 31			
ComReg to continue to deepen its understanding of the mobile consumer experience through further surveys.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	ComReg	None
Performance indicator: <ul style="list-style-type: none"> ComReg to re-run its consumer mobile experience survey in 2019 Conduct quarterly mobile consumer confidence survey beginning Q2 2019. Continued engagement with stakeholders. 			Status: Underway
<p>ComReg conducted engagement activities with stakeholders including the Departmental Consultative Committee and Broadband Officers (Mobile and Broadband Task Force) and also conducted a consumer confidence survey in Q2.</p> <p>In Q3 we plan to continue stakeholder engagement including Consumer Advisory Panel and European Consumer Centre Ireland.</p> <p>ComReg is also now conducting a re-run of our consumer mobile experience survey with results due in Q3.</p>			

Action 32			
ASAI to develop guidelines for telecommunications operators on advertising of telecommunications services.			
ComReg to support ASAI in the context of ComReg's role in area of open internet access.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Q1	Underway	ASAI	ComReg
Performance indicator: <ul style="list-style-type: none"> Guidelines published. 			Status: Underway
<p>Following circulation of the ASAI Draft Guidance to key stakeholders, additional time for submission of comments was requested as well as a meeting with TII and member companies. A range of areas was covered at this meeting and the companies agreed to put any further comments in writing. Both the initial comments and the output from the meeting are being analysed and it is intended to finalise the Draft Guidance in the coming weeks.</p>			

Action 33			
ASAI to monitor telecommunication operators compliance with the implementation of the new ASAI guidelines.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Not started	ASAI	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Lack of breaches with new guidelines. 			Not started
<p>ASAI plan to implement a lead-in period prior to the guidelines become effective to allow providers current investments in advertising campaigns to end naturally. The Guidelines are likely to be effective in Q3 2019. Within the limited monitoring internal resources presently available to ASAI, it is planned that limited monitoring of a proportion of relevant advertising will take place in Q4 2019.</p>			

Action 34			
DCCAIE's Digital Skills team to liaise with the Broadband Officers to raise local awareness of the Digital Skills Scheme.			
Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting	Underway	DCCAIE	None
Performance indicator:			Status:
<ul style="list-style-type: none"> Percentage increase in number taking up the digital skills programme. 			Underway
<p>The Department is continuing to work closely with a number of Broadband Officers to help promote the scheme and provide training in locations identified by Broadband Officers. Information leaflets on the scheme will shortly issue to all officers for distribution within their communities. These revised leaflets have been updated in line with Government of Ireland branding.</p> <p>DCCAIE's National Digital Strategy team continues to circulate its updated training schedule to all Broadband Officers for circulation amongst their own networks.</p> <p>Since January 2019 over 8,000 people have received training, which is an increase of 20% on the number of people trained between January and end May 2018.</p>			

Action 35

Telcos to support the promotion of compliant mobile repeaters to improve mobile phone coverage in energy efficient buildings and those in areas of poor mobile phone coverage.

Timeline	Timeline Status	Lead Body	Supporting Bodies
Quarterly Reporting from Q2	Underway	Ibec	Telcos/ComReg
Performance indicator: <ul style="list-style-type: none">Benchmark and tracking of awareness of repeaters by consumers who may benefit from their use via ComReg's consumer mobile experience survey.			Status: Underway
The telcos suggest that the information source referred to in Action 5 provides consumers with a link to the ComReg list of suppliers for mobile repeaters as a way to promote the use of compliant mobile repeaters. (However, telcos note that the cost of mobile repeaters remains prohibitive for most consumers.)			

3. Topical Discussion

3.1. Introduction



It is essential that the Taskforce remains dynamic and responsive to new developments in the sector. This year, the format of the Taskforce has been refreshed, with a wider array of stakeholders invited to participate in quarterly thematic sessions, where emerging trends in the digital sphere will be presented and debated.

This new Taskforce format now affords a greater range of stakeholders the opportunity to feed into the decision-making process, ensuring that telecommunications policy remains fair, proactive and future-focused.



