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Communications Regulation

Digital Terrestrial Television (DTT) and the long-term future use of the sub-700 MHz band

Frontier Economics Report

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DIGITAL TERRESTRIAL TELEVISION (DTT) AND THE LONG-TERM FUTURE USE OF THE SUB-700MHZ BAND

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IRELAND'S TV MARKET IS SHIFTING AWAY FROM BROADCAST TO BROADBAND

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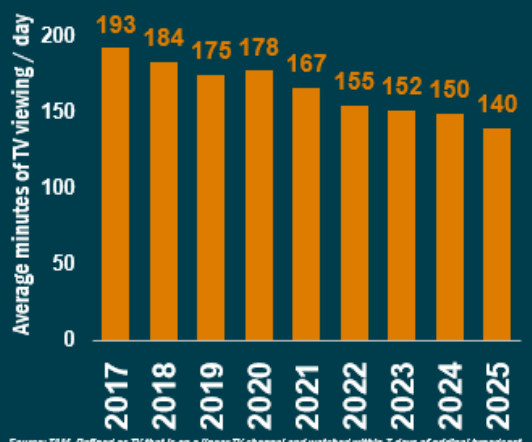
TV VIEWING CONTINUES TO FALL

Average daily TV viewing minutes per person *(Adults 15+)*



Source: TAM. Defined as TV that is on a linear TV channel and watched within 7 days of original broadcast

DTT[1] SAORVIEW IS USED BY A MINORITY OF IRISH HOUSEHOLDS (2025)

SAORVIEW

98% of households are within DTT coverage

34% of households can access DTT

13% of households use DTT as their primary TV platform

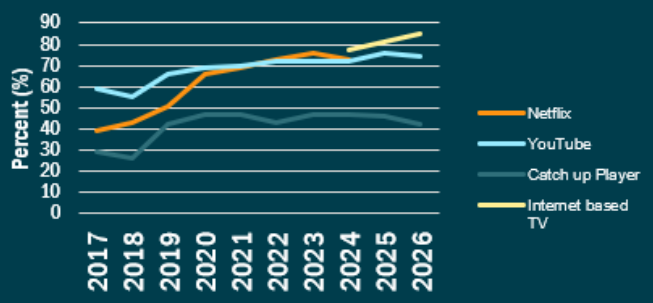
7% of households use DTT as their sole TV platform (5% of Irish population)

3% of households use DTT as their sole TV platform and have no broadband

USE OF INTERNET-BASED TV AND VOD[2] IS INCREASING

Take up and use of VOD services have increased significantly, reflecting changing consumer tastes and take up of digital technologies (e.g. Smart TVs)

Trends in VOD usage and TV reception method statistics



Source: VOD usage - B&A Techscape "Which of these do you do nowadays anywhere?; Web TV usage - TAM establishment survey; VOD usage - B&A Techscape "Which of these do you do nowadays anywhere? (on primary TV and other devices); Web TV usage - TAM establishment survey (on primary TV)

BROADBAND IS NEAR UNIVERSAL

Rollout and upgrades of broadband networks, including as a result of the National Broadband Plan, will enable the transition to broadband TV

92% gigabit broadband coverage (Q2 2026)

100% gigabit broadband coverage by 2028

RECOMMENDATIONS

Ireland can prepare for these changes:

- Plan how PSM[3] would be delivered if DTT Saorview is reduced or switched off
- Reduce market uncertainty through information and consultation
- Review legislation and spectrum rules to ensure flexibility

[1] Digital Terrestrial Television; [2] Video On Demand; [3] Public Service Media.

1 Overview

This report considers the future role of Digital Terrestrial Television (DTT) (i.e. the Saorview TV platform of Raidió Teilifís Éireann (RTÉ)) and the radio spectrum used to deliver DTT services in Ireland.

This report provides information showing how consumers' viewing habits and the distribution of television services, including Public Service Media (PSM), have changed dramatically over the last decade with the acceleration towards the use of internet-based TV services. The report also considers how viewing habits are likely to further change and what this might mean for the efficient use of radio spectrum.

Changes in broadcasting consumption are not unique to Ireland but are playing out in various ways internationally, in Europe and in Ireland's neighbouring countries (specifically UK and France), where various scenarios for distributing TV services (including a potential DTT switch-off in some countries) and for ensuring the efficient use of radio spectrum are being considered. Furthermore, and aside from Europe, parts of this broadcasting radio spectrum (e.g. the 600 MHz band in USA) have already been repurposed for other services, in particular mobile wireless broadband services.

While DTT Saorview continues to provide a free-to-air service with extensive coverage (>98% households), a relatively small minority of households now use it as their primary TV platform (<13%) while fewer still (<7%) solely rely on it (accounting for 5% of the population). Further only 3% of households rely solely on DTT Saorview and have no fixed broadband (c. 47,000 households).

Since DTT Saorview was introduced in Ireland in 2011 Irish viewing habits have changed significantly, fuelled by technological advances and lifestyle changes. Audiences are increasingly turning to on-demand services delivered over broadband, with widespread use of smart TVs and connected devices. Subscription and free streaming TV and Video on Demand (VOD) platforms continue to grow rapidly, contributing to large declines in both daily and live TV viewing, particularly among younger audiences, while viewing among the elderly (65+) has held steady.

While live TV retains its importance for key events such as sport and news, it is increasingly accessed via online platforms rather than the traditional DTT broadcast. Broadcasters are adapting to these changes by ensuring that their content is available digitally and across multiple TV distribution platforms. The changes in viewing habits is a critical challenge for traditional broadcasters and consequently their investments in distribution are increasingly focused on broadband-delivered services, including their Video-on-Demand (VOD) players such as the RTÉ player.

Implementation and upgrades of broadband networks, partly driven by the State's National Broadband Plan as well as commercial rollout, is a key enabler of this transition. As of Q2 2026, 92% of premises have gigabit broadband coverage, and Ireland is on track to achieve

the Government's target of nationwide 100% gigabit connectivity by 2028. Broadband networks will provide nationwide coverage, and for those with a broadband subscription, will offer greater capacity, functionality and quality of TV services than is possible on DTT. Ireland is in a strong position, meaning that PSM could be delivered over broadband networks, reducing reliance on dedicated broadcast infrastructure, thereby facilitating a more efficient use of spectrum used by DTT.

Against this backdrop, Ireland's DTT Saorview service in its existing form seems likely to change in the future. This report therefore makes a number of recommendations to prepare for any changes that are necessary.

2 Introduction and summary

2.1 Irish Digital Terrestrial Television (DTT) is an important Free-To-Air TV service

Since its launch in 2011,[1] Irish Digital Terrestrial Television (DTT) has played an important role in providing Free-To-Air (FTA)[2] TV services in Ireland. The Irish DTT platform, called "Saorview", is owned and managed by RTÉ (Ireland's public service broadcaster), and is the brand name for the two national DTT multiplexes that RTÉ is required to provide under the Broadcasting Act 2009, as amended ("The 2009 Act").[3] Currently 15 TV channels and 6 radio stations[4] are broadcast on the DTT Saorview platform.[5] Six TV Channels are owned and operated by RTÉ with the other nine TV channels owned by Virgin Media, TG4, Sky and the Houses of the Oireachtas.

The infrastructure used to transmit the Saorview service, the DTT network, is operated and managed by 2rn, a wholly owned subsidiary of RTÉ.[6] The DTT network consists of 11 main transmitter sites and 55 relay sites, and it uses internationally coordinated radio spectrum in the 470-694 MHz frequency range (the "sub-700 MHz band") licensed by ComReg until December 2031.

The DTT network provides Saorview coverage to more than 98% of households with compatible TV sets or a TV set-top box via an aerial. While **34%** of Irish households have an aerial capable of receiving Irish DTT (i.e. Saorview),[7] **23%** actually use it, only **13%** of households primarily use DTT (i.e., "DTT Primarily" households), and **7%** of households rely solely on DTT for their TV services (i.e. 'DTT Only' households).[8]

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1 Saorview free-to-air digital television launch

2 FTA means a broadcasting service for the reception of which no charge is made by the person providing the service

3 RTÉ is required to operate at least one Multiplex with the option to operate one further multiplex. See: Annex A.4.

4 RTÉ closed four digital radio services - RTÉ Radio 1 Extra, RTÉ 2XM, RTÉ Pulse and RTÉjr Radio on 31st December 2025. see "Keep Listening - How to Listen to RTÉ's Radio Services"

5 The Broadcasters and TV channels carried by Saorview are:

- RTÉ provides RTÉ One, RTÉ Two, RTÉ Jr, RTÉ News, and the timeshift channels of RTÉ One + 1 and RTÉ Two +1.
- TG4 provides TG4, Cúla 4 and the timeshift channel of TG +1.
- Virgin Media Ireland operates VM1, VM2, VM3 and VM4.
- The Houses of the Oireachtas provides Oireachtas TV; and
- Sky provides Sky News and Challenge.

6 2rn provides services to a multiplex operator (currently RTÉ is the only multiplex operator) who in turn provides capacity to broadcasters.

7 Sources: TAM Ireland Universes (https://www.tamireland.ie/universes/)

8 Sources: TV Habits Survey ("B&A Survey 2025") - A survey conducted in 2025 by B&A Ipsos

2.2 Irish DTT usage is declining as audiences are moving towards internet-based TV platforms and Video on Demand services

While the percentage of households with an aerial capable of accessing the DTT service remained stable over the last decade, viewing of linear TV broadcast services and the use of Irish DTT is declining as consumers change to internet-based TV platforms and Video on Demand (VOD) services.[9]

This change has been enabled by many factors, including the widespread adoption of smart TV in households simplifying the use of Internet-based TV services; the increased availability and use of broadband services; the increased usage of connected devices (e.g. mobiles) to view TV and video content; and the increased attractiveness of VOD and social media platforms in capturing viewers' attention.

2.3 Internationally DTT's future use of radio spectrum (i.e. the sub-700 MHz band) is under consideration

Until at least 2030 the sub-700 MHz band is to be made available for DTT

Decision (EU) 2017/899[10] ensures the availability of the sub-700 MHz band for DTT and wireless audio Programme-Making and Special Events ('PMSE') services in all EU Member States until at least 2030. Beyond 2030, the usage of the sub-700 MHz band in Europe is presently being considered in regulatory bodies and countries as outlined below. The DTT multiplex licences issued by ComReg to RTÉ are for spectrum rights in the sub-700 MHz band until 2031.

In July 2026, the European Commission published its Report to the European Parliament and the Council on the use of the sub-700 MHz band in the EU pursuant to Article 7 of Decision (EU) 2017/899 ("EC 2026 Report").[11] The report reviews developments in the use of the band across the EU and notes that it should serve as a preparatory step towards developing an **EU-level strategy** for the future use of the sub-700 MHz band beyond 2030.

The sub-700 MHz band is subject to international DTT co-ordination and agreements

Given DTT's use of high-tower, high-power transmissions to effectively provide nationwide DTT coverage, it is necessary to internationally coordinate the use of sub-700 MHz frequencies, as otherwise, the TV signals from one country would harmfully interfere with the TV service in a neighbouring country.

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9 See sections 4, 5 and 6 of this document.

10 Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Unionhttps://eur-lex.europa.eu/eli/dec/2017/899/oj/eng

11 https://ec.europa.eu/newsroom/dae/redirection/document/131387

Ireland has DTT frequency coordination agreements on a bilateral basis with the UK and with France, and on a multilateral basis with the Western European Digital Dividend Implementation Platform group ("WEDDIP").[12] These agreements govern Ireland's use of the sub-700 MHz band for DTT and involved extensive negotiations from ComReg, RTÉ/2rn and Coimisiún na Meán (CnaM) with equivalent regulatory bodies over a period of 4 years between 2013-2017.

The sub-700 MHz band is ideal for wide-area coverage and could be suitable for other services (e.g. mobile) post 2030

The sub-700 MHz band is an important frequency band as it consists of a large amount of sub-1 GHz spectrum (224 MHz) generally considered ideal for wide-area coverage given its favourable propagation characteristics which allows radio signals to travel longer distances and more effectively penetrate objects, including inside buildings, compared to higher frequencies.

For these reasons, the sub-700 MHz band is suitable for the existing services of DTT and wireless audio PMSE and could be suitable for other uses in the future, such as mobile wireless broadband (see Annex E).

The EC 2026 Report notes that, while the sub-700 MHz band continues to support DTT and PMSE services across Europe, there is increasing interest in the band from other sectors. In particular, the report highlights growing demand from mobile communications (IMT), Public Protection and Disaster Relief (PPDR) services, and defence users reflecting the favourable propagation characteristics of sub-1 GHz spectrum for wide-area coverage and indoor penetration.

In Ireland, the ability to use some or all of the sub-700 MHz band (e.g. the 600 MHz band[13]) for other uses (e.g. mobile) could be of considerable value for example in improving rural mobile coverage. Ireland faces particular challenges in providing rural coverage.

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12 ComReg Document 17/23A "MoU to Co-Ordinate DTT Frequency Plans Between Ofcom and ComReg", published 31/03/2017; ComReg Document 17/23c, "Agreement Between Ireland and France Concerning Frequency Co-ordination of DTT in the band 470 - 694 MHz", published 31/03/2017,ComReg Document 17/23d, "DTT Frequency Plan in the Band 470 - 694 MHz Between the Administrations of Belgium, France, Germany, Ireland, Luxembourg, the Netherlands, the United Kingdom", published 31/03/2017.

13 The ability to use the 600 MHz band for other uses would be contingent on the successful renegotiation of international coordination agreements and their implementation (e.g. the UK would also need to have cleared the 600 MHz band from DTT use).

- Ireland has a highly distributed and rural population - Ireland's population density of 73 people per km[14] is considerably lower than the EU27[15] and UK[16] average of 109 and 279 people and per km^2; and

- The population density in Ireland's rural areas and across the western half of Ireland is considerably lower again, being as low as 22 people per km in Leitrim.[17]

Moreover, all other sub-1 GHz spectrum bands suitable for mobile services (i.e. 700 MHz, 800 MHz and 900 MHz bands) have already been assigned, and the mobile operators' networks make greater use of these sub-1 GHz bands compared to higher frequency bands.

While Decision (EU) 2017/899 permits use of the sub-700 MHz band for other uses where it does not affect broadcasting (i.e. DTT) in neighbouring countries, there have been no early adopters of alternative uses[18] given the difficulties of cross border coordination to mitigate interference[19] and the potential need to modify existing DTT international agreements and plans.

International discussions

In the context of EU member states having additional regulatory flexibility to use the sub-700 MHz band for other services post 2030 and the changing audience viewing and broadcaster distribution strategies toward use of internet-based TV and VOD platforms, international discussions on DTT and the future use of the sub-700 MHz are now happening.

- The ITU World Radiocommunication Conference 2031 (WRC-31) will consider whether changes should be made in how the band is internationally harmonised for use. In Europe, preparations and studies are already underway in regulatory bodies such as European Conference of Postal and Telecommunications Administrations (CEPT) and the Radio Spectrum Policy Group (RSPG) (a high-level advisory group of government experts that assists the European Commission in the development of radio spectrum policy).

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14 Population Distribution Census of Population 2022 Profile 1 - Population Distribution and Movements - Central Statistics Office

15 Demography of Europe – 2024 edition - Interactive publications - Eurostat

16 Population estimates for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics

17 Population and Age Ireland and Northern Ireland - A Joint Census Publication 2021-2022 - Central Statistics Office

18 RSPG25-033 FINAL "As regards the implementation of the flexibility provisions of the current Council and European Parliament Decision, the lack of concrete deployments in Member States has prevented the RSPG from collecting sufficient lessons. Notably, there have been no early adopters of alternative use under the flexibility allowed by Article 4 of EU Decision 2017/899"

19 RSPG noted that "Possible national initiatives, such as 600 MHz band plan, appear complex to implement due to constraints to be addressed/solved in cross border coordination". See: RSPG23-021 FINAL page 19.

- The Radio Spectrum Policy Group (RSPG) has carried out an assessment[20] of future usage of the sub-700 MHz band within the EU where most recently in November 2025 it published a report[21] which among other things noted that:
  - current and planned DTT usage varies significantly across the EU. In many EU countries it is essential to recognise the unique roles of DTT and PMSE, while in other EU Member States, considering their declining DTT audience numbers, new uses for the band are being explored alongside or instead of DTT and PMSE.
  - a flexible, forward-looking framework across the EU must acknowledge the roles of DTT and PMSE in many EU countries, while also addressing the needs for different uses, such as mobile and broadband, in other EU countries.
  - "Moving forward, regulatory certainty, inclusive dialogue, and evidence-based planning are crucial to ensure that the band continues to serve the EU's public interest, technological progress, and strategic autonomy."; and
  - the EU's position for World Radiocommunication Conference 2031 (WRC-31) will be pivotal in shaping future policies for the use of the band.

  The RSPG is continuing its work on the sub-700 MHz band, and as part of its work programme for 2026 and beyond, the RSPG plans to issue an Opinion which will:
  - "Assess scenarios for the use of the sub-700 MHz band by those countries where demand for spectrum for terrestrial broadcasting drops below supply.
  - On the basis of the previous assessment, provide strategic common guidance on a potential way forward for those countries wishing to use spectrum within the sub-700 MHz band for alternative uses in the mobile service, such as IMT or PPDR."[22]
- The 2026 European Commission report on the use of the sub-700 MHz band in the EU finds that "*DTT and PMSE usage varies across Member States, reflecting differences in national market needs, technology deployment and audience behaviour. At the same time, it highlights increasing demand for the band from other sectors, including mobile*

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20 In this assessment, the RSPG
  - collected lessons from early initiatives from Member States introducing other usages than broadcasting to address audio PMSE long term developments in order to preserve sufficient spectrum for audio PMSE needs, taking also into account the transition of audio PMSE towards new spectrum efficient technologies; and
  - gathered information from industry stakeholders on expected technological developments in both mobile and broadcasting platforms.

21 RSPG, " Assessment of future usage of the frequency band 470-694 MHz within the EU", published 12 November 2025, available at https://radio-spectrum-policy-group.ec.europa.eu/document/download/1f058f8e-0228-455c-b04e-24519da81c67_en?filename=RSPG25-033final-RSPG_Report_on_future_use_470-694_MHz_band.pdf

22 RSPG26-002 FINAL RADIO SPECTRUM POLICY GROUP Work Programme for 2026 and beyond https://radio-spectrum-policy-group.ec.europa.eu/document/download/51c9083c-0b17-4f98-97d4-9cfd01e2a376_en?filename=RSPG26-002final-Work_Programme-26_and_beyond.pdf

communications (IMT), public protection and disaster relief (PPDR) and defence. The report should serve as a preparatory step towards developing an EU-level strategy for the future use of the sub-700 MHz band beyond 2030. It provides an evidence base for future policy discussions, while recognising the diverse spectrum needs of Member States and supporting the efficient and flexible use of this valuable spectrum resource."[23]

In several European countries, the future of TV distribution including DTT and DTT's use of the sub-700 MHz band is also being considered, where in relation to Ireland's nearest neighbours, the UK and France:

- Ofcom on behalf of the UK Government has published a report on the "Future of TV distribution":
  - This report set out three broad approaches on the future of TV distribution[24] being:
    - investment in a more efficient DTT service;
    - reduce DTT down to a core service (known as a 'nightlight'); and
    - move towards DTT switch-off over the 2030s.
  - Ofcom additionally noted that "Options which rely either on replanning the DTT broadcast frequencies, or a complex initiative to rollout and increase take-up of broadband, would take 8-10 years to plan and execute. With many multiplex licences expiring in 2034, and some sooner, the need for certainty about the future approach to DTT by 2026 is increasingly pressing, in line with the Government's current planned work."
- In May 2024, the UK government has launched a review which will consider among other things the "potential impact of a decision on the future of Digital Terrestrial TV (DTT) on radio distribution".[25] In June 2026, the UK Government published its green paper for UK media, which stated it would:
  - "Bring forward a plan for the managed withdrawal of DTT services: This will be either on expiry of current licences on 31 December 2034 or following a time-limited extension to 31 December 2044. Any transition would be accompanied by consistent and accessible communications explaining what is changing, when, and what audiences need to do.";

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23 https://digital-strategy.ec.europa.eu/en/library/new-report-finds-diverse-spectrum-needs-member-states-and-growing-demand-sub-700-mhz-frequency-band

24 Future of TV Distribution Ofcom, May 2024

25 https://www.gov.uk/government/news/ministers-kick-off-review-to-safeguard-radios-future

- the Ministry of Culture (La direction générale des médias et des industries culturelles (DGMIC) in France has published a consultation[26] in February 2025 on the prospects for the broadcasting and distribution of television services in France. This consultation:
  - sought to assess views on the changes in audiovisual consumption habits that are being observed, and on the adaptations of offers and economic models that they deem necessary as a result, by 2030 and beyond; and
  - is an opportunity to assess the impact of the development of services distributed directly on the Internet on other modes of television broadcasting and distribution and to take stock of DTT's prospects and prospects.

2.4 Ireland will be one of the first European countries with 100% gigabit connectivity

In 2014, the Irish Government started its public consultation process on a State-led intervention to choose a company to build, operate and maintain a high-speed broadband network – Ireland's National Broadband Plan (NBP)[27], and in 2019, following the public consultation and procurement processes, the Irish Government signed the NBP contract with National Broadband Ireland (NBI).[28]

In 2022, the Irish Government published its "Digital Connectivity Strategy for Ireland"[29] which set out Ireland's digital connectivity targets and identified key enablers to achieve these. For gigabit broadband connectivity Ireland set a target that "***all Irish households and businesses will be covered by a Gigabit network no later than 2028***" and key enablers to achieve this included both commercial and state-led (i.e. NBP) investments.

In November 2023, Ireland's national strategic roadmap[30] for the EU Digital Decade Programme provided further information on Ireland's plans to achieve its connectivity targets and noted that connectivity through the NBP was expected to be completed in 2027 and that of commercial investments in 2028.

Ireland is on track to achieve its digital connectivity target of gigabit coverage to all Irish households and business by 2028 and be one of the first countries in Europe to have full gigabit network coverage.

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26 Broadcasting and distribution prospects for television services in France | Ministry of Culture

27 https://www.gov.ie/en/department-of-culture-communications-and-sport/publications/national-broadband-plan-consultations-archive/

28 https://www.gov.ie/en/department-of-culture-communications-and-sport/publications/national-broadband-plan-contract/

29 See gov.ie,"Digital Connectivity Strategy" available at https://www.gov.ie/en/department-of-culture-communications-and-sport/publications/digital-connectivity-strategy/

30 See https://assets.gov.ie/static/documents/digital-decade-policy-programme-national_strategic_roadmap.pdf

- As of Q2 2026 Ireland's gigabit coverage is 92% of all premises (measured in Eircodes) up 4% compared to Q2 2025. [31]

- As of December 2025, the NBP has completed build works to 80% of all premises in the NBP intervention area and is expected to complete its rollout by the end of 2026.[32]

- Commercial operators are also continuing to invest in their respective rollouts.[33]

Full gigabit coverage provides opportunities for promoting the use of broadband to obtain benefits and savings in the provision of many digital services, including its use for the provision of internet-based TV services.

Gigabit networks are capable of providing connectivity for internet-based TV services for multiple TV channels, for both live and on-demand content, with increased functionality (e.g. live pause, etc.) and for high-resolution services to support its use on the many screens (e.g. TV sets as well other connected devices) in the household. With these benefits, most consumers in Ireland are increasingly using internet-based TV and VOD services where most Irish households (68%) use any Over-The-Top (OTT) and/or IP-TV on their primary TV device.[34] Should this trend continue, the use of internet-based TV services may become the norm such that a full IP TV switchover to provide FTA services could be considered. Such a transition would have many benefits including:

- reducing Ireland's need for duplicate networks capable of providing TV services (i.e. a DTT network and gigabit networks) and the costs associated with this; and

- freeing up valuable radio spectrum in the sub-700 MHz band, which could be repurposed for other uses, such as mobile wireless broadband, to improve mobile coverage and services.

2.5 Purpose of this Report

In light of the changes across Ireland's connectivity, TV viewing and audiovisual media landscapes it seems timely and appropriate for Ireland to consider the future of DTT in Ireland and its use of sub-700 MHz spectrum beyond 2030.

ComReg has, therefore, commissioned this report to support its own planning and to provide information to stakeholders (such as the Irish government, CnaM, RTÉ, 2rn, broadcasters and other stakeholders).

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31 See ComReg quarterly data Q2 2026.

32 See https://nbi.ie/news/events/2025/12/04/national-broadband-plan-on-track-to-be-completed-by-end-of-next-year/

33 See for example, "The eir Digital Ireland Report", February 2026, at https://eir.ie/ ; and "Eir to invest further €500m in fibre broadband rollout", November 2024, at https://www.rte.ie/news/business/2024/1114/1480810-eir-broadband/

34 B&A 2025 Q.17.

The report identifies a number of high-level conclusions and observations being that:

- Irish DTT provides a valuable PSM FTA TV service albeit with limited content and functionality when compared to other TV services. With the rise and increasing use of connected devices, internet-based TV, VOD services and social media, consumers' TV viewing and audiovisual media consumption habits have changed considerably over the last decade. Consumers' usage of the traditional TV platforms of satellite and DTT are in decline and internet-based TV and VOD services are now used in the majority of Irish households. This change towards Internet-based TV and VOD services is expected to continue as technology advancements and broadband services continue to increase.

- Ireland's timely investment in broadband networks through commercial investments and the State-led NBP means Ireland is well placed to meet consumer's changing TV and AV demand. Ireland will be one the first European countries to have full gigabit broadband coverage to all premises, with this expected to be achieved by 2028. Gigabit broadband provides many benefits, including an opportunity to use internet-based TV and VoD platforms to provide PSM services in line with consumers' changing TV viewing preferences.

- To achieve this vision, there are many challenges to be considered and overcome to ensure that any future switchover to the provision of PSM as FTA services on internet-based TV and VOD services is inclusive to all households. Currently, 7% of TV households rely solely on DTT for their TV services, and 3% of TV households are potentially unconnected households with no broadband (accounting for 1.3% of the population).

- This changing TV landscape is happening not only in Ireland but also across Europe, and many other countries, including Ireland's nearest neighbour, the UK, are also considering how best to prepare for the future distribution of TV.

- From a spectrum management perspective, DTT uses valuable radio spectrum in the sub-700 MHz band, that if released from DTT use, could be repurposed for other uses such as mobile wireless broadband to further improve mobile coverage. This could be particularly important for a country like Ireland which has a highly distributed and rural population.

To prepare for this future, and ensure that Ireland benefits from these changes, it is important for all stakeholders to consider the changing consumer TV environment that Ireland is experiencing. Statutory obligations on stakeholders such as ComReg will need to be considered and reviewed to ensure they are appropriate, fit for purpose and meet the growing appetite of public service media consumption in Ireland.

2.6 Structure of the remainder of this report

The remainder of this report is structured as follows:

- section 3 summarises the regulatory framework;
- section 4 summarises how audiences' viewing habits have evolved since DTT was introduced;
- section 5 explains how the TV distribution market is changing;
- section 6 summarises the challenging circumstances presently for DTT in Ireland
- section 7 discusses three potential scenarios on the use of the sub-700 MHz band in Ireland post 2030;
- Section 8 summarises the key conclusions.

This report is supported by the following Annexes:

- Annex A summarises the national regulatory framework and relevant bodies governing the use of sub-700 MHz spectrum for DTT in Ireland
- Annex B summarises the international regulatory framework governing the use of sub-700 MHz spectrum for DTT.
- Annex C contains data on trends in viewing and broadcasting of TV;
- Annex D summarises the uses of the sub-700 MHz band for PMSE;
- Annex E summarises the other potential uses for the sub-700 MHz band;
- Annex F provides a glossary of the terms and acronyms used in this Report.

3 Overview of the Regulatory Framework

In considering the future of DTT and its use of the sub-700 MHz band in Ireland, the following regulatory frameworks are relevant:

- The Broadcasting Act 2009, as amended, which sets out specific objectives and requirements in relation to DTT and the provision of FTA TV services; and
- ComReg's spectrum management regulatory framework.

3.1 The Broadcasting Act 2009 sets out specific objectives and requirements in relation to DTT and the provision of FTA TV services

The establishment and operation of DTT is regulated by the Broadcasting Act 2009, as amended ("2009 Act").[35] The 2009 Act enabled the successful migration of Irish broadcast services in 2011 from analogue to digital and supported Irish Public Service Media (PSM) to develop their services and compete in a TV landscape that was shaped by digital TV platforms offering multi-channel broadcasting.

The 2009 Act also establishes the legal framework for broadcasting regulation in Ireland, setting out the responsibilities of Public Service Broadcasters (PSBs), licensing requirements, and the governance of the media sector. It mandates the provision of PSM Television Services, ensures plurality and diversity in media, and promotes Irish culture and language. It also defines RTÉ, TG4, the Houses of the Oireachtas and the Irish Film Channel[36] as PSBs responsible for provision of such radio and television services.

In relation to DTT, the 2009 Act imposes, among others, the following requirements on the relevant Irish statutory bodies:[37]

- requires that RTÉ establish and operate a DTT network;
- requires that RTÉ operate at least one multiplex with the option for RTÉ to operate one further multiplex;
- obliges ComReg to grant RTÉ at least one and up to two multiplex licences;
- requires that PSBs (i.e. RTÉ, TG4, the Houses of the Oireachtas) provide FTA services and that these be made available, as far as it is reasonably practicable, to the whole community on the island of Ireland;

35 The Broadcasting Act was revised and reissued on 1st January 2025 mainly to update legal and regulatory references. However, the sections that govern the issuing and management of DTT multiplexes were not changed and remain as they were in the original Act.https://revisedacts.lawreform.ie/eli/2009/act/18/revised/en/pdf?annotations=true

36 The Irish Film Channel has not been established.

37 More detail on the regulatory framework for broadcasting services, see Annex A .

- requires that RTÉ's DTT network must carry RTÉ services (RTÉ 1 and RTÉ 2) and TG4 and where required by the Minister, the Houses of the Oireachtas and the Irish Film channel;
- requires that RTÉ's DTT network carries commercially licensed television services pursuant to Section 70 of the Broadcasting Act. A Section 70 television programme service contract includes FTA coverage obligations which can currently only be met by the DTT platform and is currently provided to Virgin Media Ireland (VMI) for VM1 and VM2;
- requires CnaM, subject to market demand, to arrange for the establishment, maintenance and operation of any multiplexes in addition to those operated by RTÉ (i.e. commercial DTT multiplexes); and
- obliges ComReg to issue, at the request of CnaM, at least four commercial television multiplex licences (although no requests for commercial multiplex licences have been requested to date or are envisaged).

3.2 ComReg's spectrum management regulatory framework to ensure its efficient use

Radio spectrum is a finite valuable natural resource that is an essential input for many important services and applications. These include radio and TV broadcasting, mobile communications, wireless broadband services, the safe operation of air and maritime transport, and the day-to-day operation of emergency services.

Radio spectrum management involves the careful consideration of a broad range of factors (e.g. administrative, regulatory, social, economic and technical) and ComReg has specific duties and responsibilities with regard to its management to ensure its efficient use.[38]

ComReg's spectrum management capabilities for the sub-700 MHz band are shaped and constrained by the Broadcasting Act 2009 and international coordination agreements, noting that:

- the 2009 Act sets out specific obligations on ComReg to reserve spectrum for at least six DTT multiplexes, being two PSB DTT multiplexes for RTÉ and for CnaM, at least four commercial DTT multiplexes;[39]

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38 The Communications Regulation Act 2002 (as amended by the Communications Regulation (Amendment) Act 2007) (the "2002 Act"), the European Electronic Communications Code (which has repealed the EU Common Regulatory Framework (including the Framework and Authorisation Directives), the corresponding Framework and Authorisation Regulations (which must be read in light of the EECC), and the Wireless Telegraphy Acts 1926 to 2009 ("1926 Act") set out, amongst other things, powers, functions, duties and objectives of ComReg that are relevant to the management of the radio frequency spectrum in Ireland. In particular, ComReg's objective is to ensure the efficient management and use of the radio spectrum (in accordance with Section 12(1)(b) of the 2002 Act), having regard to relevant national legislation, government policy statements and international developments.

39 See A.2.

- the obligation to reserve spectrum for at least six DTT multiplexes has resulted in Ireland defining and agreeing a national plan for six DTT multiplexes in the sub-700 MHz band.
- Ireland's national plan for six DTT multiplexes is set out in the international coordination agreements with the UK and France even though presently Ireland uses spectrum for only two DTT multiplexes; and
- Aside from PMSE, no other services have emerged in the sub-700 MHz band in Ireland given the need to protect DTT both nationally and internationally.

4 Irish households TV consumption is changing

This section examines how television viewing and consumption habits in Ireland have evolved in recent years. It highlights the shift away from traditional linear DTT broadcast services towards internet-based viewing, driven by increased broadband availability, the adoption of connected devices, and the growing popularity of video-on-demand services. These changes are reshaping how audiences access and engage with audiovisual content, with implications for the role of DTT going forward.

Key points

- **TV viewing and consumption habits are changing and shifting online.** This is facilitated by an increasing availability of broadband, VOD players and connected devices.
  - Smart TV's (76%) are the most used device to watch TV/AV content at home.
  - The use of Internet-based TV apps has increased, with most people watching Netflix (73%) and YouTube (74%) and almost half watching a player, such as the RTÉ Player (42%).
  - Both daily TV and live TV viewing are in decline but remain particularly important for certain key events.
- **Video on Demand (VoD) services are increasingly capturing viewers' attention.**
  - Broadcaster Video on Demand (BVOD) players (e.g. RTÉ Player) are progressively being used to stream broadcast content.
  - Subscription Video on Demand (SVOD) services such as such as Netflix, Disney+, Amazon Prime and You Tube Premium have grown significantly.
  - Advertiser Video on Demand (AVOD) and social media has also increased.
- **Few households rely solely on Irish DTT for TV (7%), which account for 1 in 20 TV viewers.** Most of these households already have internet – only 3% of households have Irish DTT only and no fixed internet (approximately 47,000 households).

This section presents information on the changing TV viewing habits in Ireland and refers to, and relies on, information from the following surveys conducted by B&A Ipsos and TAM/Nielson in relation to consumer TV viewer habits and technology:

- TV Habits Survey ("B&A Survey 2025")[40] - A survey conducted in 2025 B&A Ipsos on TV viewing habits, commissioned by ComReg.

[40] Ipsos B&A | 25-019974-01 | ComReg | TV Habits Survey Report | June 2025.

- TAM/Nielsen data ("TAM/Nielsen")[41] – data gathered by TAM and Nielsen on the TV viewing habits of Irish TV households on their TVs[42] and on their digital devices.[43]
- B&A Techscape series ("B&A Techscape")[44] – a long-running series of annual consumer survey conducted by B&A Ipsos on Irish consumers' technology ownership and habits.

4.1 TV viewing and consumption habits are changing

TV audiovisual (TV/AV) content remains an important and popular source of entertainment, news and culture and is an important means of providing PSM content. However, over the last decade Irish Households' TV viewing and consumption habits have changed considerably with both daily and live TV viewing declining. There are many reasons for this decline which are described below:

- the increasing use of connected devices, particularly Smart TVs, as the primary means of accessing TV and audiovisual content;
- the growing importance and diversity of Video-on-Demand services, including BVOD, SVOD and AVOD platforms;
- the shift in viewing time away from broadcast content towards online and on-demand services;
- the decline in overall daily and live TV viewing, particularly among younger audiences;
- the continued but evolving role of live TV, including its migration towards online streaming platforms; and,
- the increasing demand for higher quality (HD and UHD) content and its implications for delivery platforms.

4.1.1 Irish viewers increasingly use Smart TVs to watch TV content at home

While previously viewers exclusively watched TV/AV content on a TV set, it is now also watched on many types of internet-connected devices and on the move. The B&A Survey 2025 found that:

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41 Nielsen are a provider insight on audience analytics globally, stating on their website "*Nielsen measure over 40% of the world's TV viewing behaviour in multiple countries across 5 continents.*" TAM measure the TV/AV viewing of a panel of users on TV, via their TV Viewing Panel, and on streaming devices, via the streaming panel. The Panel is selected to be representative of the wider Irish population by way of TAM Establishment Survey (conducted by IPSOS B&A for TAM/Nielsen), which is a large-scale face-to-face survey designed to define the characteristics of the TV population to be represented, as well as providing a pool of addresses from which potential homes for the panel are drawn.

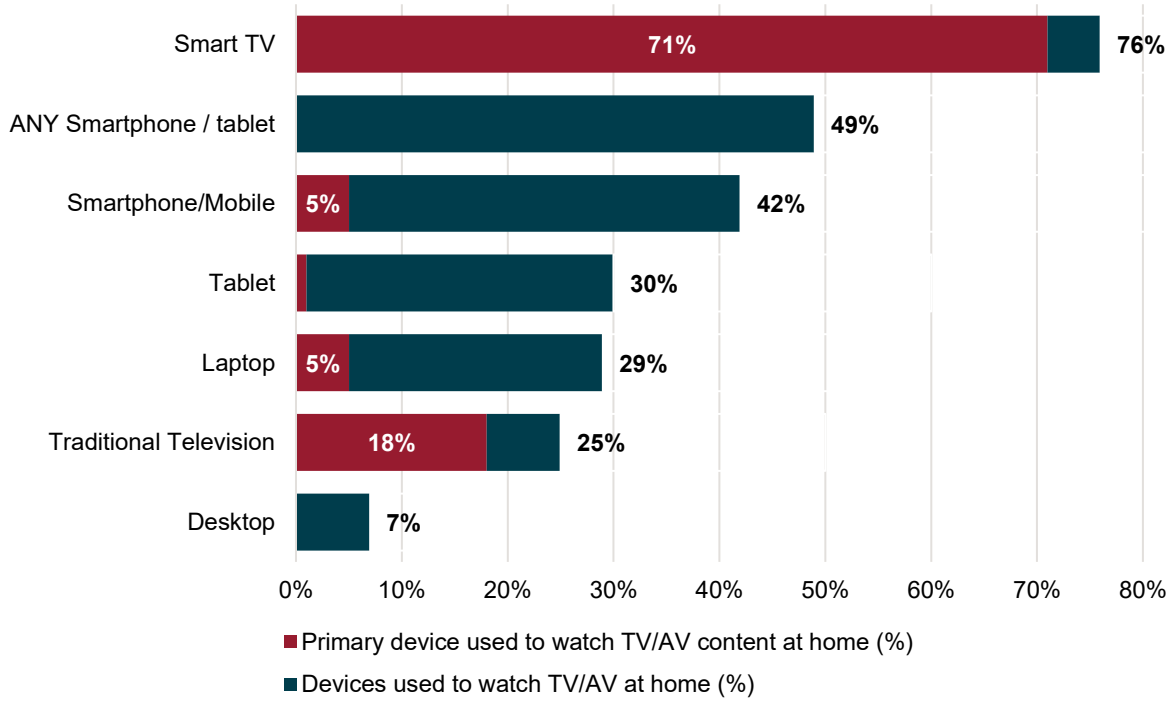
42 For more information, see TAM's "Understanding TV Data 2025" Link

43 For more information, see TAM's website link

44 The annual reports on these surveys are available on IPSOS B&A's website. Link

- Irish households continue to watch TV/AV content on a TV set (either a Smart TV or Traditional TV) and consider a TV set to be their primary device (89%).[45]
- Smart TV's (76%) are the most used device to watch TV/AV content at home.
- Half of Irish households watch TV/AV content on smartphones, tablets, laptops or a desktop,[46] although only 1 in 10 would consider these their primary devices to watch TV/AV content at home. (See Figure 1).

