Department for Culture Media & Sport

EU Broadband Cost Reduction Directive

Consultation on implementing measures

30 November 2015

Contents

Ministerial Foreword **4**
Scope of Consultation **5**
Executive Summary **7**
Parties affected and definitions **9**
Right to access information on existing infrastructure and planned works **13**
Access right to existing physical infrastructure **21**
Right to coordinate civil engineering works **28**
Permit granting **32**
Single information point **37**
In-building physical infrastructure **42**
Exemptions **45**
Dispute resolution **49**
Penalties **53**
Optional provisions **54**
Annex A: List of questions **57**
Annex B: Technical/practical issues with infrastructure sharing and co-deployment **61**
Annex C: DCMS impact assessment **67**
Annex D: Glossary of terms **75**

Ministerial Foreword

It has never been clearer that first-rate digital infrastructure is critical to the UK's economic prosperity. The internet is on track to contribute 12.4% to the UK's GDP by 2016 compared with a G-20 average of 5.4%, surpassing both marketing and retail. Internet speed in the UK already ranks among the best in the world, but there is still more to do.

In Q1, 86% of adults in the UK (or 44 million people) accessed the internet, as did 99% of 16-24 year olds. With such significant demand for better connections, we must create even more opportunities for public communication network operators and other network operators to work together and improve upon their success.

The Directive is intended to support the Digital Agenda for Europe, and the achievement of the European Commission's two main broadband targets: broadband speeds of 30 megabits per second (Mbps) for 100% of households, and at least 50% of these households subscribing to speeds of over 100 Mbps, both by 2020. The UK Government shares the Commission's overall aim for high-speed broadband to reach as many people as possible, to reduce the cost of broadband rollout and to cut the red tape holding up deployment.

Civil engineering works account for around 80% of the cost of deploying broadband. This consultation sets out a suite of policy options to reduce that cost. The effective transposition of the Directive to UK law will grant new rights to public communication network operators and reduce barriers to collaborative working. It will make it easier to coordinate civil works and share infrastructure, assets and costs with other network operators, including utility providers and transport services.

Scope of Consultation

1. This consultation seeks your views on the transposition of the EU directive to reduce the cost of deploying high-speed broadband.

2. A consultation stage regulatory triage assessment has been prepared and is provided as an annex to this document.

3. The geographical scope of this consultation is the UK.

4. This is a public consultation. We particularly seek views from the electronic communications industry (network operators, ISPs), transport service providers (ports, airports, rail networks, road infrastructure providers), utility providers, rural groups and consumers.

5. The consultation period will run from Monday 30 November 2015 to Monday 25 January 2016.

6. We have set up a dedicated website to manage comments and responses to this consultation. Please **click here** or visit https://dcms.eu.qualtrics.com/SE/?SID=SV_9LC8uelnTASXgbP to add your views.

   You can also submit responses or material for consideration, such as documents that cannot be uploaded on the website, via email to: **bcrd@culture.gov.uk**

7. Responses or material sent to any other email addresses will not be taken into consideration.

   If you do not have access to the internet or email please respond by post:

   FAO: EU Broadband Cost Reduction Team
   Digital Economy Unit
   Department for Culture, Media & Sport
   100 Parliament Street, London
   SW1A 2BQ

8. This consultation is intended to be an entirely written exercise. Please contact the Digital Economy Unit on 020 7211 6286 if you require any other format, e.g. braille, large font or audio.

9. Copies of the responses will be published after the closing date on the Department's website: **www.culture.gov.uk**

10. Information provided in response to this consultation, including personal information, may be published or disclosed in accordance with the access to information regimes (primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004 (EIR). If you want the information that you provide

to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

11. The Department will process the information you have provided in accordance with the Data Protection Act, and in the majority of cases, this will means that your personal information will not be disclosed to third parties.

12. This consultation follows the Government's Consultation Principles (2013) which are available at: https://www.gov.uk/government/publications/consultation-principles-guidance

Executive Summary

Directive 2014/61/EU of the European Parliament and of the Council was made on 15 May 2014. It requires that provisions implemented in national law must apply from 1 July 2016. The Directive is subtitled "*measures to reduce the cost of deploying high-speed electronic communications networks*". For the purposes of the Directive, high-speed means a network capable of delivering broadband access services at speeds of at least 30 Mbps.