3.2. Update on Q1

The topical discussion held at the Q1 meeting addressed access to mobile phone services. The conversation focused in part on public health concerns around 5G technology and the role of the stakeholder in providing accurate and accessible information on the matter. On foot of this discussion, two actions were to be progressed; the update on both actions are detailed in the table below.

Action: DRCD will draft a FAQ paper for the attention of the Broadband Officers to assist them in answering public queries.

Update: DRCD has now drafted a 5G FAQ paper and it has been circulated to Broadband Officers and other stakeholders for comments. Once finalised, this will support Broadband Officers in providing clear responses to the public concerns around 5G technology.

Action: DCCAE and Ibec will hold further discussions on the key points that need to be addressed on the matter.

Update: DCCAE continues to actively engage with all relevant stakeholders in the matter, including ComReg and the EPA.

3.3. The Internet of Things

As the IoT develops apace, the benefits to the consumer can be seen in the prevalence of connected home appliances and smart devices. For business and society, the advent of smart cities and IoT solutions in, for example, the agriculture and security sectors will represent increased efficiency and improved services. The Mobile Phone and Broadband Taskforce has a pivotal role in facilitating the smooth rollout of the nationwide infrastructural spine, which enables the connectivity of devices.

In keeping with this year's revamped model of the Taskforce meetings, the second session saw a wider selection of stakeholders convene for a dynamic discussion on the topical theme of the Internet of Things (IoT).

Attendees for the topical discussion included representatives of Industry, notable figures from academia and Irish start-ups working in the IoT space, such as VT.

Three speakers were invited to present to the Taskforce, after which Minister Canney presided over an engaged and stimulating open discussion.

PRESENTATIONS

Professor Luiz Da Silva, Professor of Telecommunications, Director of CONNECT, Trinity College Dublin

Professor DaSilva gave an overview of the work of CONNECT, which is working to build an environment for testing and innovation in IoT at scale. Headquartered at Trinity College Dublin, CONNECT envisions a future of sustainably deployed, dependable networks that foster innovation in services, empower citizens, and improve quality of life.

In pursuit of its vision, Prof. DaSilva described how CONNECT works with over 40 industry partners and roughly 250 researchers, creating a 'one-stop-shop' for telecommunications research, development and innovation.

Prof. DaSilva used the example of Pervasive Nation as a successful CONNECT spin-off working in the IoT space. Based on Low Power Wide Area (LPWA) networking technology, the objective of Pervasive Nation is to build an IOT testbed of scale which will become a crucial resource for industry, government and academia, and which will act as a catalyst for innovation in the IOT space.

Furthermore, Prof. DaSilva addressed the work of CONNECT in the Dublin City Council SMART Docklands initiative, in partnership with Dense Air.

Mr Robert MacDougall, Head of Enterprise Public Policy, Vodafone Group

Mr MacDougall presented to the Taskforce on the development and implementation of Vodafone's cellular Internet of Things technology, which is based on sim card connectivity. Mr MacDougall described how Vodafone's IoT offering is 'fit for purpose' across different verticals, from farming to agriculture to smart cities.

Mr MacDougall offered illustrative case studies, such as that of Vodafone Automotive, in which 900 automotive experts handle 5,500 vehicle alerts per day on average in Europe. Through Vodafone Automotive, Vodafone currently connects over 18m vehicles. Other examples of Vodafone IoT initiatives were provided, specifically in the space of drones and manufacturing.

Vodafone also described its vision for a new IoT regulatory framework for Europe. To this end, Mr MacDougall explained that Vodafone had recently published a White Paper designed to address uncertainty around how rules apply to IoT, and other concerns surrounding, for example, the lack of a technology-neutral approach to IoT at an EU level.

Mr Mick Mullen, Head of Network Deployment, Vodafone Ireland

Following Mr MacDougall's presentation, Mr Mick Mullen addressed the development of Vodafone's Narrowband IoT network. Mr Mullen explained how, in Vodafone's view, Narrowband-IoT is optimised for large scale IoT rollout, partly because NB-IoT will be built on existing mobile network infrastructure.