Figure 1 Devices used to watch audiovisual content at homes



Source: B&A Survey 2025, Q.9 and Q.10.

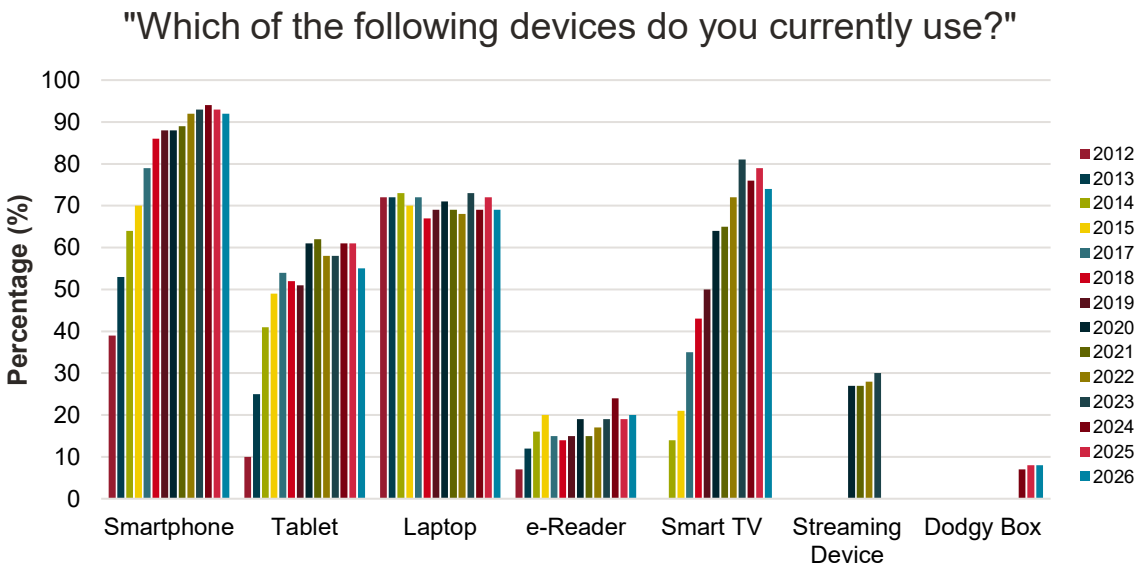
Over the past decade, there has been a very significant uptake in the use of Smart TVs in Irish households, rising from 14% of adults watching a Smart TV in 2014[47] to 74% of adults in 2026 (see Figure 2).

45 The primary devices used to watch audiovisual content at home are mainly a Smart TV (71%) and a traditional TV (18%).

46 B&A 2025 – Q.9.

47 B&A "TV Trends – A view from the Establishment Survey"

Figure 2 Connected device usage in Ireland, 2012-2026



Source: B&A Techscape, Q.1: "Which of the following devices do you currently use? It does not matter who owns them in the household", 2018 and 2024[48], and Q.3 "Which of these do you do nowadays anywhere?", 2025-2026

4.1.2 Irish consumers increasingly watch VOD services

VOD categories

Video-On-Demand (VOD) providers have a variety of business models which can generally be categorised as the following.

- Broadcaster-VOD (BVOD) – such as RTÉ Player, Virgin Media Player, TG4 Player – which are streaming services offered by broadcasters allowing viewers to watch broadcast content online, both live and on-demand. These are typically free and receive funding by advertising.
- Subscriber-VOD (SVOD) – such as Netflix, Disney+, Amazon Prime, YouTube premium – which are streaming services where subscribers pay a recurring fee to access a library of video content and some live content.
- Advertiser-VOD (AVOD) and social media – such as YouTube, TikTok – which allow users to watch video content for free in exchange for viewing advertisements.

48 For pre-January 2017, B&A use comparable data from eir Connected Living Survey 2015 (see Slide 26 of Techscape 2018 - link). Pre-January 2014 data for Smart TV use taken from comparable data in TAM Establishment Survey (see slide 11 - link).

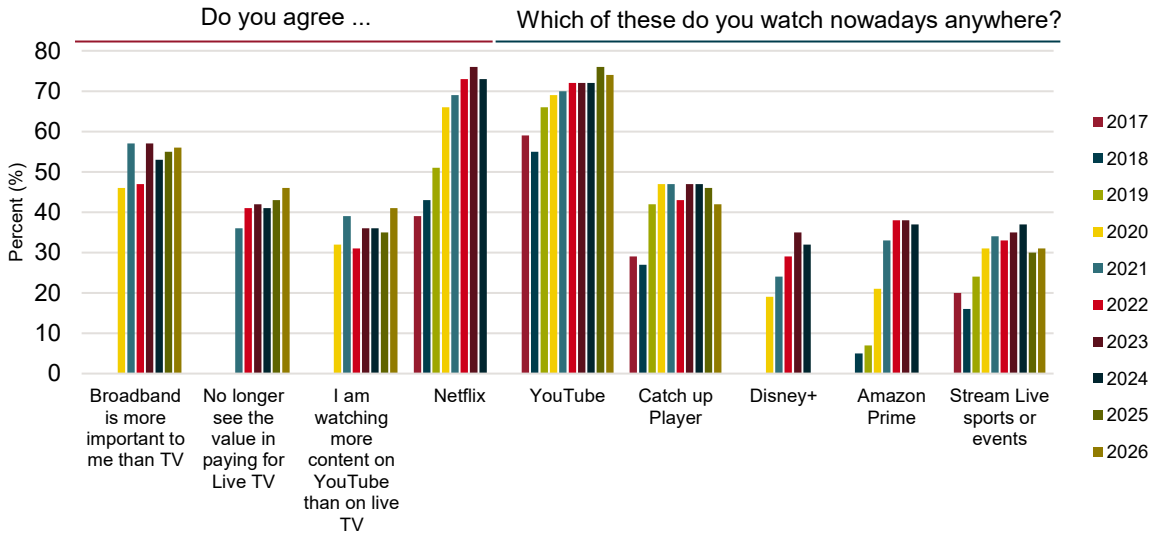
Use of VOD services in Ireland

Overall VOD

The use of VOD services is now firmly established as part of Irish consumers media diet. Between 2017 and 2026 (see Figure 3), there has been an increase in the proportion of people reporting that they:

- use Internet-based TV apps, with most people watching Netflix (73%)[49] and YouTube (74%)[50] and almost half watching a VOD service, such as the RTÉ Player (42%)[51];
- consider broadband is more important than TV (56%)[52];
- see no point in paying for Live TV (46%)[53]; and
- watch more YouTube than Live TV (41%).[54]

Figure 3 Trends in VOD usage and views regarding Live TV



Source: B&A Techscape, Q.3: "Which of these do you do nowadays anywhere?", 2017-2026

49 This B&A TechScape, Q.3: "Which of these do you do nowadays anywhere?", 2024. This was changed in 2025 & 2026.

50 B&A TechScape, Q.3: "Which of these do you do nowadays anywhere?", 2026.

51 B&A TechScape, Q.3: "Which of these do you do nowadays anywhere?", 2026.

52 B&A TechScape, Q.13b: "To what extent do you agree or disagree? Broadband is more important to me than TV", 2026.

53 B&A TechScape Q.13b: "To what extent do you agree or disagree? I no longer see the value in paying for live TV plans (e.g. Virgin, Sky) as I can access all content through streaming services" 2026.

54 B&A TechScape Q.13b: "To what extent do you agree or disagree? I am watching more content on YouTube than on live TV" 2026.

This growth in VOD consumption is likely to be linked to consumers having increasing access to such services on their primary TV, noting that Over-the-top (OTT) services[55] (e.g. including video sharing websites such as YouTube, and VOD services such as Netflix, RTÉ Player, etc.) are increasingly available and used with almost half of Irish households having some form of OTT service on their primary TV set (49%), and one in four (24%) of TV households primarily watching an OTT service.[56] This is especially true for younger age cohorts.[57]

Watching VOD on the primary TV

In 2025, most Irish households (68%) use an Internet-based TV service (e.g. any OTT and/or IP-TV), delivering on-Demand content on their primary TV device. This is up from 46% in 2016.[58,59] Many of the remaining viewers are likely to use Personal Video Recorders (PVR)[60] or access an online VOD service on a different device,[61] which means a minority of TV households can only access linear TV.

OTT services are a key driver of the growth of VOD content, with almost half of households having some form of OTT service on their primary TV set (49%), and one in four (24%) of TV households primarily watching an OTT service.[62] This is especially true for younger age cohorts.[63] OTT services require an internet connection and some VOD services are designed specifically for use on Smart TVs (and sometimes include an EPG for live content).

OTT services include video sharing services such as YouTube, the world's largest video service, as well as VOD services such as Netflix, Amazon Prime and Disney+, whose scale and integration with device manufacturers enables users to easily access the services. These services feature prominently in the set-up of most Smart TVs, and many have a dedicated button on TV remotes. This creates a frictionless user experience, wherein users can select their OTT service at the click of a button.

BVOD

All Irish PSBs have a BVOD online service – (e.g. RTÉ Player, TG4 Player and Virgin Media Play), of which the RTÉ Player is the largest with 4.2 million app downloads.[64] Almost half

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55 OTT services require an internet connection and some Player Apps are designed specifically for use on Smart TVs (and sometimes include an EPG for live content)

56 B&A 2025 Q.17 & 21.

57 Rising to 36% for people under 35 and 30% for those between 35 and 54 (B&A 2025 Q.21).

58 B&A 2025 Q.17.

59 B&A (2016) *"TV Trends A view from the Establishment Survey"* Link

60 A Personal Video Recorder (PVR), also known as a Digital Video Recorder (DVR), is an electronic device or software application that records television shows, movies, and other live broadcasts in digital format.

61 An online Player is a broadcaster App which provides TV content on internet devices.

62 B&A 2025 Q.17 & 21.

63 To 36% for people under 35 and 30% for those between 35 and 54 (B&A 2025 Q.21).

64 RTÉ.ie "*Digital Audience Report: December 2023*" December 2023 Link

(42%) of Irish adults use some form of online VOD service, which enable viewers to access content on a connected device with the service's App.[65]

VOD services are popular among TV households with 28% of these households using either RTÉ Player or Virgin Media Play on their primary TV.[66] Use of the RTÉ Player has grown substantially in recent years, partially offsetting the larger decline in viewing of live TV.[67]

SVOD

The top three streaming services in Ireland have a total of around 3 million subscribers – Netflix (1.4m), Amazon (1m), Disney+ (500k).[68] The majority of Irish adults subscribe to at least one paid streaming service (70%), with Netflix (73%) remaining the most popular service, followed by Amazon Prime (33%) and Disney+ (30%).[69] In other markets, SVOD players have launched low-price ad-tiers, which have proved popular and could further extend their reach. Importantly for future demand trends, SVOD services are particularly popular with younger audiences, with 53% of those under 35 reporting they use SVOD services, against 32% of those over the age of 55.[70]

Many households view these applications on their TVs, with 43% of households viewing at least one SVOD service on one of their TV – most commonly Netflix (41%), Amazon Prime (20%) and Disney+ (18%).[71]

AVOD and Social

Free streaming services which rely on advertising (AVOD) are also on the rise. In Ireland, the number of YouTube users went from 3.95 million in 2022 to 4.11 million in 2025 (+4%) and TikTok users went from 1.88 million to 2.16 million over the same period (+15%).[72] Approximately 30% of Irish households use any type of free OTT streaming services.[73]

This means the volume of consumption of short-form and user-generated content has grown, especially among younger demographics who spend a significant portion of their day on social

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65 B&A TechScape 2026, Q.3 : "Which of these do you do nowadays anywhere?"

66 B&A 2025 Q.19.

67 RTÉ Submission para 1.43

68 https://flixpatrol.com/streaming-services/subscribers/ireland/(figures ranging from June 2024 to March 2025)

69 B&A Techscape 2026, Q.3

70 *ComReg TV Habits 2025*' survey conducted by Ipsos in H1-2025

71 B&A 2025 Q17. & 18.

72 Datareportal:

- 2022 data: https://datareportal.com/reports/digital-2022-ireland
- 2025 data: https://datareportal.com/reports/digital-2025-ireland

73 B&A 2025 Q.17

media, often exceeding two hours daily.[74,75] Indeed, YouTube is ubiquitous among 16 to 27 year-olds, (96% watch or listen to content on YouTube in 2025), compared to 48% for 59 to 79 year-olds, and only 21% those aged 80 years or older.[76] Until recently, consumers tended not to access AVOD and video sharing apps on their TV.

However, viewing YouTube via a TV is becoming more widespread. 26% of Irish households watch YouTube (free version)[77] and 6% use a premium subscription on a TV.[78] This is in line with global trends: four in ten global monthly active YouTube users now watch at least some content on TV.[79]

While the YouTube userbase is skewed towards younger people, the recent growth in the viewing of video sharing indicates that watching YouTube may be growing among older demographic as well. This is in line with trends observed in the UK where Ofcom reports that over-55s are watching nearly twice as much YouTube on their TVs compared to the previous year: *"But it's not just Gen Z and Alpha driving this trend. Over 55s are now watching nearly double the amount of YouTube content on their TVs compared to the previous year (11 minutes per day in December 2024, up from just 6 minutes in January 2023). Last year, 42% of all YouTube viewing by this age group was on a TV set (up from 33% in 2023)."*[80]

4.1.3 With increasing VOD usage viewers are spending less time watching broadcast video content

With increasing competition for viewers' attention from VOD and social media platforms, viewers are spending less time watching broadcast video content, both via linear TV and BVOD platforms.

Considering all video consumption in Irish households, between 2022 and 2025, the proportion of time adults spent viewing broadcaster TV and BVOD content decreased from 74% in H1 2022 to [✂[redacted]✂] in 2025. In contrast the viewing of non-broadcast online services (i.e. Netflix, other SVODs, YouTube, social media) increased from 26% to [✂[redacted]✂]. For the younger cohort of viewers (adults 15-34) this shift is more pronounced, with viewing

74 https://profiletree.com/social-media-2024-trends/

75 In the US YouTube is already the biggest video platform for some demographics. For example, 90% of U.S. teens use YouTube, making it the most widely used platform among this age group. TikTok follows, with 63% of teens reporting they use TikTok. https://www.pewresearch.org/internet/2023/12/11/teens-social-media-and-technology-2023/

76 B&A Techscape 2022, slide 31

77 B&A 2025, Q19.

78 B&A 2025, Q18.

79 Ampere Analysis "*YouTube: 38% of users watch TV and film content*" 21 May 2025 Link

80 See the article '*Tuning into YouTube: UK's media habits revealed*' (https://nen.press/tag/netflix/) citing Ofcom '*Media Nations*' report (https://www.ofcom.org.uk/siteassets/resources/documents/research-and-data/multi-sector/media-nations/2025/media-nations-2025-uk-report.pdf?v=401287).

of broadcast content going from 41% in 2022 to [✂[redacted]✂] in 2025 and viewing of non-broadcast online services increased from 58% to [✂[redacted]✂] (see Figure 4).

Figure 4 Average minutes/ day per person viewing at home, TV sets and digital devices (H1 2022 and FY 2025) [✂

[redacted]

✂]

Source: 2022 TAM (see https://www.tamireland.ie/new-video-consumption-data-shows-broadcaster-tv-outshines-streaming-offerings/)
2025 TAM (Total Video Panel Report 2025)

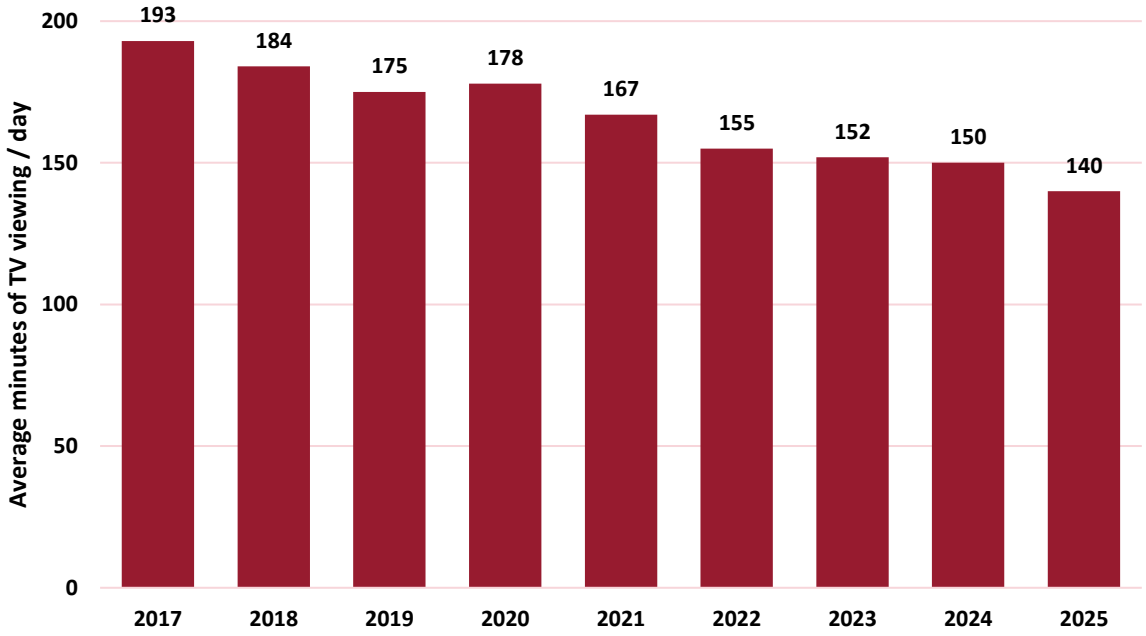
4.1.4 Daily TV viewing is declining and varies considerably by age

Over the last decade, the amount of time the average Irish adult[81] spends watching TV each day[82] has fallen from 193 mins in 2017 to 140 mins in 2025 – a 27% decline (see Figure 5).

81 Adult 15+.

82 Where TV viewing is defined as watching TV content that is linear (e.g. broadcast TV) and is watched within seven days of initial broadcast.

Figure 5 Average daily TV viewing minutes per Adult 15+ (2017 – 2025)



Source: TAM public reporting[83]

This decline is even more pronounced when younger audiences are included, as Individuals 4+ watched [✂[redacted]✂] of TV in 2015 but only [✂[redacted]✂] in 2024 – a [✂[redacted]✂] decline (see Figure 6). While viewing among the elderly (65+) has held steady (and is slightly higher in 2024 compared to 2015), the decline in TV viewing is particularly pronounced in younger audiences. In 2024, the average child[84] and younger adult[85] both watched [✂[redacted]✂] less TV than in 2015. As these cohorts age, the daily viewing of TV in older demographics is likely to decline.

83 2017: We Irish Love our TV and that's official! - TAM Ireland
2018: Top 50 TV Programmes 2018 - TAM Ireland
2019: Top 50 TV Programmes 2019 - TAM Ireland
2020: The Top 50 TV Programmes 2020 - TAM Ireland
2021: Top 50 TV Programmes 2021 - TAM Ireland
2022: Top 50 TV Programmes 2022 - TAM Ireland
2023: Top 50 TV Programmes 2023 - TAM Ireland
2024: Top 50 TV Programmes 2024 - TAM Ireland
2025: Top 50 TV Programmes 2025 - TAM Ireland

84 4-15 year old

85 15-24 year old

Figure 6 Average daily TV viewing minutes per person, by age group (2015-2024)

[✂ ---

[redacted]

✂]

Source: TAM Ireland.

Notes: TV viewing includes viewing assigned to any linear channel watched live or within 7 days/168 hours of the original broadcast

This change in average viewing per person is comprised of two factors: how many people are watching TV, and of those that do, how much time do they spend watching TV. In both respects TV viewing has been falling:

- fewer people are watching TV – average daily reach[86] fell by almost [✂ [redacted] ✂] percentage points from [✂ [redacted] ✂] in 2015 to [✂ [redacted] ✂] in 2024; and
- the average viewer is watching [✂ [redacted] ✂] less TV per day compared to 2015.[87]

86 Reach is the percentage of people who have seen a specified amount of a piece of content – or here any TV program. The standard TAM definition is for this to be at least one consecutive minute of viewing.

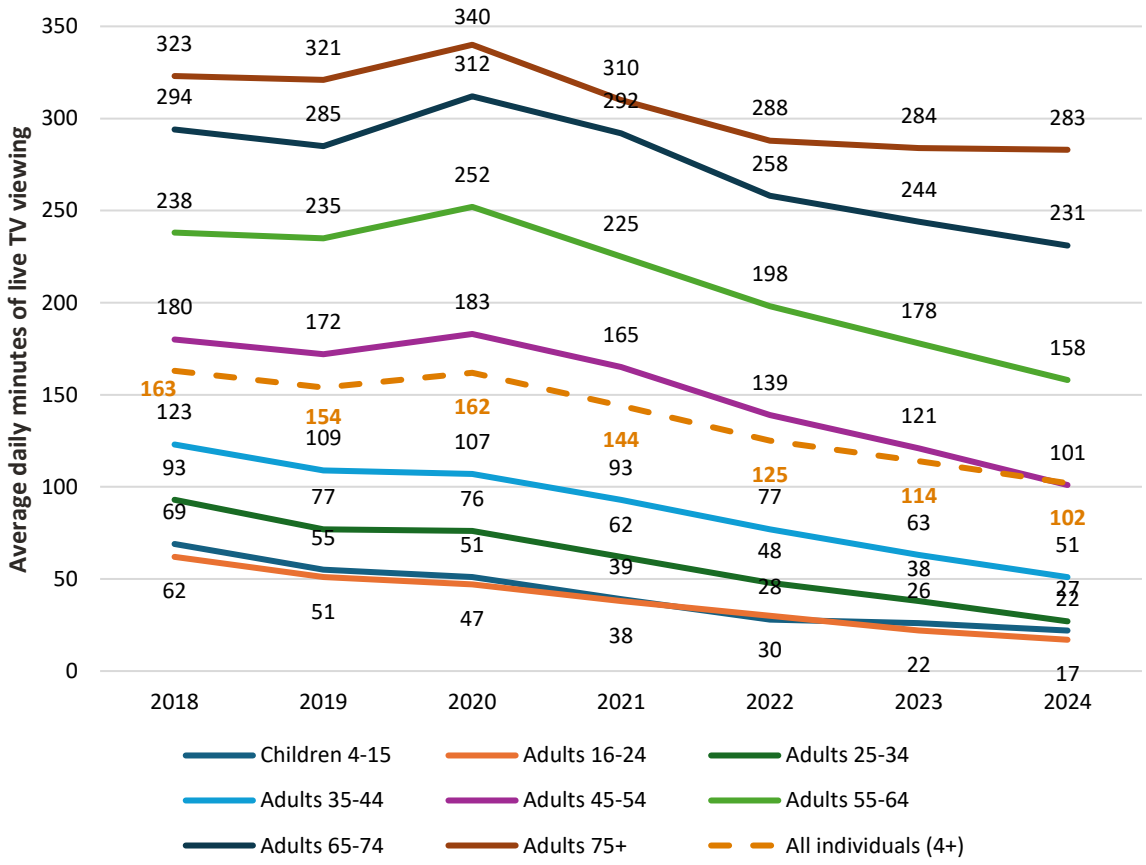
87 Source TAM. Average viewing 4+ was 264mins/day in 2015 and 223 mins/day in 2024.

Ireland follows a similar trend to the UK

The daily TV viewing trends in Ireland are very similar to those observed in the UK, as evidenced by Ofcom's report on the Future of TV Distribution[88], as well as the recent Media Nations report.[89]

Ofcom shows that daily live viewing[90] has fallen from 163min in 2018 to 102min in 2024, representing a 37% decline (see Figure 7). The decline in TV viewing is particularly pronounced in younger audiences. In 2024, younger people (children 4-15 year old and younger adults 16-24 year old) both watched significantly less TV than other age groups (80% fewer minutes), and this has declined substantially (falling 70% from 2018 to 2024).

Figure 7 Average daily minutes of live TV viewing in the UK, by age group, 2018-2024



Source: Ofcom's Future of TV Distribution report – Figure 3: Average daily minutes of live TV viewing, by age group, 2018-2023 & Ofcom's Media Nations report published 30 July 2025 – Figure 11: Average daily minutes of in-home video viewing, by age: 2024.

Note: Barb live, as-viewed on TV sets. All individuals (4+).

88 Future of TV Distribution (Ofcom – 2024)

89 Media Nations 2025 - UK Report (Ofcom – 2025)

90 Watching at the time the content was broadcast.

4.1.5 Live TV viewing is falling but remains particularly important for key events

TV viewers are also watching less live TV. As a proportion of all TV set viewing, "Live TV" (defined as viewing of linear content at the time of broadcast or within 7 days of original broadcast) has been in constant decline for the past 10 years, going from around [✂[redacted]✂] in 2013 to[✂ [redacted] ✂]in 2024 (See Figure 8). This reflects the fact that fewer TV viewers rely only on linear television content and more than 80% of Irish households primarily watch content online through a Smart TV or connected device.[91]

Figure 8 Total daily TV set viewing by type, Ireland, 2013 – 2024 (Adults 15+, % avg. minutes per person) (Source Figure 5 of RTÉ submission)

[✂

[redacted]

✂]

Note: [1]Other includes all other TV set viewing time (7 and 28-day catchup, PVR, web TV, games consoles, DVD etc)

Source: TAM Ireland/Nielsen, Oliver & Ohlbaum analysis

Despite this, "Live TV Viewing" remains particularly important for certain keys events, especially for sports or certain types of TV shows that continue to drive big audiences, as well as news. For example:

- **Live Events:** The Late Late Toy Show[92] has had the biggest TV audience every year since 2015, with 1.7 Million viewers in 2025 (i.e., live and catch-up within a 7-day period).
- **Live Sports:** Sport events tend to dominate the top viewed TV shows each year.

91 B&A 2025. 82% of respondents use either a Smart TV (71%) or a connected device (11%) – such as a laptop, a smartphone or a table – as their primary device to watch audiovisual content.

92 A Christmas themed special edition of RTÉ's popular talk show.
RTÉ.ie "*Over 1.7 million people watched The Late Late Toy Show*" 8 December 2025 Link

- **News**: TV is the primary source of news for 31% of Irish people,[93] with this taking on particular importance in emergency situations such as during the Covid pandemic.

4.1.6 Live TV is increasingly being streamed over the internet

Live TV is also adapting to the increasing array of platforms on which consumers watch TV, and increasingly these shared TV moments are streamed over the internet and viewed using the BVOD services (e.g. the RTÉ Player).

Over the last year or so, between 35-45% of viewing of live TV of some of the largest Irish live TV shows were streamed on the RTÉ Player. For example:

- **Late Late Toy Show.** In 2025, 642,000 of the 1.7 Million viewers streamed it via the RTÉ Player (38%),[94] up from 300,000 of 1.6 Million (19%) in 2022.[95] In 2024, 424,000 of these streams were live streams, 79% of which were from viewers within the State.[96]

- **Rose of Tralee.** In 2025, 202,000 of the over 500,000 (c. 40%) viewers of the Rose of Tralee watched via the RTÉ Player[97], up from 140,000 streams of 576,000 views in 2023 (24%).[98]

- **Live Sports.** On 16 November 2025, over a million people watched Ireland play Hungary in the World Cup qualifier, with an average of 788,000 viewers watching on RTÉ2 with an additional 435,000 streams (c. 36%)[99] delivered by the RTÉ Player.

- **The Traitors, Ireland.** In September 2025 RTÉ broadcast The Traitors Ireland, which experimented with combined Linear and Player launch where viewers are expected to binge on the episodes in the lead-up to the final episode. As noted by RTÉ Director of Video: "*"part of the secret sauce" of this show is the connection between linear TV and the "box set experience on RTÉ Player.""*[100] This proved successful: "*Across broadcast and streaming, The Traitors Ireland and companion show The Traitors Ireland Uncloaked have together reached over 2.1 million people on television to date, with the series generating over 4 million streams to date on RTÉ Player.*"[101]

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93 Coimisiún na Meán "*Digital News Report Ireland 2024*" Link

94 RTÉ.ie "*Over 1.7 million people watched The Late Late Toy Show*" 8 December 2025 Link

95 Irish Independent "*Late Late Toy Show most watched show on Irish TV with 1.6 million viewers tuning in*" Link

96 RTÉ.ie "*The Late Late Toy Show 2024 Rocked for those at Home and Abroad*" Link. Moreover, clips from the show generated 192,000 views on YouTube, and 18.4 million views across video sharing platforms (e.g., TikTok, Instagram, Facebook, X).

97 RTÉ.ie Over half a million viewers watched as Katelyn Cummins crowned 2025 International Rose of Tralee – About RTÉ

98 RTÉ.ie Over half a million viewers tune in to watch the 2023 International Rose of Tralee Festival winning moment on RTÉ – About RTÉ

99 RTÉ post on Linkedin Link

100 The Traitors Ireland a ratings hit for RTÉ

101 Over 2.1 million join the game as The Traitors Ireland takes over the nation – About RTÉ

Indeed, Director General for RTE confirmed in July that:

> *"The player is now delivering equal numbers to RTÉ 1 and RTÉ 2 quite often on these big events. It is certainly where the young audience is going."*[102]

In relation to "connected TV live streaming", RTÉ has stated that, *"Engagement continues to grow, driven by viewing in the living room (78% surge in connected TV live streaming), confirming RTÉ Player's strength as Ireland's leading multi-screen destination".*[103]

4.1.7 Consumers increasingly want to watch higher quality resolution TV

Consumers have a growing appetite for higher quality resolution, offering better visual and audio capabilities. This trend for higher resolution viewing is driven by the increasing adoption of larger, high-resolution television screens;[104] mirrored by the increasing availability of HD and even UHD content on TV services.[105]

To meet growing demand for HD services, broadcasters need to ensure that their content is available on platforms that can accommodate HD or UHD services. Streaming services offer premium tiers which, among other features, use enhanced resolution UHD or High Dynamic Range (HDR) which provides higher colour definition.[106]

Higher definition services require more transmission capacity than Standard Definition (see Table 1). The current availability of HD services on DTT is limited (only three of the 15 Saorview channels are available in HD).

Table 1 Streaming Quality Broadband Speed Requirements

	Resolution (pixels)	Required Bitrate (Mbps)
SD (480p)	720 x 576	3-4 Mbps
HD (720p)	1280 x 720	5-8 Mbps
Full HD (1080p)	1920 x 1080	10-15 Mbps
4K UHD (2160p)	3840 x 2160	25-35 Mbps
8K UHD (4320p)	7680 x 4320	100-125Mbps

Source: https://comparebroadbandpackages.co.uk/guides/connectivity/entertainment/broadband-speed-requirements-hd-4k-streaming/; https://www.fastpix.io/blog/understanding-video-bandwidth-for-streaming

102 Committee of public accounts debate - Thursday, 9 Jul 2026

103 Slide 15, RTÉ Commercial Rate card 2026, rte-commercial-rate-card-2026.pdf

104 The growing availability of larger TVs with 4K (3840 x 2160 resolution) and even 8K (7680 x 4320 resolution) capabilities has raised consumer expectations for picture quality. Since May 2023, and for the first time ever, the average size of LED LCD TVs sold worldwide has exceeded 50 inches, or 126cm. The demand for higher resolution TV has also shortened the replacement cycle (i.e. the typical time between replacing a TV). https://blog.son-video.com/en/2023/09/tv-sales-a-global-trend-towards-larger-screens/

105 With the development of FTTP roll-out and the increase of broadband TV services, distribution platforms now offer HD and/or UHD content, driving in turn higher expectations for consumers.

106 SVOD services offer UHD channels. Netflix Premium offers UHD (https://help.netflix.com/en/node/24926); Disney + Premium offers UHD and HDR (https://help.disneyplus.com/en-GB/article/disneyplus-video-quality).

Note: Compression technologies affect the efficiency of transmission; figures above are estimations based on H.264/AVC standard - H.265/HEVC would offer up to 50% better compression.

4.2 Irish households' choice of TV services is also changing

Changing habits are also reflected in audiences' choice of TV services where many TV households use more than one TV service and most households now having internet-based TV and VOD services. In particular, this section describes:

- the range of TV reception methods used by Irish households and the growing prevalence of internet-based TV;
- the extent to which households use multiple TV services and how these are combined;
- the declining role of DTT as a primary TV platform;
- the factors influencing households' choice of TV services, including cost and broadband availability;
- recent switching behaviour away from DTT towards alternative platforms; and,
- the characteristics and scale of households that rely solely on DTT

4.2.1 The majority of Irish TV households use Internet-based TV

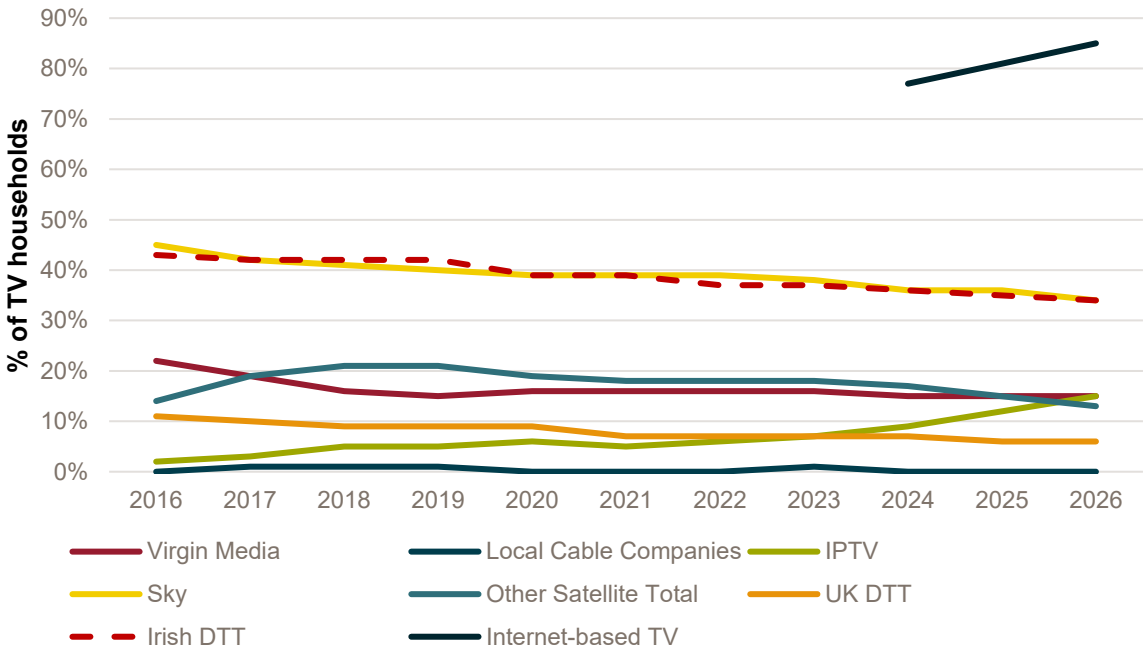
TV Reception methods

The majority of Irish households (85% in July 2026, up from 81% in July 2025)[107] receive a form of Internet-based TV.[108] Sky Satellite is the second most widely used reception type, followed by Irish DTT (Saorview) (see Figure 9).

[107] TAM data July 2025 and 2026 from Jul-2026-Reception-Sheet.pdf

[108] Internet-based TV refers to the ability to watch content online on a Smart TV or connected device. These are All TV households with Broadband (fixed or mobile) that can watch content online through a Smart TV or connected device. Connected devices includes: Games Console; PC/Laptop; Tablet; Smartphone; Android Box or Stick including Amazon Firestick.

Figure 9 Share of households with different TV receptions methods



Source: ComReg historic quarterly data and TAM Reception sheet (July 2026)

Note: While each TV Household is only classified as one Reception Type, they can have multiple Reception Methods (e.g. Sky on the main TV set and Irish DTT on a secondary TV set) and therefore, these figures are not mutually exclusive.

Use of TV services

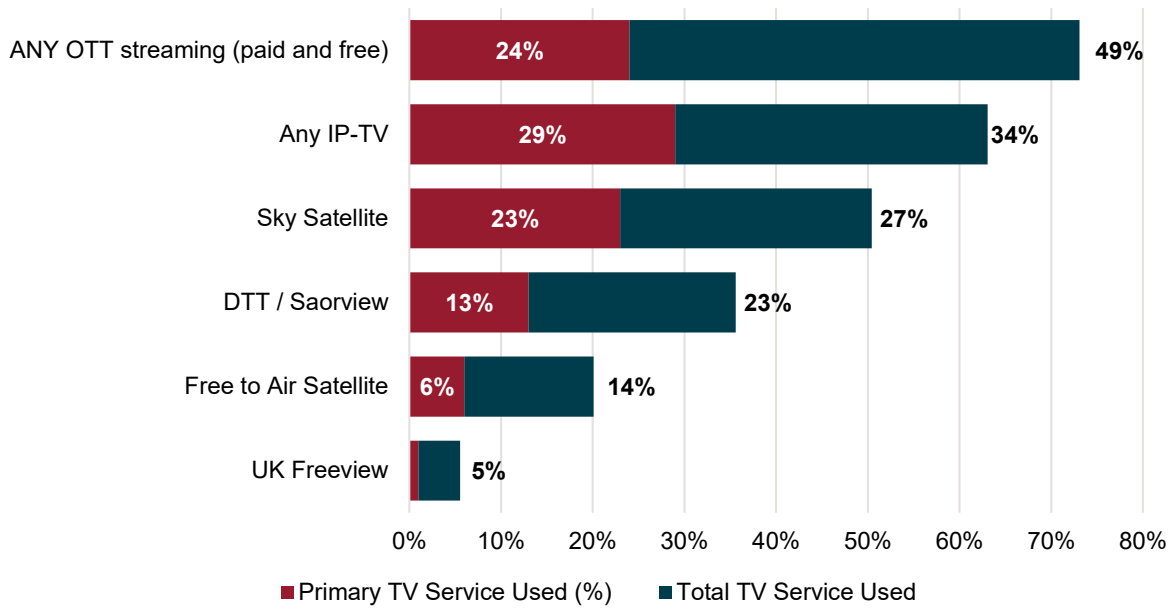
Many households have access to more than one TV service. On average, Irish households use 1.8 TV services on their primary TVs, the most widely used of which is Netflix (41%), followed by YouTube (29% - free and paid), Sky Satellite (27%), Irish DTT (23%) and Virgin TV (15%).[109] Most households (90%) report using one or more paid TV/AV service.[110]

OTT services are the most widely used type of service, or platform, followed by IP-TV, although an IP-TV Platform (e.g. Sky Glass, Virgin Media, Vodafone, Eir etc.) is more likely to be a household's primary TV service. Sky Satellite is the third most widely used type service, followed by Irish DTT (Saorview), FreeSat and UK DTT (Freeview) (see Figure 11).

[109] B&A 2025 Slide 17.

[110] B&A Q. 17

Figure 10 Type of TV services or platforms "used" or "primarily" used



Source: B&A 2025, Q.17 & 21

4.2.2 A minority of Irish TV households (13%) primarily use Irish DTT

Despite its availability to 98% of the Irish population, only a third (34%) of Irish households have an aerial capable of receiving Irish DTT,[111] a decrease of 9 percentage points compared to 2019 when this figure was 42% of households. Of these households, many have paid services which they watch instead (e.g., Sky, Virgin Media) or watch Internet-based TV.

