Public Document Pack

argyll and bute
communityplanning*partnership*

Kilmory, Lochgilphead PA31 8RT
Tel: 01546 602127 Fax: 01546 604435

30 October 2018

NOTICE OF MEETING

A meeting of the **BUTE AND COWAL COMMUNITY PLANNING GROUP** will be held in the **EAGLESHAM HOUSE, ROTHESAY** on **TUESDAY, 6 NOVEMBER 2018** at **10:00 AM**, which you are requested to attend.

BUSINESS

1. **APOLOGIES FOR ABSENCE**

2. **DECLARATIONS OF INTEREST (IF ANY)**

3. **MINUTES**

    (a)   Bute and Cowal Community Planning Group - 14 August 2018 (Pages 3 - 10)

4. **APPOINTMENT OF VICE-CHAIR** (Pages 11 - 12)

    Report by Area Committee Manager

5. **AREA COMMUNITY PLANNING ACTION PLAN**

    (a)   Shop Front Improvement Scheme 2011 - 2016 - Rothesay (Pages 13 - 18)
    Presentation by Senior Development Officer

    (b)   Isle of Bute Trust
    Update by Trust representative

6.   **COMMUNITY FOCUS**

   (a)   Bute Community Cycling Club

         Update on installation of cycle hubs around Bute

   (b)   Dunoon Area Alliance (Pages 19 - 20)

         Update by Ann Campbell and Tom Warren

7.   **ARGYLL AND BUTE OUTCOME IMPROVEMENT PLAN 2013-2023 - OUTCOME 1 (THE ECONOMY IS DIVERSE AND THRIVING)**

   (a)   Tourism

         Update from visit Scotland (to follow)

8.   **ARGYLL AND BUTE OUTCOME IMPROVEMENT PLAN 2013-2023 - OUTCOME 2 - (WE HAVE INFRASTRUCTURE THAT SUPPORTS SUSTAINABLE GROWTH)**

   (a)   Scottish Water Update (Pages 21 - 22)

         Update by Corporate Affairs Manager

   (b)   Digital Infrastructure Area Update (Pages 23 - 42)

         Update by Digital Liaison Officer

9.   **PARTNERS UPDATE**

10. **DATE OF NEXT MEETING - TUESDAY 5 FEBRUARY 2019 AT 10.00AM IN THE TIMBER PIER BUILDING, DUNOON**

   Discussion facilitated by the Area Governance Manager on items for discussion on the Agenda for the next meeting.

   Outcomes to be discussed.

   Outcome 3 – Education, skills and training maximises opportunities for all.

   Outcome 4 – Children and Young People have the best possible start.

Bute and Cowal Community Planning Group

Willie Lynch (Chair)

Contact: Andrea Moir, Senior Area Committee Assistant - 01369 708662

MINUTES of MEETING of BUTE AND COWAL COMMUNITY PLANNING GROUP held in the TIMBER PIER BUILDING, DUNOON on TUESDAY, 14 AUGUST 2018

Present: Willie Lynch, Dunoon Community Council (Chair)

Councillor Jim Anderson, Argyll and Bute Council
Councillor Jean Moffat, Argyll and Bute Council
Stuart McLean, Area Committee Manager, Argyll and Bute Council
Alison McGrory, NHS Highland
Sandra Cairney, NHS Highland
Samantha Somers, Community Planning Officer, Argyll and Bute Council
Sharon MacDonald, Community Development Officer
Blair Moglia ,Caledonian MacBrayne
Colin Mouslon, PA23 BID
Marilyn Rieley, Community Development Officer
Lorna Pearce, Senior Development Officer
Heather Greer, Strachar Hub
Ian Asher, Strachar Hub
Kirstie Reid, Strachur Community Council
Patrick White, Maxie Richards Foundations
Brian Leitch, Maxie Richards Foundations
Iona McPhail, ACHA
Sergeant Mark Wilson, Police Scotland
Michelle Rushden, Local Authority Liaison Officer Police Scotland
Eleanor Stevenson, South Cowal Community Council
Tom Elsby, Gateway Project
Kyle Wilson, Gateway Project

1.   **APOLOGIES**

Apologies for absence were received from Kevin Devine, Stuart McLean (Scottish Fire and Rescue Service), Cairndow Community Council, Jayne Lawrence-Winch and Councillor Audrey Forrest.

2.   **DECLARATIONS OF INTEREST**

There were no declarations of interest intimated.

The Chair ruled and the Committee agreed to alter the order of business in order to facilitate officer attendance, the following item was taken out of sequence.
8. (b) Police Scotland was taken after item 5. of the minute.

3. **MINUTES**

    (a) **Bute and Cowal Community Planning Group - 1st May 2018**

    The minutes of the meeting of the Bute and Cowal Community Planning Group held on 1 May 2018 were approved as a correct record.

4. **MANAGEMENT COMMITTEE UPDATE**

    The Area Community Planning Group gave consideration to issues highlighted within the briefing note from the meeting of the Community Planning Partnership Management Committee held on 27 June 2018.

    Decision

    The Area Community Planning Group noted the content of the briefing note from the meeting of the Management Committee held on 27 June 2018.

    (Reference: Briefing Note - Community Planning Partnership Management Committee update dated August 2018, submitted)

5. **AREA COMMUNITY PLANNING ACTION PLAN**

    (a) **Presentation by Strachur Hub**

    The Area Community Planning Group received an informative presentation from Heather Greer and Ian Asher, Strachur Hub.

    The presentation informed the Group about the background of the Strachur Hub delivery model, its vision, objectives and planned future growth as well as some of the services delivered, including Falls Prevention through Exercise and Chronic Pain Management Courses.

    Decision

    The Area Community Planning Group noted the presentation from Strachur Hub.

    (Reference: Presentation from Strachur Hub dated 14 August 2018, submitted).

    (b) **Transformation Projects and Regeneration**

    The Area Community Planning Group received a presentation from Lorna Pearce and Marilyn Rieley regarding the ongoing transformation and regeneration projects that are ongoing within Dunoon Area, including the town centre regeneration projects and Dunoon CARS.

    The work being taken forward by the Dunoon Area Alliance was also highlighted, including the Doors Open Day 2018 which is scheduled to be

held on 22 and 23 September 2018.

Decision

The Area Community Planning Group noted the presentation.

(Reference: Presentation and update by Senior Development Officer Bute and Cowal Development Officer dated 14 August 2018, submitted)

(c) **Update on great places heritage bid**

Lorne Pearce, Senior Development Officer, reported that an application to the Great Places Heritage fun had been unsuccessful. Benmore and Kilmun Community Development Trust had taken on the themes that had been generated during the original application process and are considering submitting their own application.

Decision

The Area Community Planning Group noted the presentation.

(Reference: Verbal update by Senior Development Officer dated 14 August 2018, submitted)

(d) **Update on Opportunities available for local businesses to engage with the Argyll and the Isles Tourism Co-Operative**

Colin Mouslon updated the group on the current actives being taken forward by the PA2 BID. The BID is currently focusing on differentiating Dunoon from other areas by promoting the natural resources and landscape.

Several events are currently being planned including, Dunoon Dazzels and Sunset Ceremony. The European Water Skiing Championships had also been secured with work ongoing to ensure they are a success.

Decision

The Area Community Planning Group noted the update.