Based on Vodafone's testing, according to Mr Mullen, NB-IoT can extend coverage by up to +20 dB, and will be able to penetrate two to three double-brick walls, enabling connectivity of objects in underground car parks and basements.

Vodafone's target is to rollout NB-IoT across all Vodafone 4G masts by 2020.

DISCUSSION

Key points discussed included the following:

- Following the presentations, the Minister thanked all speakers and invited representatives of VT to give an overview of their own IoT network development. Mr Will Ferguson and Mr Mark Bannon described how, using Sigfox technology, VT provides an affordable, energy-efficient and simple network for the sensors and devices that make up the Internet of Things.
- VT echoed Vodafone's concern that Government should adopt a technology-neutral approach to IoT, and that the consumer should decide which IoT solutions suit their needs.
- Ms Niamh Hodnett of Three Ireland welcomed the discussion and explained that Three is also active in the IoT area.
- Prof. DaSilva indicated that, as an agency for research and innovation, CONNECT would welcome the continued engagement of Government Departments.
- The Minister welcomed case studies from IoT network operators which have particular applicability in the areas of agriculture and dairy. These may be areas in which Ireland can become more efficient, specifically in the context of Brexit.
- The Minister also welcomed IoT test cases which sought to address the urban/rural divide. VT described its development of a package, developed with the support of the IFA, in which farmers can track assets.
- Mr Torlach Denihan, speaking on behalf of Telecommunications Industry Ireland, expressed gratitude for the work of the Taskforce and indicated that the Taskforce will have an impact in the future rollout of 5G technology.
- Ms Christine Collins, Broadband Officer for County Longford, welcomed the rural IoT initiatives and encouraged VT to present at an upcoming TAG meeting.
- Minister Canney thanked all attendees for their participation, noting that the future is here with respect to the Internet of Things. The Minister encouraged all Taskforce members to continue their positive engagement and work towards ensuring all citizens can access digital services, whether urban or rural.

IoT technology

Connected Defibrillator Cabinets

Automatic External Defibrillators (AEDs) are becoming increasingly familiar features in public spaces. In response to the estimated 3,500 fatal heart attacks outside of hospital facilities each year, sports clubs, community organisations, business and local authorities have deployed more than 10,000 AEDs in their communities.



Volunteers, trained in CPR and AED usage, have saved lives across the country. However, AEDs must be maintained and charged to ensure that they are always ready for use. It is estimated that at any one time 10%, some 1,000 AEDs, are out of operation due to disrepair, a flat battery, vandalism or theft.

To ensure that AEDs are in good working order at all times, correct storage, regular updates and battery checks are required. These checks are traditionally carried out in person. However, as the number of publicly available AEDs increases the impracticability of physical checks becomes more apparent.



An IoT enabled AED storage cabinet that allows for remote monitoring has been developed. The cabinet is weather-proof and uses an optical sensor to view the AED screen, sending an alert as soon as there is a change in the status of the AED. In this way, an IoT solution maximises the efficiency of AEDs and potentially save lives.

The cabinet has its own battery power supply and doesn't feed off the battery of the AED itself, ensuring the device is always ready to deploy. If there are any maintenance or battery notifications on the screen of the AED, the cabinet will immediately send an alert to its owner. The cabinet doesn't need to be mains powered which makes it easy and quick to install. It also sends notifications about the status of its own battery once per week and has a battery life of 5+ years under normal operating conditions. It uses VT's nationwide IoT network powered by the Sigfox technology. Using SigFox IoT connectivity, the cabinet can also alert the owner if its door has been opened. These alerts can be sent directly to the emergency services.

There are now more than 150,000 connected cabinets worldwide.

In Ireland, VT IoT operate the Sigfox powered nationwide IoT network that connects these smart cabinets. The connected AEDs cabinets are supplied through Heart.ie.