Indeed, TAM consider only 13% of TV households as having DTT as their main TV reception type (note: this also includes households watch Internet-based TV as well as Irish DTT),[112] a figure that has remained stable over the last decade. TAM finds Irish DTT has a

[111] Irish DTT: "Homes that only receive any or all of the following Irish free to air channels: RTÉ One, RTÉ One +1, RTÉ2, RTÉ2+1, RTÉ News, RTÉjr, Virgin Media One, Virgin Media One +1, Virgin Media Two, Virgin Media Three, TG4 and Oireachtas TV via an aerial (whether through a set-top box or an integrated digital TV) or via Saorsat. Note, Virgin Media Television channels are not available via Saorsat.",Nielsen and TAM Ireland "Understanding TV Data 2025 Edition" Link

[112] Jul-2026-Reception-Sheet.pdf

Using the TAM methodology, households that classify DTT as their main TV reception type means that these households do not use a Sky, Virgin Media, eir/Vodafone, FTA Satellite or UK DTT service (as these are higher reception types in TAM's hierarchy) but they may have a Web-TV service (i.e. an Internet TV not captured under the other TAM Ireland reception types from which they can access AVOD, BVOD, SVOD or other apps such as YouTube). The reception types captured by TAM Ireland are Sky, Virgin Media, eir/Vodafone, FTA Satellite/UK DTT, FTA Satellite, UK DTT, Irish DTT and Web-TV Only

reach of [✂[redacted]✂] of adults, with a higher reach among older viewers ([✂[redacted]✂] of those above 65) and a lower reach ([✂[redacted]✂]) of those aged 15-24.[113] [114]

Regarding DTT and TV antenna usage, DTT Saorview households are more likely to have a traditional TV as their primary device, highlighting the more basic approach to TV watching,[115] and that TV antenna usage is more common in smaller households and among older cohorts, based outside Dublin in more rural settings.[116]

Use of DTT

As shown in Figure 10 above, 13% of households use DTT Saorview as their primary TV service (the "Primarily DTT" households),[117] noting also that 23% of households reported using a DTT service on their primary TV. These households account for approximately 10% of the Irish population.

4.2.3 Some households continue to use DTT due to costs and or a lack of adequate broadband

Cost may be the key factor in choosing DTT as primary TV service

In the B&A Survey 2025 almost half (44%) of Primarily DTT households state they watch Irish DTT because it is free and its 15 channels meet their households' TV needs, with a smaller share citing a lack of broadband (10%).[118] Consistent with this, the majority of Primarily DTT households have broadband (72%),[119] and only 20% of these households pay for any form of television (beyond the licence fee), indicating that cost may be a key factor for their choice.[120]

There has been migration from DTT to paid platforms over the last three years

Over the past three years, the B&A Survey 2025 indicates that 3% of all households in the survey migrated from using DTT as their primary TV service to using a paid TV platform.[121] Noting that it is currently estimated that 13% of all households are Primarily DTT households, this migration from DTT to a paid TV service is about 20% of Primarily DTT households

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113 TAM "*Total TV Viewing Trend by Platform 2015-2024 (Adults 15+ by Age-band)*" which looks at the TV viewing of those users with DTT as their primary TV Reception Method, per TAMs hierarchy for Reception Type.

114 When Combi boxes are included, the reach of Irish DTT is likely to be higher noting the separate reach figures for Irish & UK DTT (Combi Box) at [✂[redacted]✂] and Freesat & Irish DTT (Combi box) at [✂[redacted]✂].

115 B&A 2025, Slide 10

116 B&A 2025, Slide 14

117 Despite the different approaches, the B&A figures matches that used by TAM to households based off the primary reception type of the households (e.g., an aerial for DTT but no paid TV service or UK DTT).

118 B&A 2025 Slide 33

119 B&A 2025 Q.17 & Q.1.

120 B&A 2025 Q.17.

121 B&A 2025 Q. 33., Slide 36

(though it does not represent a "net" reduction as some might become new Primarily DTT households).[122] The most cited reasons for changing were greater content variety (38%), the ability to watch on multiple devices (32%) and the speed and/or availability of broadband (40%).[123]

Potential future migration from DTT is driven by affordability and broadband access

While few Primarily DTT households are actively planning on switching service, about half would consider switching if their circumstances were to change. In terms of what would encourage them to switch, the most cited factor was a reduction in the price of Pay-TV subscriptions (39%), followed by the availability and/or speed of broadband (33%).[124]

This suggests that as access to broadband becomes available to all households in Ireland the number of Primarily DTT households may fall, but the most price sensitive households may continue to use DTT.

4.2.4 A small share of households rely solely on DTT to view TV

Most Irish households with DTT have other services. Even many Primarily DTT households access Internet-based TV services on their primary TV set (e.g., YouTube, Netflix, RTÉ Player). The B&A Survey 2025 indicates that a small share of households (**7%**) use only DTT to view TV on their Primary TV ("DTT Only" households).[125] These households account for approx. 5% of the Irish population.

As previously noted, most Irish TV households (68%) now report watching some form of internet-based TV on their primary television, with 52% primarily watching an internet-based TV service.[126] These households account for an even higher share of the population - 74% of the survey sample – given the larger number of people per households.

Most of the remaining TV households have some form of Satellite based television (21% of TV households – 18% of TV Household population), with only a small share having Irish DTT but neither internet-based TV nor Satellite (7% of households accounting for 5% of the Irish population).

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122 Note that this is not a net figure, as this does not account for households that may have switched to primarily watching DTT, often referred to as cord cutters.

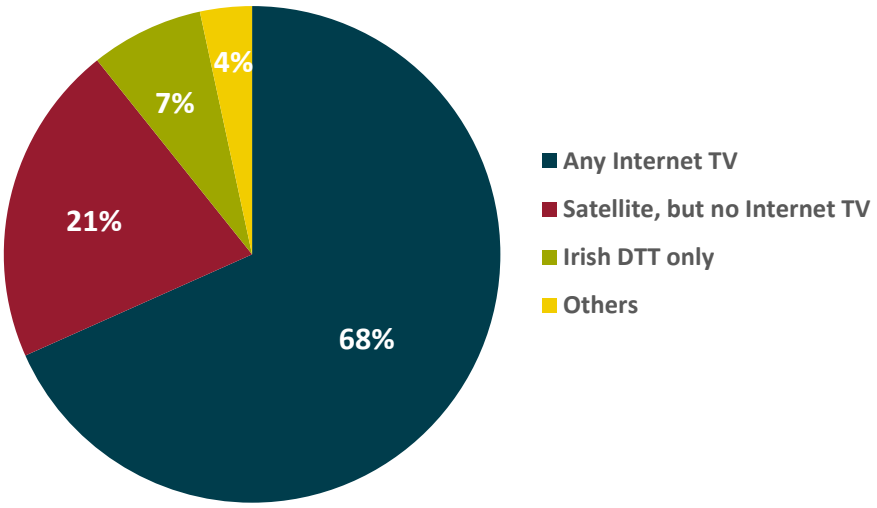
123 B&A 2025 Q.34. Slide 36

124 B&A 2025 Q.29, Slide 37

125 B&A 2025 Q.17 & 20.

126 B&A 2025 Q.17 & 21.

Figure 11 Share of TV households



Source: B&A 2025 Q.17

Note: Details of the categories:

Any Internet TV: includes Sky Glass/Sky Stream (provided over the internet); TV service provided by Eir, Virgin, Vodafone; Any other internet-based service (e.g. dodgy box); Paid or Free OTT streaming services.

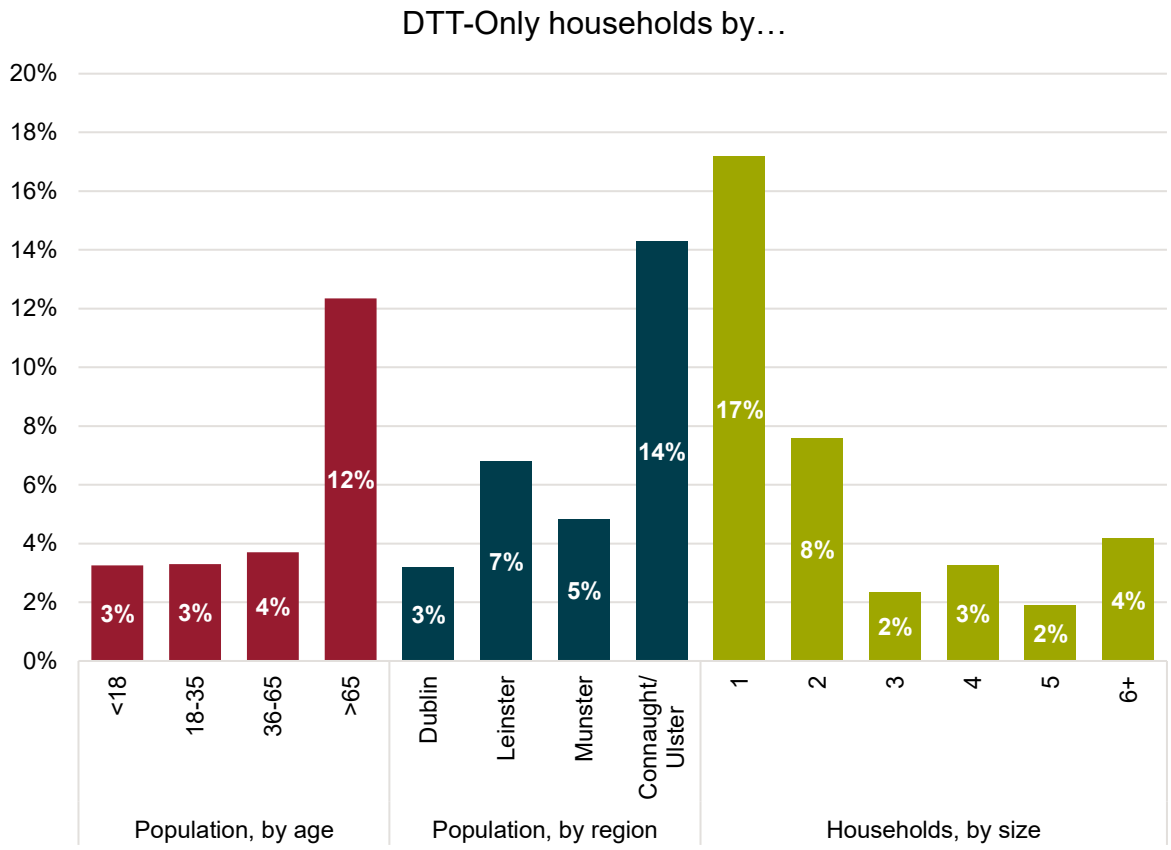
Satellite, but no Internet TV: excludes 'Any Internet TV' and includes Free to Air Satellite & Sky Satellite.

Irish DTT only: excludes 'Any Internet TV' & 'Satellite, but no Internet TV' and includes DTT/Saorview.

Others: households without any of Internet TV, Satellite TV or Irish DTT (e.g. UK FTA).

A higher share of older individuals, single person households, and rural viewers (Connacht and Ulster) live in the DTT Only households (see Figure 12).

Figure 12 People in DTT Only households are older, live in more rural areas, and are more likely to live alone



Source: B&A 2025 Q.17

4.2.5 A smaller share of households (5%) are DTT Only households which face a barrier to access Irish FTA services online

The users that are most reliant on Irish DTT are the DTT Only households which face a barrier or cost to accessing Irish FTA services online (e.g. RTÉ Player). Internet-based TV requires both a broadband connection and a TV capable of being connected to that broadband connection (e.g. primarily through a Smart TV, a Fire Stick or cast from a mobile device).[127]

The B&A Survey 2025 found that just 3% of Irish TV households are DTT Only and have no fixed broadband, and further 2% of Irish TV households are DTT Only and have broadband but no Smart TV.[128] Jointly, these 5% of TV households (i.e. the "Potentially Unconnected DTT" households) would need to either get broadband or a Smart TV to access Internet-based TV (see Table 2). Notably, these Potentially Unconnected DTT households have fewer people

[127] Indeed, approximately one in five DTT Only Homes claim not to watch Irish FTA channels at all, which could indicate that some DTT Only households mainly cast content from their smartphones or laptops

[128] B&A 2025 Q.17, combined with Q.1 for 'No Broadband' and Q.1 & 9 for 'No Broadband' & 'No Smart TV'.

per householder (1.9) than the average household (2.7), accounting for approx. 3% of the Irish population surveyed.

Table 2 DTT Only and Potentially Unconnected DTT households

Groups	Share of TV Households	People per household
DTT Only	**7%**	**2.1**
DTT Only, with no broadband	3%	1.4
DTT Only, with broadband but no Smart TV	2%	2.5
Potentially Unconnected DTT households	**5%**	**1.9**

Source: B&A 2025

It is estimated that the Potentially Unconnected DTT households in Ireland currently represent a population of 161,000 (3.1% of the Irish population – see Table 3). This may well be an overestimate, as many households without a Smart TV may have a Fire Stick or Chromecast (28% of households had a streaming device in 2022).[129]

Table 3 Estimation of Potentially Unconnected DTT population

Description	No Broadband	Has Broadband, but no Smart TV	Total - Potentially Unconnected DTT households
Inhabited homes with a TV (TAM)[130]		1,783 million	
Share of TV households (%)	3%	2%	5%
Est. number of Homes	47,806	37,183	84,989
People per house	1.4	2.5	1.9
Est. Number of people in those homes	Approx. 69,000	Approx. 92,000	Approx. 161,000
Share of population of Ireland (CSO)[131]	**1.3%**	**1.8%**	**3.1%**

Source: B&A 2025, TAM, CSO

4.2.6 The number of DTT-Only and Unconnected households are likely to fall in future

While we do not formally forecast the trend in Unconnected DTT households, it seems inevitable that there will be fewer Unconnected DTT Only households in the 2030s. As Ireland's broadband availability and take-up continues to improve, and broadcasters and consumers increasingly use internet-based platforms for distributing and viewing TV/VOD services, the viewing of DTT and other broadcast services like satellite is likely to decline.

129 B&A Techscape 2022.

130 TAM/Nielsen data – July 2025

131 Census of Population 2022 - CSO (Central Statistics Office): 5.15 Million.

DTT Only households will likely decline over time

Considering the Government's objective that all households in Ireland are to have gigabit network coverage by 2028, the number of DTT Only households and Potentially Unconnected DTT households is likely to fall for the following reasons.

- By 2028 all households in Ireland would have gigabit broadband coverage and be able to purchase a broadband subscription, subject to affordability.
- DTT Only households without broadband are significantly older than average (55% are over 65 in this cohort, against 14% surveyed in total).[132] These households will likely decline as younger cohorts (who are more likely to have broadband and internet-based TV) age over the coming decade.
- A significant share of households use a smart TV (76%)[133], and any replacement TV is likely to be a Smart TV, as almost all new TVs have Wi-Fi connectivity.[134]

Consequently, while the total number of Unconnected DTT households in 2025 at only 150,000 is a small proportion of total TV households, it will continue to decline up to 2031 (the expiry date of RTÉ's DTT licences).

For context, the UK's Department for Culture, Media and Sport estimated that there are over 3.2 million Unconnected DTT households in the UK and that only 1.5 million will exist by 2040.[135]

Analogue terrestrial switch-over demonstrates that large scale technology transitions can be achieved

The switch-off of analogue TV ("Analogue switch-over") which followed the launch of Saorview in May 2011 provides a useful case study[136] - noting it involved more households switching from Analogue TV to DTT in a short timeframe. At that time, there were a total of 250,000 Analogue-Only households (c. 20% of total), and the vast majority of which were unaware that analogue would be switched-off.[137] From the announcement of the Analogue switch-off, Analogue-Only Households had 12 months to replace their TV or get a set-top box to continue to access Irish DTT.[138] Following an awareness campaign in the national media as well as ads on the analogue services,[139] the majority of Analogue-Only households switched in time, with

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132 B&A Q.1 & 17.

133 B&A Q.9

134 For example, almost all Smart TVs for sale at leading electrical appliance retailers (DID Electrical, Harvey Norman, Currys) are Smart TVs (208 of 237 of the TVs available on Harvey Norman are labelled "smart TVs").

135 DCMS "*Future of TV Distribution*" Link

136 98% coverage by the end of 2011.

137 170,000 homes using TV aerials unaware signal to end in 2012 | Irish Independent

138 Analogue TV network switch off in October 2012

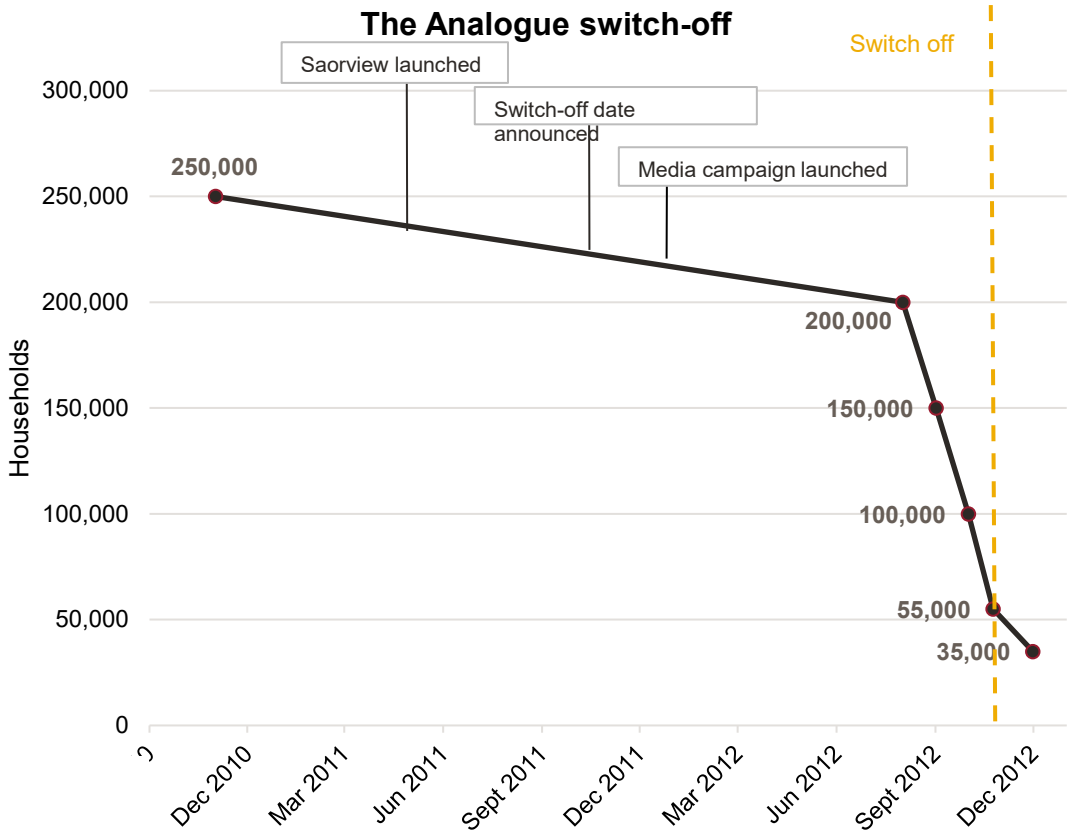
139 Media campaigns launched to promote the switch to DTT as well as an on-screen 'bug' or marker warning analogue viewers

an increase in the final few months. Approximately 2-3% of all Irish households did not switch from Analogue TV to DTT, with many likely switching to non-DTT services. Only 229 people called the dedicated, "*digital-switchover helpline*" for assistance[140] in the two days following the switch-off.

There are, however, certain differences, between Analogue switch over and a migration from DTT to internet-based TV. Most notably that Analogue switch over involved switching between similar services, that were free (i.e. switching from one free-to-air linear TV service to an improved free-to-air linear TV service). Whereas, for the 3% of Irish TV households in 2025 that watch DTT but do not have fixed broadband (accounting for 1.3% of the population), an on-going cost of paying for a broadband subscription would be incurred. The following section explains how broadcasters are investing in distribution via broadband to meet audience demand, and which will lessen any barriers and frictions to switching.

[140] Irish Times, 02 November 2012 Link

Figure 13 Analogue-Only households in Ireland, November 2010-December 2012



Source: Research[141]

[141] Research by Millward Brown Lansdowne indicated that in August 2012 approximately 200,000 Analogue-Only households remained (Dail Debate – 18.09.2012 - link), with this falling to 150,000 in mid-September and 100,000 in late-September (Dail Debate – 11.10.2012 - link). Research by TAM indicated that 55,000 households did not switch (Irish Times "*55,000 without TV after switch*" link) and 36,000 households did not switch to DTT a month later, however some switched from analogue to other TV services, such as Internet-Based TV (Irish Times "*Switchover leaves 36,000 without TV*" 05.12.2012 - link).

5 Irish TV Distribution is changing

This section examines how the distribution of television content in Ireland is evolving in response to changing consumer behaviour, technological developments and shifting industry dynamics. It highlights the growing importance of broadband-enabled platforms, the strategic responses of broadcasters, and the implications for traditional distribution models. In particular, this section describes:

- the increasing adoption of multi-platform distribution strategies by broadcasters;
- the relative strengths and limitations of different TV distribution platforms, including DTT, satellite and internet-based services;
- the expansion of broadband coverage and progress towards nationwide gigabit connectivity;
- investment by broadcasters in internet-based and digital-first TV solutions;
- changing revenue dynamics, with growth in digital and online TV revenues and pressures on traditional broadcast funding; and,
- the resulting pressures on traditional distribution platforms such as DTT and satellite.

Key points

- **Broadband coverage is growing and will be nationwide by 2028.**
  - As of end Q2 2026, there were 1.78 million fixed broadband subscriber lines and 394,000 mobile broadband subscriber lines in Ireland, with 92% of premises having gigabit broadband coverage with a take-up rate of 60% of these covered premises.
  - The Irish Government's target is that by 2028 all Irish households and businesses will be covered by a gigabit network.
- **Internet-based TV solutions are attracting investment**
  - Broadcasters, in Ireland and internationally, are investing in internet-based TV solutions and moving to 'digital first' strategies.
  - Governments, media regulators and PSBs are exploring actions to adapt FTA PSM services to Internet-based TV. Actions taken internationally include:
    - (i) adopting rules on prominence of PSB channels on Electronic Programme Guides (EPGs) and on devices and
    - (ii) the joint development by the four UK PSBs (BBC, ITV, Channel 4 and Channel 5) of a BVOD app called "EveryoneTV" which enables live and on-demand content to the broadcasters' content, including via a familiar EPG interface, as well as on-demand library.

- **Revenues for internet-based TV and VOD services are increasing.** This rise has been at the expense of traditional broadcast TV advertising revenues which are in decline.
- **Satellite and DTT distribution platforms are coming under pressure**. As internet-based TV services capture an increasing share of revenues, Satellite and DTT platforms face economic headwinds from the combination of declining viewership and periodic CAPEX requirements making the business case for further investment challenging.

5.1 Broadcasters now have multi-platform distribution strategies and many factors to consider

With the rise of internet-based TV platforms and the growing use of VOD services for both on-demand and live TV services, broadcasters now have greater choices and additional factors to consider when selecting their TV distribution strategies.

At a high level, broadcasters face a choice in whether to prioritise any one distribution platform over another, and whether to distribute content widely on many TV distribution platforms or use a narrower distribution strategy. The benefits of distributing content widely on multiple TV platforms include being able to secure greater advertising, subscription, or other revenues, and where relevant, meet any public service obligations e.g. to provide TV services to the whole community of Ireland, etc. However, distributing widely also brings additional costs, as each TV platform or VoD service will have costs for its services.

In addition, other factors, such as the functionality of the platform (e.g. Linear, on-demand, availability of SD/HD/UHD channels, etc.), its reach (e.g. % of households serviced), profile of viewers (e.g. age), its coverage and resilience, and the nature of the service (pay of free), etc. also influence broadcasters' choices.

With most Irish households now using internet-based TV platforms, many broadcasters are now promoting digital transformation strategies, including:

- Sky's recent decision to remove Sky Q (its satellite TV service) from its purchase options to solely promote its IP-TV services (stream and Glass).[142]
- RTÉ's new Digital Strategy, presented in June 2024 for the period 2025-2029, set out five main goals, of which one was to accelerate the digital transformation of RTÉ by offering "excellent streaming products and services" (e.g. expand personalisation features on the RTÉ Player, launch of a new RTÉ Audio App and RTÉ News App, increase content available on-demand).[143]

142 We've unplugged Sky Q. Plug in Sky Stream for less.

143 https://www.rte.ie/documents/eile/2024/06/rte-strategy-new-direction-2025-2029.pdf

5.2 Internet-based TV offers greater functionality and capacity but depends on broadband availability

Each of the TV distribution platforms have different characteristics in terms of the costs to consumers and their functionality and capacity to distribute a high volume of content (see Table 4).

While DTT is attractive to some households as it is a low-cost way to receive TV, and has nationwide coverage of at least 98% of households, the capacity of the DTT Saorview platform, at 15 channels of which 3 are HD, is limited. Satellite TV distribution platforms can carry many more channels, while internet-based TV platforms can provide many TV channels as well as both linear and on-demand or catch-up services, but rely on a broadband connection.

Table 4 TV Distribution platforms

Distribution platform	Brand	Broadcast or VOD	Consumer costs, functionality and capacity of platform
DTT	Saorview	Broadcast 15 channels (12 SD and 3 HD)[144]	Free service. Low setup cost (only a compatible TV and TV aerial needed). Limited capacity (across two muxes) low number of channels of which only three are HD.
	UK Freeview	Broadcast 116 channels (104 SD and 12 HD)[145]	Free spill over service from Northern Ireland's DTT network where available. Only available to Republic of Ireland homes near border areas. Low setup cost (only a compatible TV and TV aerial needed). Higher capacity (across 3 PSB muxes, 3 commercial muxes and number of local muxes) and over 100 channels. RTÉ 1, RTÉ 2 and TG4 carried on Northern Ireland's DTT network.
Satellite	Sky Q	Broadcast 290+ channels (c. 100	Sky subscription needed for Sky service. Additional subscription give access to 30+

144 RTÉ One, RTÉ2, Virgin Media 1, Virgin Media 2, Virgin Media 3, Virgin Media 4, TG4, RTÉ Junior, RTÉ One +1, RTÉ2 +1, RTÉ News, Tithe an Oireachtas, Sky News, Challenge, TG4 +1 and Cúla 4. See https://Saorview.ie/en/get-Saorview-tv/

145 https://www.daftlogic.com/information-freeview-channels-uk.htm

Distribution platform	Brand	Broadcast or VOD	Consumer costs, functionality and capacity of platform
		not on Freeview)[146]	HD channels.[147] Satellite dish needed which requires installation and may not be possible in all cases (e.g. in some multi-unit dwellings). It is reported that Sky satellite will reach end of life 2027-29 and it is pushing users to migrate to the IP service.[148] RTÉ One, RTÉ2 and TG4 available.
	Freesat	Broadcast – 80+ channels (16 HD)	Free service. Compatible TV (sat receiver / set top box) and Satellite dish needed (with installation costs). It is reported that Freesat satellite will reach end of life 2027-29.[147]
	Saorsat	Broadcast – 8 SD channels	Free service. Compatible TV (sat receiver or set top box needed) and Satellite Dish (with installation costs). Low number of channels and limited capacity. It is reported that the satellite used for Saorsat (EUTELSAT KA-SAT 9A) is coming to the end of its expected life soon.[149]
IPTV	Virgin Media's cable network, eirTV, Sky Glass, Sky Stream	VOD – SD, HD and UHD	Subscription service. Set top box required. Managed pay-IPTV service guarantee quality of service of the TV service. Only available in Virgin Media's footprint or areas with high quality fixed broadband. UHD content offered.
Over the top (OTT) or integrated app via broadband networks	VOD services (Netflix, Disney+ etc.),	VOD – SD, HD and UHD	Requires a broadband connection. Free services available. Can be viewed via TV platforms, or on any connected device.

Source: Frontier Economics

146 https://www.sky.com/shop/choose/build/package?irct=bns-shop-skyq-buy-tv

147 The 'Ultimate TV' subscription is more expensive than the 'Essential TV' subscription and gives access to more HD channels.

148 https://rxtvinfo.com/2024/how-soon-is-satellite-tv-switch-off/

149 https://url.uk.m.mimecastprotect.com/s/dPaDCn59KtlvGr8UJhohJTMfl or SatBeams - Satellite Details - Eutelsat KA-SAT 9A (KASAT, KA-Sat)

5.3 Ireland's gigabit Broadband coverage is growing and will be nationwide by 2028

The increase in internet-based TV services means that more and more households rely on high-speed reliable broadband and enjoy the many benefits that this connectivity brings. For audiovisual content this means increased functionality, more channels and interactive services which will be further facilitated, once completed, by Ireland's gigabit broadband infrastructure.

5.3.1 Most of Irish premises (92%) now have gigabit broadband coverage

Only households with good quality broadband can reliably receive an internet-based TV service.[150] While factors such as the number of connected devices in a household will influence the number of users and devices that can be connected simultaneously, a download speed above 30 Mbps is typically sufficient for SD or HD content (depending on the other users of household broadband), and a download speed of over 100 Mbps for reliable UHD.

At the end of Q2 2026:[151]

- there were over 1.78 million fixed broadband subscriber lines in Ireland, with fibre to the premises (FTTP) broadband surpassing 1.1 million and cable broadband having over 264,000 subscriber lines. Additionally, there were 394,000 mobile broadband subscriber lines.
- most broadband lines are FTTP (51.9%) and over two in three are Gigabit cable (cable accounts for another 12.1%).
- Gigabit (i.e. FTTP and Cable) broadband coverage was approximately 92% of all premises (see Figure 14)[152], with the take-up of this service being approximately 60% of covered premises.

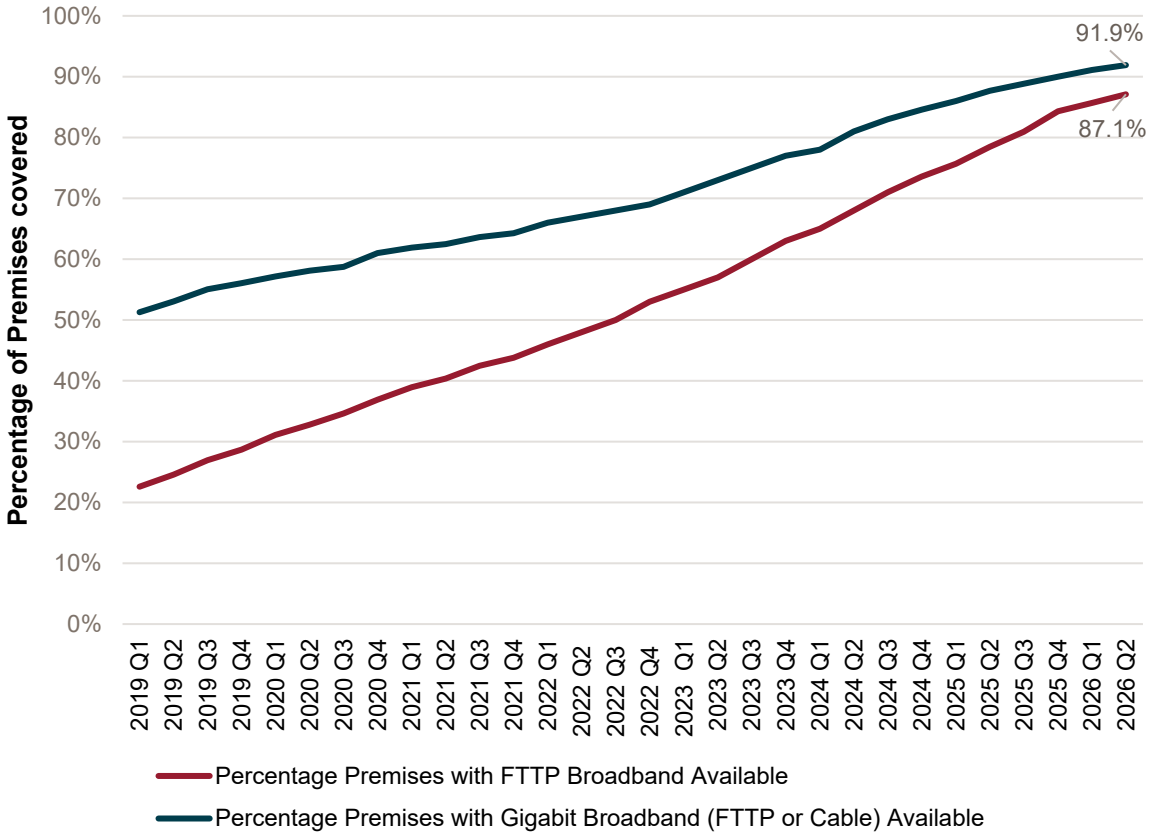
Gigabit broadband coverage and take-up have both grown considerably over the last number of years, where for example five years ago at the end of Q3 2020 gigabit broadband coverage was 59% and the take-up rate was 41%.

150 While mobile networks offer broadband services at a fixed location, the network resources are shared with other users and hence the connection may not be as reliable as a fixed network where the connection is dedicated to the household.

151 ComReg quarterly data Q2 2026.

152 Measured by Eircodes - Data Portal | Commission for Communications Regulation

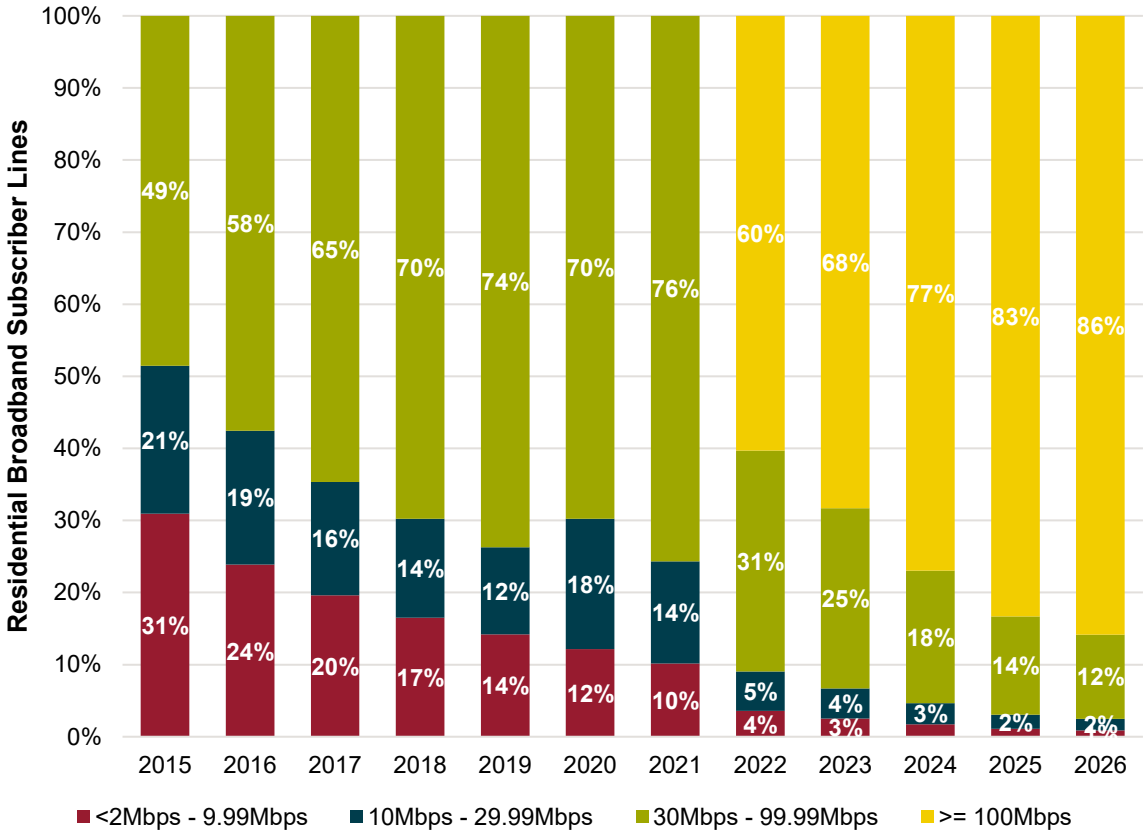
Figure 14 Percentage of Premises with FTTP and/or Cable Broadband Available (Q1 2019 to Q2 2026)



Source: ComReg quarterly data
Note: Measured by Eircode

A decade ago, reliable internet-based TV was only possible in certain urban areas, when over half of broadband lines were slower than 30 Mbps and none offered speeds over 100 Mbps. In contrast, as of Q2 2026 only 3% of broadband lines are less than 30 Mbps, and 86% of broadband lines are over 100 Mbps (see Figure 15).

Figure 15 Fixed residential subscriber lines by sold download speed (2015 – 2026)



Source: ComReg quarterly data

Note: Based on residential lines for Q4 of each year. For 2026, Q2 is used.

Prior to 2022, speeds >= 100Mbps were not recorded, therefore the category '30Mbps – 99.99Mbps.' was '>30Mbps'.

5.3.2 Irish Government's National Digital and AI Strategy aims to deliver a gigabit network to all Irish households and businesses by 2028

In 2022 the Irish Government set a digital connectivity target that by 2028 all Irish households and businesses will be covered by a gigabit network,[153] as a result of the Irish government's National Broadband Plan (NBP) to roll out a nationwide broadband network by end-2026, and the investment by commercial operators in their own broadband networks. This target was retained in the updated National Digital and AI Strategy 2030 in 2026.[154]

153 Digital Connectivity Strategy

154 Digital Ireland - Connecting our People, Securing our Future

Ireland is on track to achieve its digital connectivity target of gigabit coverage to all Irish households and business by 2028 and be one of the first countries in Europe to have full gigabit network coverage.

- As of December 2025, the NBP has competed build works to 80% of all premises in the NBP intervention area and is expected to complete its rollout by the end of 2026[155]; and
- Commercial operators are also continuing to invest in their respective rollouts[156].

Full gigabit coverage provides opportunities for promoting the use of broadband to obtain benefits and savings in the provision of many digital services, including its use for the provision of internet-based TV services.

Gigabit networks are capable of providing connectivity for internet-based TV services for multiple TV channels, for both live and on-demand content, with increased functionality (e.g. live pause, etc.) and for high-resolution services to support its use on the many screens (e.g. TV sets as well other connected devices) in the household.

Currently, some households and viewers cannot access internet-based TV as they live in a broadband blackspot or choose not to have a broadband subscription. Any households that cannot access internet-based TV would miss out on the benefits of this audiovisual connectivity – a form of the digital divide. A 2019 report from the Department of Communications, Climate Action and Energy (DCCAE) to forecast the benefits of NBP noted that there would be significant benefits for residential customers including that it would enable residential households to realise savings from purchasing TV services from their broadband provider.[157]

Moreover, as noted in a review of NBP roll out for the government, one benefit of NBP was that it could lead to switch-off of DTT which could mean the valuable spectrum could be used for alternative purposes (see Annex E). The report noted that:

> *"Nationwide high-speed broadband could unlock digital dividend. Currently, free-to-air television is transmitted via airwaves, referred to as the radio spectrum. Radio spectrum can be hugely valuable, particularly for mobile use……. In the long term, nationwide high-speed broadband coverage could provide the speeds and reliability*

155 See https://nbi.ie/news/events/2025/12/04/national-broadband-plan-on-track-to-be-completed-by-end-of-next-year/

156 See for example, "The eir Digital Ireland Report", February 2026, at https://eir.ie/opencms/export/sites/default/.content/pdf/pressreleases/eir-Digital-Ireland-Report-2025.pdf ; and "Eir to invest further €500m in fibre broadband rollout", November 2024, at https://www.rte.ie/news/business/2024/1114/1480810-eir-broadband/

157 See: PWC (2019) NBP Cost Benefit Analysis Report. The source of benefits *"is the gap between a TV/internet bundle in Dublin compared to outside of Dublin which equates to the consumer value of a bundle" which customers in the intervention area would otherwise be unable to purchase. The report estimated benefits of €31 p/a per household (approximately (€2.58 per month) which is assumed to persist until 2043. The cumulated discounted benefits over the 25 year period for customers in the intervention sums to €60m.* https://s3-eu-west-1.amazonaws.com/govieassets/8527/a8f88041f1f44255b0716f38e17b9448.pdf

required to deliver television services to households using the broadband network. This could enable further clearance of the radio spectrum for mobile use, improving the coverage and capacity of mobile services and resulting in valuable licence fee payments to the Government."[158]

5.4 Broadcasters are investing in internet-based TV solutions

5.4.1 Broadcasters are moving to 'digital first' strategies

Internationally – BVODs and OTT integration

PSBs have used BVOD players for many years to distribute content online, and as consumers have shifted more to online channels, PSBs have upgraded these BVOD Players to provide improved experiences. Most BVOD services require users to login, which enables personalisation of services (e.g. BBC iPlayer), and more targeted advertising (e.g. Channel 4).