(Reference: Verbal update by Colin Moulson dated 14 August 2018, submitted)

(e) **Feeling Safe in Dunoon**

Sergeant Mark Wilson, Police Scotland, reported that a consultation exercise undertaken in 2017 suggested that there was a perceived 'fear of crime' within Dunoon. Sergeant Wilson pointed to the low crime rates within the area and suggested that the fear was a consequence of unfounded reporting on social media.

Decision

The Area Community Planning Group noted the update.

(Reference: Verbal update by Police Scotland dated 14 August 2018, submitted)

8. ARGYLL AND BUTE OUTCOME IMPROVEMENT PLAN 2013-2023 - OUTCOME 6 (PEOPLE LIVE IN STRONGER AND SAFER COMMUNITIES)

(a) **Police Scotland - Annual Update**

Sergeant Mark Wilson provided the Area Community Planning Group with an update on various initiatives and current local priorities currently being taken forward by Police Scotland.

The Group were updated on the success of the Youth Engagement Officer Post, the Outreach Behaviour Groups, Police Service Youth Volunteers and the use of social media to engage with the public and upcoming events. Work was ongoing to progress the Rural Watchers initiative which had evolved from Neighbourhood Watch Schemes.

Decision

The Area Community Planning Group noted the update from Police Scotland.

(Reference: Verbal update by Police Scotland dated 14 August 2018, submitted)

6. COMMUNITY FOCUS

(a) **Maxie Richard's Foundation - King's Court**

The Area Community Planning Group received a presentation from Brian Leech and Patrick White on behalf of the Maxie Richard's Foundation.

Kings Court had been established 32 years ago in Tighnabruaich to support individuals with drug and alcohol dependencies. The facility continues to have the support of the local community, this support is reciprocated by clients often are being active within the local community.

Mr Whyte reported that the majority of the clients were referred to Kings Court from the Glasgow Area and that many individuals from Argyll and Bute were referred to the Glasgow Area for rehabilitation. Mr Whyte felt that many people from Argyll and Bute would benefit from receiving treatment within their own community.

Decision

The Area Community Planning Group noted the presentation from the Maxie Richard's Foundation.
(Reference: Verbal update from Maxie Richard's Foundation dated 14 August 2018, submitted)

7.   **ARGYLL AND BUTE OUTCOME IMPROVEMENT PLAN 2013-2023 - OUTCOME 5 (PEOPLE LIVE ACTIVE, HEALTHIER AND INDEPENDENT LIVES)**

(a) **Health and Social Care Strategic Plan**

Consideration was given to a report which sought feedback from the Area Community Planning Group on their role within health and social care and their response to the Health and Social Care Partnership (HSCP) Community Engagement Process proposals, specifically on eight strategic areas of service change required to deliver the ambitions of the HSCP over the life of the Strategic Plan.

Decision

1.   The Area Community Planning Group noted the presentation.

2.   The Area Community Planning Group agreed that members would feedback their individual responses to the Social Care Partnership Community Engagement Process proposals.

(Reference: Report by Associate Director of Public Health, dated 14 August 2018 submitted)

(b) **Health and Well Being Annual Report**

Consideration was given to the Health and Wellbeing Annual Report for 2017-18. The report was introduced by Alison McGrory, Health Improvement Principal, NHS Highland, the Group was invited to note the content of the report.

Decision

The Area Community Planning Group noted the content of the Health and Wellbeing Report for 2017-18.

(Reference: Report by Health Improvement Principal dated 14 August 2018, submitted)

8.   **ARGYLL AND BUTE OUTCOME IMPROVEMENT PLAN 2013-2023 - OUTCOME 6 (PEOPLE LIVE IN STRONGER AND SAFER COMMUNITIES)**

(b) **Scottish Fire and Rescue - Annual Update**

Apologies were intimated by Scottish Fire and Rescue, therefore no

update was provided.

(c) **ACHA**

Iona McPhail updated the group on the current activities being taken forward by ACHA including Stock rationalisation and Estate Management Action Plan.

ACHA had faced several challenges over the winter months as a consequences of heavy snowfall. A great deal of time and effort had went into mitigating the impact on residents.

Decision

The Area Community Planning Group noted the presentation.

(Reference: Report and presentation by ACHA dated 14 August 2018, submitted)

9. **PARTNERS UPDATE**

(a) **Highlands and Islands Enterprise**

The Area Community Planning Group gave consideration to a report submitted by HIE which highlighted their activity across Argyll between April and June 2018.

The Chair raised concerns over the content of the report in that it was not Bute and Cowal specific.

Decision

The Area Community Planning Group noted the content of the report.

(Reference: Report by HIE, dated 14 August 2018, submitted)

(b) **Gateway Project**

Tom Elsby reported that the Gateway Project provides young people in Dunoon with a space where they feel safe, loved and respected. A purpose built facility for community and youth programmes in the town of Dunoon was currently being developed with an anticipated opening in 2020.

Decision

The Area Community Planning Group noted the update.

(Reference: Verbal update by Gateway Project dated 14 August 2018, submitted)

(c) **Caledonia MacBrayne**

Blair Moglia reported that 2 new Community Board Members had been appointed and that a new Corporate Social Responsibility Manager would be appointed within 2 weeks.

Decision

The Area Community Planning Group noted the update.

(Reference: Verbal update by Caledonian MacBrayne dated 14 August 2018, Submitted)

10. **DATE OF NEXT MEETING - TUESDAY 6 NOVEMBER 2018 AT 10:00AM IN EAGLESHAM HOUSE, ROTHESAY**

The date of the next meeting was noted and it was agreed that suggestions for agenda items should be forwarded to the Area Committee Manager.

This page is intentionally left blank

Argyll and Bute Community Planning Partnership

Bute and Cowal Area Community Planning Group

6 November 2018

Agenda Item

Appointment of Vice-Chair

Summary

Following the resignation of Alistair MacLaren as Vice Chair of the Bute and Cowal Area Community Planning Group this report provides information relating to the appointment of a Vice-Chair.

It outlines the expected time commitment and also gives information on the role. The Area Community Planning Group is asked to consider making an appointment to the position of Vice-Chair.

1. Purpose

1.1 This report asks the Area Community Planning Group to consider the appointment of a Vice-Chair.

2. Recommendations

2.1 The Area Community Planning Group is asked to consider the appointment of a Vice-Chair.

3. Background

3.1 At the meeting of the Bute and Cowal Area Community Planning Group held on 18th April 2017, members considered the appointment of a Chair and Vice-Chair for the Group.

3.2 Willie Lynch was confirmed as Chair and Alistair MacLaren was confirmed as Vice-Chair, both the Chair and Vice Chair were appointed for a second two year term.

3.3 Alistair MacLaren formally resigned from his position as Vice-Chair of the Bute and Cowal Area Community Planning Group at the meeting held on 14 August 2018.

4. Detail

4.1 According to the Terms of Reference the Vice-Chair, if elected, would serve for a term of 2 years with an option to be re-elected at the end of this time. However, no one person can serve for more than 2 consecutive terms.

4.2 The current Chair, Willie Lynch, is now serving his second term as Chair and as such will be stepping down from this position in May 2019.

4.3 To facilitate some continuity for the Group it is suggested that it would be beneficial if the person nominated to take on the Vice-Chair position had aspirations or would be willing to take on the role with a view to eventually becoming Chair of the Group.

4.4 In order to be considered as a candidate for the position of Vice-Chair the person must be a member of the Bute and Cowal Area Community Planning Group.