4. Glossary

ASAI	Advertising Standards Authority for Ireland The independent self-regulatory body set up and financed by the advertising industry and committed, in the public interest, to promoting the highest standards of marketing communications, that is, advertising, promotional marketing and direct marketing. www.asai.ie
CCMA	County and City Management Association The “representative voice” of the local government management network. Its members are Chief Executives of the County and City Councils and the Assistant Chief Executives of Dublin City Council. www.lgma.ie/en/CCMA
ComReg	Commission for Communications Regulation The statutory body responsible for the regulation of the electronic communications sector (telecommunications, radio communications, broadcasting transmission and premium rate services) and the postal sector. www.comreg.ie
DCCAE	Department of Communications, Climate Action and Environment www.dccae.gov.ie
DHPLG	Department of Housing, Planning and Local Government www.housing.gov.ie
DIP	Digital Innovation Programme The Digital Innovation Programme was launched in 2018 by the Department of Rural and Community Development with the aim of supporting digital development in Local Authority areas for the benefit of communities.
DRCD	Department of Rural and Community Development www.drzd.gov.ie
DTTAS	Department of Transport, Tourism and Sport www.dttas.ie
ESB Networks	Electricity Supply Board www.esbnetworks.ie
GIS	Geographic Information System System designed to capture, store, manipulate, analyse, manage, and present spatial or geographic data.
Green Book	Guidance on the Potential Location of Overground Telecommunications Infrastructure on Public Roads is designed to address the engineering appropriateness of siting telecommunications

equipment on the roads network. The Green Book can be found on the DTTAS website at: www.dttas.ie

Ibec	Ibec is Ireland's largest lobby group representing Irish business both domestically and internationally. Ibec and its trade associations lobby government, policy makers and other key stakeholders nationally and internationally to shape business conditions and drive economic growth. www.ibec.ie
JULA	Joint Utilities Local Authority Users Forum
LAs	Local Authorities
LGMA	Local Government Management Agency A state agency of DHPLG established to provide a range of services to the Local Government Sector in support of co-ordinated and cost effective delivery of Local Government services and policy www.lgma.ie
LTI	Long Term Impact
LUTS Committee	Land Use and Transportation Committee
MRL	MapRoad Roadworks Licensing is the new national system for the management and processing of roadworks licence applications.
NBP	National Broadband Plan A Government-wide initiative to deliver high-speed broadband services to all businesses and households in Ireland. The NBP defines high-speed broadband as a minimum speed of 30Mbps download and 6Mbps upload. This is being achieved through a combination of commercial investment by the telecommunications sector and a State Intervention in those areas where commercial providers acting alone will not provide this essential service. For more information, visit www.broadband.gov.ie
OPW	Office of Public Works www.opw.ie
Purple Book	The Guidelines for Managing Openings in Public Roads set out a summary of the legal framework relating to powers of road authorities, various statutory bodies and private individuals in opening or forming openings in public roads in Ireland. The document prescribes standards in respect of the work of forming openings, backfilling and the reinstatement of road surfaces and the associated materials to be used on all roads other than National Roads. Furthermore the document prescribes procedures and requirements in relation to the use of MRL and its use for all road openings in public roads other than

those carried out by a road authority. The Purple Book can be found on the DTTAS website at: www.dttas.ie

RMO	Road Management Office A local authority shared service to develop and provide supports to roads authorities in the development of best practice and supporting ICT tools for road pavement management and road licensing. www.rmo.ie
TAG	Telecommunication Action Group Monthly meetings organised by DRCD attended by all Broadband Officers providing an opportunity for networking and the dissemination of information.
Telcos	Telecommunications Operators
TII	Transport Infrastructure Ireland TII's primary function is to provide an integrated approach to the future development and operation of the national roads network and light rail infrastructure throughout Ireland. www.tii.ie
TII (Ibec)	Telecommunications Industry Ireland The Ibec representative body for leading industry and associated interest groups in the field of electronic communications. TII (Ibec) represents companies involved in fixed, mobile, wireless, fixed wireless, satellite and cable based service provisions, outsourcing and internet service provision. www.ibectii.ie