More recently, international broadcasters have moved beyond simply BVOD to extend their reach. Broadcasters in France and the UK have begun using OTT applications, such as YouTube[159] and Netflix, as distribution platforms for their content in addition to the BVOD services,[160] given their growing importance in user search.[161] These broadcasters have begun trialling different strategies to harness these OTT platforms, such as:

- Uploading full programmes or series to YouTube as part of deals enabling the broadcaster to sell the ad space (e.g., ITV, Channel4)[162], often with thematic channels.
- Entering partnerships with YouTube, such as that announced by:
  - BBC in January 2026, aimed at creating YouTube first programming,[163]
  - France Télévisions in April 2026, aimed at sharing and monetising news content on YouTube.[164]

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158 EY "National Broadband Plan: Benefits of high-speed broadband EY report for the Department of the Environment, Climate and Communications" November 2024 Link

159 Most broadcasters use YouTube to advertise their own services, often posting clips from shows and news. For example, RTÉ has 383,000 subscribers on its YouTube channel (link) and has published over 10,000 videos, which have generated over 370 Million views.

160 At present, only a minority of Irish TV households (14% of total) do not have access to Irish TV channels (Irish DTT, IP-TV Satellite), or the RTÉ Player or Virgin extend Irish FTA additional TV Households. Most of these households have YouTube on their primary TV (8% of total). B&A 2025 Q.17, Q.18 and Q.19.

161 Noting the finding of B&A Techscape that a third of consumers report watching more content on YouTube than on Live TV, rising to over half of Millennials and GenZ. B&A Techscape 2024 slide 76. Link

162 Ampere Analysis "*How are UK broadcasters integrating with YouTube?*" 3 June 2025 Link. Channel4 reported that its content on YouTube in 2024 reached 166m globally, up 85% from the prior year.

163 BBC Group and YouTube announce new strategic partnership to deliver more for audiences and support Creators across the UK

164 France Télévisions deepens YouTube tie in push for streaming-first news

- Sharing streams or content via integration with OTT services:
  - Netflix carrying all 5 TF1 channels and 30,000 hours of TF1+ content;[165]
  - Disney+ carrying ITVX;[166] and,
  - Amazon Prime streaming France Télévisions content[167].
- Dedicated channels on YouTube (e.g., CNBC, Bloomberg TV, France24).

YouTube is considered of particular importance to PSBs, given YouTube's predominant reach among younger viewers. For example, in March 2026, the Director of the European Broadcasting Union Noel Curran stated that:

> "*For much of the past decade, YouTube occupied a relatively straightforward place in the digital strategies of public service media (PSM): a marketing channel. A shop window. Somewhere to place clips that might drive audiences back to our own platforms. That era is over. Today, YouTube is not simply part of the online video ecosystem - it is part of the television ecosystem itself. …*
>
> *For most young Europeans, YouTube is now a more significant video destination than traditional broadcasters. …*
>
> *In that context, maintaining a presence on YouTube is no longer about promotion; it is increasingly about public service delivery itself. Nearly all our Members are now active on the platform. Two-thirds intend to expand their activity, with 55% producing dedicated YouTube-native content and 60% livestreaming. This shift reflects a broader evolution in how PSM are using global platforms."*[168]
>
> *At the same time, we know partnerships with YouTube do come at a cost. Under standard agreements, the platform retains approximately 45% of advertising revenue generated around hosted content. This creates an uncomfortable paradox: PSM invest heavily in producing high-quality, public-interest programming, only for the monetisation of audience attention to take place largely within the platform's own commercial ecosystem. … At a time when many broadcasters face declining advertising income and, in some cases, falling licence-fee contributions, the migration of both audiences and revenue towards global digital platforms raises serious sustainability questions. … Distribution through YouTube can also weaken the direct relationship between public service media and their audiences. Data, discoverability and user journeys are increasingly mediated by platform infrastructure, contributing to broader debates within Europe around digital sovereignty and strategic autonomy."*

165 Netflix.com "*Netflix and TF1 Group Join Forces to Bring TF1 to Netflix Members in France*" 17 July 2025 Link.

166 Rxtvinfo.com "*Disney+ and ITVX shows to be available on each other's apps*" 10 July 2025 Link

167 Kidscreen "*Prime Video starts streaming France Télévisions content*" Link

168 YouTube - Friend or Enemy? The dilemma for broadcasters | EBU

This integration of broadcast channels with OTT services has the potential to increase reach and viewing

Once investments have been made to integrate one broadcasting channel and OTT service (e.g. Netflix now carrying TF1 in France), this could make it easier to incorporate other broadcast channels onto its platform and roll this out to other countries.

The integration of broadcast channels within OTT services has the potential to increase reach and viewing, especially to younger viewers. This could be particularly relevant for public service broadcasters, as viewers may increase the time spent on OTT apps. For example, noting that in Ireland many Irish households have:

- Netflix on their primary TV (41%), and some (8%) having Netflix but no TV service with Irish FTA channels or RTÉ Player.
- YouTube on their primary TV (29%), with some (6%) having YouTube but no service with Irish FTA channels or the RTÉ Player.

RTÉ – BVOD and Digital first strategy

In 2009, RTÉ launched its BVOD app (the RTÉ Player) which is widely available and has over 4.2 million downloads. RTÉ reports that almost 40% of users access the RTÉ Player monthly[169], and that engagement is increasing, driven by higher streaming volumes and greater use of Smart TVs. [170] RTE continues to invest in developing the RTE Player.[171]

The significant growth in BVOD viewing has partially offset the decline in viewing of live TV[172] and RTÉ expects this shift to continue:

> *"The RTÉ Player….is no longer just a companion to traditional broadcast; it is rapidly becoming the primary destination for Irish audiences seeking on-demand, high-quality video content. By 2029, half of all non-live video content will debut first on the RTÉ Player, as part of a massive expansion in on-demand hours."*[173]

RTÉ now appears to be moving beyond "having a BVOD service" to a "digital first strategy", both responding to and capitalising on the trend toward digital and on-demand services.

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169 "*1.6m (38%) people use the RTÉ Player monthly*" RTÉ 2026 Commercial Rate Card report Link

170 "*RTÉ Player is set to hit ~155 million streams in 2025 (+11% YoY), with 3 billion minutes viewed (+14%). Engagement continues to grow, driven by viewing in the living room (78% surge in connected TV live streaming)*" RTÉ 2026 Commercial Rate Card report

171 €30m tender issued for RTÉ Player technical support.

172 RTÉ Submission para 1.43

173 EBU Tech "*RTÉ's strategic transformation charts a new direction on new technological terrain*" June 2025 Link

RTÉ's strategy for the period 2025-2029, '*New Directions*'[174], highlighted that: "*Two of the market dynamics must be met head-on in this five-year period: the move in audience preference from broadcast (terrestrial, satellite and cable TV) to streaming (fibre and mobile broadband), and within that, a change in behaviour from linear (scheduled content) to on demand (including catch-up and downloads).*"

In that regard, RTÉ has identified several outcomes it needs to achieve by 2029:

- Widespread availability of RTÉ Player across all major TVs and TV platforms for live and on-demand viewing by audiences.
- Personalisation of RTÉ Player including cross-device continue watching, parental controls, relevant recommendations and the ability to create watchlists and rate shows[175].
- Digital advertising revenues reaching 25% of traded revenues.

YouTube

In addition to promoting and developing the RTÉ Player, RTÉ appears to have recently begun trialling full length content on YouTube (similar to UK PSBs). While RTÉ has several YouTube channels many of which were launched over 10 to 15 years ago, until recently these were focused on small clips to advertise RTÉ content available on BVOD or Linear channels (e.g., RTÉ[176], RTÉ Kids, RTÉ Kids Jnr.) or highly perishable content (e.g., RTÉ News, RTÉ Sport).

Table 5: Overview of RTÉ YouTube channels

Channel	Launch	Subscriber	Videos	Views to date
RTÉ	April 2006	393k	10.5k	389,919,120
RTÉ News	July 2008	227k	7.7k	135,994,118
RTÉ Player	November 2012	104k	925	54,641,318
RTÉ Sport	August 2013	102k	3.2k	45,987,724

174 RTÉ "*A New Direction: Statement of Strategy*" Link

175 This may require user log-in and profiles.

176 For example, the description of this YouTube channel is *"Subscribe now for a selection of sneak peeks, best bits and teasers from your favourite RTÉ One and RTÉ2 shows. The channel brings you a wide variety of videos from top RTÉ programmes like The Late Late Show, The Ray D'Arcy Show, Fair City and many more. Like and share your favourite clips with friends and family at home and abroad. For the full selection of RTÉ programmes on-demand go to http://www.rte.ie/player/ie/"*

RTÉ Kids	August 2013	163k	2.2k	78,671,909
RTÉ2	August 2014	31.9k	1k	32,337,233
RTÉ Kids Jnr.	September 2021	165k	1.3k	97,557,650
RTÉ Home	February 2026	1.7K	20	135,785
RTÉ Docs	February 2026	.7K	19	96,938
Total[177]	-	1,462 k	31.6 k	1,218,612,105

Recently, in February 2026, RTÉ launched its first thematic YouTube channels dedicated to full-length programmes:

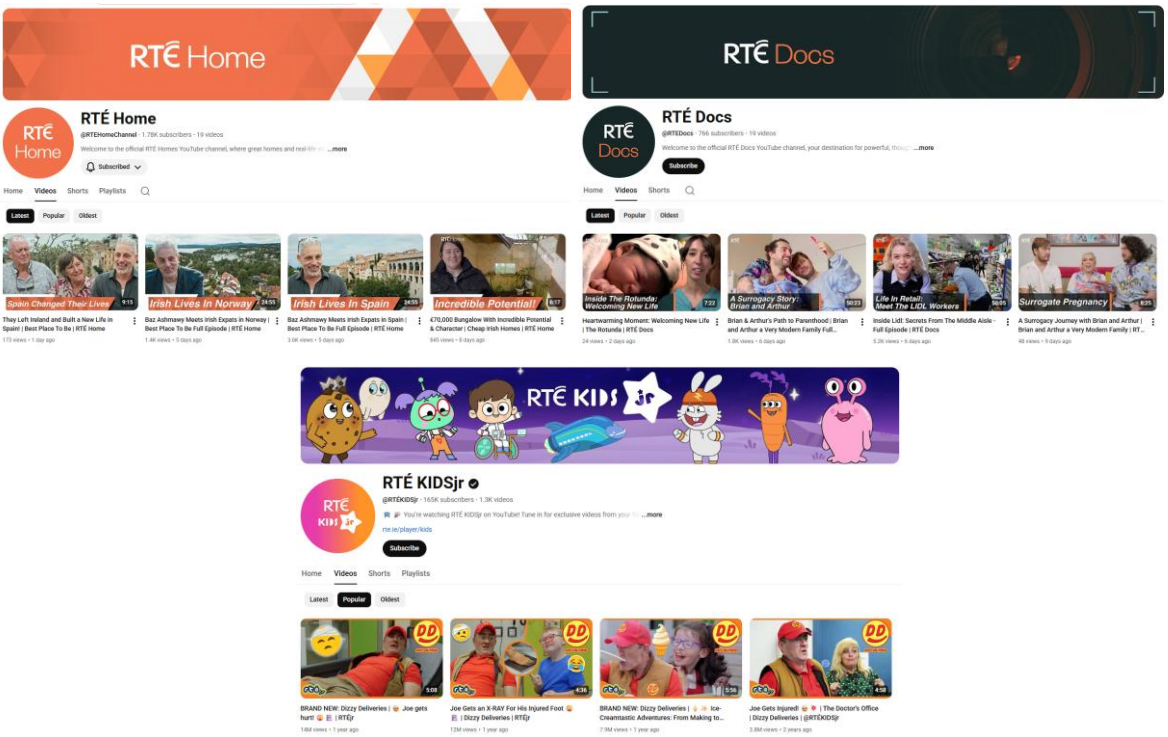
- RTÉ Home focuses on full-length episodes from popular series on housing, such as *Room to Improve*, *Cheap Irish Homes*, and *Best Place To Be*[178].
- RTÉ Docs focuses on full-length episodes from popular documentaries such as Inside Lidl: *Secrets from the Middle Aisle*, *The Case I Can't Forget,* and *The Rotunda.*

In contrast to the older RTÉ YouTube channels which feature mostly short clips, both RTÉ Home and RTÉ Docs feature full length videos with and average video time of over 25 and 28 minutes, respectively. This mirrors the approach of UK PSBs, which have also begun sharing full-length content on their YouTube channels. The next newest channel, RTÉ Kids Jnr, also features longer clips and full-length episodes from popular kids tv programmes such as Dizzy Deliveries, Puffin Rock and Auntie B's Fantastic Facts. Despite only launching in 2021, RTÉ Kids Jnr is among the most viewed of RTÉ's YouTube channels, with among the highest number of views per video or per subscribers of any RTÉ YouTube channel.

177 The total here contains the statistics from RTE YouTube channels excluded from Table 5, which are dedicated to music, radio or specific shows: RTE Concert Orchestra (1.5 Million views) RTE Radio 1 (.5 Million views), and RTE2fm (27.8 Million views) RTE Lyric (.7 Million) and the Late Late Show (353 Million views).

178 Despite only being available for a median of two week, the 17 available episodes have accumulated over 136,000 views as of 23 April 2026.

Figure 16: Screenshot of RTÉ Home, RTÉ Docs and RTÉ KIDSjr



Virgin Media Play

Similarly, Virgin Media Ireland anticipates that BVOD will grow in its importance to viewers and advertisers, recently noting:

> *"We have seen a significant shift in advertising moving from linear to digital platforms. We have escalated our activities in the digital area. We launched a new player. We are cross-connecting to TV. That is all to try to harness advertising…... TAM Ireland and other organisations have shown that digital will only grow and linear will slide in the next five years."*[179]

In Ireland PSM channels are popular and are being watched online

Irish PSM Channels are very popular with Irish TV viewers, with the top channels (RTÉ One, RTÉ2, Virgin Media 1) being viewed by most viewers on a weekly basis.[180]

PSM channels are now being viewed on internet-based TV platforms, with the B&A Survey 2025 indicating that most respondents know how to access Irish PSM channels online and the

179 Oireachtas.ie "*Joint Committee on Arts, Media, Communications, Culture and Sport debate*" 18 Jun 2025 Link

180 B&A 2025 Q.20.

rapid growth of RTÉ Player highlighting the increasing use of online BVOD players to provide an FTA service.[181]

5.4.2 Internationally governments, media regulators and PSBs are exploring actions to adapt PSM FTA services to Internet-based TV

With the increasing role of internet-based TV platforms, governments, regulators and PSBs are exploring a variety of actions they can take to support PSM Free-to-Air (FTA) services.

Prominence (i.e., PSM on TV devices)

There is a widespread agreement on the importance of promoting the prominence of PSM. While there have long been rules on the prominence of PSM within Electronic Programme Guides (EPGs) on traditional linear TV platforms, such as PSM channels appearing at the top of channel lists, this has now shifted to prominence on devices and internet-based TV platforms. For example:

- **Ireland** – In 2022, CnaM gained powers in relation to requiring prominence across platforms under Section 128 of the Online Media and Safety Act. - not yet commenced[182]
- **UK** – Under the Media Act (2024)[183], all '*internet television equipment*' which includes smart TVs, set-top boxes and streaming sticks, must give prominence to designated public service broadcaster (PSB) TV apps. In July 2025, Ofcom recommended that the Government consider whether legislation was required to ensure the prominence of PSM content on YouTube.[184]
- **Australia –** From January 2026, all 'TV devices', which includes *"smart TVs, smart streaming sticks and boxes, smart projectors, smart monitor"* sold in Australia must comply with TV prominence rules, which stipulate that "*free-to-air TV apps must be visible on the primary user interface without any user interaction"*[185]
- **EU member states –** Under the 2018 Audiovisual Media Services Directive[186], EU member states may require the prominence of audiovisual media services. Germany, France, Italy and Spain have each adopted a variety of approaches which differ in terms of the included devices, technologies, "must carry" PSBs and stipulation on User Interface

181 B&A 2025, Q. 35b – Slide 29

182 https://revisedacts.lawreform.ie/eli/2009/act/18/section/128C/revised/en/html

183 The U.K Dept. Culture Media and Sport "*Policy paper: Prominence - specifying internet television equipment: a policy statement*" 24 October 2024" Link

184 Ofcom "*Transmission Critical The future of Public Service Media*" 21 July 2025 Link

185 ACMA "*Outcome Report: Implementing Australia's TV prominence framework"* Link

186 Article 7a of Directive 2010/13/EU - Link

design.[187] Under the European Media Freedom Act, the European Commission may issue guidelines on how Member States promote TV prominence.[188]

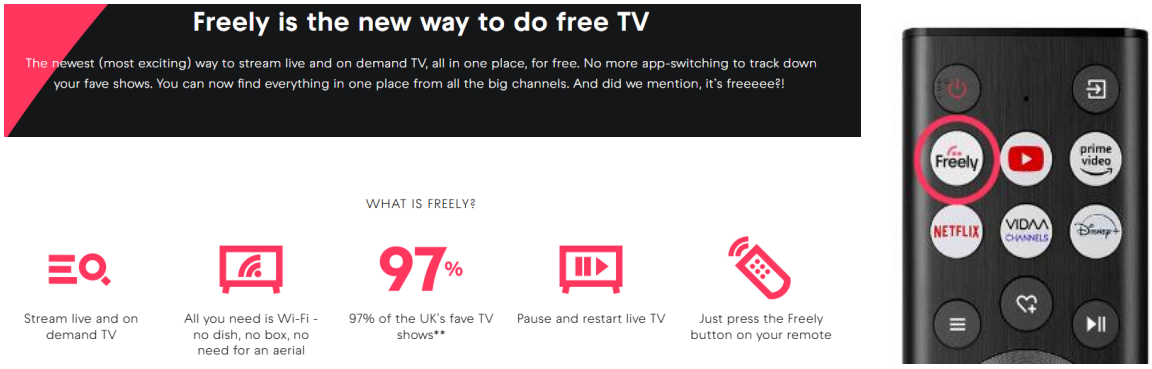
Migrating unconnected households to internet-based TV

A report commissioned by the UK's Department of Culture, Media and Sport[189] which interviewed DTT users found that a minority of these DTT users did not feel ready to leave DTT because of financial, technical or skill barriers (fees, not-spots, and technical knowledge respectively). The Report found that the migration of these users to IP-TV could be facilitated by: promoting and providing information on accessing free or low-cost IP-TV; "*hands-on*" support; and improving awareness of internet options.

Commercial activities to promote PSM on Internet-based TV

In the UK the four PSBs (BBC, ITV, Channel 4 and Channel 5) jointly created a single app provided by EveryoneTV (a joint venture of the four UK PSBs) which enables live and on-demand access to the broadcasters' content, including via a familiar EPG interface, as well as on-demand library. This saves consumers toggling between applications and removes a friction for users that wish to access a variety of UK FTA content.[190] It is possible for EveryoneTV to make commercial deals with TV manufacturers to create dedicated features (e.g., TV remote button – see Figure 17).

Figure 17 Freely promotional pitch and the Freely remote button



187 Digital Europe "*Why we need guidelines on audiovisual prominence rules*" 10 July 2025 Link

188 Art. 16 of Regulation 2024/1083/EU - Link

189 Revealing Reality "*DCMS: Future of TV distribution*" March 2025 Link

190 Freely.co.uk "*What is Freely*" Link

5.5 Revenues from traditional funding faces challenges as revenues from internet-based TV / VOD services are increasing

Revenues for Irish broadcasters come from various sources, including subscriptions (i.e. for pay TV services), advertising and public funds. In tandem with audiences now watching more TV and video content online, there is a trend towards increased revenues for online services with a corresponding decline for traditional broadcast services.

5.5.1 As advertising money moves online broadcast TV advertising revenues are in decline

Changes in viewing behaviour are reshaping the television advertising market in Ireland. As audiences increasingly shift towards internet-based platforms and video-on-demand services, advertising spend is following, with growing investment in digital and online video formats. While the overall TV and video market continues to grow, this growth is being driven by digital revenues, often at the expense of traditional broadcast advertising. This shift has important implications for broadcasters' revenue models and is contributing to increased investment in online and on-demand services.

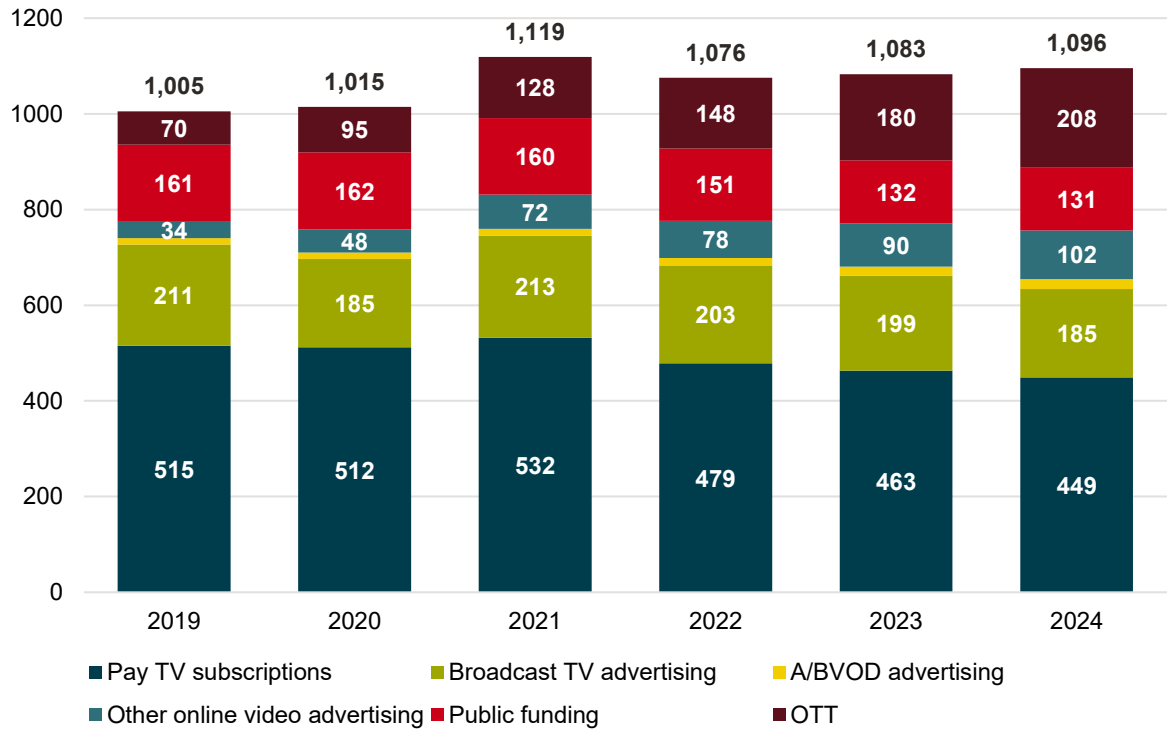
RTÉ notes in its submission to ComReg's BTS consultation:[191]

"*As illustrated in Figure [18], the Irish TV market has experienced growth since 2019, reaching €1.1 billion in 2024. Much of this recent growth has been driven by digital media, in particular OTT services including subscriptions to SVODs, and online video advertising. This reflects the ongoing digitalisation of the market over the past decade and reinforces the point that consumer behaviour is shifting towards online services."*

"The rise in digital revenues has come at the expense of traditional broadcaster revenues, which continue to decline. Broadcast TV advertising revenues fell from £211 million to £185 million, representing a decline at an average annual rate of 2.7 per cent a year between 2019 and 2024."

[191] ComReg Document 25/78a, RTÉ Submission, page 14

Figure 18 TV market revenues, Ireland, 2019-2024 (€m)

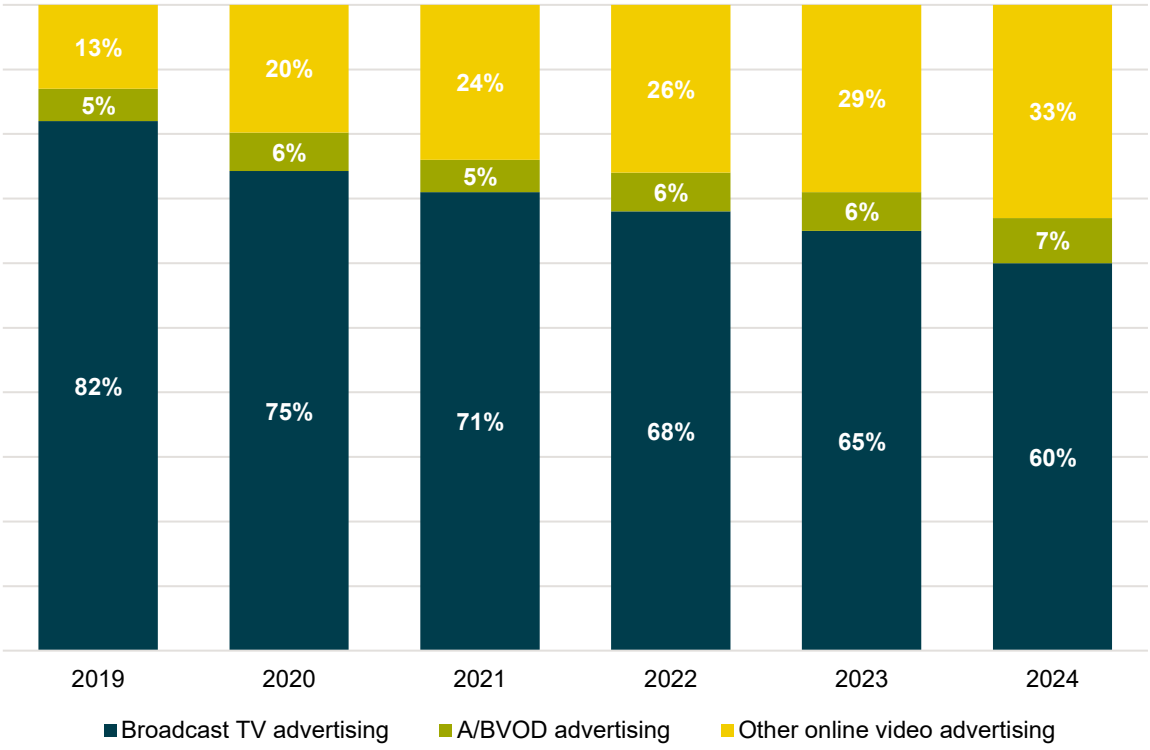


Source: PwC Global Entertainment and Media Outlook, Oliver & Ohlbaum analysis
Note: OTT includes SVOD and TVOD revenues

RTÉ further notes that:

"This decline in traditional broadcast TV advertising revenue has altered the makeup of advertising spend in the sector. As shown in Figure 9, broadcast TV advertising's share of TV-related advertising revenues declined from over 80 per cent in 2019 to 60 per cent in 2024, with digital video advertising, both from A/BVOD, and other online video, including VSPs, rising to account for around 40 per cent of spend. Broadcasters therefore need to invest in their online and on-demand services in order to strengthen this advertising revenue stream."

Figure 19 Mix of broadcast and online video advertising revenue, Ireland, 2019-2024 (% of ad spend)



Source: PwC Global Entertainment and Media Outlook, Oliver & Ohlbaum analysis

Further, recent RTÉ financial statements indicate that:

- "*Television trading*" which includes revenues from linear TV services (including via DTT, and other linear platforms such as Saorsat, Sky Satellite) has fallen in most recent years (excluding 2020 and 2024), declining by €5.9 Million in 2023 alone. This was led by "*TV spot advertising, the single biggest contributor to commercial revenue,* [which] *declined by 6.2% on 2023*". [192]
- "*Digital Trading*" has seen annual growth in recent years, with "*Digital Trading revenues*" growing by over 50% between 2018 and 2023. In 2023 alone, "*Digital Trading*" increased by 29.5%[193], led by "*Digital VOD revenue is the largest contributor to digital trading revenues*".[194]

The value of linear TV advertising could further decline in the future as the expansion of streaming services into providing advertising will likely reduce the *average price* (cost per

192 https://about.rte.ie/wp-content/uploads/2024/09/RTE-Annual-Report-2023-English-Final.pdf

193 On top of a 7.1% YoY increase in 2022 (https://www.rte.ie/annual-report-2022/pdf/RTE_Annual_Report_YE22.pdf)

194 https://about.rte.ie/wp-content/uploads/2024/09/RTE-Annual-Report-2023-English-Final.pdf

thousand impression) of TV advertising.[195] While in Ireland, Netflix and Amazon (currently) do not offer advertising, in line with other markets such as the UK, they may start to offer lower-price plans which include advertising.[196] This will place further pressure on broadcaster revenues.[197] According to advertising analysts, *"[broadcasters in Ireland] currently operate in a sheltered space. But there is an inchoate CTV [connected TV] market developing, and it's likely only a matter of time before Netflix and other SVOD operators enter the fray."* [198] Nonetheless, RTÉ continues to bear the costs of maintaining and operating Linear TV programming and its relevant necessary input services (e.g., TV Listings[199]).

5.5.2 Public funding – TV Licence fees & Exchequer funding

Public funding plays an important role in supporting PSM in Ireland such as RTÉ and TG4, for example via exchequer funding to support RTÉ's financial sustainability and strategic reform programme. The Department of Culture, Communications and Sport (DCCS) is responsible for policy in relation to the funding of the public service broadcasters, RTÉ and TG4, and the development of the broadcasting sector in general.[200]

TV licence fees

DCCS arranges for the collection of TV licence fees, and the monies collected are distributed to RTÉ and the Media Fund which is administered by CnaM. In 2025, RTÉ received approximately €123 Million or approximately 85% of the of TV Licence fees.[201] As shown in Table 5, TV licence sales have declined in recent years, falling from approximately 948,000 in 2022 to around 769,000 in 2025. While the rate of decline appears to have slowed, the data indicates a continued downward trend rather than a clear stabilisation.

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195 In the UK ITV reported its 2023 results noting a 15% decline in advertising revenue in 2023. This reflected the fact that "*the advertising market is getting more competitive*" and it considered a risk that *"Increasing competition and challenging advertising market conditions impact our revenue stream",* noting that there was *"Structural decline in broadcast advertising, increased competition for market share from the larger streamers introducing ad tiers and the growth of online video".* ITV Plc Full Year results for the twelve months ending 31 December 2023 https://www.itvplc.com/~/media/Files/I/ITV-PLC-V2/documents/investors/result-centre/itv-plc-2023-full-year-results-release.pdf

196 This could prove popular as many consumers desire premium content at lower prices, with a small but significant minority report using a 'dodgy box' (7%) or streaming from hosted websites (13%).

197 SVOD services have started to offer TV advertising in some European markets have expanded the available ad inventory, lowering the overall price broadcasters can charge for ads. See for example: *"Two years after Netflix introduced ads, streaming advertising is 30% of the size of traditional TV ad market"* https://www.theguardian.com/media/2024/dec/29/market-for-tv-streaming-advertising-to-pass-1bn-milestone

198 https://businessplus.ie/news/group-madvertising-spend/

199 RTÉ tender offers more than €700,000 for maintenance for TV listings

200 https://www.gov.ie/en/department-of-culture-communications-and-sport/policies/media/

201 https://www.gov.ie/en/department-of-culture-communications-and-sport/policy-information/broadcasting-and-media/#tv-licence

Table 6 TV Licence sales

	TV Licence sold
2022	947,924
2023	824,278
2024	792,243
2025	768,657

Source: https://www.irishtimes.com/ireland/2026/01/22/rte-signals-importance-of-state-funding-as-tv-licence-sales-down-for-sixth-year-in-a-row/

RTÉ's exchequer funding (2025-2027) – push through reforms of its 5 year strategy plan

In 2024, the Irish Government announced that RTÉ would also receive €725 Million of additional funding over 2025 to 2027.[202] Consequently, RTÉ now has a third revenue stream in addition to commercial and TV Licence fees - exchequer funding.

As part of this agreement, RTÉ is expected to push through its reform agenda in the form of its recently published five years strategic plan, including reducing headcount by 400, moving production of certain flagship programmes offsite, embracing new technology and overhauling corporate governance and transparency.

5.6 Satellite and DTT distribution platforms are coming under pressure

As internet-based TV services capture an increasing share of advertising and subscription revenues, the traditional TV distribution platforms – Satellite and DTT - face economic headwinds from the combination of declining viewership and periodic CAPEX requirements making the business case for further investment challenging.

5.6.1 Irish satellites supplying TV services are approaching end-of life

Satellite TV services in Ireland have historically provided an important alternative to DTT for free-to-air and pay-TV distribution. However, technological and commercial developments indicate that satellite-based TV delivery is entering a period of decline. In particular, key satellite infrastructure is approaching the end of its operational life, while broadcasters and consumers are increasingly migrating towards internet-based TV platforms. As a result, satellite is unlikely to provide a long-term substitute for DTT in the event of any future transition.

- Currently, both Freesat and some of Sky's TV services use the Astra satellites operated by SES to provide TV services. These satellites which will reach the end of their lifetime

[202] Minister Martin announces Government agreement on funding of RTÉ and Public Service Media

soon after the end of its contract with Sky in 2029.[203] In February 2026, Sky UK stopped selling Sky Q, Sky's satellite-based service, entirely from its website[204]. Sky Q also appears absent from Sky Ireland's website and the FAQ page indicates that broadband is required for Sky TV, with a minimum recommended speed of 25 Mbps.

- The BBC has stated that were Sky to eventually move to only IPTV, this could affect the viability of Freesat.[205] Currently, the vast majority (90%) of new Sky subscribers sign-up to IP-TV (Sky Stream, Sky Glass).[206]

- Saorsat uses the Eutelsat satellite (EUTELSAT KA-SAT 9A) for its services. It is reported that this satellite is coming to the end of its expected life soon.[207]

Figure 20: Screenshot from Sky UK website on Sky Q and FAQ from Sky Ireland webpage [208]

Can I get Sky TV without Broadband?

No, both our Sky Stream puck and Sky Glass TV require broadband connection at a minimum recommended speed of 25Mbps.

203 Sky extends satellite TV service until 2029 - RXTV

204 Sky UK Stops Selling Sky Q Online as Users Nudged to Glass and Streaming - ISPreview UK

205 Freesat Faces Uncertain Future, Ofcom Report Reveals | Cord Busters

206 Irish Examiner "*What's gone wrong at Sky*" 19 May 2025 Link

207 https://url.uk.m.mimecastprotect.com/s/dPaDCn59KtlvGr8UJhohJTMfl or SatBeams - Satellite Details - Eutelsat KA-SAT 9A (KASAT, KA-Sat)

208 Accessed 23 April 2026 - Sky's best TV deals and TV packages with Netflix included

5.6.2 European countries with low DTT household penetration see limited investment in DTT

There is significant variation in access, usage and investment in the DTT platform across Europe. While some countries are seeing investment in the DTT network (for example by investing in new transmission and encoding technology),[209] in other countries there is limited investment at best in the platform.[210]

Additionally, while for some European countries, DTT remains a highly accessible television platform, notably Spain (99.5%) and Italy (92.1%)[211], for other European countries its role (e.g. in percentage households solely dependent on DTT) has reduced substantially (e.g. Germany (6%), Slovenia (0.3%), and the Netherlands (unknown very low)[212]) - a decline consistent with Irish DTT trends where the percentage of households solely dependent on DTT is currently 7%.

Typically, countries with lower levels of DTT penetration see lower levels of investment in the network. This in turn could reduce demand from viewers (as it is less able to compete with other platforms) and hence lead to broadcasters exiting the platform, further reducing the incentives to upgrade and improve the network. In several countries demand from broadcasters and consumers for DTT is limited.

- **Complete DTT Closure** - Switzerland[213] and Flemish Belgium[214] have switched off their DTT networks. More countries are considering closures, with the RSPG November 2025[215] report indicating that three more countries have stated they are considering the closure of DTT (Netherlands, Sweden and Slovenia).

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209 See Annex C.4.

210 RSPG noted that "Some EU countries have renewed licences for ten to fifteen years, extending operations beyond 2030, and are investing in DTTB evolution with DVB-T2 and UHD upgrades. Other EU countries have already reduced DTTB to a minimal role."

211 The EC 2026 Report indicates this relates to *"percentage of households actually using only DTT for accessing linear TV".*

212 EC Report 2026, Table 1: Usage of the sub-700 MHz band in the EU.

213 In Switzerland, the Swiss public broadcaster SRG ceased all DTT transmissions in 2019.This move was influenced by the country's unique topography and the minimal adoption of DTT services, as the majority of Swiss households adopted cable and satellite television; https://www.broadbandtvnews.com/2018/12/06/switzerland-to-switch-off-dtt-on-june-3-2019/

214 The Flemish public broadcaster VRT discontinued its DVB-T service in 2018, citing minimal usage. https://www.broadbandtvnews.com/2018/05/18/belgian-pubcaster-vrt-terminates-dtt-broadcasts/

215 RSPG Report, November 2025.

- Slovenia and Sweden: "The second panel was led by representatives from Sweden and Slovenia, who spoke on behalf of regulators in EU countries that foresee either a marginal use of DTT or a complete switch-off "
- Netherlands: "The Netherlands (KPN-Digitenne, Odido): According to KPN-Digitenne (MNO and DTTB), the DTTB customer base has been steadily declining. Both Odido (MNO) and KPN are supporting phasing out/switching off DTT "

- **Minimum DTT services** - Portugal[216] and Romania only operate one national mux with seven and nine national channels, respectively.

- **Commercial DTT Closure** - In Sweden, TV broadcasters providing pay TV services left the DTT network leaving only public service broadcasting services.[217] Commercial DTT has also closed in Finland.[218]

- **Low penetration -** Netherlands, Germany, Austria, Hungary all have low penetration rates with less than 10% of households even having an aerial.[219] In Portugal, the DTT platform stopped showing advertising as its reach grew so small.[220]

In contrast, countries with higher DTT penetration have seen increased investment in the DTT platform. This has covered investment to more advanced encoding and transmission standards which enable more channels to be offered at higher levels of resolution. For example, in Spain, DTT remains the most widely adopted platform, offering up to 36 HD channels via nine multiplexes. Further, a transition to DVB-T2, aiming for full Ultra-High Definition (UHD) broadcasting, was initiated through a royal decree in March 2025.[221]

216 Portuguese government defined DTT as "*a costly failure*": https://news.satnews.com/2024/11/03/portuguese-government-admits-dtt-a-costly-failure/

217 https://www.thebroadcastbridge.com/content/entry/21118/swedens-accelerating-journey-from-dtt-to-ott

218 Digita to end pay DTT broadcasts in Finland

219 RSPG Paper – Future of 470-694MHz

220 Advanced Television "*Portuguese government admits DTT "a costly failure"* Link

221 RSPG RSPG25-024 FINAL (Draft) RSPG Report Assessment of future usage of the frequency band 470-694 MHz within the EU.