4.5 Some further information on the commitment required:-

- Attend meetings of the Bute and Cowal Area Community Planning Group and deputise for the Chair in his absence.
- Deputise for the Chair at meetings of the Community Planning Partnership Management Committee or the Full Partnership.
- Time commitment of at least 4 CPG meetings per year in February, May, August and November and 4 pre-agenda meetings per year in January, April, July and October.
- To participate in Short-Term Working Groups as required
- To engage with officers of the Council in terms of setting the Agenda for the Community Planning Group in consultation with the Chair

5. Conclusions

5.1 The Bute and Cowal Area Community Planning Group is asked to consider the appointment of a Vice-Chair.

6. SOA Outcomes

6.1 This report does not link to any specific Outcome as it relates to the administrative arrangements.

Name of Lead Officer
Shirley MacLeod, Area Governance Manager

For further information please contact:
Stuart McLean, Area Committee Manager (01436) 657605

Transformation Projects and Regeneration

Community Planning Group
6 November 2018
Eaglesham House, Rothesay

Agenda Item 5a

Shopfront Improvement Scheme 2011-2016 – Rothesay

Restoration of classical proportions to encourage footfall as part of wider regeneration initiative.

opfront Improvement Scheme 2017-2022 – Rothesay
vnscape Heritage

Expressions of Interest received to date

The BANK Enterprise Space

The BANK Enterprise Space, delivered in collaboration with Bute Island Alliance.

providing hot desking space, event/pop up space.

Helping entrepreneurs to test the market and grow their business

Lease signed July 2018, First sign up in September 2018

Procurement for Manager and Training

Formal launch November 2018

Thank you

This page is intentionally left blank

SURF
Scotland's Regeneration Network

SURF : sharing experience : shaping practice

DUNOON
AREA ALLIANCE

Ann Campbell has now taken up the part-time post as Facilitator for the Dunoon Area Alliance (DAA). Ann is employed by SURF and based in Dunoon with her work directed by the Dunoon Area Alliance steering group. The post, which is part of a larger Big Lottery funded Scottish development, will support the voluntary efforts that local residents, organisations and businesses are making for the regeneration of Dunoon.

This post is a development of the 2016, SURF feasibility study in Dunoon which suggested that the town would benefit from becoming a new *Alliance for Action* programme area. Acting on points of interest in the feasibility study process, SURF applied for, and secured, Scottish Government support for a Community Charrette process in Dunoon in the first half of 2017.

A Community Group has been working over the last year to refine the points in the Charrette Action Plan and to establish a framework for progressing the Charrette outcomes, which are being used to inform themes and activities for the Dunoon Area Alliance Action Plan.

Minute of Understanding with Argyll & Bute Council
A Minute of Understanding has been agreed between SURF and Argyll & Bute Council to support the work of Dunoon Area Alliance. As part of this agreement office space is being provided by Argyll & Bute Council for the DAA Facilitator within Milton House, Dunoon. This is a much appreciated contribution to the development of DAA.

SCIO
DAA is currently in the process of applying to OSCR, the Scottish Charities Commissioner, for charitable status as a Scottish Charitable Incorporated Organisation. Trustees have been identified and it is intended to have a launch event once Charitable Status is granted to expand community participation.

DAA Action Plan
The next meeting of DAA is set for Friday 2nd November at 3pm in Dunoon Pier Building and will focus on reviewing the DAA Action Plan, as produced from the 2017 Charette outcomes. This review will inform priorities for action in the coming year.

Living Streets Scotland

Living Streets Scotland, part of the UK wide charity for everyday walking, will be conducting two workshops in Dunoon as part of their **Healthier Safer Streets Community Programme** funded by Transport Scotland. Their mission is to achieve a better walking environment and inspire people to walk more. The workshops will explore with stake holders and community members how to improve Dunoon as a walking town and will consider signage and wayfinding, highlighting routes and places of interest. A provisional date has been set for Tuesday 27th November 2018 and information will be circulated inviting participation. Anyone interested in taking part is invited to email ann@surf.scot

American Years Project

A sub-group of the Dunoon Area Alliance has been established to explore the potential for creating some form of lasting record of the American presence in Dunoon, presenting and exploring its impact on the community and its heritage. SURF facilitated an opportunity for members of the group to meet with the US Consulate General in Glasgow where they explored the potential US support for developments. The group is now being supported by DAA and TSI to consider establishing a formal structure to enable them to seek funding for a feasibility study.

5e Feeling safe in Dunoon

Following on from the last report a funding application has been submitted to the Scottish Government 'Community Led Design' scheme to support consultation on developing Outdoor Activity / Play provision across Dunoon. The application has been submitted by SURF on behalf of Dunoon Area Alliance and includes in-kind support as well as financial support from a private donation and Live Argyll (£500). This consultation will include input from specialists to identify the types of play and outdoor activity provision required and potential locations.

Ann B. Campbell
Facilitator
Dunoon Area Alliance

Agenda Item 8a

Argyll and Bute Community Planning Partnership

Bute and Cowal Area Community Planning Group

6 November 2018

Agenda Item

SCOTTISH WATER UPDATE

Argyll and Bute Environmental Improvements

Scottish Water is investing over £5m in Argyll and Bute to improve and protect the coastal waters around the Holy Loch and parts of the Firth of Clyde.

The improvement works are at five different sites at Toward, Rhu, Kilmun, Innellan and Strone.

The improvement works will ensure waste water collected from local homes and businesses that are connected to the existing sewer network is treated, preventing the discharge of untreated water into coastal waters. This will enable compliance with strict water quality standards while protecting and enhancing the environment.

We held 3 public information events in Rhu, Kilmun and Innellan from 28th February to 2nd March 2017. At these events we had the drawings on display and had the project team to answer any questions the community had. We have now taken these on board which helped form our design and management of the traffic flows.

Innellan (Completed)

Work to upgrade the sewer network in Innellan to help enhance the water quality in the Firth of the Clyde was completed in July 2018. The work was on the Shore Road (A815) in Innellan.

Toward Sewer Improvements (complete)

Work was completed in May 2017 in 6 weeks. The project involved the installation of an underground tank in private land on the shore.

Kilmun

Our work in Kilmun to upgrade the sewer network and help enhance the water quality in the Firth of Clyde is phased at three locations in Kilmun. Scottish Water's delivery partner amey Black and Veatch has completed the first excavation and installation of the first septic tank in Kilmun at Hillrig/Duncan's Cottage and work is currently progressing along the coast at Strone. Once work is completed in Strone,

we will return to Kilmun (in January 2019) to upgrade the final two locations on the A880 near; at Lagganbhuie for around 12 weeks, followed by the final phase of work near Alderburn for around 12 weeks.

We have been working in collaboration with Argyll and Bute Highways to help reduce the impact of the works on the community. Work has been phased to reduce the impact on journeys along the A880. We have designed the new infrastructure to ensure that all work can be done under single lane closures meaning all routes will remain open and no full road closures are required.

Strone

We are taking care of the waste water services in Strone by upgrading the sewer network to help enhance the water quality in the Firth of the Clyde.

Our main work in Strone started in July 2018 and is expected to be completed in December 2018.

We are constructing an underground septic tank and associated pipework. The tank is located in the area of the bus stop layby. To minimise the disruption to the road, a large part of the pipework is being placed on the shore side of the seawall.