6 DTT in Ireland is facing challenges

This section examines the challenges facing DTT in Ireland in the context of changing consumer behaviour, evolving broadcaster strategies and wider technological developments. While DTT continues to provide an important nationwide free-to-air service, its role is becoming increasingly constrained relative to alternative platforms. In particular, this section covers:

- Saorview provides an important nationwide free-to-air service;
- the composition of channels on Saorview, including public service and commercial broadcasters;
- the declining attractiveness of Saorview for commercial channels;
- the limited prospects for entry of a commercial DTT multiplex operator; and
- uncertainty regarding the long-term future of DTT Saorview beyond 2030.

Key points

- **DTT Saorview provides an important FTA service of nationwide coverage but has limited content and functionality when compared to other platforms**.
  - Key benefits of Saorview include that it is free and is a resilient and secure network able to operate in emergency situations.
- **Attracting and retaining broadcaster commercial interest in Saorview is challenging.** This may be due to several reasons including that broadband availability in Ireland is impacting the decline of the traditional linear TV platforms of DTT and satellite.
- **Entry of a commercial DTT Multiplex Operator is never likely to emerge.**
  - An unsuccessful process to contract a commercial DTT multiplex operator concluded in 2010, and since then the CnaM assessed the potential for a commercial DTT multiplex operator two further times concluding that market conditions would not support it.
  - Additionally, ComReg in its recent market review of Broadcasting Transmission Services (BTS) outlined its view that "*having regard to the barriers to entry*" ComReg does not consider that "*future effective commercial DTT Multiplex Operator entry is credible*" within the lifetime of its review period (i.e. 2025-2030). Many of the respondents to this consultation, including Coimisiún na Meán, and Virgin Media, agreed with ComReg's view.
- **Some uncertainties are arising regarding DTT Saorview's future beyond 2030**

- Some broadcasters suggest that DTT switch-off could happen as early as 2034 and in this regard, questions may arise for 2rn and its need to invest in certain long-life assets (i.e. masts of 40-year regulatory life) due for replacement from the mid-2030s onwards. That said the current legal framework currently obliges RTÉ to operate a DTT network, and to our knowledge, no changes to this legal obligation have been suggested or proposed.
- The number of DTT multiplex licences that RTÉ will need once its current licences expire in December 2031 is uncertain as it could decrease noting attracting and retaining broadcaster commercial interest in Saorview is challenging, and RTÉ itself has indicated that it intends to remove two of its channels (RTÉ1+1, and RTÉ2+1) from the platform.
- The spectrum allocated and assigned to DTT post-2030 is uncertain. and will be influenced by both national and international considerations which are currently under discussion by European regulatory bodies including the EC and the RSPG, and several countries in Europe including the UK (Ireland's nearest neighbouring with whom it has an extensive international DTT spectrum coordination agreement) and France. These considerations will inform Europe's views at the WRC 2031, where the RSPG is of the view that *"the EU's position for World Radiocommunication Conference 2031 (WRC-31) will be pivotal in shaping future policies for the use of the band"*.

6.1 Saorview provides an important nationwide FTA service

DTT plays an important role in Ireland's broadcasting landscape by providing FTA services nationwide covering 98% of households and carrying 15 TV channels and 6 radio stations. As outlined in section 4.2, a small, but not insignificant, share of Irish households rely on Irish DTT for their TV services.

The infrastructure used to transmit the DTT Saorview service is operated and managed by 2rn, and among other things, 2rn outlines several key features of the DTT platform as being:

> *"True free to air access to public service media with no subscription needed and anonymous viewing;*
>
> *Trustworthy access to trusted content without gatekeepers, from within the state;*
>
> *Robust, reliable, resilient and secure network (able to operate in emergency situations such as after server weather events, or electrical outages); and*
>
> *Most energy efficient way to deliver broadcast video"*[222]

DTT Saorview has limited content and functionality

Compared to other platforms DTT Saorview has limited content and functionality.

[222] 2rn submission, Q 25

- Currently only 15 TV channels and 6 radio stations are broadcast on the DTT Saorview platform, whereas Sky's satellite service (Sky Q) offers hundreds of channels via satellite, and internet-based TV/VOD can offer access to thousands of hours of content accessed via a set top box either directly from the electronic programme guide or via dedicated Apps.[223]

- Internet-based TV/VOD platforms offer greater functionality (such as the ability to series link or select content) compared with linear broadcast platforms like DTT.

- DTT Saorview has limited higher resolution HD content (3 channels) and no UHD content. In contrast Sky satellite has 30+ HD and UHD services, while and internet-based TV/VOD platforms can deliver thousands of hours of content in HD and UHD to homes with a broadband connection.

While one of DTT Saorview's key benefits is that it is free and easily accessible to receive once the user has a simple aerial and equipment (set-top box or compatible TV), the increasing trends towards consumption of audiovisual media via online services across multiple connected devices combined with the increasing rollout of broadband means that some internet-based TV services (e.g. those based on advertising revenues) can now offer the same key benefit as DTT (i.e. being free) but with a greater variety of on-demand content.

6.2 DTT Saorview carries a mixture of "must carry" PSM channels and commercial channels as FTA

Of the 15 TV channels currently carried by DTT Saorview, 6 TV Channels are owned and operated by RTÉ with the other 9 TV channels owned by Virgin Media, TG4, Sky and the Oireachtas. Some of these channels are on DTT Saorview as they are 'must carry'/public service media channels (e.g. RTÉ1, RTÉ2 and TG4) while others are provided on DTT Saorview as commercial channels (e.g. VM3, VM4, Sky news, etc.).

Broadcasters on DTT Saorview also distribute their content widely

Broadcasters on the DTT Saorview platform distribute their content widely on multiple platforms as outlined in Table 7 below. For example, RTÉ1, RTÉ2 and TG4 are also carried on satellite via Saorsat and Sky; IPTV platforms such as Virgin Media, Eir TV, Vodafone TV as well as various VOD apps, as well being available in certain parts of Northern Ireland on the UK Freeview service.

By choosing to distribute content across multiple platforms, broadcasters on the DTT platform reach greater audience numbers, as the DTT platform by itself is considered the primary TV platform for only 13% of Irish households. Conversely this means that should a commercial

[223] For example, Netflix in Ireland is reported to offer 2,976 individual titles. https://netflixsavvy.com/countries/netflix-titles-available-in-your-country/

broadcaster wish to leave the Saorview platform their decrease in audience reach in Ireland is likely to be small.

Table 7 DTT channels diffusion platforms

	Irish DTT [224]	UK Freeview [225]	Sky[226]	Saorsat [227]	Virgin Media [228]	Eir TV[229]	Vodafone TV[230]	Apps [231]
RTÉ1, RTÉ2	✓	✓	✓	✓	✓	✓	✓	✓
RTÉ News	✓		✓	✓	✓	✓	✓	✓
RTÉ Jr	✓		✓	✓	✓	✓	✓	✓
TG4	✓	✓	✓	✓	✓	✓	✓	✓
Cúla4	✓		✓		✓	✓	✓	✓
VM1, VM2	✓		✓		✓	✓	✓	✓
Challenge	✓	✓	✓		✓			✓
Oireachtas [232]	✓		✓	✓	✓	✓	✓	✓

Source: See footnotes

6.3 Saorview is becoming less attractive to commercial channels

While DTT Saorview provides an important FTA service in Ireland covering 98% of households, commercial broadcaster interest in staying on or joining the DTT Saorview platform is becoming increasingly challenging.

This may be due to several reasons including the decline of the traditional linear TV platforms of DTT and satellite due to the rise of internet-based TV /VOD in Ireland (facilitated by increased high speed broadband availability).

224 Saorview | Get Saorview TV

225 https://rxtvinfo.com/freeview-channels-northern-ireland/

226 https://www.sky.com/help/articles/tv-channel-list-sky-glass

227 https://saorsat.ie/

228 https://www.virginmedia.ie/customer-support/support-by-products/tv/virgin-tv/virgin-tv-channels/virgin-tv-channel-list/

229 https://www.eir.ie/tv/channels/

230 https://n.vodafone.ie/shop/tv/tv-channels.html

231 These are carried on the VOD apps of the TV platforms or the Broadcasters, i.e. RTÉ Player, TG4 Player, Virgin Media Player, the Sky GO app, the Eir TV app, the Vodafone TV app.

232 https://www.oireachtas.ie/en/oireachtas-tv/oireachtas-tv-channel/

6.3.1 Retaining existing commercial channels on Saorview is challenging

From information provided in RTÉ's submission and in its strategy statement,[233] it appears that commercial interest to stay on the DTT Saorview platform is increasingly challenging, and RTÉ expects that *"broadcasters will reassess their DTT commitments at natural decision points, such as contract renewals, strategic reviews, and major industry development milestones."*[234]

Currently six RTÉ TV channels and nine non-RTÉ TV channels are carried on Saorview.

Of the six RTÉ channels, RTÉ, in its strategy statement, has indicated its intention to withdraw RTÉ1+1 and RTÉ2+1 from Saorview by 2029 as:

> "*this content will be available more widely on-demand. Closing these services will allow us to reduce the cost of traditional broadcast distribution, as we prioritise delivery of our live and on-demand content via our digital products."*[235];

Of the nine non-RTÉ channels, RTÉ notes that:

> "*the contract renewal date has already lapsed for four, with no current contract in place (although performance has continued); the renewals for the remaining five channels are due between 2026 and 2028.*"; and that
>
> "*Only three of the non-RTÉ channels have a 'must carry' obligation, whilst the other six have no requirement to remain on the platform after their contracts lapse.* "[236]

6.3.2 Attracting new commercial channels to DTT Saorview is difficult.

The relatively low number of channels available on DTT Saorview reflects the limited interest from broadcasters in using the platform, which in turn reflects its economic proposition. A broadcaster wishing to join the platform would likely weigh up the incremental costs of purchasing DTT broadcasting capacity on a multiplex against the incremental revenue that it would derive from being on the platform. In relation to revenues, these would likely reflect a number of factors including:

- The channel's audience share on the platform (with smaller shares attracting less advertising).
- The platform's overall share of households: while 34% of households have an aerial capable of receiving DTT Saorview, only 13% of Irish households primarily use DTT and 7% are DTT Only households. This limits the incremental reach and additional audience that can be gained from acquiring a DTT slot. Ireland's DTT penetration is much lower

233 RTÉ Strategy Statement for 2025-2029, 'A New Direction'

234 RTÉ submission, paragraph 1.50

235 RTÉ Strategy Statement page 27.

236 RTÉ submission, paragraph 1.60

than some other European countries (DTT is the primary TV reception technology in 33% of all homes in the UK[237] and 20% of TV households in France).[238,239]

- The demographic and socio-economic characteristics of the audience, where DTT attracts an older more cost-conscious audience. This may be less valuable for advertisers than younger, higher income audiences.

In relation to the economic and strategic case for broadcasters to join DTT Saorview, RTÉ notes that "*this has become **increasingly difficult to justify**. Rather than seeking access, broadcasters may now be inclined to prioritise other distribution routes and other types of service such as VOD and FAST channels.*"[240]

Further RTÉ submits that:

- *"the economics of joining the DTT platform have become increasingly unfavourable in recent years and **this will likely only continue to worsen in the short to medium term**. Broadcasters face significant upfront and ongoing costs";*[241] and
- *"In a market where digital transformation is accelerating and Irish viewers continue to shift their video consumption to other platforms and other types of service, including VOD and FAST, **the long-term value proposition of DTT is increasingly under question**. Declining potential for revenue-generation is a major consideration for incumbent and potential new broadcasters to the platform as traditional linear viewing to FTA services continues to fall, perpetuating a decline in advertising revenues to these channels."*[242]
- "*approximately two-thirds of the available capacity across both multiplexes is currently allocated*"[243], which suggests that new channels could be added on the existing multiplexes should demand be there, noting also that RTÉ must reserve capacity for an Irish Film channel which has 'must carry' status under the Broadcasting Act 2009.

Finally, in 2rn's submission, it notes that it had "*no plans to upgrade to DVB-T2*" as this would have to be a "*customer led initiative*".[244]

6.3.3 Saorview's value proposition is likely to weaken over time

While the ability to receive Irish DTT and its usage has held relatively steady over the last decade, more recently it has declined, and over time it is expected that DTT's (and Satellite's)

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237 https://www.ofcom.org.uk/phones-and-broadband/service-quality/communications-market-report-2024-interactive-data

238 https://www.culture.gouv.fr/fr/thematiques/audiovisuel/consultations-publiques/consultation-publique-relative-aux-perspectives-de-diffusion-et-de-distribution-des-services-de-television-en-france

239 See Annex C.4

240 RTÉ submission, paragraph 1.47

241 RTÉ submission, paragraph 1.48

242 RTÉ submission, paragraph 1.49

243 RTÉ Submission, page 3, Box titled "The operation of the Saorview platform".

244 2rn submission, Q7

share of the market will decline even further. This is due to the prevailing trends towards internet-based TV/VOD platforms in terms of audience TV viewing, broadcasters' investment and distribution strategies, and the ability to attract advertising revenues.

In this situation and noting that the costs of distribution via the DTT network (2rn's total operating cost were €13.5m in 2023)[245] are largely stable absent large infrastructure projects and that these do not vary with viewing of the platform,[246] Saorview's value proposition (e.g. measured in costs per viewer hour) will weaken over time as viewing decreases.

A reduction in Saorview's value proposition would make the platform even less attractive for broadcasters, particularly to broadcasters with smaller audience shares and would amplify uncertainties about DTT's future given its current small share of the market.

6.4 A commercial DTT Multiplex Operator is unlikely in Ireland

The CnaM is responsible for the establishment, maintenance and operation of commercial DTT multiplexes that would be used by a commercial DTT multiplex operator who could in theory operate in addition to Saorview. Additionally, ComReg is required to reserve spectrum for at least four commercial DTT multiplexes should the CnaM wish to establish such a service and apply for a licence from ComReg.

As detailed below, the potential entry of a commercial DTT Multiplex Operator, in addition to DTT Saorview, is never likely to emerge.

6.4.1 CnaM's previous processes and assessments has determined that the Irish Market cannot support a commercial DTT multiplex operator

In 2008, the Broadcasting Commission of Ireland (BCI) (the forerunner to the BAI and now CnaM), initiated a licensing process for three commercial DTT multiplexes which attracted applications from three consortia,[247] but terms were not agreed, no licences were issued, and the process was shelved in 2010.

Since then, the CnaM has assessed this matter two further times, in 2013 and 2018, both of which determined that the Irish market cannot support a commercial DTT multiplex operator.

245 2rn's total operating costs in 2023 were €13.5m, though these costs were shared among DTT users and other users. Around 62% of 2rn revenues in 2023 (€15.8m) related to DTT with the remainder being 6% from commercial radio broadcasters and 32% from RTÉ radio.

246 Instead, costs to 2rn of building and maintaining the platform are largely driven by the geographic areas served. The costs of meeting more rural customers is higher than the costs of broadcasting to more densely populated areas. The main transmitters in Ireland serve the majority of the population concentrated in urban areas and large cities and towns; but a network of smaller relay transmitters serve smaller populations in more rural areas.

247 Indeed, Boxer TV, which was the most recent potential entrant to the commercial DTT market in Ireland in 2008, has since exited commercial DTT markets

- In 2013, the BAI (the forerunner to CnaM) commissioned Oliver & Ohlbaum to consider the prospects for commercial DTT in Ireland.[248] This study concluded that the market in Ireland at that time (a time when Irish DTT faced far less competition for TV viewing than now) "*will not support a commercial DTT proposition and that the BAI should not proceed with a new licensing process.*"
- In 2018, BAI (now CnaM) reiterated that the market could still not support a commercial DTT and it committed to revisiting the matters every three years:

  "*Work undertaken by the BAI on DTT to-date revealed that market conditions would not support the launch of commercial DTT services. This work involved a number of independent reviews of the marketplace, and the Mediatique research report of December 2017 supports these views.*"

  "In this context, the BAI commits to its current approach to DTT, that of commissioning an independent review approximately every three years to ascertain the capacity of the market place, including the identification of potential applicants."[249]*; and*

The CnaM process of 2010 and the subsequent assessments were made when the challenges for DTT in Ireland were lower compared to now given the rise of internet-based TV and VOD platforms. While it is noted that CnaM plans to revisit this matter in its upcoming review of the Broadcast Services Strategy,[250] the above suggests that a commercial DTT multiplex operator in Ireland is unlikely to emerge.

6.4.2 ComReg's Broadcasting Transmission Services (BTS) market assessment

Consistent with the above, ComReg in its recent market review of Broadcasting Transmission Services (BTS) outlined its view that "*having regard to the barriers to entry*" ComReg does not consider that "*future effective commercial DTT Multiplex Operator entry is credible*" within the lifetime of its review period (i.e. 2025-2030). [251] Respondents to this consultation, including CnaM, and Virgin Media, agreed with ComReg's view.[252]

Ultimately, in a market of 1.46 million television households where 90% are already pay for some form of TV, a business case for Pay-TV DTT would always be challenging.

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248 Oliver & Ohlbaum "*Prospects for commercial digital terrestrial television in the Republic of Ireland*" August 2013 Link

249 https://www.cnam.ie/app/uploads/2024/11/Broadcasting-Services-Strategy.pdf

250 This has featured in the CnaM's workplan: Work Programme 2025. From the CnaM.ie "*The prospects for DTT and other digital models can be considered in the development of Coimisiún na Meán's future licensing policies to support sustainable, open and pluralistic broadcasting and audiovisual on-demand services which will commence with its review of the Broadcasting Services Strategy in 2025.* " Link

251 Information-Notice-Broadcasting-Transmission-Services-Market-Anaysis-and-Draft-Decision.pdf paragraph 8.16

252 ComReg 25/78a, "Broadcasting Transmission Services Draft Decision - Annex 6 Non-confidential Submissions", 3 November 2025

6.5 There is uncertainty regarding the long-term future of DTT Saorview

6.5.1 There are contrasting views on the potential timing for DTT-switch-off in Ireland

The presence of some spare capacity on the DTT Saorview platform and the unwillingness of some broadcasters to commit to long term contracts suggests that some broadcasters are not certain about the long-term prospects of the platform.

In the submissions to ComReg's consultation on the broadcasting transmission services market review,[253] some respondents suggested that the DTT Saorview platform could be switched off soon.

Both Virgin Media and TG4 suggested that DTT switch-off may happen as early as 2034; and SIRO submitted that:

> "*It is both technically feasible and strategically prudent for Ireland to begin preparing for the phased withdrawal of DTT. A proactive policy now will help ensure a smoother transition, promote better use of public resources, and position Ireland as a digital leader in Europe*."

In contrast, 2rn submits that DTT could continue well into the 2040s;[254] and RTÉ notes that is obliged to establish and operate DTT multiplexes under its obligations in the 2009 Act, while also noting that the economics of DTT are becoming increasing challenging and that broadcasters will strategically assess DTT Saorview membership going forward.[255]

6.5.2 PSB channels and VM1 and VM (Section 70 channels) are required to use DTT Saorview to meet their legal and contractual obligations

The current legal and regulatory framework obliges PSBs channels (i.e. RTÉ, TG4 and the Houses of the Oireachtas Channel) and commercially licensed television services provided pursuant to Section 70 of 2009 Act (i.e. VM1 and VM2), to use DTT Saorview:

- The 2009 Act requires that RTÉ operate a DTT network and that PSBs (i.e. RTÉ, TG4 and the Houses of the Oireachtas Channel) are carried on the DTT platform.
- The Section 70 contract issued to Virgin Media Ireland (VMI) for VM1 and VM2 contains FTA coverage obligations to 90% of the population which can currently only be met by the DTT Saorview network. The current Section 70 contract with Virgin Media Ireland runs

253 ComReg 25/78a, "Broadcasting Transmission Services Draft Decision - Annex 6 Non-confidential Submissions", 3 November 2025

254 2rn's submission, page 10. Q16

255 RTÉ submission, para 1.48 to 1.50

from September 2023 for a ten-year period, with the option of a further ten-year extension.[256]

To fulfil these legislative requirements ComReg has issued two DTT multiplex licences to RTÉ which expire in December 2031.

Commercial broadcasters, on the other hand, may strategically assess DTT Saorview membership going forward at upcoming natural decision points, such as contract renewals, strategic reviews, and major industry development milestones, as noted by the RTÉ submission.

6.5.3 Some uncertainties are arising regarding DTT Saorview's future beyond 2030

While the legal and regulatory framework for DTT provides clarity on the need to operate the DTT Saorview service, some uncertainties are arising regarding DTT Saorview's future post 2030.

Investments required by 2rn for certain long-life assets due for replacement

While 2rn notes that its network investment is ongoing and relatively smooth, it also notes that around the mid-2030s some large expenses in expenditure would be expected when the remaining large masts, not replaced during the initial DTT rollout, will be due for replacement.[257]

Noting that some broadcasters on the Saorview platform (VMI and TG4) suggest that DTT switch-off could happen as early as 2034 (i.e. much earlier than the end-of-life dates for any large mast that would need to be replaced) questions may arise regarding the economics for such long-life asset investments.

That said, the legal and regulatory framework provides a degree of certainty on DTT's future, noting that it currently obliges RTÉ to establish and operate a DTT network and to carry PSB and Section 70 services on DTT Saorview. To our knowledge, no changes to these legal obligations have been suggested or proposed.

In relation to these investments, 2rn has noted that:

> *"2rn also expects to invest, as a necessity, over the coming 15 years, in the Long Life Assets listed in the below table. All of these asset classes have a 40 year regulatory life and their costs are recovered over that period via tariff charging.*

256 Coimisiún na Meán signs new contract with Virgin Media Television Limited - Coimisiún na Meán

257 2rn submission, Q17

Scenario (iii) of the potential future uses of the sub-700 MHz band in Ireland which envisages a switch-off of DTT sometime post-2030 creates an investment uncertainty for 2rn with respect to these assets which will need to be addressed."

Table 8 2rn expected investments

[✂

[redacted]

Source: 2rn

✂]

RTÉ's demand for DTT multiplex licences beyond December 2031

In December 2031 RTÉ's two DTT multiplex licences will expire. Should RTÉ require DTT multiplex licences beyond that date it will need to apply to ComReg in accordance with relevant legislative provisions.[258]

While the legal and regulatory framework for DTT provides certainty regarding RTÉ's need to operate a DTT network, and carry PSB and Section 70 services, the number of DTT multiplex licences that RTÉ would have a demand for is uncertain and could decrease from its present need for two DTT multiplexes. RTÉ's total demand would be influenced by broadcasters' overall demand for services on the DTT Saorview network at that time, noting that from 15 TV channels on Saorview, 9 TV channels are presently there for commercial or strategic reasons, and RTÉ has indicated that it intends to remove two of these channels (RTÉ1+1, and RTÉ2+1) from the platform.

Further, as noted in RTÉ's submission, the economics of DTT are becoming increasing challenging. Attracting and retaining broadcaster commercial interest in DTT Saorview is difficult and RTÉ expects that broadcasters will strategically assess their DTT Saorview membership going forward at upcoming natural decision points such as contract renewal.

[258] S.I. No. 197/2019 - Wireless Telegraphy (Public Service Television And Sound Broadcasting Licences) Regulations 2019.

The spectrum allocated and assigned for DTT post 2030 in Ireland

In Ireland, the Department of Culture, Communications and Sport ("DCCS") is responsible for the development of the legislative and regulatory framework for broadcasting (including for DTT) and certain media in Ireland[259], as well as the development of policies relating to the regulation and optimal use of Ireland's radio spectrum.[260]

Currently Decision (EU) 2017/899[261] obliges Ireland and other EU Member States to ensure the availability of sub-700 MHz band for DTT and wireless audio PMSE until at least 2030.

Post 2030, the spectrum allocated and assigned to DTT in Ireland is uncertain and will be influenced by both national and international considerations.

Internationally, the future use of the sub-700 MHz band post-2030 is under consideration by European regulatory bodies including the European Commission and the RSPG, and several countries in Europe including the UK (Ireland's nearest neighbouring with whom it has an extensive international DTT spectrum coordination agreement) and France.

In the RSPG's November 2025 report[262] it noted that:

> *"There is a growing demand across various sectors for regulatory clarity to effectively plan future spectrum allocations";* and
>
> *"the EU's position for World Radiocommunication Conference 2031 (WRC-31) will be pivotal in shaping future policies for the use of the band".*

In the UK, Ofcom on behalf of the UK Government has set out three broad approaches on the future of TV distribution[263] being:

1. investment in a more efficient DTT service;
2. reduce DTT down to a core service (known as a 'nightlight'); and
3. move towards DTT switch-off over the 2030s.

In that publication, Ofcom additionally noted that "*Options which rely either on replanning the DTT broadcast frequencies, or a complex initiative to rollout and increase take-up of broadband, would take 8-10 years to plan and execute. With many multiplex licences expiring in 2034, and some sooner, the need for certainty about the future approach to DTT by 2026 is increasingly pressing, in line with the Government's current planned work*."

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259 https://www.gov.ie/en/department-of-culture-communications-and-sport/policies/media/

260 ComReg Document 24/65, paragraph 2.2

261 Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Unionhttps://eur-lex.europa.eu/eli/dec/2017/899/oj/eng

262 RSPG Report on Assessment of future usage of the frequency band 470-694 MHz within the EU Document RSPG25-033 (November 2025)

263 Future of TV Distribution Ofcom, May 2024

7 Potential uses of sub-700 MHz band post 2030

Noting the changing audience TV viewing habits, the changing TV distribution conditions and Saorview's challenging circumstances, it is likely that post 2030 the use of the sub-700 MHz band will change, both in Ireland and internationally.

This section sets out information on three possible scenarios for use of the sub-700 MHz band, being:

- **Scenario 1: The 'status quo' or 'baseline' scenario.** Post 2030, DTT continues to use the full sub-700 MHz band. This is the current situation and is thus a baseline scenario.
- **Scenario 2: The 'partial release' scenario.** This is a hypothetical scenario where sometime post 2030, the sub-700 MHz band is divided in two.
  - DTT would no longer use the upper part (e.g. 617-698 MHz, the '600 MHz band'); and
  - DTT would continue to use to the lower part (e.g. 470-614 MHz or the 'sub-600 MHz band')
- **Scenario 3: The 'full release' scenario.** This is a hypothetical scenario where sometime post 2030, DTT would no longer use any spectrum in the sub-700 MHz band.

The above scenarios are not exhaustive or mutually exclusive, as while one scenario might be in operation (e.g. Scenario 1) preparations could be underway to transition to another scenario over time.

7.1 Scenario 1 – The 'status quo' or 'baseline' scenario

7.1.1 Outline of scenario

In this scenario, DTT continues to make use of the full sub-700 MHz band, depending on how consumer demand evolved this would imply different impacts for stakeholders which are explained in three sub-scenarios. In theory, it would enable DTT to expand services if consumer demand increased, though as noted in this report this would be unlikely; services could be maintained; or services could reduce reflecting declining consumer demand.

Sub-scenario (i) - assuming an expansion of DTT (i.e. 3 or more DTT Multiplexes)

If DTT's use of the sub-700 MHz band to expand in Ireland, either:

- RTÉ would request a third (or more) DTT Multiplex licence[264] from ComReg for its DTT Saorview service; or
- The CnaM would request one or more commercial DTT multiplex licences from ComReg.

Sub-scenario (ii) - Maintain the same level (i.e. 2 DTT Multiplexes)

If DTT's use of the sub-700 MHz band in Ireland to remain the same, RTÉ would continue to require two DTT multiplex licences from ComReg. This possibility appears time bound for reasons discussed in this document.

Sub-scenario (iii) - Decrease (i.e. 1 DTT Multiplex)

If DTT's use of the sub-700 MHz band in Ireland were to decrease RTÉ could only need one DTT Multiplex for its DTT Saorview service. A reduction in DTT Multiplexes could be due to (i) current services leaving the platform or (ii) an increased technical efficiency facilitated by upgrading to more advanced DTT technologies (i.e. migrating from DVB-T/MPEG4 to DVB-T2 combined with HEVC). In this scenario, 2rn notes that while some operational costs (mostly electrical power) would be reduced should RTÉ only need to operate one multiplex instead of two, most other costs are common.[265]

7.1.2 Spectrum management considerations

PSB and DTT multiplex licences for RTÉ

ComReg would continue to be obligated to issue a public service broadcasting licence to RTÉ and to reserve spectrum for two PSB multiplexes.[266]

Given the expiry of RTÉ's two existing DTT multiplex licences in December 2031, on request from RTÉ, ComReg would be required under current legislation to issue new DTT multiplex licences as appropriate. [267]

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264 Q16 of 2rn's submission states: "A third multiplex would be required if broadcasters seek to put more services or more HD, or UHD services on the platform. To implement a third multiplex 2RN would need to add headend/encoder capacity, configure distribution, and add a transmitter (with associated combining) to each broadcast site."

265 2rn submission, Q21

266 Broadcasting Act (2009). Section 132(1) provides that ComReg, upon request by RTÉ, shall issue a single television multiplex licence to RTÉ; Section 132(2) provides that ComReg, upon request by RTÉ and following consultation with the Minister for Communications and the Coimisiún na Meán (formally the Broadcasting Authority of Ireland or "BAI"), shall issue a second television multiplex licence to RTÉ;

267 S.I. No. 197/2019 - Wireless Telegraphy (Public Service Television And Sound Broadcasting Licences) Regulations 2019.

International co-ordination

Depending on developments, it may be necessary to commence the international co-ordination DTT spectrum re-planning process[268], noting that:

- Ireland may need to start preparing for Scenario 2. A first step in this process would be the replanning of the existing international coordination agreements with the UK and France. This can be a lengthy process, possibly taking several years to negotiate and is subject to parties working co-operatively to find a suitable agreement. For example, the renegotiation of the international coordination agreements to migrate DTT out of the 700 MHz band took 4 years to agree, from 2013 to 2017.[269]
- The UK or France may request changes from Ireland to the current agreements should for example, either the UK or France wish to change its international allocation rights regarding some or all the sub-700MHz band.
- The outcome of WRC-31, or some other international spectrum harmonisation decision, may require changes to the existing plans.

Reservation of spectrum for at least 4 commercial DTT multiplexes

It would be prudent to amend ComReg's obligation that currently reserves spectrum for at least 4 DTT commercial multiplexes[270] in order to bring it in-line with actual requirements reflective of the Irish market demand. If left unaddressed, this could well result in inefficient DTT spectrum planning and increased network costs for scenario 2.[271]

Any such amendment would of course be subject to the views of Government and CnaM given their respective roles regarding this obligation in national legislation.

Other uses of the sub-700 MHz band such as Mobile Wireless Broadband

No other uses of the sub-700 MHz band would be expected given the continued use of DTT in the sub-700 MHz band and assuming no material changes to international coordination agreements for the sub-700 MHz band.

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268 Ireland currently has coordination agreements on the use spectrum in the 470-694 MHz band for broadcasting (i.e. DTT) services the Western European Digital Dividend Implementation Platform group ("WEDDIP") - https://www.comreg.ie/media/dlm_uploads/2017/03/ComReg_1723d.pdf

269 See ComReg Document 17/23 Information Notice, "Progress update on DTT migration to below the 700 MHz band: International coordination of Ireland's DTT spectrum plan", published 31/03/2017.

270 Broadcasting Act (2009). Section ;132(3) obliges ComReg, upon request, to provide up to four DTT multiplex licences to Coimisiún na Meán. A request for additional multiplex licences is provided for under Section 132(4). The Coimisiún na Meán has not requested such a licence.

271 For example, to have a DTT spectrum plan for six multiplexes in the sub-600 MHz band, substantial changes to Saorview's network (e.g. increased number of sites, single frequency networks, etc) could be required.

PMSE use of the sub-700 MHz band

PMSE users would continue to have access to the sub-700 MHz band for PMSE uses.

7.2 Scenario 2 - The 'partial release' scenario.

7.2.1 Outline of scenario

This is a hypothetical scenario where sometime post 2030 DTT would migrate its use to the sub-600 MHz band and no longer use the 600 MHz band.

Migration of DTT to the sub-600 MHz band

To migrate DTT to the sub-600 MHz band several actions over a long period of time would be required (e.g. the 700 MHz migration project took 7 years from initial planning in 2013 to completion in 2020) including:

- The negotiation and agreement of an internationally coordinated DTT spectrum plan for the sub-600 MHz band with the UK, France and WEDDIP.
- 2rn planning and making changes to its DTT network. The broad category of costs would include planning, network reconfiguration (including combiner and antenna retuning/replacement, replacement of some transmitter amplifiers), installation and operation of simulcast transmitters.[272]
- Running of publicity/information campaigns;
- Viewers would need to rescan their TVs and, in some cases, may need to replace or adjust their rooftop antennas.

In addition, 2rn noted that any investment in new technology (DVB-T2) or improved compression (e.g. HEVC) would require some reconfiguration of existing equipment and a period of simulcast to make sure that viewers could make the transition. 2rn further notes that this investment may only be appropriate to consider in circumstances where there was a significant change to the platform (e.g. migration of DTT to sub-600 MHz band).[273]

The 700MHz clearance illustrates the scale of costs that might be incurred. In order to clear the 700 MHz band 2rn incurred incremental costs of approximately €8.1m (in 2020 prices), for which the Irish government provided compensation.[274] The process for clearing the 700 MHz band was a collaborative effort between the Irish Government, ComReg, 2rn and its neighbouring countries which took approximately four years (from 2016 to 2020) to complete. Prior to this, and as noted earlier, a period of 4 years was required from 2013 to 2017 for the

[272] 2rn submission, Q20

[273] 2rn submission, Q5, Q6, Q7, Q20

[274] ComReg 2069a.

planning and negotiation of the international coordination agreements with the UK, France and WEDDIP.

7.2.2 Spectrum management considerations

PSB and DTT multiplex licences for RTÉ

As per Scenario 1:

- ComReg would continue to be obligated to issue a public service broadcasting licences to RTÉ and to reserve spectrum for two PSB multiplexes.[275]
- Given the expiry of RTÉ's two existing DTT multiplex licences in December 2031, on request from RTÉ, ComReg would be required to issue new DTT multiplex licences as appropriate. [276]

Additionally, ComReg would need to consider how best to license and internationally coordinate any period of simulcast to facilitate the DTT migration from the 600 MHz band to the sub-600 MHz band.

International co-ordination

Prior to the implementation of a 600 MHz migration project, ComReg would need to re-negotiate and agree an internationally coordinated DTT spectrum plan for the sub-600 MHz band with the UK, France and WEDDIP. As noted, this could take several years and is subject to parties working co-operatively to find a suitable agreement, noting that complexities may arise where neighbouring countries continue to operate a DTT network in the whole of the sub-700 MHz band.

Reservation of spectrum for at least 4 commercial DTT multiplexes

Subject to the views of Government and CnaM it could be prudent to amend ComReg's obligation to reserve spectrum for four DTT commercial multiplexes[277] (in addition to the two multiplexes that are provided to RTÉ) to bring it in line with actual requirements reflecting Irish market demand. If left unchanged, this would likely result in inefficient DTT spectrum planning and increased network costs for scenario 2.[278]

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275 Broadcasting Act (2009). Section 132(1) provides that ComReg, upon request by RTÉ, shall issue a single television multiplex licence to RTÉ; Section 132(2) provides that ComReg, upon request by RTÉ and following consultation with the Minister for Communications and the Coimisiún na Meán (formally the Broadcasting Authority of Ireland or "BAI"), shall issue a second television multiplex licence to RTÉ;

276 S.I. No. 197/2019 - Wireless Telegraphy (Public Service Television And Sound Broadcasting Licences) Regulations 2019.

277 Broadcasting Act (2009). Section ;132(3) obliges ComReg, upon request, to provide up to four DTT multiplex licences to Coimisiún na Meán. A request for additional multiplex licences is provided for under Section 132(4). The Coimisiún na Meán has not requested such a licence.

278 For example, to have a DTT spectrum plan for six multiplexes in the sub-600 MHz band, substantial changes to Saorview's network (e.g. increased number of sites, single frequency networks, etc) could be required.

Other uses of the sub-700 MHz band such as Mobile Wireless Broadband

In this scenario, the 600 MHz band would be available for other uses (e.g. mobile wireless broadband), although the ability to use the 600 MHz band for other uses would be contingent on the successful renegotiation of international coordination agreements and their implementation (e.g. the UK would also need to have cleared the 600 MHz band from DTT use).

PMSE use of the sub-700 MHz band

PMSE users would continue to have access to the sub-600 MHz band, being the interleaved "white spaces" in the spectrum assigned to DTT in the sub-600 MHz band. PMSE may also have access to the 600 MHz band for a period of time, should other uses (e.g. wireless broadband) not be able to immediately use the 600 MHz band (e.g. given a continued use of DTT in the 600 MHz band in the UK).

7.3 Scenario 3 – The 'full release' scenario

7.3.1 Outline of scenario

This is a hypothetical scenario where sometime post 2030 DTT would close[279] and hence no longer use any spectrum in the sub-700 MHz band.

Decommissioning of the DTT network

To implement this scenario the DTT Saorview network would be decommissioned. This would mean the following:

- Some households (i.e. those households only using DTT as their TV service) would need to migrate to an alternative platform in order to receive a TV service. As outlined in Section 4.24, currently 7% of households are DTT-Only households, while 5% of households are Potentially Unconnected DTT Only householders. Over time, these numbers could be expected to decrease as broadband availability and take-up improves, and broadcasters and consumers increasingly use internet-based platforms for distributing and viewing TV/VOD services.

- 2rn's charges for providing transmission services to other customers (radio distribution or commercial services) could increase depending on how any potential DTT write-offs are treated and how 2rn recovers its costs (a lot of which are fixed costs) once DTT is

[279] While it is possible for DTT to use spectrum in the VHF band to provide a service this seems unlikely due to significant costs and therefore in this scenario it is assumed that the DTT Saorview network is ceased. 2rn submission, Q 23 notes that while spectrum in the VHF band could be used to provide DTT there are several major issues to consider.

decommissioned.[280] A relatively small proportion of fixed costs would be removed. In today's costs RTÉ & Radio/Bauer medias costs would increase by between [✂[redacted]✂] and [✂[redacted]✂].[281]

7.3.2 Spectrum management considerations

PSB and DTT multiplex licences for RTÉ

All DTT multiplex licences would expire following decommissioning of the DTT network.

International co-ordination

Ireland would have no need to have an internationally co-ordinated DTT spectrum plan. However, should Ireland wish to use the sub-700 MHz band for other uses (e.g. wireless broadband), new international agreements or cross border MoU with relevant neighbours may be required.

Reservation of spectrum for 2 PSB and at least 4 commercial DTT multiplexes

For Scenario 3 to be implemented and for other uses to be permitted in the sub-700 MHz band, it would be necessary to amend ComReg's current obligation to reserve spectrum for 2 PSB DTT multiplexes and for at least 4 DTT commercial multiplexes.[282]

Other uses of sub-700 MHz spectrum such as Mobile Wireless Broadband

The sub-700 MHz band would be available for other uses.

The ability to use the sub-700 MHz band for other uses depends on many factors including international coordinated DTT plans of UK and France[283], international harmonisation decisions, availability of equipment[284], etc.

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280 In 2024 broadcasters (including RTÉ) paid €8.62m for DTT multiplexing services to RTÉ (which in turn RTÉ paid €10.6m to 2rn for broadcasting transmission services) https://about.rte.ie/wp-content/uploads/2025/05/2024-Market-B-Accounts-Signed.pdf

281 2rn submission, Q 26

282 Broadcasting Act (2009). Section ;132(3) obliges ComReg, upon request, to provide up to four DTT multiplex licences to Coimisiún na Meán. A request for additional multiplex licences is provided for under Section 132(4). The Coimisiún na Meán has not requested such a licence.

283 Should the UK, and France to a much lesser degree, continue to operate a DTT network in the sub-700 MHz band, this would restrict Ireland's ability to use of the sub-700 MHz band for other uses.

284 While there are 3GGP band plans for the 600 MHz band (e.g. 617 MHz – 694 MHz) for wireless broadband usage, there are currently no 3GPP bands plans for spectrum below the 600 MHz band.

PMSE use of the sub-700 MHz band

It may still be possible for PMSE to continue to use some or all of the sub-700 MHz band, dependent on other uses. PMSE users may also need to migrate to new technology (WMAS etc) and seek access to other radio spectrum bands (see Annex D).

8 Conclusions and recommendations

8.1 Ireland's TV and audiovisual landscape have changed dramatically since the launch of DTT

Ireland's TV and audiovisual landscape have changed dramatically over the last decade towards the use of internet-based TV platforms and VODs services. By 2028, Ireland will have achieved 100% gigabit network coverage to all homes and businesses. This brings opportunities including increased ubiquitous connectivity and the potential for the provision of services, such as internet-based TV, that were not previously accessible on a national level.

Ireland's current high coverage of gigabit networks (at 92% of households)[285] means Internet-based TV and Video-on-Demand services (e.g. Netflix, RTÉ player etc.) are now used in the majority of Irish households. Currently, 68% of households make use of either OTT or IP-TV or a combination of both,[286] while viewing of the traditional TV platforms of satellite and DTT are in decline. Most Irish households now use broadband networks to view TV services, whether as an IPTV service (such as Eir TV, Vodafone TV, Virgin Media, and Sky Stream and Sky Glass);[287] hybrid broadcast broadband platform (such as Sky Q or Saorview Connect);[288] or TV delivered on OTT Apps[289] via broadband (such as RTÉ Player) to devices such as mobile devices, tablets or the TV set.

These changes have been enabled by a variety of factors including the rise and increasing use of smart TVs in homes simplifying access to and use of Internet-based TV services; the near universal availability and use of connected devices (e.g. tablets, phones, etc.) to view TV and video content; widespread availability and use of fixed broadband or 4G/5G mobile services; and the increased attractiveness of internet-based TV and VOD and social media platforms in capturing viewers' attention.

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285 Source: ComReg Quarterly Key Data Report Data as of Q2 2026

286 B&A 2025 Q.17.

287 IPTV offers a managed TV service independent of the broadband package that is taken by the customer. However, IPTV customers will still need to live in an area that is capable of offering a fast broadband connection. IPTV is provided with a dedicated user interface which can offer linear channels and VOD. They are provided over a broadband connection with guaranteed quality of service.

288 Hybrid broadcast broadband platforms are TV services provided over broadband that are integrated with other broadcast TV platforms. They include Saorview Connect (a DTT/IPTV hybrid), or Sky Q (a hybrid satellite/IPTV service). They require the household to have broadband, and to have connected their TV or set top box to their broadband connection. There are reports that Sky is directing new customers away from its satellite hybrid service to its IPTV offers in anticipation of switching off the satellite service when the satellites on which it currently leases capacity reach end of life in 2027-29.https://rxtvinfo.com/2024/how-soon-is-satellite-tv-switch-off/

289 OTT Streaming Apps are internet-based TV services (giving access to SVoD services, Free Advertising Supported TV (FAST), Broadcast VoD such as RTÉ Player or TG4 Player, or Transaction VOD (where content is supplied on a pay per view basis).

Looking towards and beyond 2030, the shift towards internet-based TV and audiovisual content is expected to intensify, driven by rolling technological advances and the increased availability and take-up of gigabit broadband services.

Ireland's broadcasters have responded by changing how they distribute content and have made significant investments in distributing their content via broadband networks. Notably, RTÉ, Ireland's Public Service Broadcaster, set out in its strategy for the period 2025-2029, '*New Directions'*,[290] that:

> "*Two of the market dynamics must be met head-on in this five-year period: the move in audience preference from broadcast (terrestrial, satellite and cable TV) to streaming (fibre and mobile broadband), and within that, a change in behaviour from linear (scheduled content) to on demand (including catch-up and downloads).*"

8.2 Irish DTT's importance is decreasing and now just 7% of households solely rely on it

Since its launch fifteen years ago (2011), DTT has played an important role in enabling the delivery of PSM in Ireland and in meeting the relevant legal and contractual obligations. However, the platform is increasingly unable to meet audience demand and expectations. Its limited functionality, including the absence of on-demand services, together with its relatively narrow offering of 15 television and 6 radio channels, has made it less attractive than alternative platforms. As a result, viewers are increasingly turning to internet-based TV services such as Eir, Sky and Virgin Media, as well as video-on-demand services such as Netflix, rather than relying on linear DTT broadcasting.

It is notable that just 7% of households rely solely on DTT for their TV services (i.e. 'DTT Only' households).[291] The majority of these households (4 percentage points) already have broadband[292] which would enable them to access online services.

8.3 These changes are also happening elsewhere internationally

These technology, audience and broadcaster trends are not unique to Ireland and play out, in different ways, internationally. Discussions on the future of DTT and its use of radio spectrum

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290 RTÉ "*A New Direction: Statement of Strategy*" Link

291 Sources: TAM Ireland Universes (https://www.tamireland.ie/universes/) and TV Habits Survey ("B&A Survey 2025") - A survey conducted in 2025 by B&A Ipsos

292 It is estimated that only 3% of Irish households (approximately 47,000 households) have Irish DTT only and no fixed internet (see Table 3).

(i.e. the sub-700 MHz band) have already started in Europe[293] and notably in Ireland's neighbouring countries (specifically, the UK and France).

DTT's use of the sub-700 MHz band, and the evolving international discussions, impact the management and efficient use of this spectrum band in Ireland. The sub-700 MHz is an important radio frequency band consisting of a large amount of sub-1 GHz spectrum (224 MHz) generally considered well suited for wide-area coverage and could be ideal in hard-to-reach rural areas of Ireland, particularly in circumstances in which it is notably less critical for the delivery of broadcasting.

Outside of Europe, parts of the sub-700 MHz band (i.e. the 600 MHz band) have already been repurposed for other services, in particular mobile wireless broadband services.

8.4 Closing DTT would bring benefits

While any action to close DTT would require considerable time, consultation and planning to ensure that it is inclusive for all households (recalling that currently 7% of households rely solely on DTT Saorview for their TV services, and 3% households who rely on DTT Saorview do not have broadband), a number of benefits follow if it was to be decided in the future to switch-off DTT in favour of providing PSM over internet-based TV using Ireland's gigabit networks.

8.4.1 Moving PSM to internet-based TV could narrow the digital divide

Ireland's national gigabit network provides an opportunity to deliver benefits to consumers and meet the changing expectations of viewers. With 100% gigabit network coverage of homes and businesses expected to be achieved by 2028, Ireland will be one of the first countries in Europe to realise this impressive landmark achievement. This means that internet-based TV and VOD services will be available to all households in Ireland, aligning with audience viewing trends where most viewers now use internet-based TV and VOD platforms; and broadcaster distribution trends where Internet-based TV solutions are expanding in popularity and attracting investment.

Moreover, Ireland's recent Digital & AI Strategy notes that the nationwide roll-out of gigabit networks will help bridge Ireland's digital divide. Against this backdrop, the availability of public service media over broadband networks may act as a pull factor for households that remain

[293] Across Europe the work of the RSPG has noted "*the large diversity between Member States as regards the future spectrum needs for broadcasting and the long-term market role of DTT. In some Member States the band 470-694 MHz remains important for DTT service provision, whereas in some other Member States, a significant amount of spectrum in the sub-700 MHz is currently unused or is foreseen to be vacated before 2030 for the provision of the DTT services, or with a limited number of users so that alternative platforms may become more suitable*." https://radio-spectrum-policy-group.ec.europa.eu/document/download/51c9083c-0b17-4f98-97d4-9cfd01e2a376_en?filename=RSPG26-002final-Work_Programme-26_and_beyond.pdf

unconnected, enabling them to benefit more fully from the wider range of digital services available online.

However, the government would need to consider how to support those households who, at the point of closure, rely on DTT for their TV services but do not take a broadband subscription. In particular, closure of DTT may imply that these households would have to pay for broadband in order to access services.

8.4.2 Closing DTT could generate cost savings and free up spectrum

Furthermore, should the Government decide in future that it would be appropriate to switch off DTT in favour of providing PSM over internet-based TV using Ireland's gigabit networks, this would provide additional benefits. Ireland's Digital and AI Strategy places strong emphasis on use of resilient, future-proofed digital infrastructure. In that context, a future decision to switch off DTT and deliver PSM over internet-based television using gigabit networks could generate efficiency gains. In particular, the ending of DTT would:

- reduce Ireland's need for duplicate networks capable of providing TV services (i.e. a DTT network and gigabit networks) and the costs incurred by 2rn associated with this; and
- free up valuable radio spectrum in the sub-700 MHz band, which could be repurposed for other uses, such as mobile wireless broadband, to improve mobile coverage and services, particularly in rural areas.

8.5 Recommendations: it is now the right time for Ireland to consider the future of DTT and its use of sub-700 MHz spectrum beyond 2030

The above context highlights that it is timely and appropriate for Ireland to consider the future of DTT and its use of sub-700 MHz spectrum beyond 2030. Set out throughout this report is information to inform ComReg and other stakeholders (such as the Irish government, CnaM, RTÉ, 2rn, broadcasters and other stakeholders) in their planning.

From this there are a number of recommendations that can support planning for any change from the current landscape which is unsustainable post 2030:

1. **Ireland should consider how PSM would be delivered in a scenario absent DTT or reduced DTT**

   Ireland should consider how its PSM objectives would be delivered in a scenario where DTT is closed or reduced. For example how internet-based TV services could be used to provide a PSM service that meets the government's objectives (e.g. prominence of PSM channels on platforms other than DTT) and whether any such change is inclusive for all households (recalling that currently 7% of households rely solely on DTT Saorview for their TV services, and 3% households who rely on DTT Saorview do not have broadband).

2. **Ireland should seek to mitigate market uncertainty regarding the future of DTT by providing information or consultation**

While the current legal framework, established in 2009, is clear on the requirement for RTÉ to operate a DTT network in Ireland and for ComReg to reserve sufficient spectrum for at least six DTT multiplexes (of which currently only two are assigned), uncertainties regarding DTT policy, infrastructure and investments for the period beyond 2030 are likely to arise over time as the need for DTT decreases given evolving consumer demand and increased investments in internet-based TV services. For example, this may lead to uncertainties regarding the economic rationale for investment by 2rn, the DTT Saorview network operator, in DTT related long-life assets due for replacement from the mid-2030s onwards.

Additionally, uncertainties may arise in relation to the spectrum allocated to and assigned for DTT, noting that beyond 2030 there would no longer be an EU obligation ensuring the availability of the sub-700 MHz spectrum band for DTT in all EU Member States,[294] and discussions have already started internationally on the future of DTT and its spectrum needs in Europe.

3. **Ireland should consider whether the legislative and regulatory framework governing DTT, including its spectrum related provisions, would need to be amended**

The legislative and regulatory framework governing DTT, including its spectrum related provisions, were largely developed two decades ago and before 2010, at a time where consumer TV viewing habits and TV distribution capabilities and investments were considerably different to now. With the increasing demand and use of internet-based TV services, and Ireland very soon having 100% gigabit network availability, which for those with a broadband subscription will offer greater capacity, functionality and quality of TV services than is possible on DTT, it seems prudent for Ireland to review and consider amending DTT obligations to provide for greater flexibility to stakeholders.

For ComReg, this primarily relates to the obligation requiring it to reserve the whole of the sub-700 MHz band for DTT and PMSE use, irrespective of whether the spectrum is then used to provide TV services or not[295] and whether there are benefits to be gained from other potential uses for that spectrum. For example, outside of Europe, parts of this radio spectrum band (i.e. the 600 MHz band in USA) have already been repurposed for other services, in particular mobile wireless broadband services.

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294 Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Unionhttps://eur-lex.europa.eu/eli/dec/2017/899/oj/eng

295 In total, this equates to reserving spectrum for at least six DTT multiplexes (two PSB and four commercial),

For other stakeholders, such as RTÉ, greater flexibility could be considered with regard to enabling PSM delivery and prominence across evolving online-based platforms in line with the experienced changing consumer behaviours.

Annex A Regulatory framework for DTT broadcasting services in Ireland

In addition to the regulatory and legal framework that governs the use of radio spectrum there is specific national broadcasting policy and legislation for the DTT services which shapes the market and ComReg's management of the sub-700 MHz spectrum band for DTT's use.

A.1 The Department of Culture, Communications and Sport (DCCS)

DCCS is responsible for national broadcasting policy and legislation

The Department of Culture, Communications and Sport ("DCCS") (previously Department of Tourism, Culture, Arts, Gaeltacht, Sport, and Media)[296] is responsible for the development of the legislative and regulatory framework for broadcasting, including for DTT, and certain media in Ireland.[297]

This regulatory framework is essentially set out in legislation under the Broadcasting Act 2009, as amended, (the 2009 Act), where in relation to DTT, the 2009 Act:

- requires that RTÉ establish and operate a DTT network.
- requires that RTÉ operate at least one multiplex with the option for RTÉ to operate one further multiplex.
- obliges ComReg to grant RTÉ at least one and up to two multiplex licences.
- requires that PSBs (i.e. RTÉ, TG4, the Houses of the Oireachtas) provide FTA services and be made available, as far as it is reasonably practicable, to the whole community on the island of Ireland.
- requires that RTÉ's DTT network must carry RTÉ services (RTÉ 1 and RTÉ 2) and TG4, and where required by the Minister, the House of the Oireachtas and the Irish Film channel (however the Irish Film channel has not yet been established);
- requires that RTÉ's DTT network carries commercially licensed television services pursuant to Section 70 of the 2009 Act. A Section 70 television programme service contract includes FTA coverage obligations which can currently only be met by the DTT platform and is currently provided to Virgin Media Ireland (VMI) for VM1 and VM2;
- requires CnaM to arrange for the establishment, maintenance and operation of any multiplexes in addition to those operated by RTÉ (i.e. commercial DTT multiplexes); and

296 The DCCS was renamed on 2 June 2025. https://www.irishstatutebook.ie/eli/2025/si/236/made/en/html

297 https://www.gov.ie/en/department-of-culture-communications-and-sport/policies/media/

- obliges ComReg to issue, at the request of CnaM, at least four commercial television multiplex licences (although no requests for commercial multiplex licences have been requested to date or are expected).

DCCS is responsible for PSB funding policy

DCCS is also responsible for policy in relation to the funding of the public service broadcasters, RTÉ and TG4, and the development of the broadcasting sector in general.

One of the goals of DCCS's Statement of Strategy for 2023-2025 is to "*support public service media and the provision of public service content*" by progressing "*the reform of the TV licence public service broadcasting funding model, and develop[ing] appropriate oversight framework.*"[298]

DCCS is responsible for spectrum policy

DCCS is responsible for the development of policies relating to the regulation and optimal use of Ireland's radio spectrum.[299]

A.2 The Commission for Communications Regulation ("ComReg")

ComReg is responsible for providing spectrum for at least six DTT Multiplexes and issuing DTT Multiplex licences

The 2009 Act requires ComReg to make available spectrum for at least six DTT multiplexes[300]: two PSB DTT multiplexes[301] and at least four commercial DTT multiplexes.[302]

Currently ComReg has:

- issued two PSB DTT multiplex licences to RTÉ, both of which expire on 13th December 2031[303]; and

298 Department of Tourism, Culture, Arts, Gaeltacht, Sport, and Media Statement of Strategy 2023-225, p.36-37

299 ComReg Document 24/65, paragraph 2.2

300 Multiplex is defined in section 129 of the 2009 Broadcasting Act as meaning "an electronic system which combines programme material and related and other data in digital form and the transmission of that material and data so combined by means of wireless telegraphy directly or indirectly for reception by the general public". Digital terrestrial broadcast services are transmitted on multiplexes by Multiplex Operators. DTT multiplexing services means the above service provided via a DTT multiplex(es) by a Multiplex Operator.

301 Section 132(1) provides that ComReg, upon request by RTÉ, shall issue a single television multiplex licence to RTÉ; Section 132(2) provides that ComReg, upon request by RTÉ and following consultation with the Minister for Communications and the Coimisiún na Meán (formally the Broadcasting Authority of Ireland or "BAI"), shall issue a second television multiplex licence to RTÉ.

302 Section 132(3) obliges ComReg, upon request, to provide up to four DTT multiplex licences to Coimisiún na Meán. A request for additional multiplex licences is provided for under Section 132(4).

303 RTÉ's DTT Multiplex Licences (RTÉ DTT10001/2019 and RTÉ DTT10002/2019) run from 14th December 2019 and expire on 13th December 2031, with technical conditions as defined in ComReg Document 07/90b

- not issued any commercial DTT multiplex licences to CnaM as no requests for such licences have ever been made.

The DTT obligations in 2009 Act coupled with Ireland's international frequency coordination agreements for DTT shape ComReg's spectrum management planning for the sub-700 MHz band, where:

- ComReg's DTT spectrum plan currently provides spectrum rights for six DTT multiplexes in the sub-700 MHz band, although only two DTT multiplex licences have been issued; and
- ComReg issues PMSE licences for spectrum rights in the sub-700 MHz band on a secondary basis.

Ireland's international frequency coordination agreements for DTT

ComReg, as Ireland's radio frequency manager, is responsible for negotiating and agreeing Ireland's international frequency coordination agreements for DTT with its international neighbours.

There are a number of multilateral and bilateral coordination agreements in place for the use of sub-700 MHz band for DTT, the most complex and comprehensive being with Ofcom regarding the UK. These agreements can take many years to negotiate and agree[304].

ComReg conducts market reviews of the broadcasting transmission markets

ComReg conducts market reviews of the broadcasting transmission markets[305] and where it finds that a service provider has significant market power it may implement remedies.

Currently ComReg has imposed remedies on 2rn as a provider of upstream terrestrial transmission network services to multiplex operators ('Market A') [306] and on RTÉ as a multiplex service provider providing services to broadcasters ('Market B').[307]

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304 Typically, these agreements are very detailed specifying the precise radio frequency used, power and other technical parameters at each transmitter site that could be affected by cross border interference. For example, for DTT's migration out of the 700 MHz band, the technical meeting between Ireland and the UK took place over a four-year period between 2013 and 2017, DTT's transition out of the 700 MHz band was completed in March 2020. See ComReg Document 17/23 Information Notice, "Progress update on DTT migration to below the 700 MHz band: International coordination of Ireland's DTT spectrum plan", published 31/03/2017.

305 See latest Decision (D02/26) ComReg Document 26/05 Market Review – Broadcasting Transmission Services, Response to Consultation and Decision | Commission for Communications Regulation

306 ComReg found that "*2rn is the sole national terrestrial network provider in Market A [and] has 100% market share*". Market A is the market for wholesale access to national terrestrial BTS. This is a wholesale upstream market whereby a BTS network provider supplies a transmission and distribution service via its towers/masts and relevant associated facilities including transmission and distribution equipment: See ComReg Document 26/05

307 ComReg found that "*RTÉ is the sole provider of the DTT platform, with 100% market share*". Market B is the market for wholesale access to DTT multiplexing services. A DTT Multiplex Operator, using purchased wholesale inputs from Market A, combined with carriage on its own DTT multiplex, then supplies wholesale managed BTS to DTT Retail Broadcasters

A.3 Coimisiún na Meán ("CnaM")

CnaM is Ireland's independent media regulator

CnaM is Ireland's independent media regulator and has responsibility for overseeing regulation of broadcasters, video-on-demand providers and online platforms established in Ireland.[308] Its regulatory functions include: [309]

- the regulation of Irish PSM broadcasters (i.e. RTÉ, TG4, the Houses of the Oireachtas Channel and the Irish Film Channel), [310]
- the licensing of broadcast services including the licensing of independent television services (e.g. VMI for VM1 and VM2)) and other commercial digital television services (i.e. other services on Saorview which are currently provided by Sky and VMI).
- the handling complaints from viewers and listeners, and
- the development of Codes and Rules.

CnaM is responsible for contracting parties to operate commercial DTT multiplexes

In relation to DTT multiplexes, CnaM is responsible for:

- the contracting of parties for the establishment, maintenance and operation of DTT multiplexes in addition to those not maintained and operated by RTÉ (i.e. commercial DTT multiplexes);[311] and
- requesting commercial DTT multiplex licences from ComReg, where it has been successful in contracting a party for the establishment, maintenance and operation of commercial DTT multiplexes.

thereby enabling the transmission of their DTT broadcasting programme signals to end users: See ComReg Document 26/05

308 https://www.cnam.ie/

309 https://www.cnam.ie/about/what-we-do/

310 Every year, CnaM assess RTÉ and TG4's Annual Statements of Performance Commitments and conduct an annual review of public funding for both organisations. In addition, every five years, CnaM undertakes a review of the adequacy of public funding to enable RTÉ and TG4 to fulfil their statutory obligations.https://www.cnam.ie/general-public/tv-radio-on-demand/public-service-media/

311 Section 131 of the 2009 Act https://www.cnam.ie/industry-and-professionals/licensing-registration/broadcast-licensing/tv-licensing/

A.4 Public Service Broadcasters, including RTÉ and TG4

PSBs are required to provide FTA services to whole community of Ireland

The 2009 Act designates RTÉ[312], TG4[313], the Houses of the Oireachtas Channel and the Irish Film Channel as PSBs.

PSBs are required[314] to provide PSM content which shall have the character of a public service, be a free-to-air (FTA) service and be made available, as far as is reasonably practicable, to the whole community of the island of Ireland.

RTÉ, TG4 and the Houses of the Oireachtas Channel meet this obligation through the provision of services on the DTT Saorview network and on Saorsat.

The Irish Film Channel has not yet been established and has not been required by the Minister to be transmitted by RTÉ.

A4.1 RTÉ

Raidió Teilifís Éireann (RTÉ) is Ireland's Public Service Broadcaster, it has responsibility for provision of radio and television services in both English and Irish,[315] and to have special regard for elements that distinguish that culture and, in particular, the Irish language. RTÉ own and operate the DTT Saorview Service which is the national digital terrestrial television (DTT) service in Ireland.

The 2009 Act requires RTÉ to establish and operate a DTT network

In relation to DTT, the 2009 Act requires that:[316]

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312 https://www.rte.ie/

313 https://www.tg4.ie/

314 RTÉ and TG4's public objectives, functions, and statutory obligations are set out in sections 113 to 116 (RTÉ) and 117 to 119 (TG4) of The Broadcasting Act 2009 (as amended).

315 Section 114(3)(a) of the Broadcasting Act 2009 states that RTÉ should "provide a comprehensive range of programmes in the Irish and English languages that reflect the cultural diversity of the whole island of Ireland".

316 Key RTÉ's obligations under the Broadcasting Act 2009 cover:

- Public Service Obligations: under Section 114 RTÉ is mandated to establish, maintain and operate a national television and sound broadcasting service which shall have the character of a public service, be a free-to-air service and be made available, in so far as it is reasonably practicable, to the whole community on the island of Ireland.
- DTT Multiplex Operation: Under Section 130 RTÉ is required to operate at least one national multiplex that ensures the digital transmission of RTÉ One, RTÉ Two, TG4, and other designated public service channels.
- Independent Production: Under Section 116 RTÉ is obligated to commission a specified proportion of its content from independent Irish producers.
- Compliance and Reporting: Under Sections 99, 102, 109 RTÉ must prepare strategy statements, annual performance commitments, and submit audited financial accounts and reports to the Minister annually, demonstrating transparency and accountability.

- RTÉ establish and operate a DTT network.
- RTÉ operate at least one multiplex with the option for RTÉ to operate one further multiplex.
- RTÉ's DTT network must carry RTÉ services (RTÉ 1 and RTÉ 2) and TG4, and where required by the Minister, the House of the Oireachtas and the Irish Film channel (however an Irish Film channel has not yet been established); and
- RTÉ's DTT network carries commercially licensed television services pursuant to Section 70 of the Broadcasting Act. A Section 70 television programme service contract includes FTA coverage obligations which can currently only be met by the DTT platform and is currently provided to Virgin Media Ireland (VMI) for VM1 and VM2;

In its response to the Future of Media Commission report, RTÉ submitted that several of the DTT related provisions in the Broadcasting Act 2009 are now outdated for the commercial sector. For example it stated: "*Much of the Broadcasting Act 2009 concerns itself with free-to-air delivery of PSM content, and analogue switch-off, and in that regard extensive consideration is given to licensing provisions for commercial DTT and sound broadcasting multiplexes, which are now, in light of future broadband/5G and other distribution methods, arguably outdated propositions for the commercial sector. At the same time RTÉ remains obliged to offer a free-to-air DTT service Saorview.*"[317]

A4.2 TG4

TG4 has responsibility for the provision of a television service whose range of programming is primarily in the Irish language. TG4's programming reflects the "*varied elements which make up the culture of the people of whole of the island of Ireland*"[318] with special regard for elements that distinguish that culture and, in particular, the Gaeltacht (Irish speaking) regions.[319]

317 RTÉ response to Future of Media Commission 2021. https://www.gov.ie/pdf/223490/?page=null&lang=en

318 Section 118(2)(a) of the Broadcasting Act 2009.

319 Similarly to RTÉ, key TG4's obligations under the Broadcasting Act 2009 cover:

- Public Service Obligations: under Section 118 (3) TG4 must provide a comprehensive range of programmes, primarily in the Irish language, which reflect the cultural diversity of the whole island of Ireland.
- Compliance and Reporting: under Sections 99, 102, 109 TG4 must prepare strategy statements, annual performance commitments, and submit audited financial accounts and reports to the Minister annually, demonstrating transparency and accountability.

A.5 2rn

2rn, a wholly owned subsidiary of RTÉ, is responsible for the management and operation of the DTT Network Infrastructure

2rn[320], a wholly owned subsidiary of RTÉ, distributes and transmits the programme services of RTÉ Radio and Television, TG4 Television, Virgin Media Television and Bauer Media (Today FM and NewsTalk) as well as a number of local and regional radio broadcasters.

Having built and commissioned the DTT network, 2rn is responsible for the day-to-day management and operation of Ireland's DTT network which facilities the transmission of RTÉ's Saorview services.

Through 2rn, RTÉ fulfil obligations set out in the Broadcasting Act 2009 and the RTÉ (National Television Multiplex) Order[321], in particular:

- Section 130(1) of the Broadcasting Act 2009 which mandates that a national television multiplex is established, maintained, and operated by RTÉ and shall provide for the digital broadcasting of RTÉ One, RTÉ Two, TG4 and other designated public service channels; and
- The RTÉ (National Television Multiplex) Order which requires the national television multiplex to be available free-to-air to approximately 90% of the population.

A.6 Television Programme Service Provider - Virgin Media Ireland

VM1 and VM2 have Section 70 contracts - RTÉ is obliged to carry these channels on the DTT Saorview Platform

Section 130(10) of the Broadcasting Act empowers the Minister, having first received a request from CnaM, to require RTÉ to make provision on the multiplex for the television programme service provided by a "television programme service provider", being the holder of the "television programme service contract" pursuant to section 70 of the 2009 Act.

A contract under section 70 includes an obligation to provide an FTA service, and there may only be one holder of such a contract. The current section 70 contract is with VMI and provides for the availability of Virgin Media One ('VM1') and Virgin Media Two ('VM2') on the DTT multiplexes and for their carriage on Saorview. VMI's contract with CnaM runs from September 2023 for a ten-year period, with the option of a further ten-year extension.

320 https://2rn.ie/

321 S.I. No. 85 of 2010, "RTÉ (National Television Multiplex) Order" , 26 February 2010

VM3 and VM4 have Section 71 contracts – Access to the DTT Saorview Platform is provided on commercial terms

Virgin Media Three ('VM3') and Virgin Media Four ('VM4') operate under section 71 content provision contracts, the terms of which run until September 2025 and June 2032, respectively.

Neither VM3 or VM4 have been designated by the Minister as "having the character of a public service" under section 130(1)(a)(iv) and so, do not enjoy access to the DTT multiplex as of statutory right. Instead, access is afforded to those channels by RTÉ on commercial terms, following consultation with CnaM and having obtained the consent of the Minister, in line with RTÉ's ability under section 130(1)(e) to exploit commercial opportunities in pursuit of its objects by broadcasting programme material. All such arrangements are contingent upon available capacity on the multiplex.

Annex B International regulatory framework governing the use of the sub-700 MHz spectrum

As international and European bodies shape spectrum management policies and make decisions on the use of the sub-700MHz band, future decisions on the use of the sub-700MHz band require consideration of the international environment and international coordination.

B.1 International and European bodies that support spectrum policy

There is a hierarchy of rules, regulations and agreements governing the use of spectrum in Ireland, including those set by international bodies (e.g. International Telecommunications Union) and European Bodies (e.g. The European Commission).

International bodies that support spectrum policy

At the international level multinational groups coordinate and plan the broad allocation of spectrum to specific uses. International planning is beneficial to provide economies of scale and to ensure compatibility cross border.

The **International Telecommunications Union (ITU)** manages the broad allocation of spectrum to use cases which are codified in the Radio Regulations (RR) as a binding treaty agreed on by member countries including Ireland where DCCS are responsible for signing such treaties. The RR are periodically updated via international World Radio Conferences (WRC).[322]

European bodies that support spectrum policy

The three main institutions of the EU, being the **European Parliament (EP)**, the **Council of the European Union (Council)**, and the **European Commission (EC)** all have a role in developing the EU regulatory framework for spectrum.

In principle, it is European Commission which proposes new laws, and it is the Parliament and Council of the European Union which adopts them. For example, in relation to the use of sub-700 MHz spectrum in Europe, it is Decision (EU) 2017/899[323] of the European Parliament and the Council which currently sets out the legislative framework governing this band.

[322] The last WRC was in 2023 and the next WRCs are in in 2027 and 2031, where the future use of the sub-700 MHz band is expected to be discussed.

[323] EU Decision available here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0899

The EC, together with EU Member States also develops EU-wide spectrum policy. In this role it is supported by the **Radio Spectrum Policy Group**[324] **(RSPG)** which is a high-level advisory group that assists the EC in the development of radio spectrum policy.

In relation to the long term strategy of the sub-700MHz band in Europe, the RSPG has issued a number of documents, including:

- **In 2023, the RSPG issued an opinion** which recommended that Member States retain flexibility in the use of the 470–694 MHz band beyond 2030 to continue supporting terrestrial broadcasting and PMSE services, while also preparing for potential future demand from mobile broadband (IMT) and other services. The opinion emphasised the need to balance cultural and social value of broadcasting with technological and market developments, encouraging national assessments to guide possible gradual transitions and avoid premature decisions.[325]
- **In November 2025, the RSPG issued a Report** (based on its draft report issued earlier that year) which carried out an assessment[326] of future usage of the sub-700 MHz within the EU Member States in the 2030–2040 timeframe. This report highlighted:
  - significant divergences in national approaches noting while many countries intend to maintain DTT beyond 2030 – citing its importance for public service, cultural diversity, and free access – others foresee a reduction or complete phase-out, driven by declining usage and the rise of IP-based alternatives.
  - competing demands from potential other uses including mobile broadband, PPDR (public safety), defence, and PMSE sectors, all seeking access to this valuable spectrum.[327]
  - noted that *"Moving forward, regulatory certainty, inclusive dialogue, and evidence-based planning are crucial to ensure that the band continues to serve the EU's public interest, technological progress, and strategic autonomy; and*
  - the EU's position for World Radiocommunication Conference 2031 (WRC-31) will be pivotal in shaping future policies for the use of the band.

The **European Conference of Postal and Telecommunications Administrations (CEPT)**[328] also participates to spectrum management. It is a collaborative organisation that

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324 COMMISSION DECISION of 11 June 2019 setting up the Radio Spectrum Policy Group and repealing Decision 2002/622/EChttps://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOC_2019_196_R_0008

325 https://radio-spectrum-policy-group.ec.europa.eu/document/download/6cb17632-9aba-4a15-aee9-28b9d272d9ed_en?filename=RSPG23-035final-RSPG_Opinion_on_UHF_beyond_2030.pdf

326 In this assessment, the RSPG

- collected lessons from early initiatives from MS introducing other usages than broadcasting to address audio PMSE long term developments in order to preserve sufficient spectrum for audio PMSE needs, taking also into account the transition of audio PMSE towards new spectrum efficient technologies; and
- gathered information from industry stakeholders on expected technological developments in both mobile and broadcasting platforms.

327 https://radio-spectrum-policy-group.ec.europa.eu/document/download/74a0b42f-d9dd-4273-be83-8fa4797314c1_en?filename=RSPG25-024final-Draft_RSPG_Report_on_future_use_470-694_MHz_band.pdf

328 https://www.cept.org/

coordinates and harmonizes telecommunications and postal services across Europe. The CEPT is composed of policy makers and regulators from 46 member countries and, through its **Electronic Communications Committee (ECC)**[329], develops policies and regulations to ensure efficient use of the radio frequency spectrum, facilitating coordination among European countries.

B.2 International context influencing the use of the sub-700MHz band

There have been a number of international decisions that have influenced the use of the sub-700MHz band for DTT and that will contribute to future decisions on its use.

Discussions at ITU WRCs

Internationally, the future of the UHF band has been under consideration for some time at ITU WRCs, both in terms of assessing the regulatory landscape and exploring potential changes.

Discussions have recently focused on the spectrum use and needs of existing services in the 470–694 MHz range in Region 1, with possible regulatory actions.

The **outcomes of the WRC-23** are set out in its "Final Acts".[330] In relation to the 470-694 MHz frequency band in Ireland:

- a new secondary allocation was added to the mobile, except aeronautical mobile, service, for the 470-694 MHz frequency band (see new footnote no. 5.295A on page 13 of the Final Acts); and
- Resolution 235 was modified so as to invite the ITU-Radiocommunications ("ITU-R") to review of the spectrum use of the frequency band 470-694 MHz or parts thereof for some countries in ITU Region 1 (including Ireland) **in time for WRC-2031** (see page 463 of the Final Acts). The modified Resolution 235 resolves to:
  - review the spectrum use and needs of applications of broadcasting and mobile services within the frequency band 470-694 MHz (i.e. the sub-700 MHz band); and
  - based on the above review, update the sharing and compatibility studies for coexistence conditions and develop new studies, as appropriate, taking into account existing primary and secondary services and footnote no. 5.295A, and to propose technical and regulatory conditions.

It is important to note that any deployment of the mobile service is subject to agreement under No. 9.21 of the RR and therefore requires coordination with neighbouring countries and must comply with the ITU Geneva 2006 Agreement.

329 https://www.cept.org/ecc

330 See: https://www.itu.int/pub/R-ACT-WRC.16-2024

EU regulatory framework

The key legislative framework governing the sub-700 MHz spectrum is **Decision (EU) 2017/899**[331] of the European Parliament and the Council. This Decision sets out a framework for the use of the 470–790 MHz frequency band in the European Union:

- A central provision of this Decision is Article 4, which requires Member States to ensure the availability of the 470–694 MHz band for terrestrial broadcasting services, including free-to-air television, and for wireless audio PMSE use, at least until 2030.
- It also mandates that any other use of this spectrum must not interfere with national broadcasting needs or cause harmful interference to neighbouring countries. Additionally, Member States must comply with international agreements, including cross-border frequency coordination arrangements.
- Article 7 of the Decision further requires the European Commission, in collaboration with Member States, to report to the European Parliament and the Council on developments in the use of the sub-700 MHz band with a view to ensuring efficient use of spectrum. In doing so, it should take into account the social, economic, cultural and international aspects affecting the use of the band, further technological developments, changes in consumer behaviour, and the requirements in connectivity to foster growth and innovation across the EU.
- To this end, the UHF band has been subject of several reviews and reports[332] by the European Commission, as well as Opinions[333] by the RSPG.

It is important to note that, under Article 4 of EU Decision2017/899[334], the guaranteed spectrum availability for broadcasting and PMSE is determined based on national needs. This does not preclude other uses, provided that broadcasting and PMSE services are adequately protected. Such flexibility allowed under EU Decision 2017/899 has not yet been implemented at the national level in any EU Member State, meaning there is no precedent for its application in cross-border scenarios.

DTT frequency multilateral (e.g. WEDDIP) and bi-lateral agreements (UK, France)

Regarding Ireland's use of radio spectrum in the 470-694 MHz band for broadcasting (i.e. DTT) services, ComReg has coordination agreements with the equivalent regulatory bodies in the UK and in France, as well as with the Western European Digital Dividend

331 EU Decision available here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0899

332 https://op.europa.eu/en/publication-detail/-/publication/8c6755a1-4f55-11ed-92ed-01aa75ed71a1/language-en

333 https://radio-spectrum-policy-group.ec.europa.eu/opinions-and-reports_en

334 DECISION (EU) 2017/899 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union – Article 4: "Member States shall ensure availability at least until 2030 of the 470-694 MHz ('sub-700 MHz') frequency band for the terrestrial provision of broadcasting services, including free television, and for use by wireless audio PMSE on the basis of national needs, while taking into account the principle of technological neutrality."

Implementation Platform group ("WEDDIP").[335] These agreements can take many years to negotiate and agree.[336] The most complex and comprehensive of these is with the UK.

Should Ireland decide to shift its primary use of spectrum in the sub-700 MHz band away from broadcasting, any alternative use of the spectrum would be required to fit within the parameters of these agreements or the agreements would to be renegotiated and amended.

The 800 MHz band ("Digital Dividend" spectrum) and the 700 MHz band, in 2012 and 2021 respectively repurposed the band for IMT through a harmonised European approach, ensuring the efficient and effective management of spectrum.

335 ComReg Document 17/23A "MoU to Co-Ordinate DTT Frequency Plans Between Ofcom and ComReg", published 31/03/2017; ComReg Document 17/23c, "Agreement Between Ireland and France Concerning Frequency Co-ordination of DTT in the band 470 - 694 MHz", published 31/03/2017,ComReg Document 17/23d, "DTT Frequency Plan in the Band 470 - 694 MHz Between the Administrations of Belgium, France, Germany, Ireland, Luxembourg, the Netherlands, the United Kingdom", published 31/03/2017.

336 Typically, these agreements are very detailed specifying the precise radio frequency used, power and other technical parameters at each transmitter site that could be affected by cross border interference. For example, for DTT's migration out of the 700 MHz band, the technical meeting between Ireland and the UK took place over a four-year period between 2013 and 2017, DTT's transition out of the 700 MHz band was completed in March 2020. See ComReg Document 17/23 Information Notice, "Progress update on DTT migration to below the 700 MHz band: International coordination of Ireland's DTT spectrum plan", published 31/03/2017.

Annex C TV viewing and broadcasting

This Annex provides complementary information to that set out in the main report.