Two way traffic lights will be in place for the duration of the work. We would like to thank you for your understanding and cooperation while we complete these essential works.

Kilmun	1st phase complete – Work will return after the Strone phase	Septic tanks and sewer pipework	Traffic lights on the Shore Road for the second phase in Jan 2019
Strone	In progress - Started - expected to be completed in December 2018	Septic tank and sewer pipework	Traffic lights on the Shore Road

Agenda Item 8b

Argyll and Bute Community Planning Partnership

Bute and Cowal Area Community Planning Group

6 November 2018

Agenda Item

Digital Infrastructure Area Update

1.0 EXECUTIVE SUMMARY

1.1 This report provides an update on the various digital infrastructure projects including:
- Next Generation Access
    - Broadband Understanding
    - Programme so far
    - Digital Communities
    - Reaching 100% (R100)
- Mobile Communications
    - Commercial upgrades
    - Other activities

RECOMMENDATIONS

It is recommended that the Bute and Cowal Community Planning Group
1. Note the content of this report.

ARGYLL AND BUTE COUNCIL **BUTE AND COWAL COMMUNITY PLANNING GROUP**

Development and Infrastructure **November 2018**

Area Update

2.0 INTRODUCTION

2.1 Work has continued on a number of programmes which aim to improve the digital infrastructure across Argyll. This report provides an update on the various projects within the Bute and Cowal area.

3.0 RECOMMENDATIONS

3.1 It is recommended that the Bute and Cowal Community Planning Group
1.   Note the content of this report.

4.0 DETAIL

The work being undertaken in relation to digital infrastructure relates to broadband or mobile communications.

4.1 **Broadband Understanding**

Broadband or ADSL (Asymmetric Digital Subscriber Line)   - This is a digital telephone line able to provide broadband, this uses the old copper network from exchange to premise. In some cases lines go from the exchange direct to the premise Exchange only Lines (EOL) in other cases they enter a road side cabinet known as a Primary Connection Point (PCP) prior to premises distribution. ADSL, has several variances using the same technology but comes in with different speeds.
Broadband speeds offered over a standard ADSL connection is up to 8Mbps downstream, 446Kbps (0.5 Mbps) upstream. ADSL2+ is the latest version and can offer speeds of up to 24Mbps downstream, 1.3Mbps upstream.

4.2 Fibre to the Cabinet (FTTC) - This is the technology which Openreach primarily used to extend the reach of Superfast Broadband as part of the BDUK contracts. This is a hybrid Fibre solution which still uses the old copper network. VDSL degrades rapidly over copper hence why you have to be within 2km of the upgraded cabinet to get any uplift in speed. This is relatively quick win for BT and connects a number of premises giving access to upgrade to Hybrid Fibre SFB. It is done by connecting a PCP to a newly installed Digital Subscriber Line Access Multiplexer (DSLAM) which connects to the exchange via Fibre, thus shortening

the copper line length the broadband signal has to travel over the old network thus increasing speeds. This is Very High Speed Digital Subscriber Line (VDSL). FTTC can offer speeds of up to 80Mbps downstream, 20Mbps upstream but is very distance related.

4.3   Fibre to the Premise/Home (FTTP/H) - This is the gold standard in broadband connectivity and what is classed as a truly future proof network with Gigabit 1000Mbps capabilities. The UK Government has set a target of 2033 for the whole of the UK being full fibre, which will result in the replacement of the old copper Public Switch Telephone Network (PSTN). BT are eager to have the PSTN switched off sooner rather than later due to the high associated cost of copper network maintenance. They are currently maintaining two networks the old outdated copper network and building the new fibre network, the sooner they can turn off the copper the more they have to invest in the new network.

4.4   Superfast Broadband (SFB) – There are currently two standards to SFB speeds >24Mbps (UK) and >30Mbps (EU).
When the initial BDUK contracts were signed the UK Government defined SFB as speeds >24Mbps. Subsequently the EU decide that Superfast should be >30Mbps. So the initial contract speed criteria is set as the lower. Any subsequent state aid funded projects should adhere to the higher value.

4.5   Ultrafast Broadband (UFB) – Some make the generalisation that Ultrafast is speeds >100Mbps however Ofcom have redefined this as speeds >300Mbps. There are several means of currently receiving UFB with some still claiming that UFB is >100Mbps. 'G-Fast' is provide by BT and can provide ultrafast broadband over the copper network, however it is currently being suggested that this is being scaled back as Openreach are concentrating on their Full Fibre programme. Cable or DOCSIS (Data Over Cable Standard Interface Specification) this is used for provision of Telephone, TV and Broadband services.

4.6   Full fibre is only the real option for accessing this UFB in a rural context. DOCSIS is a purely commercial product from Virgin Media and will not see the commercial investment being made in rural areas. G-Fast again is a commercial product from BT but also relies on the copper network but only on very short lines lengths so is not suitable for rural locations.

4.7   There are currently several players installing full fibre networks across the UK, there is Openreach of course but there are some AltNets doing the same like Hyperoptic, Gigaclear and Cityfibre.

4.8   Alternative Solutions – There are other solutions to providing broadband which are not land based, you have Fixed Wireless Broadband, Mobile Broadband, TV White Space and Satellite. These can all provide you with SFB but they do have their constraints, technological restrictions on speed, signal contention, spectrum availability, latency, data usage limitations and cost.   They all have their own place and for some this might be the only solution for the foreseeable future.

4.9   4G Home Broadband – This is a relatively easy solution in remote areas as long as you have a 4G signal, Vodafone and EE both provide this as a solution. You

can find out which provider is best for you by checking the Ofcom website https://checker.ofcom.org.uk/mobile-coverage and inserting your postcode. With EE having launched its 4GEE Home Router some time ago, this is a small 4G router with built in antenna that can be simply posted to people and if needed an engineer visit at £100 can be arranged to install an external 4G antenna on a property to boost the signal. One problem in terms of replacing a fixed line service with 4G solutions is often the limited usage allowances but with up to 500 GB plans now available EE may have largely removed that obstacle even if the price is a bit more personal shopper rather than pound store.

- o 500GB is £100/m, equivalent to 20p per GB
- o 300GB is £80/m, equivalent to 26.6p per GB
- o 200GB is £60/m, equivalent to 30p per GB
- o 100GB is £45/m, equivalent to 45p per GB
- o 50GB is £35/m, equivalent to 70p per GB

All the plans are based on an 18 month contract, but you can pay £100 upfront and have the freedom of a 30 day contract.

The £100 price tag is still well above what would be considered a reasonable cost but is still a lot lower than the £1/GB equation that has lasted for some years, and if you are otherwise stuck with sub 2 Mbps ADSL it might be tempting even on a temporary basis until another solution is provided. However it must be stressed that your provider must have available backhaul at its mast location.

4.10 Ofcom have outlined that in 2017 the average household was consuming 190GB of data every month up from 132GB the previous year this is quite a lot of data. For example in appendix 1, 2 and 3. This is an average modern day household of two adults and three children on fibre max averaging 25-50 Mbps (Wi-Fi) (70Mbps+ wired) using SkyQ (with minibox), Amazon fire stick, Netflix, a smart TV (internet connected), PS4 (online gaming) 5 smartphones, an iPad and music streaming (Apple Music, Spotify and Amazon Music). This shows that the previous month data usage was 66.21GB download and 4.35GB upload. Albeit box sets were download in SD for storage purposes. For example watching TV shows or movies on Netflix uses about 1 GB of data per hour for each stream of standard definition video, and up to 3 GB per hour for each stream of HD video. Downloading and streaming consume a similar amount of data. This has gone as high as 245GB download and 41GB upload, but Ofcom outline that where available data usage in rural areas is generally higher.

4.11 Technology is always striving for more, pushing the boundaries. Current solutions are regularly being improved and new ones being developed. The next big push is going to be 5G and the Internet of Things (IoT). It is expected that Wi-Fi will be an intrinsic part of the upcoming 5G rollout which will ultimately rely on converged next generation networks split between licenced and unlicensed spectrum.

4.12 **Programme Update**

Work has continued on building the new infrastructure network to support next generation access. Whilst the initial contract was supposed to be completed Dec17 this will now see further cabinets and connections made due to efficiency savings and further Gainshare money being made available. Currently telephone

exchanges will continue to provide a service in relation to telephone calls only some exchanges will handle next generation broadband services, new access cables running from these "headend" exchanges directly to new communication cabinets within communities will ensure that the superfast speeds reach the local cabinets. Several more exchanges have been upgrade as part of the Digital Scotland programme than initially expected with more Points of Presence (PoP) being established. A PoP is where the main backhaul into the network is established to create internet connections.

4.13   As of the 30th September across Argyll and Bute which is part of both programmes HI and RoS 91.4% of premises are connected to the fibre network of this 82.9% have access to SFB resulting in 8.6% are still ADSL only.

Argyll and Bute Coverage

- SFB >24Mbps
- Fibre Connected <24Mbps
- ADSL
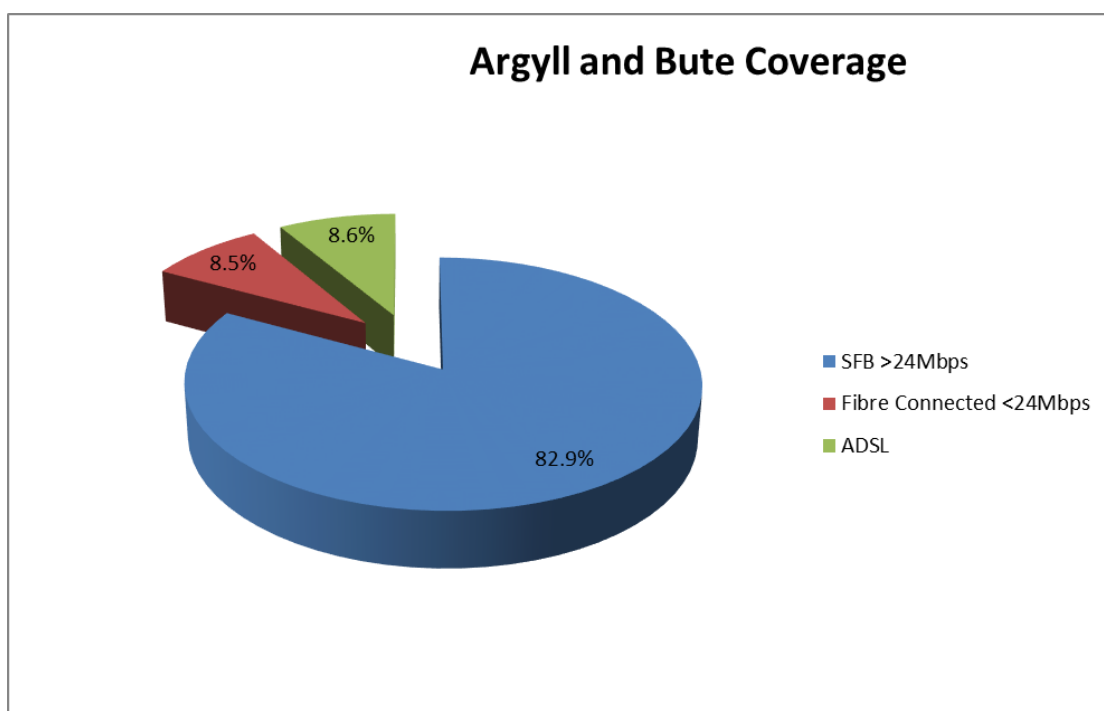
4.14   During 2018, we have seen further new connections extending the reach of Next Generation Access to premises in the Bute and Cowal area many for the first time. Work continues in many of these locations to extend the fibre services to as many premises as possible within the budget of the programme. A major part of this additional funding will be addressing the issue of Long Lines which is common across rural areas. This is basically where a premise is connected to a Fibre Cabinet but is too far away to benefit from an uplift in speed.

4.15   It must be highlighted that once the new fibre cabinets are live, customers who want next generation access must order the upgraded hybrid fibre service from their internet service provider. Members of the public can check whether they are able to order a next generation service at https://www.scotlandsuperfast.com/ If they are not able to order a next generation broadband service they will be given an indication of whether the service is likely to be available within their exchange area and if so when the first premises are expected to be connected.

4.16   Highlands and Islands Programme

The Highlands and Islands (HI) programme in Argyll is currently expected to connect 91% of premises to the fibre network with 85% having access to SFB at the end of the current phase when taken with the commercial rollout.

4.17 The first live premises through the HI programme in Bute and Cowal were made during the summer 2015 when premises in the Dunoon and Rothesay exchanges went live. Further hybrid fibre and connections have since been made available in most exchange areas across Bute and Cowal, many of these areas have received a fibre service ahead of the initial timescales within the first rollout plans, even some full fibre connections have been made. There has been some unforeseen technical difficulties in some exchange areas which has seen major delays and caused distress to expected customers. The number of Cabinets at exchange level can be seen in Appendix 4

4.18 As a result of the dispersed nature of some premises FTTP is being installed across the area. The FTTP PON (Passive Optical Network) in the Kerrycroy area is complete and serves 17 THP (Total Homes Passed). The PON in the Ascog area is currently going through the commissioning phase following build work therefore it is likely to be 2-4 weeks before customers can order an ultrafast service. The decision on what technology goes to which premises is made on a best value approach. In this case it is due to the distance from the cabinet. It would not be economically viable to install and connect a DSLAM to the PCP which serves these premises as the distance from this cabinet would result in only a couple of houses getting access to SF speeds. Due to the current change in direction, under the current contract BT are establishing which cabinets that have still to be installed can be flipped from Cabinet to Premise (CtoP)

4.19 Work is continuing across Bute and Cowal with the initial contract that was due to end Dec17 however a contract extension has been given due to additional funds being made available, this will see continued deployment during 2019 where it will align with the R100 programme.

4.20 Digital Communities
HIE announced that the CBS team was being reduced and rebranded as the 'Digital Communities' team. The team continues to provide support for the existing CBS projects while the R100 procurement process is complete.

4.21 As outlined in the Audit Scotland Report all CBS projects were approached by the R100 team whilst drawing up the R100 intervention area, all but KCB decided to await the R100 rather than assume community risk. The R100 team are following KCB closely. As the programme name indicates 100%! If KCB fails it will have to be re-scoped back into R100.

4.22 Since the reduction of CBS, Digital Communities have been working with communities in the Kyles of Bute. **I have just received an update @ 1600hrs 12th October.**
Following an extended procurement process and careful evaluation of the latest bid, the Kyles Community Broadband (KCB) Board has decided to end its community broadband procurement. It was confirmed that the submitted bid had

not been able to meet all of the state aid rules required by the regulator BDUK, and there were several further risks to the community project.