C.1 Future trends in the viewing of TV – evidence from the UK

In Ireland, viewing of TV via broadband will likely continue to increase, driven by:

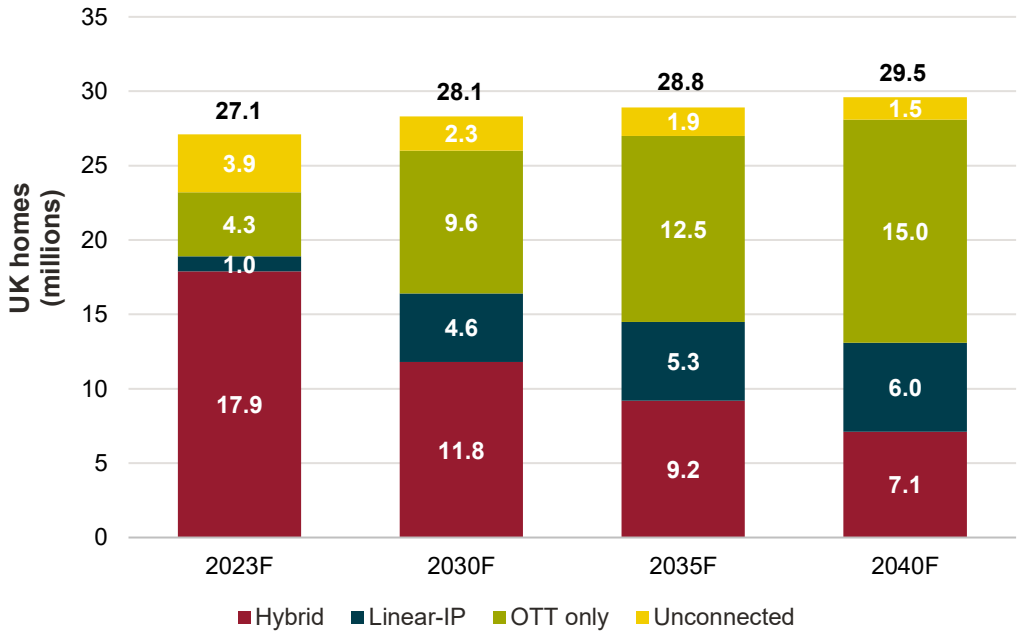
- increasing consumer expectations (of both functionality and resolution);
- aging cohorts of younger viewers that currently watch more TV via broadband;
- roll out of FTTH which will enable more households to have access to high-capacity broadband networks that can support multiple HD and UHD streams; and
- increasing take up of internet-connected smart TV and higher resolution screens (Ireland's Smart TV market is expected to grow at a CAGR of 16.7% from 2025 to 2030.[337]

This trend is likely to occur in the UK too. UK forecasts suggest that households solely reliant on traditional broadcast infrastructures will significantly reduce, as by 2035 the vast majority of households will have a TV which is connected to IP-delivered video (see Figure 21).[338]

[337] https://www.grandviewresearch.com/horizon/outlook/smart-tv-market/ireland?utm

[338] "by 2035 94% of households will have a TV which is connected to IP-delivered video, and households who solely use IPTV technologies will make up approximately 62%." (para. 3.31)

Figure 21 Forecast of number of UK homes by primary TV UI type, millions, 2023 – 2040



Source: Ofcom – Future of TV Distribution, Figure 7

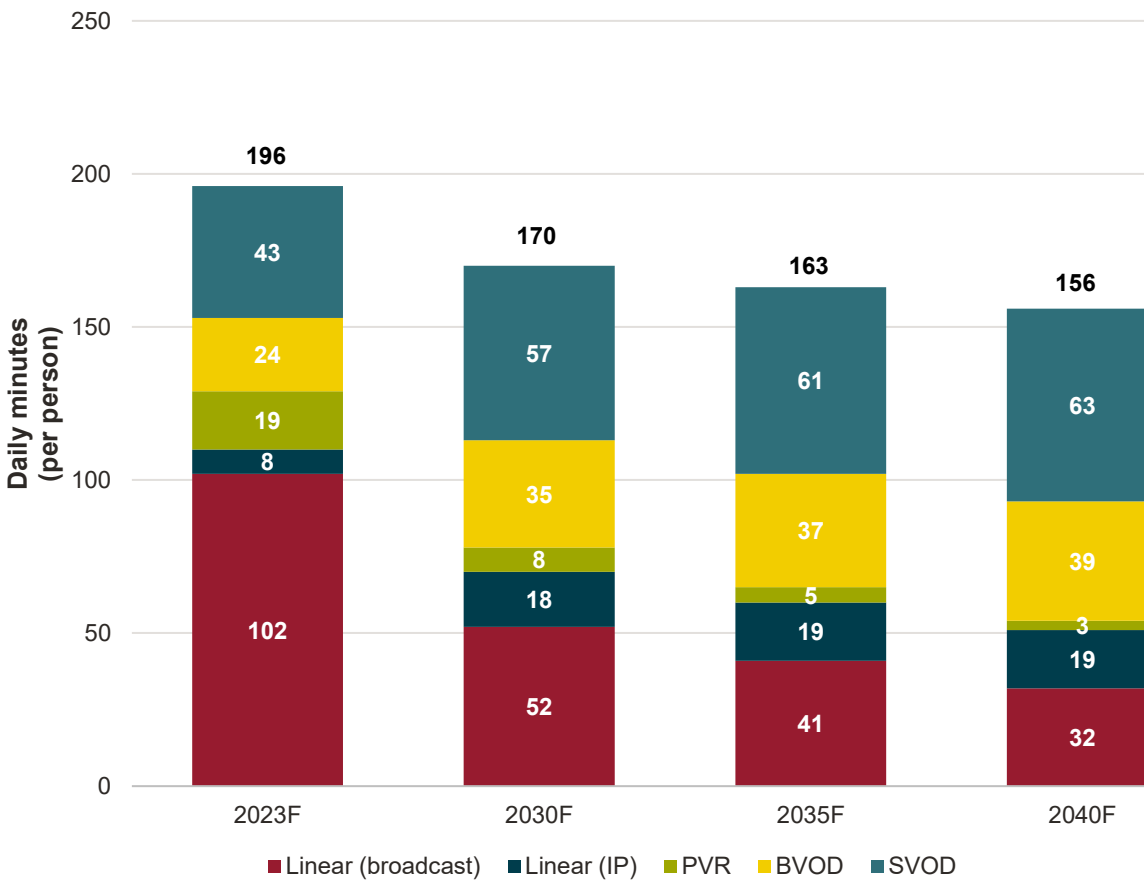
Ofcom also predicts that time spent viewing linear content over DTT and satellite broadcast will decrease[339] noting that "*viewing of scheduled TV channels through DTT and satellite is forecast to drop from 62% of viewing of total long form programmes*[340] *in 2023 to 28% by 2035, and 22% by 2040*".[341]

339 "time spent viewing linear content over DTT and satellite broadcast platforms could halve by the end of the decade and represent a smaller proportion of long form viewing through the 2030s." (para 3.32)

340 Long form video is defined as professionally produced video content on TV channels and streaming video services (excludes YouTube and social video on services like TikTok).

341 Ibidem, para. 2.8

Figure 22 UK Forecast of viewing of content type, daily minutes per person, 2023 – 2040



Source: Ofcom – Future of TV Distribution, Figure 8

C.2 Upgrades could increase DTT Saorview's capacity but require investment

Currently the DTT Saorview service uses the DVB-T standard and MPEG4 encoding, and in 2rn's response to the RSPG questionnaire, it stated that it *"continues to increase the efficiency of the DTT platform with more advanced encoding [based on MPEG4] to increase the number of services while minimising the cost and disruption to viewers and broadcasters."*

With a change to a more modern transmission standard or a new encoding standard the capacity of the DTT Saorview service on commercial terms but this would require considerable investment by 2rn.

The capacity of DTT Saorview services depends on serval factors including the quantity of multiplexes deployed[342] and the technical standards that are used.

Transmission standards in broadcasting refers to the specific technical specifications and protocols used to encode[343], transmit[344], and receive television signals[345]. The spectral efficiency depends on the broadcasting transmission operator's choices regarding ***broadcasting standard*** (to increase the capacity available) and ***compression*** (to reduce the capacity required by a service) technologies.

More modern standards offer greater spectral efficiency enabling more services, or higher resolution services for a given amount of bandwidth. However, the adoption of new transmission or encoding standards may not be compatible with existing equipment. Hence, the business case for adopting new standards will need to consider the cost to the broadcasting transmission operator (e.g. 2rn) of replacing or updating equipment to the new standard, as well as costs that may be incurred by end users in updating their in-home equipment.

Broadcasting transmission standard

Two broadcasting transmission standards have been developed to provide DTT broadcasting: DVB-T (Digital Video Broadcasting - Terrestrial) was developed in 1997; and a more efficient variant, DVB-T2, was introduced in 2009.

DVB-T2 offers an additional 50-100% spectral efficiency over DVB-T[346]. DVB-T in one 8 MHz channel can transmit at 25Mbps whereas DVB-T2 can transmit at about 40Mbps. Ireland's DTT Saorview service relies on **DVB-T**[347] standard. [348]

A change of the **transmission technology** (from DVB-T to DVB-T2) would therefore represent a significant upgrade of considerable cost.

In relation to a potential upgrade to DVB-T2, 2rn has indicated that:

- it has "*no plans to upgrade to DVB-T2" as "this would need to be a customer led initiative."*[349]

342 There is currently spectrum allocated to support up to six muxes even though there are only two in operation.

343 The original television signal (video and audio) is compressed.

344 The compressed digital signal is then modulated onto a radio frequency carrier wave.

345 The modulated signal is transmitted from DTT transmitters and received by an aerial connected to a TV or set-top box. The receiver then demodulates (or decodes) the signal back into the original digital data, allowing the TV to reconstruct the picture and sound.

346 LS Telcom report, p.44

347 COFDM (Coded Orthogonal Frequency Division Multiplexing) is used to prevent data loss due to interference and splits the signal across multiple closely spaced sub-carriers to enhance reliability.

348 https://www.astra2sat.com/ireland/Saorview/

349 2rn submission to ComReg Q.7.

- LS telecom EC report 2022 stated that for Ireland *"the legislation allows for use of DVB-T2, but there are currently no plans to migrate to newer standards"*[350].
- the investments cost would involve [✂ [redacted] ✂][351]

Moreover, some existing viewers' set top boxes or TVs could be incompatible[352] with new transmission standards[353] and some viewers may therefore have to replace their equipment in any upgrade to DVB-T2, although most modern set top boxes and TVs have integrated DTT tuners that are compatible with both the DVB-T and DVB-T2 standard.

Encoding and compression standards

Encoding and compression technologies are used to take the raw feed of a TV service and efficiently minimise the data required to encode the signal while maintaining a reasonable degree of quality. 2rn uses a **MPEG-4** video compression technology.[354] Newer standards are available and offer greater spectral efficiency.

Table 9 Representative relative capacity requirement for the different encoding and video standards

Video Standard	MPEG2	MPEG4	HEVC
SD	3 Mbps	1.5 Mbps	
HD	> 15 Mbps	8 Mbps	5 Mbps
4K			15 Mbps
8K			33 Mbps

Source: LS Telcom[355]

350 Study: the use of the sub-700 MHz UHF band for TV broadcasting and events | Shaping Europe's digital future

351 2rn submission to ComReg Q.8.

352 DVB-T2 has been a mandatory requirement of the Saorview/Nordig receiver spec since 2013, HEVC has only been a requirement since 2017. NorDig (Nordic DTT) is a group that defines unified receiver standards for DVB-T technology, which is used by Saorview.

353 The number of DTT households that would not have a DVB-T2 reception equipment is not known. In the UK Ofcom reported that 0.2m households would not have a DVB-T2 compatible set top box on their main set (approximately 1.5% of the 13.m DTT only households). A larger proportion of DTT set top boxes on secondary sets may not be compliant as these may be older set top boxes or TVs.

354 It has used this standard since launch (see: https://thecai.ie/wp-content/uploads/2011/10/DIGITALTVSWITCHOVERAug09.pdf)

355 LS Telcom 'Study on the use of the sub-700 MHz band (470-694 MHz)' final report for the European Commission (hereafter "LS Telcom report") https://op.europa.eu/publication-detail/-/publication/8c6755a1-4f55-11ed-92ed-01aa75ed71a1

Broadcasters choose the appropriate video resolution standard depending on the demand from consumers and the cost or price of acquiring more capacity to broadcast at higher resolution. Given the above video standards and assuming ~24Mbps capacity on a DVB-T multiplex, it is possible to offer around 16 SD channels or 3 HD channels on one DVB-T multiplex with MPEG4 encoding.

Higher compression standards can allow for the use of higher video resolution standards, for example HD or 4K (UHD), without consuming prohibitively large amounts of the available capacity, or allow other service improvements such as high frame rate (HFR[356]) and high dynamic range (HDR[357]). Shifting from MPEG4 to HEVC compression can reduce the required capacity for a given output of channels by 42-50%.[358]

Minor changes to **encoding** can iteratively increase capacity by a small degree and can be implemented with relatively low cost to 2rn (e.g. software changes) and with minimal disturbance to consumers.

2rn has "*recently upgraded the DTT headend to utilise more efficient MPEG4 encoders*" and submits that *"it is unlikely that significant further efficiency gains will be developed for MPEG4 implementations*". 2rn adds that "*Further efficiency gains in this area would most likely require a change to a different encoding standard such as HEVC"* and that this would require "*changes within the network (replacement headends)*" and *"an equipment (TV/Set-top-box) change for many Saorview viewers*" [359]

While data is not available it is likely that a significant proportion of DTT set top boxes may not compatible with HEVC standards since they have not been part of the receiver specification set by 2rn.[360] Moreover only more recently replaced smart TVs (especially 4K TVs) are likely to have HEVC specification.[361]

C.3 Irish broadcasters also distribute their services via broadband networks

Broadcasters on DTT Saorview also provide TV on-demand via broadband

Broadcasters already offer hybrid broadband and broadcast TV services as well as apps to access both live and on-demand content. Recognising that increasingly consumers value the

356 High frame rate (HFR) is a video term that refers to content that runs at a faster frame rate than the standard 24 fps.

357 High dynamic range offers better picture quality. HDR content on HDR-compatible TVs can get brighter, darker, and show more shades of grey in between than non-HDR content.

358 LS Telcom report, p.46

359 2rn submission to ComReg Q.5 and Q.6.

360 Digital Terrestrial TV Receiver Specification

361 Samsung smart TVs produced in 2015 and later are equipped with HEVC decoders. https://www.videoconverterfactory.com/tips/samsung-tv-hevc.html

flexibility and functionality of TV over broadband, Irish broadcasters have also invested in TV distribution via IP.

In order to distribute content via broadband, content providers must undertake three specific activities. First, they must invest in the capacity to store and serve content, often using dedicated Content Delivery Networks (CDNs – described below). Second, they must invest in consumer interfaces (such as apps or the Saorview platform) to enable consumers to access content. Third, they must distribute their apps and content via app stores or via commercial deals direct with device manufacturers.

Modern Saorview set top boxes and branded TVs integrate DTT broadcast technology with IP distribution to offer enhanced functionality for viewers via their EPG. 'Saorview Connect' service integrates (via the set-top box) on-demand streaming, remote recording and additional features – like live pause and restart for certain programmes.

Furthermore, modern connected TVs and devices like smartphones and tablets enable viewers to access broadcaster apps (e.g. RTÉ player, TG4 player, Virgin Media Player etc.), offering flexible and seamless access to both live and on-demand content. The UK app "Freely"[362] is another recent example of a broadcaster app. Branded as a "*no dish, no box, no need for an aerial*" solution, this service is presented as more reliable, since, unlike Freeview (UK's DTT service), Freely is not affected by the high-pressure weather conditions that caused disruptions in traditional Freeview broadcasts. [363]

However, there remain some challenges with TV over broadband. Compression technology is less effective when applied to live content (such as live sport) than pre-recorded content. This can place extra load on broadband access and core networks at peak times (during the streaming of popular live sports for example).

Broadband offers broadcasters the ability to monetise targeted advertising

TV distribution over broadband also offers benefits to broadcasters. It enables broadcasters to offer digital advertising which can be more profitable than broadcast advertising as it is better able to target adverts (since broadcasters have a better understanding of the viewer characteristics and viewing habits) and as viewers may not be able to skip TV advertising (unlike certain broadcast advertising – for example when watched via a PVR).

RTÉ announced in its Statement of Strategy for 2025-2029 that it will implement a "*new advertising technology that better meets clients' needs for data and insights*" in order to reach a "*growth in digital advertising in-line with target of reaching 25% of traded revenues by 2029.*"[364]

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362 https://www.freely.co.uk/how-freely-works

363 https://www.freeview.co.uk/help/bad-weather-affecting-tv-signal

364 https://www.rte.ie/documents/eile/2024/06/rte-strategy-new-direction-2025-2029.pdf (p.34-35)

Costs of distribution via TV over broadband increase with the volume of viewer hours

To provide TV over broadband broadcasters purchase capacity to serve their content to Internet Service Providers (ISPs), who in turn distribute content to end users (cable providers such as Virgin Media vertically integrate the distribution of content and the ISP service). Typically, broadcasters (such as RTÉ[365]) purchase capacity from third party Content Delivery Networks (CDNs) to store ("cache") and serve relevant content to end users' ISPs. Costs of CDNs are on a per GB basis which scales with the volume of viewing hours. The price for CDN (per GB of data delivered) has declined over time as costs have declined and competition is intensive. For instance, CDN costs per GB fell by 90% in the ten years to 2024.[366] The end users pay their ISPs for the monthly broadband service which includes the cost of distribution of data from the ISP's core network to their home router, as well as costs that the ISP faces in peering.

New standards will offer greater functionality

New standards will increasingly offer greater functionality such as DVB-I[367] (Digital Video Broadcasting – Internet) and HbbTV (Hybrid Broadcast Broadband TV). DVB-I and HbbTV are technologies designed to enhance television services by integrating broadcast capabilities:

- **HbbTV** was first developed by the French H4TV and German HTML projects and is designed to enhance – without replacing DTT or satellite services – traditional video broadcast content by introducing interactive applications through broadband; [368]
- **DVB-I** is an open standard that enables TV and video services to be accessed seamlessly across broadcast (terrestrial, satellite, cable) and broadband networks, allowing users to access services via a familiar EPG interface that contains the relevant metadata such as programme descriptions, start/end times and channel information. For end-users, it means a consistent experience where live channels, on-demand content, and apps can all be accessed on any device – TV sets, smartphones, tablets or streaming sticks - through a single, user-friendly interface.[369]

Saorview is already trialling DVB-I.[370] At DVB World 2026, RTÉ announced plans for a closed technical trial of DVB-I for Saorview. Building on lessons from the earlier proof of concept, the trial will involve up to one hundred users and run from June to November 2026. Its findings will inform a future decision on whether to proceed with a next-generation hybrid platform

365 https://info.varnish-software.com/hubfs/Case%20studies%20PDF/Case%20Study_RTE.pdf

366 https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-1-10-weeks/269636-call-for-evidence-future-of-tv-distribution/mtm-broadcast-distribution-costs-report.pdf?v=344043 (page 24)

367 https://tv-plattform.de/wp-content/uploads/2024/09/DTVP_DVB-I_Highlight_Use_Cases_EN.pdf

368 https://spyro-soft.com/blog/media-and-entertainment/understanding-hbbtv-what-it-is-and-how-it-works

369 https://dvb-i.tv/

370 https://www.broadbandtvnews.com/2024/09/20/Saorview-demonstrates-dvb-i-capability/

based on DVB-i. In May 2025,[371] RTÉ/Soarview presented its progress on its proof of concept for DVB-I at the EBU's Horizon event.[372] In September 2024, at the IBC 2024 event in Amsterdam, Saorview demonstrated a hybrid platform featuring DVB-I capabilities. This demonstration included deep linking to the RTÉ Player app within the EPG, allowing viewers to access on-demand content without the typical delays associated with launching separate applications. RTE is expected to conduct a public trial of DVB-I in June 2026:

> "*Also at DVB World 2026, Irish public broadcaster RTÉ announced plans for a closed technical trial of DVB-I for Saorview, the country's national DTT platform. Building on lessons from the earlier proof of concept, the trial will involve up to one hundred users and run from June to November 2026. Its findings will inform a future decision on whether to proceed with a next-generation hybrid platform based on DVB-I.*"[373]

In late 2023, Italy also initiated a market trial to evaluate the delivery of television services using the DVB-I standard.[374] The Italian "*bollino*" projects represents a collaborative effort among broadcasters, device manufacturers (Vestel), and regulatory bodies (AGCOM).[375] This trial followed the 2022 DTT migration out of the 700MHz band.[376]

C.4 Popularity of DTT varies significantly in Europe

There is significant variation in the use of DTT across Europe. This can reflect factors such as the date of DTT roll out (later roll out of DTT can lead to lower take up as households switched to alternative multichannel options prior to roll out) and the coverage of alternative networks (for example countries with high coverage of cable multichannel TV would have low consumer demand for DTT). Differences in DTT take up have led to different levels of investment by broadcasters in the platform.

Higher DTT penetration than Ireland

In Ireland, the penetration of DTT is lower than some European countries. In Spain and Italy DTT is popular and the penetration of DTT-only homes in the UK and France is greater than

371 DVB-I gathers momentum: New Zealand, Ireland and Germany announce steps forward - DVB

372 DVB-I PoC for Saorview | EBU Technology & Innovation

373 DVB-I gathers momentum: New Zealand, Ireland and Germany announce steps forward - DVB

374 https://dvb-i.tv/deployments/

375 https://informitv.com/2024/01/19/dvb-i-deployment-in-italy/

376 https://dvb.org/news/preparing-the-way-for-a-full-dvb-i-market-trial-in-italy/

Ireland: 33% of all homes in the UK[377]; 17% of TV households in France[378]; compared with 7% in Ireland.

DTT penetration similar to Ireland

A number of countries have levels of DTT broadly the same as in Ireland. For example, in Portugal, only 7.4% of households exclusively use the DTT platform for their television viewing, with approximately 23% using it at all.[379] In Portugal, advertising revenues fell so low that the government ultimately has considered phasing out advertising.[380]

Lower DTT penetration than Ireland or no DTT

In Germany, only 3.4% of households have DTT reception[381]. In the Netherlands, DTT is owned by the cable incumbent and appears to target houseboat owners and camping sites.[382] Switzerland[383] and Flemish Belgium[384] have switched off their DTT networks.

377 Ofcom indicates that, in 2024, 32.76% of households were 'Digital terrestrial only'.https://www.ofcom.org.uk/phones-and-broadband/service-quality/communications-market-report-2024-interactive-data

378 Arcep indicates that, In 2024, 16.6% of TV households are DTT only ("*Exclusif TNT*").https://www.culture.gouv.fr/fr/thematiques/audiovisuel/consultations-publiques/consultation-publique-relative-aux-perspectives-de-diffusion-et-de-distribution-des-services-de-television-en-france

379 And 16.2% of households simultaneously accessed both Pay-TV and DTT in their main residences https://www.broadbandtvnews.com/2025/01/14/7-4-of-households-in-portugal-use-dtt-exclusively/

380 Portuguese government admits DTT "a costly failure" | Advanced Television

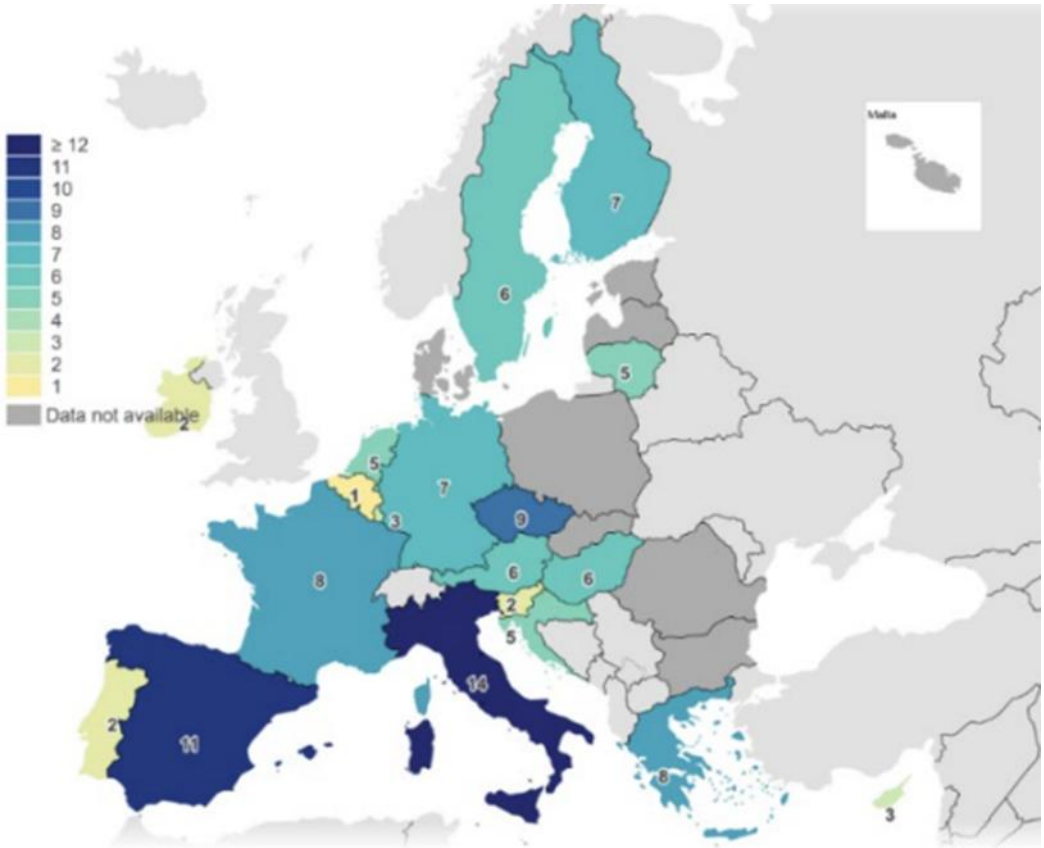
381 https://www.broadbandtvnews.com/2024/05/07/dth-satellite-leads-tv-reception-in-germany/

382 https://www.kpn.com/televisie/digitenne/overal-tv-kijken

383 In Switzerland, the Swiss public broadcaster SRG ceased all DTT transmissions in 2019.This move was influenced by the country's unique topography and the minimal adoption of DTT services, as the majority of Swiss households adopted cable and satellite television; https://www.broadbandtvnews.com/2018/12/06/switzerland-to-switch-off-dtt-on-june-3-2019/

384 The Flemish public broadcaster VRT discontinued its DVB-T service in 2018, citing minimal usage. https://www.broadbandtvnews.com/2018/05/18/belgian-pubcaster-vrt-terminates-dtt-broadcasts/

Figure 23 Maximum number of 8MHz channels received per coverage area in EU



Source: RSPG draft report on the future of the 470–694 MHz band across EU Member States

Different DTT investments and plans across Europe

The variation in take up of the platform can lead to self-reinforcing cycles of investment in the platform. In countries where the platform is popular broadcasters have invested in the platform to increase capacity to offer more channels at higher resolution. For instance, Spain has switched off all its SD DTT signals to complete the migration to HD services[385]; Italy has over 300 national TV services across 12 muxes.

In contrast, countries with low DTT penetration have lower levels of investment in the network. This in turn reduces demand from viewers and hence broadcasters exit the platform, leading to lower incentives to upgrade and improve the network. For example, Portugal[386] and Romania only operate one national mux with seven and nine national channels, respectively.

385 https://www.advanced-television.com/2024/02/14/spain-ends-sd-dtt/

386 Portuguese government defined DTT as "*a costly failure*" https://news.satnews.com/2024/11/03/portuguese-government-admits-dtt-a-costly-failure/

Switzerland[387] and Flemish Belgium[388] have switched off their DTT networks. In Sweden, commercial broadcasters have left the DTT network leaving only public service broadcasters[389]. In December 2024, in France the Canal+ Group announced it would return the DTT frequencies used for its four pay services.[390] The regulator ARCOM noted that this raised questions about the future of pay DTT, which may soon consist only of the Paris Première (M6) channel.[391]

Given these differences among Europeans countries, there is likely to be significant variation in their plans for DTT post-2030. This will inevitably mean that the process of spectrum planning and cross border coordination will be more complex than was the case when all countries were adopting broadly similar plans.

C.5 Ireland Top 10 programmes

TV still has power to drive large audiences. The top ten TV shows by audience continue to drive big audiences (whether viewed live or via catch up viewing). In 2025, The Late Late Toy Show had the biggest TV audience every year, with 1.7 Million views, of which 642,000 were via the RTÉ Player). On YouTube, clips of the programmes had over 192,000 views. TV's power to draw big audiences has remained constant in the last ten years (and 2023 was the peak cumulative audience for the top ten programmes).

Sport events tend to dominate the next 9 ranked TV shows with the exception of 2020 and 2021 where news also featured (which related to Covid announcements).

387 In Switzerland, the Swiss public broadcaster SRG ceased all DTT transmissions in 2019.This move was influenced by the country's unique topography and the minimal adoption of DTT services, as the majority of Swiss households adopted cable and satellite television; https://www.broadbandtvnews.com/2018/12/06/switzerland-to-switch-off-dtt-on-june-3-2019/

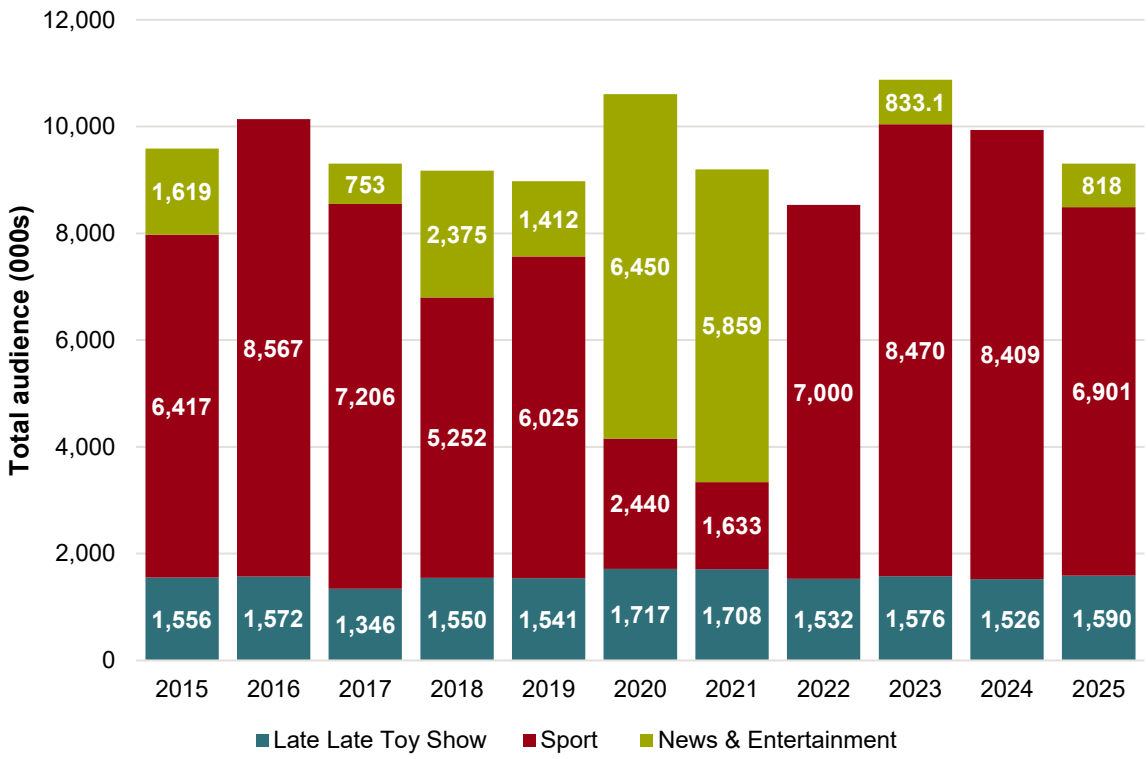
388 The Flemish public broadcaster VRT discontinued its DVB-T service in 2018, citing minimal usage. https://www.broadbandtvnews.com/2018/05/18/belgian-pubcaster-vrt-terminates-dtt-broadcasts/

389 https://www.thebroadcastbridge.com/content/entry/21118/swedens-accelerating-journey-from-dtt-to-ott

390 https://www.canalplusgroup.com/en/press/press-106

391 https://www.culture.gouv.fr/fr/thematiques/audiovisuel/consultations-publiques/consultation-publique-relative-aux-perspectives-de-diffusion-et-de-distribution-des-services-de-television-en-france

Figure 24 Cumulative audience of 10 most viewed TV programmes by category (2015 to 2023)



Source: TAM Ireland Ltd / Nielsen TAM annual data.

Notes: (i) Audience includes live broadcast and streams; (ii) 2016 and 2022 doesn't display any 'News & Entertainment' as these years featured major sports events (UEFA Euro and FIFA World Cup, respectively).

Annex D PMSE needs spectrum to support live events and concerts

D.1 Introduction

PMSE equipment in the sub-700 MHz band includes wireless microphones and In-Ear Monitors (IEMs) ("PMSE equipment") used in the production of live theatre and concert events, as well as supporting activities such as news gathering, sports events and outside broadcasts.

The number of devices in use simultaneously and the quantum of spectrum required varies depending on the type of event. Generally, the more devices operating simultaneously in a single location, the more spectrum is required.

Key points - PMSE

- **Demand for PMSE spectrum.** In Ireland demand for PMSE (i.e. wireless microphones and IEMs) has been reasonably stable. However, internationally some case studies show PMSE is increasing in demand driven by more events, and higher quality expectations of live performances. Generally, demand for Ireland's PMSE spectrum is concentrated around the Dublin area, where large venues, stadiums and broadcast studios are situated. There is much less demand for PMSE in rural areas.
- **Supply of PMSE spectrum.** To date, spectrum for PMSE in Ireland has in most cases been relatively abundant, with rare occasions where specific incremental bands have to be identified on an ad-hoc basis. Ireland's DTT network operates with 2 DTT multiplexes providing more whitespace for PMSE than other European countries. Given equipment availability and tuning ranges are limited there are limited alternative bands available for PMSE.[392]
- **Emerging technologies.** Emerging technologies may moderate demand in the future (though there is limited need to employ them currently), facilitating PMSE in spectrum bands other than the sub-700 MHz band.
- **Impact of reduced spectrum for DTT.** Should spectrum for DTT be reduced in the future (e.g. if the 600 MHz band was repurposed for other uses such as mobile meaning it could not be shared with PMSE), it seems likely that there would still be sufficient spectrum in the remaining part of the sub-700 MHz band in Ireland (i.e. the sub-600 MHz band) to accommodate current PMSE demand, noting that:
  - the current DTT services require 2 multiplexes meaning that there would still be whitespaces for PMSE;
  - demand for PMSE in Ireland is largely in the Dublin area and indoors; and
  - alternative equipment and technology for PMSE is being considering in Europe.

[392] In the UK Ofcom has made available 960–1164 MHz for shared use.

However imminent demand driven by more events, and higher quality expectations of live performances could drive demand for PMSE spectrum beyond what is currently available. In this case, alternative spectrum, equipment and technologies would need to be considered.

D.2 The regulatory framework for PMSE licences

In accordance with EU implementation Decision 2014/641[393] and CEPT harmonisation decisions, ComReg has made a wide variety of frequency bands available in Ireland for PMSE use through its PMSE licensing scheme.[394]

PMSE equipment operating in the sub-700 MHz band makes use of the interleaved DTT spectrum ("white spaces") and can be used on a non-interference, non-protected basis, for a specified location and for a maximum period up to 6 months.

Historically, PMSE equipment was licensed in the 470-892 MHz frequency range. However, the repurposing of 800 MHz spectrum in 2012 and 700 MHz spectrum in 2020 from DTT to mobile wireless broadband (e.g. for IMT) has meant that the amount of DTT interleaved spectrum available for PMSE has over time been reduced.[395]

D.3 PMSE demand for spectrum in sub-700 MHz band

No discernible trend in number of PMSE assignments in the sub-700 MHz band

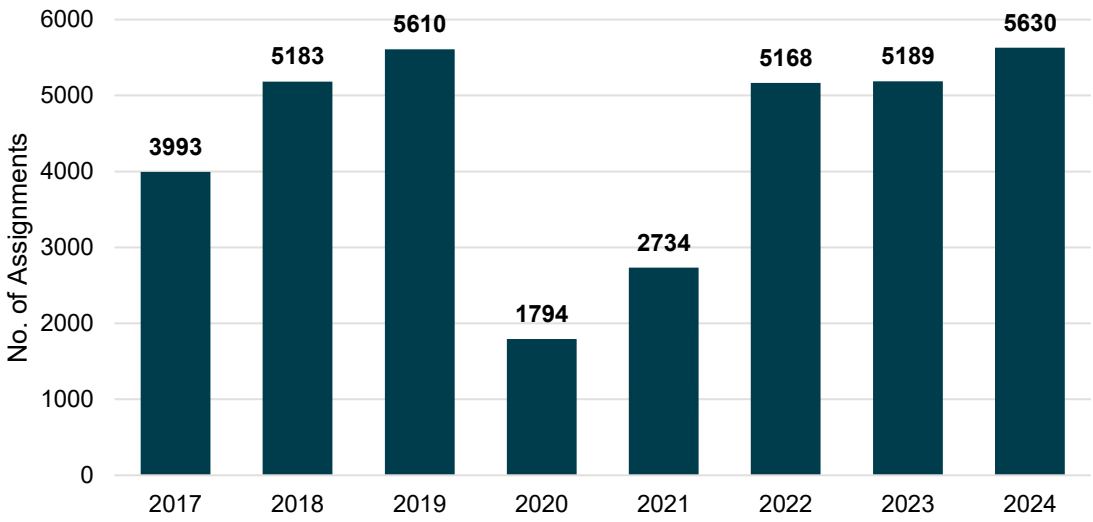
There is no strong discernible trend in the number of PMSE assignments in the sub-700 MHz band although the number of PMSE assignment granted in 2024 (up to 7 November) was just above the pre-covid peak of 2019 and greater any other year since 2017.

393 See European Commission, "Commission Implementing Decision of 1 September 2014 on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events equipment in the Union"

394 The current national legislation governing the issue of PMSE licences is the Wireless Telegraphy (Business Radio Licence) Regulations, 1949 (S.I. 320 of 1949) and subsequent amendments.

395 PMSE equipment can use spectrum in the 470 - 694 MHz frequency range, as well as spectrum outside of the sub-700 MHz band in the 694 - 703 MHz, 733 MHz - 753 MHz and 823 MHz - 832 MHz frequency ranges. Also see ComReg Document 02/71 R17,"*Permitted Short Range Devices in Ireland*", published 29 November 2024

Figure 25 Total Number of PMSE Assignments in the 470-694 MHz range by year from 1 January 2017 – 7 November 2024 (Excluding January's highest peak licensee)



Source: ComReg

Note: Licences granted to one licensee in January 2024 which required roughly 120 pieces of equipment across 11 difference locations for meeting events created a spike in PMSE assignments in 2024 and has been excluded from the analysis of trends. This licensee has not reapplied or sought further PMSE licences since.

Seasonal trend

There is a seasonal peak during summer months, likely associated with large outdoor sporting and music events.

Demand is concentrated in certain geographic areas and at certain times

Demand for spectrum from PMSE users has unique operational characteristics in that it is required for a specific place and/or time. Certain areas or events place significant pressure on the use of UHF spectrum, causing higher levels of demand. However, outside of these hotspots and times, much of that spectrum remains largely unused across wide parts of the country. For example, demand for PMSE licences is concentrated:

- in Dublin;
- located at specific venues such as stadia; and
- occurring in the summer months (May to July).

In assessing the adequacy of supply of spectrum for PMSE users it is necessary to understand the peaks (in time and location) in demand.

Frontier Economics analysis found that the largest peak in the 470-694 MHz statistics occurred in January 2024, when a single licensee requested 124 frequencies across 11 locations in Dublin, resulting in 1,364 assignments, which equates to the equivalent of approximately 34.1

DTT 8 MHz channels.[396] However as this usage was spread across 11 locations, it actually equates to the equivalent of approximately 3.1 DTT 8 MHz channels per location for this licensee.[397] Further, this licensee has not reapplied or sought further PMSE licences since then.

This suggests that currently there appears to be more than sufficient spectrum available to accommodate PMSE's current demand under present circumstances.

D.4 Future demand for PMSE

While there is no obvious upward trend in PMSE assignments in the sub-700 MHz band in Ireland, CEPT produced a report in 2021 (ECC Report 323),[398] which explored *"Spectrum use and future spectrum requirements for PMSE*". This highlighted the future trends and increasing demand for PMSE spectrum. It suggested demand is largely driven by enhancements to productions including major outdoor events and content creation.[399]

The ECC Report 323 highlighted a number of drivers for growing demand for PMSE including:

- growing demand from live music events, from the use of in-ear monitors and microphones for each performer;
- new television show formats which increase the number of microphones and in-ear monitors required; and,
- growing demand from theatre resulting from growing audience expectations regarding the quality and reliability of sound, driving the need for performers to have double microphones to ensure continuity and reduce the risk of equipment failure.

D.5 Alternative bands for PMSE (i.e. outside the sub-700 MHz band)

There has been some research into what alternative spectrum could be used for PMSE (i.e., outside the 470 MHz – 694 MHz range). ComReg has allocated spectrum in other bands: 174-230 MHz (56MHz in total); 733 MHz - 753 MHz (20MHz in total); 823 MHz - 832 MHz (9 MHz in total); and 1785 MHz - 1805 MHz (20MHz in total).[400]

In the UK, for example, Ofcom permits audio PMSE users to share access in the 960–1164 MHz band with aeronautical radio navigation services. This decision by Ofcom was supported

396 Assuming a PMSE frequency bandwidth of 200 kHz and a DTT Channel bandwidth of 8 MHz.

397 1,364 assignments @ 200 kHz each = 272.8 MHz of total spectrum used across the 11 locations or 24.8 MHz per location. This equates to about 3 DTT channels (at 8 MHz per channel).

398 ECC Report 323 Spectrum use and future spectrum requirements for PMSE, Feb 2021 ECC

399 For example, in a number of European countries large regular events such as Formula 1, major concerts (like Glastonbury in the UK), or major gatherings for live broadcasting events continue to drive demand for PMSE usage.

400 Radio Licensing for Programme Making and Special Events Use in Ireland ComReg-08_08R7.pdf

by proving trials demonstrating coexistence. However, since Ofcom's joint decision[401] with the UK Civil Aviation Authority (CAA) in 2020, there has been no uptake by other countries, meaning availability and access to equipment operating in the band is limited.

During large events with particularly high demand for spectrum, ComReg can temporarily allocate suitable assignments outside of the sub-700 MHz band for PMSE applications, but this is the exception to accommodate short-term extreme demand rather than spectrum identified specifically for PMSE sharing.

D.6 Technology trends

The Electronic Communications Committee (ECC, part of the CEPT) has established a work programme to assess the spectrum requirements for PMSE, considering technology developments. ECC Project Team 51-PMSE updates ERC Recommendation 25-10[402] to include recent technological advances in frequency usage for PMSE[403] .

There are developments in technologies which have the potential to use spectrum more efficiently for PMSE. However, in most cases there is no clear widespread adoption of these.

The industry has also been migrating to more spectrally efficient technologies including the switch to digital microphones which uses narrower channels compared to analogue.

5G PMSE is an early evolving technology. However, while experiments are ongoing there is no known target date for implementation of technical specifications which could support harmonisation.[404] According to one equipment vendor "*at the present time [2022], the feasibility of integrating audio PMSE applications into 5G is unproven and undefined on either a technology or economic basis. It, therefore, cannot be considered as a viable solution for audio PMSE in the foreseeable future.*"[405]

Wireless Multichannel Audio systems (WMAS) use a single wideband RF channel rather than many narrowband channels that require individual frequency assignment and planning to avoid intermodulation interference.[406] As a result, this technology improves spectrum efficiency significantly but also helps to minimise interference. WMAS could provide a 50 per

401 https://www.ofcom.org.uk/siteassets/resources/documents/consultations/uncategorised/7834-new-spectrum-audio-pmse/summary/ofcom-caa-joint-communication-on-pmse-sharing-in-the-960-1164-mhz-band.pdf

402 "Frequency Ranges for the Use of Terrestrial Audio and Video Programme Making and Special Events (PMSE) applications" [ECC: Rev. 2023] https://docdb.cept.org/download/2431

403 See https://docdb.cept.org/document/838 ECC, "Strategic Plan for the period 2020-2025", available at https://cept.org

404 See: Sennheiser Audio PMSE and 5G. https://tech.ebu.ch/files/live/sites/tech/files/shared/events/webinar2020_5GCP/presentations/EBUWebinar5GCP_Perez_Guirao_Audio_PMSE_and_5G.pdf

405 https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-2-6-weeks/234683-spectrum-roadmap-delivering-ofcoms-spectrum-management-strategy/responses/shure.pdf?v=200894

406 See: https://www.shure.com/en-GB/insights/an-overview-of-wmas

cent increase in spectral efficiency.[407] However, WMAS is not currently widely used and is an emerging solution for PMSE users.[408]

Cognitive PMSE which although not a recent development, could potentially offer benefits for PMSE systems operating in spectrum where conventional licensing does not apply.[409] Essentially, microphones and other devices would be dynamically assigned suitable spectrum by a monitoring and assignment system that operates in the gaps (time and frequency) between other unrelated transmissions in the same band. It does not improve spectral efficiency in itself but may open up new areas of spectrum for PMSE and provide a more automated approach to frequency allocation.[410]

Digital Enhanced Cordless Telecommunications[411] (DECT) is a cordless telephony standard maintained by the European Telecommunications Standards Institute (ETSI) and is developing a specification that could be introduced as an alternative technology for PMSE devices.

D.7 PMSE in Ireland - Conclusions

While there are reports internationally that demand from for PMSE assignments for wireless microphones and IEMs is increasing there is no strong evidence that this is the case in Ireland. Currently, even at the peak demand in January 2024, demand for PMSE was 3.1 DTT channels (where each channel was 8MHz) per location. This suggests that were the 600 MHz band to be cleared, there would likely still be sufficient spectrum to meet peaks in demand into the future. This does not take into account WMAS, which would negate the need to set aside much of the spectrum between assignments to avoid interference (intermodulation from products, resulting in 50% increase in spectrum efficiency). However, the ability of PMSE to still operate within the available spectrum even with this poor assignment efficiency is one of the reasons there is little pressure to adopt more spectrum-efficient technologies.

407 https://www.policytracker.com/blog/pmse-usage-increases-as-wrc-23-prepares-to-review-uhf-in-region-1/

408 See presentation 14_SHURE-Sub-700MHz_workshop_30032022 11 April 2025 - Workshop: “The future of the 470-694 MHz band within the EU”. https://radio-spectrum-policy-group.ec.europa.eu/events-0_en

409 https://www.policytracker.com/blog/pmse-usage-increases-as-wrc-23-prepares-to-review-uhf-in-region-1/

410 RSPG Workshop on the use of sub 700 MHz spectrum. Current Status and Future Development of PMSE in the European Union See presentation 2_LS_telcom_Womersley-Sub-700_MHz_workshop_30032022 page 13 https://radio-spectrum-policy-group.ec.europa.eu/events-0_en

411 Whilst DECT is not a new technology and is used mainly for digital cordless phones, the standard is capable of much more, the acronym DECT having changed over the years from ‘Digital European Cordless Telephony’ as applicability to other situations has been enhanced.

Annex E Demand for sub-700 MHz spectrum from other uses

E.1 Introduction

There are a number of potential alternatives uses for sub-700 MHz band including for:

- Mobile Wireless Broadband or. International Mobile Telecommunications (IMT) services;
- Broadband Public Protection and Disaster Relief ("BB-PPDR");
- Private 5G networks.

Key points - demand for sub-700 MHz spectrum from other uses

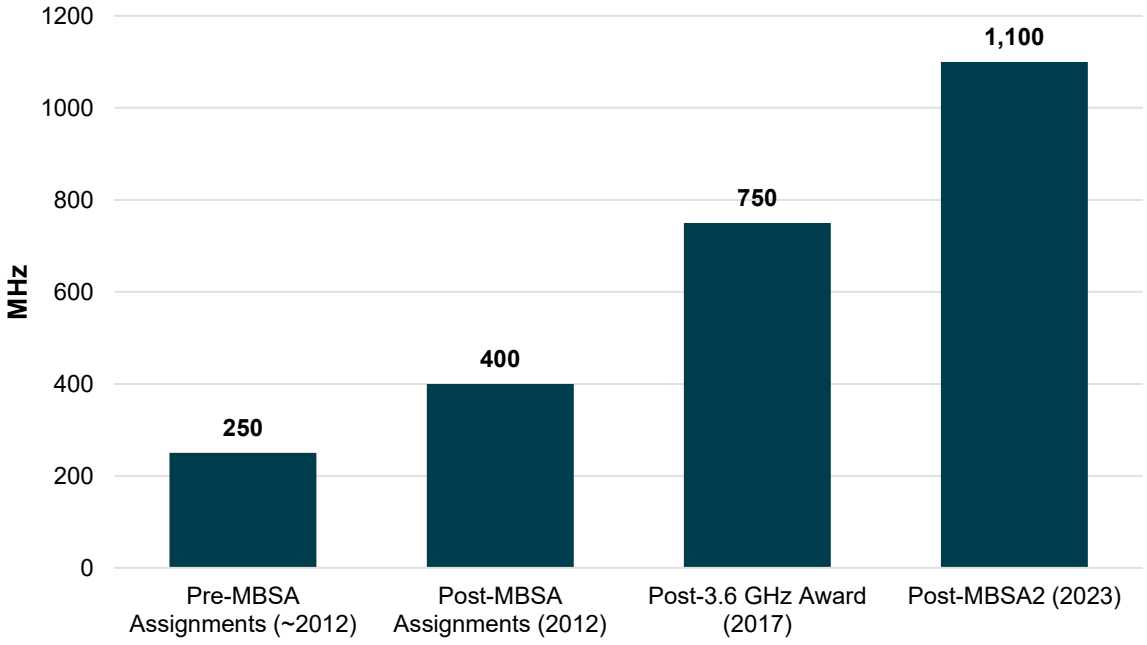
- **The value of sub-700 MHz spectrum.** Given its favourable propagation characteristics for wide area coverage and the large amount of spectrum (224 MHz), the sub-700 MHz spectrum is considered an important spectrum band. Other users with a potential interest in for the sub-700 MHz spectrum, are mobile wireless broadband or IMT (particularly in the 600 MHz band); Broadband Public Protection and Disaster Relief ("BB-PPDR") and Private 5G networks.
- **Mobile wireless broadband or IMT services.** For IMT services demand for the 600 MHz spectrum is likely to driven by a number of factors including the cost advantages of deploying 600 MHz to increase coverage and an increase in demand for mobile data services. Further there are Irish specific circumstances (e.g. rural country) which could also affect demand.
- **The 600 MHz band.** Within the sub-700 MHz band, the 600 MHz band is likely to be of particular interest given its existing harmonisation and use for mobile services in the Americas and some other parts of the World, its existing 3GPP standardisation for the 4G and 5G technologies and its large and growing device ecosystem.
- **PPDR.** There may be some demand for Broadband PPDR in the 600 MHz band, although ComReg has already identified other spectrum bands that could be used for BB-PPDR in Ireland.
- **Defence.** Defence end users have indicated a demand for spectrum in the sub-700 MHz band.
- **Private 5G networks.** There is likely limited demand for sub-1GHz capacity from private 5G networks.

E.2 Mobile Wireless Broadband (or IMT) services

Current use of spectrum to support mobile wireless broadband services

In Ireland, ComReg has assigned significant amounts of spectrum for mobile wireless broadband use to accommodate increasing demand for mobile connectivity and data in the last decade. By 2023, 1.1 GHz of spectrum across a number of bands was assigned for mobile wireless broadband use (Figure 26) including a significant uplift of 350 MHz in 2023.

Figure 26 Total harmonised radio spectrum made available for mobile wireless broadband use



Source: ComReg Doc 21/136, ComReg Doc 22/105

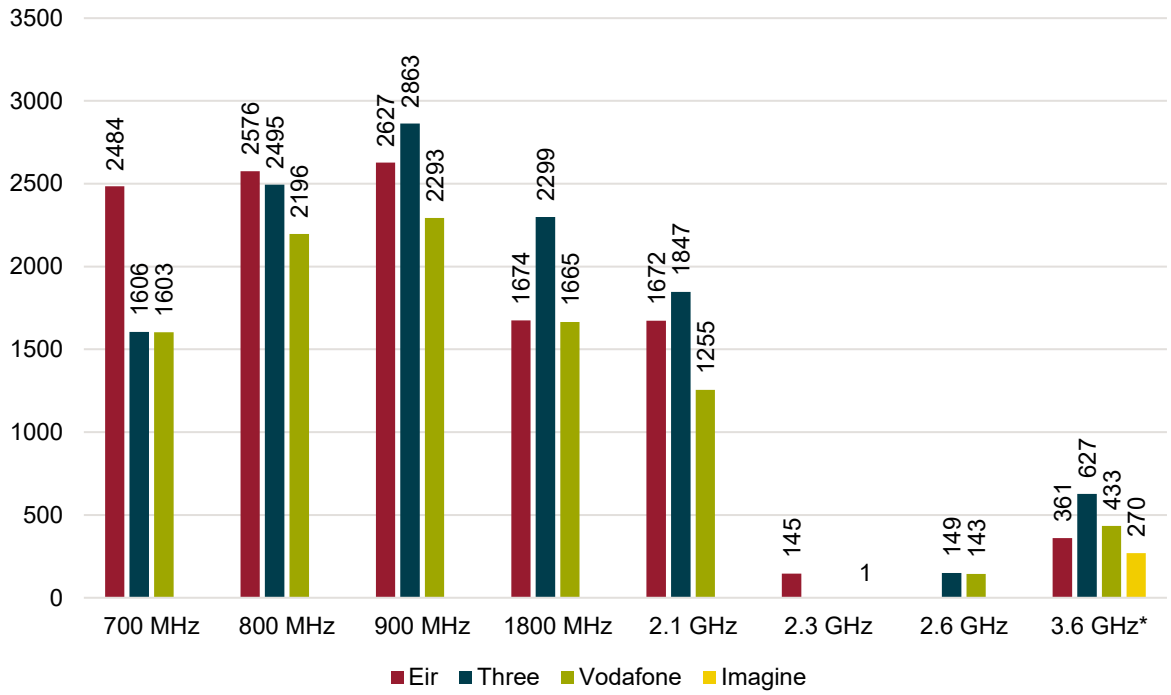
Note: Post 2023 spectrum relates to the time slot 2 period of award (from 2027). The total spectrum available includes spectrum assigned to Imagine (55 MHz in MBSA2 and 60 MHz (rural) in 3.6 GHz band).)

Spectrum is a scarce resource, particularly at the lower (sub-1GHz) frequencies. Given the propagation characteristics and availability of different spectrum bands, operators combine different spectrum bands to offer mobile services.

Low frequency spectrum (sub-1GHz) travels longer distance and can more successfully penetrate fixed objects (buildings) than higher frequency spectrum (above 1GHz). Hence operators use sub-1 GHz spectrum to efficiently provide a coverage layer of network services (using relatively few cell towers per km^2 of area) and in wide areas with relatively low demand (in rural areas for example). This is complemented with more densely located cell towers which use both sub-1 GHz and higher frequency spectrum to provide additional capacity in the areas with high demand (more densely populated urban areas, travel terminals etc).

While each mobile operator will have a different strategy for deploying spectrum at its cell towers (depending on its spectrum holdings, customer strategy, market share, and customer base characteristics) analysis of how operators deploy spectrum at different sites can reveal their demand for different spectrum bands. For instance, of all the spectrum bands assigned for mobile services in Ireland, it is the sub-1 GHz spectrum bands that are generally the most deployed (Figure 27).

Figure 27 Number of unique sites listed in MWBB Licences per band (Q1 2025)



Source: https://www.comreg.ie/industry/radio-spectrum/licensing/search-licence-type/mobile-licences-2/

Note: Based on the site information provided by the licensees in the schedules of the Mobile & WBB (MWBB) licences, the number of unique sites per licensee per band is set out.

This also shows there remains scope to further increase mobile network capacity by MNOs deploying spectrum at more sites. For example:

- Two of the MNOs (Three and Vodafone) have not rolled out spectrum in the 700 MHz band to the same extent as in the 800 MHz and 900 MHz bands;
- Spectrum in the 2.3 GHz and 2.6 GHz bands is only beginning to be rolled out and is substantially less deployed than spectrum in the 1800 MHz and 2.1 GHz bands; and
- Spectrum in the 3.6 GHz band is also considerably less deployed than spectrum in in the 1800 MHz and 2.1 GHz bands.

Indeed, some spectrum bands that are harmonised for use for mobile wireless broadband services (e.g. 26 GHz band) are not currently in use. Furthermore, some mid-spectrum spectrum bands might become available (e.g. 6GHz)[412].

412 In December 2024, the EC issued a mandate to issue to CEPT to carry out studies and develop technical conditions for the potential shared use of the Upper 6 GHz band for the provision of Wireless Broadband (WBB) Electronic Communications Services (ECS) (i.e. IMT) and by Wireless Access Systems, including Radio Local Area Networks (WAS/RLANs) (i.e. Wi-Fi).

Demand for mobile data

IMT uses spectrum to provide data, as well as voice and SMS services, via wireless networks. Originally designed to enable communication on the move, mobile operators now also use their networks to offer broadband services at a fixed location.

Demand for data services from mobile networks has risen rapidly in the last two decades as device technology advanced, mobile networks were upgraded with added capacity, penetration of mobile devices increased, and consumer expectations of what these devices can deliver has grown. However, while demand has continued to grow, the rate of growth has slowed significantly (from 64% p/a growth in 2016 to 20% p/a in 2023) as penetration of devices has broadly plateaued and the availability of fibre connections has increased, likely reducing demand for mobile wireless broadband to premises.

Demand for mobile data is expected to continue to grow into the near term (up to 2028), driven by a number of trends, for example:

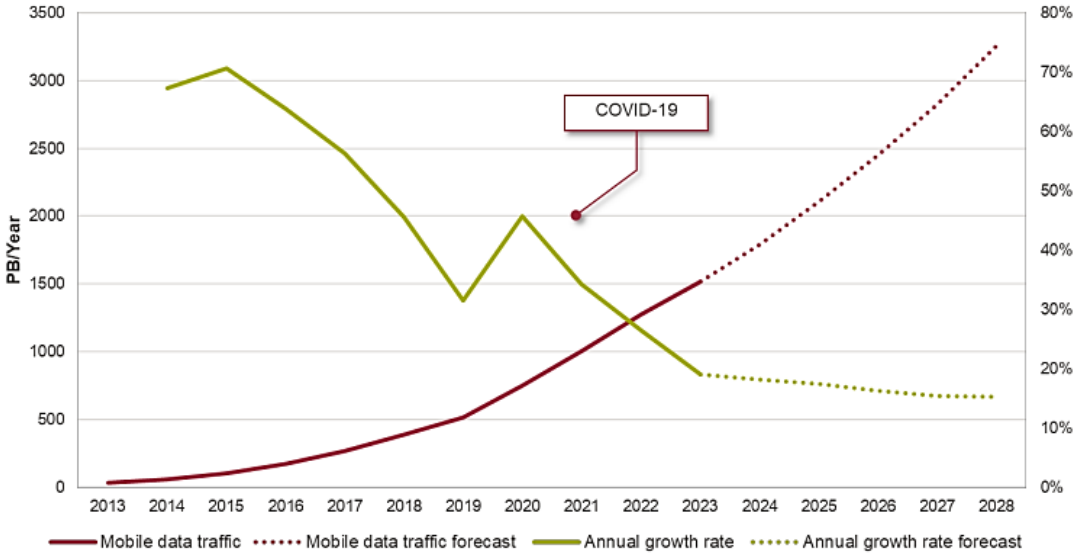
- users spend more time nowadays than previously on data hungry applications (such as video streaming, video sharing websites and videos provided on social media);
- devices are more sophisticated (faster chipset, higher resolution screen and better cameras). The relatively short product life cycles mean that high end specifications from a few years ago quickly become the norm; and
- mobile operators continue to invest in their networks to grow capacity.

Taken together these trends drive changes in behaviour where users increasingly rely on their mobile network on the move (rather than downloading content to watch while travelling). New technologies such as those offered by 5G services will incrementally drive demand for data. 5G offers greater speeds, and step changes in the capacity that can be provided (in busy locations – such as stadiums).

A 2024 Frontier Economics report for ComReg[413] found that demand for mobile data is expected to increase in the future. However, it predicted that the annual rate of growth will continue to slow. Despite this slowing trend, the report still forecast that the absolute volume of data traffic could double in just under five years from 2023.

413 ComReg 24/58a

Figure 28 Central forecast of mobile data traffic and annual growth rate



Source: Frontier Economics
Note: Note that mobile data traffic is on the left axis and growth rate is on the right axis

Ireland specific factors increase demand for sub-1 GHz spectrum

While demand for mobile data services is driving demand for sub-1GHz spectrum, there are also Irish specific factors which will also affect demand for this spectrum.

In particular, a relatively high proportion of the Irish population live in sparsely populated areas (37% live in rural areas). This presents challenges and places a higher demand on sub-1GHz spectrum, compared to populations that live in largely urban or sub-urban environments (where less scarce higher frequency spectrum can provide network capacity).

Furthermore, recent growth in demand has been partly driven by increased use of mobile networks to provide a broadband service at a fixed location (in place of fixed broadband). However, as Fibre to the Home networks are rolled out, this use case may decline in demand.

The value of the sub-1GHz spectrum is revealed in spectrum auctions and other allocations

Sub 1GHz bands spectrum bands have broadly similar value

Trends in the value of spectrum (as for example shown in the amounts paid for spectrum rights in auctions) can reveal trends in demand for spectrum from IMT.[414] For example, a 2024 UK

[414] Outcomes of spectrum auction can be difficult to interpret for a number of reasons: sometimes spectrum is sold in bundles, meaning it can be hard to discern the price of specific bands; different spectrum awards will place different

consultation[415] by Ofcom assessed the value of 900 MHz spectrum in 2024 (compared to 2018) and made the following conclusions.

- Different sub-1GHz bands (700 MHz, 800MHz and 900MHz) had broadly similar value as they had similar propagation characteristics, uses, and equipment availability. Even though there are differences in the propagation characteristics of 700 MHz spectrum compared to 900 MHz spectrum (i.e. 700 MHz spectrum has better deep in building coverage), Ofcom concluded these are not likely to drive significant differences in the value of the spectrum.
- 800 MHz spectrum was particularly valuable when auctioned in the UK when compared to 700 MHz, however, this did not reflect any underlying characteristics of the spectrum band. Rather, it related to the fact that at the time of the 800 MHz auction it was the only sub-1GHz band available for 4G, whereas now this constraint does not exist as the sub-1 GHz bands are fully substitutable from a mobile technology perspective.

It is important to be cautious when using another country's National Regulatory Authority's assessment of the value of 900 MHz to infer the value of 600 MHz spectrum were it to become available in Ireland. This is because demand in each country will be context specific. However, while not determinative, this evidence suggests that the value of the 600 MHz for IMT may be broadly equivalent to another sub-1 GHz spectrum.[416] This view is supported by some emerging research:

- GMSA: which estimated that the additional capacity in the 600 MHz band could lead to (i) 30% to 50% improvement in rural and deep-indoors download speeds and (ii) a 33% reduction in the cost of extending 5G to rural populations[417].

- UK Government: which estimated that the total benefits from additional UHF spectrum for mobile use ranges between GBP2.1 billion (Scenario 1b and 3b) and GBP3.6 billion (Scenario 3a).[418]

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constraints and restrictions on specific bands meaning similar spectrum bands from different auctions might not be directly comparable; and prices paid for spectrum on the specific local market context as well as the auctions rules. Ofcom's assessment adjusted for these factors: excluding some spectrum awards and making adjustments to ensure that prices paid are comparable.

415 Ofcom (2024) Review of Annual Licence Fees Proposals for revised Annual Licence Fees for 900, 1800 and 2100 MHz spectrum https://www.ofcom.org.uk/siteassets/resources/documents/consultations/category-1-10-weeks/consultation-review-of-annual-licence-fees/main-documents/consultation-review-of-annual-licence-fees.pdf?v=387361

416 GMSA estimated that the additional capacity in the 600 MHz band could lead to (i) 30% to 50% improvement in rural and deep-indoors download speeds and (ii) a 33% reduction in the cost of extending 5G to rural populations. https://www.gsma.com/connectivity-for-good/spectrum/wp-content/uploads/2022/07/5G-Low-Band-Spectrum-1.pdf

417 https://www.gsma.com/connectivity-for-good/spectrum/wp-content/uploads/2022/07/5G-Low-Band-Spectrum-1.pdf

418 The estimated benefits range from £2.1 billion to £3.6 billion in 2026 prices, on an NPV basis. Scenario 1B is to Re-plan DTT and release only the 600MHz band in 2035. The 500MHz band remains with DTT permanently within the modelling period. Scenario 3B is to close DTT and release all the relevant spectrum in 2045 rather than 2035. Scenario 3A is to Close DTT and migrate television to IPTV. Release all the relevant 500MHz and 600MHz spectrum in 2035. Future of TV distribution - Assessing the value and alternative uses of DTT spectrum for the future of UK TV distribution - GOV.UK

600 MHz spectrum is already used for IMT in the Americas and elsewhere

Spectrum can be used for IMT more efficiently where it is already used for mobile services elsewhere. This is because the wider ecosystem of devices and equipment will partly already be available to support the band (meaning that it can be deployed at lower cost and less risk).

In this regard the 600 MHz band is used for mobile in some other jurisdictions, meaning there is already terminal and antenna equipment available. For example, it is used in the US and Canada. More recently, authorities in Saudi Arabia and UAE (both ITU region 1 countries like Europe) have announced they have allocated 600 MHz to mobile.

The RSPG noted[419] 3GPP initiatives to develop specifications in two 600 MHz band plans.[420] In these, spectrum in 470-614 MHz range (i.e. sub-600 MHz band) could continue to be used only for broadcasting and for PMSE applications. The second range (between 617-694 MHz) would be used for mobile service, for example based on an FDD Band plan. This would result in a reduction of the spectrum available to DTT and PMSE by 80 MHz.

There are currently no plans for use of the sub-600 MHz band for IMT.

Post 2030, 600 MHz spectrum could be the main spectrum resource by which to further improvement mobile coverage in Ireland

Post 2030, the use of the 600 MHz band could be the main spectrum resource by which to further improvement mobile coverage in Ireland, noting that Ireland has a highly distributed and rural population and all other sub-1 GHz spectrum bands suitable for mobile services (i.e. 700 MHz, 800 MHz and 900 MHz bands) have already been assigned and the mobile operators' networks make greater use of these sub-1 GHz bands compared to higher frequency bands.

- Ireland's population density of 73 people per km[421] is considerably lower than the EU27[422] and UK[423] average of 109 and 279 people and per km^2;

419 RSPG23-021 FINAL RADIO SPECTRUM POLICY GROUP (Draft) RSPG Opinion Strategy on the future use of the frequency band 470-694 MHz beyond 2030 in the EU.

420 These are: Uplink: 1) UL 663 – 698 MHz DL 617-652 MHz and 2) UL 663–703 MHz DL 612-652 MHz. However, second band plan is not applicable due to current EU harmonisation in 700 MHz (i.e. PPDR usage in 698-703 MHz).

421 Population Distribution Census of Population 2022 Profile 1 - Population Distribution and Movements - Central Statistics Office

422 Demography of Europe – 2024 edition - Interactive publications - Eurostat

423 Population estimates for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics

- The population density in Ireland's rural areas and across the western half of Ireland is considerably lower again, being as low as 22 people per km in Leitrim[424].

E.3 Public protection and disaster relief (PPDR)

PPDR[425] (Public Protection and Disaster Relief) refers to radio applications used for public safety, security and defence by national authorities or relevant operators in responding to public safety and security, including in emergency situations. Narrow band PPDR solutions using harmonised spectrum are widely used. However, a broadband (BB)-PPDR solution would have advantages in transmission of video and enhanced security.

The RSPG, in its opinion of the future use of the sub-700 MHz band beyond 2030, notes that at a national level, there are several potential uses for the sub-700 MHz band, including PPDR and defence.

In 2020, ComReg identified spectrum in the 400 MHz, 700 MHz Duplex Gap and 700 MHz Guard Bands (i.e. immediately adjacent to the two duplex 700 MHz bands allocated to IMT) as potential bands for the purpose of offering Broadband PPDR (BB-PPDR)[426] though to date no assignment has been requested or made.

The Office of the Government Chief Information Officer (OGCIO)[427] acts as the advisor to Government on digital government including digital infrastructure such as PPDR.

In Europe, ECC/DEC/(16)02 sets out the harmonised technical conditions and frequency bands for the implementation of Broadband Public Protection and Disaster Relief (BB-PPDR). The implementation status of this decision indicated that BB-PPDR has been implemented in the 700 MHz band in a number of countries including: Germany, Bulgaria, Estonia, France and Switzerland. [428]

E.4 Defence

In the RSPG consultation on the sub-700 MHz bands, the defence and military have indicated a demand for spectrum in the 470-694 MHz to compensate for the current lack of UHF

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424 Population and Age Ireland and Northern Ireland - A Joint Census Publication 2021-2022 - Central Statistics Office

425 Resolution 646 (Rev.WRC-15) defines the purpose of a PPDR radio system. Such a system includes two different uses. The first one is for Public Protection (PP) which covers radiocommunications used by responsible agencies and organisations dealing with maintenance of law and order, protection of life and property, and emergency situations. The second one is for Disaster Relief (DR) which covers radiocommunications used by agencies and organisations dealing with a serious disruption of the functioning of society, posing a significant, widespread threat to human life, health, property or the environment, whether caused by accident, nature or human activity, and whether developing suddenly or as a result of complex, long-term processes

426 ComReg 20/98

427 OGCIO is a division of Department of Public Expenditure, NDP Delivery and Reform (DPENDR)

428 ECC/DEC/(16)02 of 17 June 2016 on harmonised technical conditions and frequency bands for the implementation of Broadband Public Protection and Disaster Relief (BB-PPDR) systems amended on 8 March 2019 (ECC#51) See: https://docdb.cept.org/implementation/941

spectrum with good propagation characteristics. Several options are considered including: access to the lower part of the band 470-512 MHz; access to 80-120 MHz of spectrum in the sub-700 MHz band; access to DTTB white spaces for ad-hoc, Combat Net Radio .

Defence end-users consider that the introduction of IMT in this frequency band would prevent the development of military applications.[429]

E.5 Radio astronomy

Radio astronomy (RAS) band 608-614 MHz is used for continuum solar observations with overnight calibration on celestial radio-sources, observation of pulsars, observation of extra-terrestrial radio sources, (in conjunction with bands 322 -328.6 MHz and 1400-1427 MHz), and European Very Long Baseline Interferometry Network observations.

In response to RSPG consultation, RAS end users request elevation of the radio astronomy service in the band 608-614 MHz to primary. [430]

E.6 Private 5G networks

Private 5G networks enable mobile providers or the end users themselves to use non-public mobile network services. Such networks can use licensed spectrum, unlicensed spectrum, or shared spectrum, and are typically operated in a limited geographical area. They can be used to support specific industrial use cases such as manufacturing, education, transportation; or power and utilities in a particular location.[431] Dedicated private mobile networks can augment public mobile networks by providing dedicated capacity, with guaranteed quality of service on a dedicated infrastructure, or at least take the capacity and reliability requirement away from the mobile networks.

ComReg, in July 2025, published a consultation on a licensing regime for local-area Wireless Broadband (WBB) systems, which could be used for, among other things, private mobile (4G, 5G etc.) networks using spectrum in the 3.8-4.2 GHz band.[432]

Demand from private 5G networks (beyond utility applications) for sub-700 MHz spectrum is likely to be limited.

First, these networks are mainly sited in specific locations, the largest of which are likely to be University campus systems, which may involve sites across a specific town, or the needs of mega factories. But even these wider area applications would benefit mainly from higher

429 RSPG 25-024

430 RSPG 25-024

431 Industrial applications are inherently more upload-heavy than commercial mobile networks that tend to have more download capacity. This results in a different Uplink/Downlink slot pattern that is more suitable for bespoke applications.

432 See: ComReg Document 25/46, "Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP)", available at https://www.comreg.ie/publications

frequency spectrum than the sub-700 MHz band in order to provide significant uplifts in capacity (and or guaranteed levels of quality parameters) than could be provided on a mobile operator's network. In this regard, the 3.8-4.2 GHz band has been harmonised in Europe for local area WBB systems (low to mid-power)[433].

Second, the propagation characteristics of the sub-700MHz spectrum mean that it may not be ideal for small area private 5G networks (as lower frequency spectrum travels further and can thus lead to interference in neighbouring areas, leading to a lower site density and therefore a lower spectrum efficiency (data capacity per km^2). BEREC reported that the majority of private networks use spectrum in the 3400-4200 MHz band, but it noted that four countries had private networks in public mobile bands, integrated into public networks and based on MNO spectrum (700MHz, 800MHz, 900MHz, 1800MHz etc).[434]

Furthermore, advancements in 5G Standalone (SA) technology will enable mobile operators to offer guaranteed quality-of-service features using network slicing.[435] These solutions could serve as alternatives to dedicated private 5G networks for many use cases beyond industrial automation and high-end SCADA[436] systems, including real-time monitoring, control, and management of critical infrastructures like power grids, water systems, and oil/gas pipelines.

433 CEPT ECC Decision (24)01, "Harmonised technical conditions for the shared use of the 3800-4200 MHz frequency band by low/medium power terrestrial wireless broadband systems (WBB LMP) providing local-area network connectivity", approved 8 November 2024

434 BEREC 2024 Draft BEREC Report on the evolution of private and public 5G networks in Europe BoR (24) 150

435 i.e. creating virtually separate networks using existing infrastructure and spectrum.

436 Supervisory Control and Data Acquisition.

Annex F Glossary of terms and acronyms

Table 10 Definition on terms and acronyms

Terms & Acronyms	Definition
2rn	RTÉ Transmission Network, trading as 2rn
AGCOM	Autorità per le Garanzie nelle Comunicazioni (Italian Communications Authority)
AVOD	Free streaming services which rely on advertising
BAI	Broadcasting Authority of Ireland
B&A TechScape	Public TechScape reports that track technology usage and attitudes in Ireland
B&A Survey 2025	Consumer survey on TV habits in Ireland, done by B&A Ipsos in 2025
BB-PPDR	Broadband Public Protection and Disaster Relief
BEREC	Body of European Regulators for Electronic Communications
BTS	Broadcasting Transmission Services
BVOD	Broadcast Video On Demand
CAA	Civil Aviation Authority (UK)
CAGR	Compound Annual Growth Rate

CDN	Content Delivery Network
CEPT	European Conference of Postal and Telecommunications Administrations
CnaM	Coimisiún na Meán
COFDM	Coded Orthogonal Frequency Division Multiplexing
ComReg	Commission for Communications Regulation
CSO	Central Statistics Office (Ireland)
CTV	Connected Television
DCCS	Department of Culture, Communications and Sport
DECT	Digital Enhanced Cordless Telecommunications
DPENDR	Department of Public Expenditure, NDP Delivery and Reform
DSL	Digital Subscriber Line
DTCAGSM	Department of Tourism, Culture, Arts, Gaeltacht, Sport, and Media
DTT	Digital Terrestrial Television
DTTB	Digital Terrestrial Television Broadcasting
DVB-I	Digital Video Broadcasting - Internet
DVB-T	Digital Video Broadcasting - Terrestrial

DVB-T2	Digital Video Broadcasting - Second Generation Terrestrial
EC	European Commission
ECC	Electronic Communications Committee
ECS	Electronic Communications Services
EPG	Electronic Program Guide
ETSI	European Telecommunications Standards Institute
EU	European Union
FAST	Free Advertising Supported Television
FDD	Frequency Division Duplex
FTA	Free To Air
FTTH	Fibre To The Home
FTTP	Fibre To The Premises
H4TV	French hybrid broadcast service
HBB	Hybrid Broadcast Broadband
HbbTV	Hybrid Broadcast Broadband TV
HD	High Definition
HDR	High Dynamic Range

HEVC	High Efficiency Video Coding
HFR	High Frame Rate
HH	Household
HTML	Hypertext Markup Language
IEM	In-Ear Monitor
IMT	International Mobile Telecommunications
Internet Based TV	any OTT and/or IP-TV
IP	Internet Protocol
IPTV	Internet Protocol Television
ISP	Internet Service Providers
IT	Information Technology
ITU-R	International Telecommunication Union Radiocommunications
ITV	Independent Television (television network)
LED LCD TV	Light Emitting Diode Liquid Crystal Display Television
MBSA2	Multi Band Spectrum Award 2022
MNO	Mobile Network Operators
MoU	Memorandum of Understanding

MPEG-4	Moving Picture Experts Group Video Compression Standards
MWBB	Mobile and Wireless Broadband
NBI	National Broadband Ireland
NBP	National Broadband Plan
NorDig	Nordic DTT
Ofcom	Office of Communications (UK)
OGCIO	Office of the Government Chief Information Officer
OTT	Over The Top
PMSE	Program Making and Special Events
PPDR	Public Protection and Disaster Relief
PSB	Public Service Broadcaster (RTÉ, TG4, the Houses of the Oireachtas Channel and the Irish Film Channel)
PSM	Public Service Media
Public Service Media Television Services	RTÉ1, RTÉ2, TG4, Cula4 and Oireachtas TV; Virgin Media 1 and Virgin Media 2
PVR	Personal Video Recorder
RAS	Radio Astronomy
RF	Radio Frequency

RLA	Radio Local Area
RR	Radio Regulations
RSPG	Radio Spectrum Policy Group
RTÉ	Raidió Teilifís Éireann
SA	Standalone
SCADA	Supervisory Control and Data Acquisition
SD	Standard Definition
SMS	Short Message Service
SRG	Schweizerische Radio- und Fernsehgesellschaft (Swiss Broadcasting Corporation)
SVOD	Subscription Video On Demand
TAM Ireland	Television Audience Measurement Ireland Ltd
TG4	Teilifís na Gaeilge a Ceathair
TV	Television
UAE	United Arab Emirates
UHD	Ultra-High Definition
UHF	Ultra-High Frequency

UK	United Kingdom
US	United States
VDSL	Very-high-bit-rate Digital Subscriber Line
VMI	Virgin Media Ireland
VM1	Virgin Media 1
VM2	Virgin Media 2
VM3	Virgin Media 3
VM4	Virgin Media 4
VOD	Video On Demand
VRT	Vlaamse Radio- en Televisieomroeporganisatie (Flemish Radio and Television Broadcasting Organisation)
WAS	Wireless Access System
WBB	Wireless Broadband
WEDDIP	Western European Digital Dividend Implementation Platform
Wh	Watt hours
WMAS	Wireless Multichannel Audio Systems
WRC	World Radiocommunication Conference

WRC-31	World Radiocommunication Conference 2031
WT	Wireless Telegraphy

Source: Frontier Economics

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