The community has worked hard with partners and commercial suppliers to explore the options to develop a future-proofed, viable community broadband network. However, the Board considered that the risks to the community were too high in:
- *achieving the coverage required,*
- *the potential for increased costs of delivery,*
- *refreshing the technology in the longer term.*

The digital landscape has changed significantly since we first started this journey a number of years ago, and we have learned a lot about the technical challenges of delivering equitable broadband infrastructure to rural areas.

Following the decision last week, the Board met with the Scottish Government to discuss next steps. We have accepted an offer for Kyles to be included in the R100 broadband procurement.

The R100 procurement is already at an advanced stage and the Scottish Government has agreed to incentivise delivery in the Kyles area by giving premises a higher weighting within the evaluation criteria. This is given to encourage build in communities with no fibre infrastructure – in effect, the three short-listed R100 bidders can gain a higher score if they extend coverage to these premises.

While there can be no guarantees that this will deliver a specific level of coverage, it does make our community attractive to the bidders who will supply their plans prior to the R100 lots being selected and contracts signed in 2019.

In the event that any premises aren't reached through the main lots, the Scottish Government has agreed that these will be eligible for public subsidy to extend superfast access through the so-called Aligned Interventions phase. They are committed to working closely with the Kyles community, with the aim of prioritising any remaining premises as part of this phase.

We have no regrets about our efforts to explore a community solution. There is now a good opportunity to link into a mainstream solution, and we believe this presents a better long term option.

Lastly, as representatives of the Kyles area through the Community Interest Company, the board will leverage the contacts and experience we have accumulated over the last 5 years to remain engaged with HIE and the Scottish Government to ensure our community receives the best possible deal for Superfast Broadband in the future.

4.23 **Reaching 100% of Premises with access to SFB >30Mbps- (R100)**

The R100 programme is a SG commitment to achieving 100% of business and residential premises have access to SFB of >30Mbps by the end of financial year 2021 (Mar 2022). The R100 has split Scotland into 3 Lots North (Lot1), Central (Lot2) and South (Lot3).The R100 procurement is well underway, there was initially 4 bidders for all 3 lots however 1 has removed themselves from the procurement process. Currently the programme team are undergoing competitive dialogue with the remaining 3 preferred bidders. Most of Argyll and Bute is in Lot1 which has been allocated £384M of the £600M fund committed by the SG. The procurement exercise is expected to be finalised late December 2018 early 2019. Very little information will be available during this period due to commercial sensitivities. What I can say is that some the tender has been drawn up with 11 mandated areas, this requires the successful bidder to make 25% of premises in

that area full fibre. All of these mandated areas are in the North Lot. There are currently around 376,000 without access to SFB, 165,000 were removed due to ongoing contracts and commercial upgrades, this leaves 211,000. 30,000 are removed as they are currently classes as urban and should be connected through the commercial process, the SG have indicated that public money should not be spent where it is commercially viable. 34,000 already have 24Mbps speeds and should get to 30Mbps through technological upgrades over the next 3 years leaving the 147,000 which is the initial R100 intervention area. Within Argyll and Bute there are 10,166 premise in scope NGA white with 9,182 in the North Lot. It must be highlighted that this initial tranche of funding is unlikely to connect all premises. To combat this Digital Scotland are planning aligned interventions to run in association with the initial R100 contract. It is still not clear how the UK Governments Broadband Universal Service Obligation (USO) will align with the R100 or how this is going to be funded.

4.24 **Universal Service Obligation (USO)** – Ofcom has revealed that only BT (Openreach), KCOM, Hyperoptic, Quickline and Broadway Partners have expressed a formal interest in becoming suppliers for the new Universal Service Obligation (USO), which from 2020 will make it possible for anybody in a slow speed area to request a broadband speed of at least 10Mbps.

The USO is largely expected to focus on catering for the final 1-2% of homes and businesses across the United Kingdom, which effectively reflects those that are unlikely to be served by a "superfast broadband" (24Mbps+) network come 2020

10Mbps USO Specification
- A minimum download "sync" speed of at least 10Mbps.
- A minimum upload "sync" speed of at least 1Mbps.
- A medium response time with end to end latency of no more than 200ms for speech applications.
- A minimum data allowance of 100GB.
- A technology neutrality design (can be delivered via a mix of fibre based and wireless solutions).

4.25 Audit Scotland have release their Superfast Broadband for Scotland Report Sept18 in brief they have outlined that the Scottish Government met its target of providing access to fibre broadband to 95% of premises in Scotland by Dec17. They also highlight that the SG established its R100 with a funding commitment of £600M across the 3Lots and that this is to provide 147 000 premises with SFB however they also state that further funding may be required if this target is to be realised. They have some key recommendations for example, the SG publish clear timescales for R100 by summer 2019 and communicate effectively with stakeholders so rural communities know what to expect and to take account of lessons learned from CBS and the planned assessment of the benefits from the two contracts when developing the 'aligned interventions'.

Mobile Communications

4.26 In April Ofcom finalised precisely how much extra mobile spectrum has been won

in the recent auction of the 4G friendly 2.3GHz and future 5G targeted 3.4GHz radio spectrum bands, which saw EE (BT), O2, Three UK and Vodafone spend a total of £1.37bn. For some additional reading if you are interested please see appendix 5. This outlines some key points about spectrum allocation and to help understand mobile technology, how it works in some places and on some networks and not others. This is all down to spectrum allocation and individual technologies used and what handset and tariff you are on. Yes the handset and tariff that that you have is a major factor, only modern 4G capable handsets will benefit and very often pay as you go sims will not get access to the same frequencies. EE currently operate mobile coverage over 3 frequency bands depending on where you are located to provide a service. Due to the frequency 4G data coverage can be available were 2G calling is not which allows your phone to make calls over the internet this is known as VoLTE calling, similar to that also used in your phones Wi-Fi calling feature which uses your home broadband rather than mobile data network for making and receiving calls Voice over Internet Protocol (VoIP). Wi-Fi calling is a very good feature in modern handsets. Indoor coverage is always going to be worse indoors as signal gets blocked/reduced when trying to penetrate buildings.

4.27 Ofcom have also stated that the picture varies across operators and across nations. As a result, the ongoing roll-out of 4G services has led to improvements, the mobile coverage is still worse in Northern Ireland Scotland and Wales. This is unsatisfactory and more needs to be done to improve coverage. This geographic coverage varies greatly with 81% in England, 76% in Northern Ireland, 56% in Wales and only 36% in Scotland. This is mainly down to population densities with England having 395 people /km^2, Northern Ireland 133 people /km^2, Wales 148 people /km^2 and Scotland 65 people /km^2. Hence the reason behind differing licence obligation proposals per nation.

4.28 This population density is one of the reasons why the Scottish Government has started the 4G infill programme which has established around 100 locations that will require public funding to provide 4G coverage in rural Scotland the initial procurement has seen the £25M contract awarded to WHP telecoms. 3 of the initial 16 identified mast locations are in Argyll and Bute with one at Carrick Castle. However as with everything there are caveats. One is that there must be no 4G service from any operator planned for the next 2 years, this is to adhere to State Aid Regulations. WHP have been contracted to design and build along with securing the relevant planning consents and wayleaves, the caveat is that the mast will only progress to build once it has secured a Mobile Network Operator (MNO) as an anchor tenant. This is to ensure that there are not a load of metal skeletons dotted around serving no purpose and wasting public funds. The SG anticipates that funding should support a total 70 S4GI masts with a further 11 in Argyll and Bute. However even securing an anchor tenant in some of these locations could be extremely challenging due to the number of potential connections to fund the ongoing costs which are to be met by the tenant. To combat this Scottish Futures Trust are looking at other means to interest the MNO

5.0   CONCLUSION

5.1   Digital connectivity across the Bute and Cowal area is constantly improving with the continuation of the fibre rollout programmes and the upcoming R100. Digital Scotland has outlined that it is possible that further funds may be required to meet the government's commitment to the R100 and that further procurements may be required to achieve this milestone target of 100%. Rollout is expected to continue during 2019 when it will align with the R100 with coverage extending across more of the rural exchange areas. Progress on mobile coverage is although slow, we continue to press for improved coverage through both commercial and publically funded programmes.

6.0   IMPLICATIONS

6.1   Policy – Outcome Improvement Plan 2013-2023 - Outcome 2 (We Have Infrastructure That Supports Sustainable Growth)

6.2   Financial – Across Scotland funding of £600m has been committed to the R100 programme by the Scottish Government. No direct financial implications to the Council at the present time.

6.3   Legal – none.

6.4   HR – None.

6.5   Equalities – the differing nature of the deployment of new technology has the potential to lead to inequalities in terms of access to digital services including those which support business and personal development.

6.6   Risk – there is an overall risk that the economic benefits arising from modern digital infrastructure are not fully realised. There are risks that those areas which do not benefit from digital infrastructure could become less attractive locations within which to live and work which could have implications in relation to the OIP objective of growing the population. The various programmes are reliant on new technology and innovation which is developing rapidly. Some projects are reliant on commercial operator decisions to invest whilst grant funding is necessary for many aspects of digital infrastructure improvement in Argyll. These aspects all create a level of uncertainty around the extent of infrastructure improvements.

6.7   Customer Service – improvements in broadband and mobile technology improve the opportunities for digital based customer services.

Appendices

1 Data Summary
2 Daily Data Usage
3 Usage Graph
4 Exchange/Cabinet overview
5 Technical Interest

Executive Director of Development Infrastructure: - Pippa Milne
Council Leader and Policy lead for Economic Development: - Aileen Morton

For further information contact: Iain MacInnes, Digital Liaison Officer
(01546 604647, iain.macinnes@argyll-bute.gov.uk)

Appendix 1

SUMMARY

Here you will find a summary of your broadband data usage and you can find more information by clicking the links below.

Monthly broadband data allowance	Unlimited Data
Total data allowance	Unlimited Data
Download data usage	66.21GB
Upload data usage	4.35GB

Broadband data usage since your last bill ›

View your broadband data usage by activity ›

View last month's broadband data usage ›

BACK

Appendix 2

LAST 31 DAYS DATA USAGE

Day	Download Usage	Upload Usage
Mon 27 Aug	918.75MB	47.48MB
Tue 28 Aug	12163.41MB	1309.3MB
Wed 29 Aug	14191.27MB	465.91MB
Thu 30 Aug	4615.4MB	197.36MB
Fri 31 Aug	719.25MB	57.76MB
Sat 01 Sep	1601.61MB	111.95MB
Sun 02 Sep	6484.74MB	405.68MB
Mon 03 Sep	5769.76MB	678.77MB
Tue 04 Sep	19229.28MB	1558.32MB
Wed 05 Sep	4704.27MB	335.57MB
Thu 06 Sep	6146.02MB	386MB
Fri 07 Sep	4379.7MB	174.25MB
Sat 08 Sep	11675.6MB	583.54MB
Sun 09 Sep	6382.28MB	276.67MB
Mon 10 Sep	8363.59MB	471.06MB
Tue 11 Sep	5619.13MB	391.77MB
Wed 12 Sep	4002.24MB	361.59MB
Thu 13 Sep	16870.29MB	1041.81MB
Fri 14 Sep	9606.52MB	600.99MB
Sat 15 Sep	8375.2MB	585.3MB
Sun 16 Sep	1535.59MB	316.72MB
Mon 17 Sep	3170.96MB	370.95MB
Tue 18 Sep	7885.24MB	317.25MB
Wed 19 Sep	5118.41MB	360.32MB
Thu 20 Sep	8698.45MB	229.59MB
Fri 21 Sep	6174.85MB	341.74MB
Sat 22 Sep	5948.32MB	778.87MB
Sun 23 Sep	6154.74MB	239.42MB
Mon 24 Sep	946.92MB	182.08MB
Tue 25 Sep	4188.09MB	126.76MB
Wed 26 Sep	0MB	0MB

Appendix 3

BAR CHART

○ Horizontal Bar Chart
◉ Vertical Bar Chart

Usage (in GB) details

GB

150 —

100 —

50 —

0 —

Business applications	Email	Gaming	Instant messaging	Internet browsing	Other	Video/Music streaming	Internet voice calls
0.00GB	0.20GB	2.05GB	0.01GB	20.73GB	0.44GB	47.00GB	0.12GB

Usage Categories

Appendix 4

Exchange Location	Cabinet No.
Ardentinny	1
Colintraive	DC
Cairndow	1
Dunoon*	6*
Glendaruel	DC
Innellan	4
Kilchattan Bay	2
Kilfinan	1
Kilmun	4
Lochgoilhead	3
Rothesay	11
Strachur	3
Tighnabruich	3
Toward	2

*It must be noted that Dunoon also had a number of BT commercial cabinets upgraded this is only the number of cabinets that have been funded through the HI contract.

Colintraive and Glendaruel exchange areas are part of the Digital Communities assisted project as they were not in the original scope of the HI/BT initial fibre rollout program.

Appendix 5

Technical Interest

In April Ofcom finalised precisely how much extra mobile spectrum has been won in the recent auction of the 4G friendly 2.3GHz and future 5G targeted 3.4GHz radio spectrum bands, which saw EE (BT), O2, Three UK and Vodafone spend a total of £1.37bn.

Overall some 40MHz of frequency in the 2.3GHz band (*2350-2390MHz*) and 150MHz in the 3.4GHz band (*3410-3480MHz* and *3500-3580MHz*) is being redistributed for use by Mobile Network Operators (much of this was formerly assigned to the Ministry of Defence). Ofcom's spectrum cap, which was designed to help rebalance the market (previously EE had a fair bit more mobile spectrum than anybody else), meant that EE could not bid on the 2.3GHz band but they did win a slice of 3.4GHz.

The 2.3GHz band is considered "*immediately usable*" because many existing 4G based Smartphones and other devices are already capable of harnessing it, while the 3.4GHz band is highly prized because it's intended for use by future multi-Gigabit capable 5G services. Ofcom says the latter will be needed in order to help MNOs to launch "*very fast*" Mobile Broadband services from 2020.

The principal stage of bidding revealed that the four primary MNOs paid a total of £1,355,744,000 to gain various chunks of spectrum in the auction additionally a final assignment stage (i.e. operators bid to determine where in the frequency bands their new spectrum will be located) figure only adds a little extra to total £1,369,879,000. By comparison Ofcom's previous **2.6GHz** and **800MHz** 4G auction raked in £2.367bn.

All money raised from the auction is paid to HM Treasury. The winning bidders have also been issued with licences to use their relevant spectrum holdings.

Winning bidders to whom licence granted	Frequencies	Total base price[1]	Additional prices[2]	Licence fees paid[3]
EE Limited	3540 – 3580 MHz	£302,592,000	£1,002,000	£303,594,000
Hutchison 3G UK Limited	3460 – 3480 MHz	£151,296,000	£13,133,000	£164,429,000
Telefónica UK Limited	2350 – 2390 MHz	£205,896,000	N/A	£205,896,000
	3500 – 3540 MHz	£317,720,000	0	£317,720,000
Vodafone Limited	3410 – 3460 MHz	£378,240,000	0	£378,240,000

**2.3 GHz band plan**

3.4 GHz band plan

In the end O2, which we expected to spend big in order to support their plans for a possible £10bn market listing or sale (value boost), was the only operator to grab the entire 2.3GHz band and they also got a good chunk of 3.4GHz. Sadly Three UK missed yet another opportunity to grab a good chunk of spectrum but their £250m purchase of UK Broadband Ltd. (Relish Wireless) in 2017 has already given them quite a bit to play with.

Overall Three UK now claims to have access to a total of about 144MHz (frequency) across several 5G friendly mobile bands (e.g. 3.4-3.6GHz and a bit of 3.9GHz, 28GHz and 40GHz), which actually puts them in quite a strong position for when the main commercial 5G rollout begins in a couple of years' time (after that it will take a few years to reach near universal UK coverage), but their position in 4G may have weakened.

Ofcom also plan to auction off further 5G friendly bands over the next couple of years, including the coverage obligation attached 700MHz band, as well as 3.6GHz and 3.8GHz. They are also expect to auction off some significantly higher frequency mobile spectrum in the 20-30GHz+ bands.

Generally it's envisaged that 700MHz will prove useful for cheaply delivering wide 5G coverage in rural areas, albeit not to the same service speeds as mobile broadband networks in urban areas that can be combined (Carrier Aggregation) with higher frequencies over shorter ranges. Ofcom have also issued a proposal for coverage obligations in the award of the 700MHz spectrum band.

After that the bands around 3.4-3.8GHz will focus on urban areas (limited range will confine their use to areas of high demand) and of course the higher frequencies at or above 24GHz (millimetre Wave) should support "very large bandwidths, providing ultra-high capacity and very low latency" (i.e. multi-Gigabit fixed wireless links to homes or businesses).
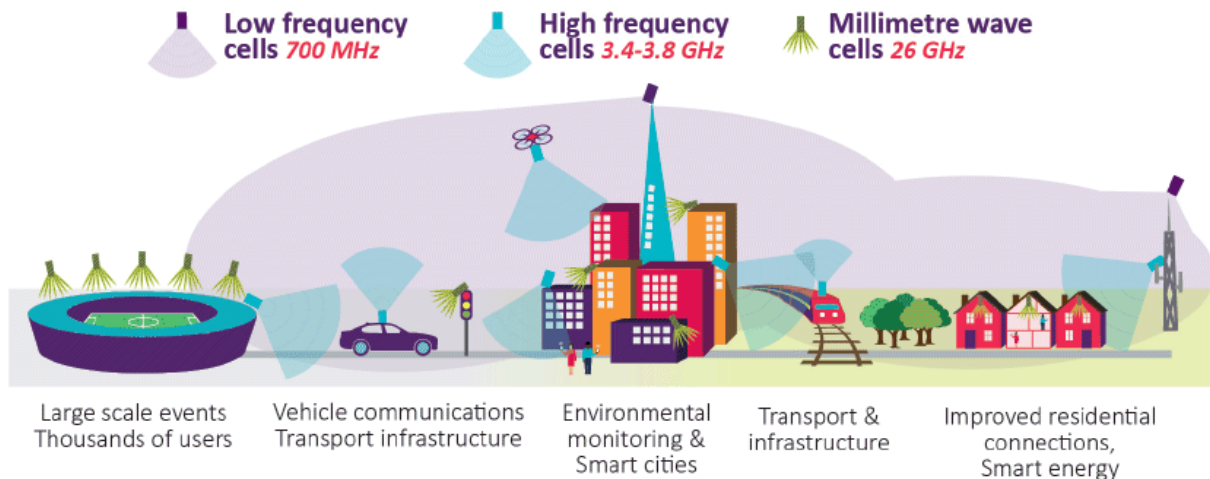
As always the biggest challenge for 5G will be in matching the promises against the laws of physics and economics. 5G will be an excellent multi-Gigabit capable Mobile Broadband upgrade from the existing networks but a lot of what politicians are promoting for it could be achieved today via existing 4G networks. Indeed we are already seeing some 4G networks, under ideal conditions, that are able to deliver end-user speeds of around 1Gbps.

Arguably a far bigger challenge for 5G will be on the capacity side, not least in terms of customer usage allowances (it's no good having Gigabit speeds if operators can't deliver significantly bigger data allowances) and the difficult challenge of feeding such hyper fast networks with appropriate levels of capacity. The need for wider coverage of pure fibre optic (FTTP/H/Ethernet) lines goes go hand in hand with 5G.

All of this is easier said than done and no doubt early 5G services will also attract a higher price tag to help compensate for the hefty network upgrade / spectrum costs. In the end 5G will be a big improvement but it's not that far removed from the earlier 3G to 4G jump and feels more like a logical progression than a truly radical shift.

Ofcom original efforts to get this spectrum auction underway had been hampered by a bitter feud between EE and Three UK. In particular Three UK were unhappy that EE holds 42% of all mobile spectrum versus their 15% and they want Ofcom to impose a 30% cap on spectrum ownership, which would effectively prevent EE from being able to bid on the 3.4GHz band and also cause problems for Vodafone.

A 30% cap could also reduce the money earning potential of the auction itself, which might upset the Government.

Figure 3.1: MNOs' current spectrum holdings

Spectrum Band	Type	BT/EE	Vodafone	O2	H3G	Total
800 MHz	FDD	10	20	20	10.0	60.0
900MHz	FDD	0	34.8	34.8	0	69.6
1452-1492 MHz	SDL	0	20	0	20	40.0
1800 MHz	FDD	90	11.6	11.6	30	143.2
2100 MHz	FDD	40	29.6	20	29.5	119.1
2.6 GHz (paired)	FDD	100	40	0	0	140.0
2.6 GHz (unpaired)	TDD	15	20	0	0	35.0
Total holdings		**255**	**176.0**	**86.4**	**89.5**	**606.9**
Share of spectrum		**42%**	**29%**	**14%**	**15%**	

On the flip side Ofcom had already proposed to introduce a cap of 255MHz on the "immediately useable" spectrum frequency and a total cap of 340MHz on the overall amount that a single operator can hold, which would prevent EE from being able to bid on the 2.3GHz band but not 3.4GHz. As above, Ofcom considers 3.4GHz to be too important for 5G and they don't wish to stop EE from bidding.

The dispute ended up going to court, which "rejected all the challenges" to the regulator's decision and added that the "approach taken by Ofcom was comprehensive, coherent and logical … it therefore rejected the argument of H3G that the balance struck was too generous to BT/EE and also rejected the argument of BT/EE that it was too tight and rigid"

This page is intentionally left blank