Civil engineering works account for up to 80% of the costs of deploying broadband and the Directive mandates a number of ways in which these costs can be reduced which will have effect not only in the telecommunications sector, but also across a range of infrastructure sectors including gas, electricity, water (including sewerage and drainage, but excluding drinking water which is exempt) and transport (including roads, railways, ports and airports). One of the main areas where savings have been identified is sharing of existing infrastructure. As a result of the Directive, Public Communications Network (PCN) operators will be able to share the physical infrastructure (e.g. pipes and ducts) not only of other network operators in the telecoms sector but also that of network operators in other sectors (gas, electricity, water etc.) The Directive also requires that all network operators should make available information about the location and use of their existing infrastructure, and about proposed civil engineering works. This will allow prospective sharers to identify suitable infrastructure and request to coordinate civil works, reducing the cost of rolling out broadband networks by sharing the benefit (and costs) of such works. The Directive envisages that there may be disputes about these measures and provides that one or more competent bodies must be identified to adjudicate disputes, with an onward right of appeal to a Court.

The Directive seeks to encourage parties to negotiate and agree access to existing physical infrastructure and coordination of planned civil engineering works, and provides certainty regarding processes and timings. We expect that as a result of this Directive, network operators should readily make fair and reasonable offers to share infrastructure or co-deploy networks. While the Directive makes many clear requirements that must be observed in our implementation, there are some areas where the UK has scope to decide how these requirements should operate. This consultation document sets out the areas we have identified and our positions for implementation.

These positions are set out in detail through this document, but in summary are as follows:

- PCN providers, most utility networks, and most transport networks are subject to the Directive. Wholesale infrastructure providers are not.
- Requests for information on existing physical infrastructure and planned civil works should be met using existing systems and should involve existing information. We do not intend to *require* network operators to create new systems.
- We propose exemptions from information sharing requirements for some infrastructure not technically suited to sharing, and for critical national infrastructure.
- Access to a non-PCN infrastructure should be priced on a compensatory basis.
- Access to another PCN provider's infrastructure will require appropriate consideration of competitive dynamics and investment incentives.

- It should not be possible to refuse physical infrastructure access on anti-competitive grounds.
- There should be no limit on the products delivered using shared physical infrastructure, or to any geographic area or market segment.
- There is no change to property rights and the need to acquire wayleaves from landowners.
- Civil engineering works involving funding from taxes or other Government revenues should be coordinated if the requester will pay any costs incurred and this does not fundamentally impede control of the works.
- There is no change to permit requirements for rolling out electronic communications networks.
- We propose that all authorities with decision making responsibility in relation to planning and street works carry out the functions of the single information point, including the highways authorities. There should not be a single central repository for information about network operators' physical infrastructure.
- In buildings with multiple dwellings, the building owner will be required to grant access to in-building physical infrastructure.
- Ofcom should be the sole national dispute settlement body across all five dispute contexts required by the Directive, and should solicit advice from other regulators as appropriate, or procure additional advice as it sees fit.
- Appeal of decisions by Ofcom in relation to the Directive should be to the Competition Appeal Tribunal on the same basis as other appeals of Ofcom decisions.

The goal of the consultation is threefold. First, we wish to gather stakeholders' views on the feasibility of our proposals. Second, we want to collect additional information on technical issues that may arise, and the various considerations that may be relevant, when reaching agreements to share physical infrastructure or coordinate works. These issues and considerations will vary markedly across the range of infrastructures concerned. Finally, we set out the exemptions we plan to make where permitted by the Directive, to allow interested parties the chance to comment on these. We therefore encourage respondents to answer questions as fully as possible and to provide additional technical information where this may be helpful in understanding the arguments they make. This will help to ensure that the implementing regulations are effective and practicable, and properly account for specificities of UK infrastructure networks.

Parties affected and definitions

This consultation makes reference to a number of technical terms and acronyms; a glossary is available at **Annex D**.

Physical infrastructure subject to the provisions of the Directive

The Directive applies to physical infrastructure defined as:

> *"any element of a network which is intended to host other elements of a network without becoming itself an active element of the network, such as pipes, masts, ducts, inspection chambers, manholes, cabinets, buildings or entries to buildings, antenna installations, towers and poles"*

This is a non-exhaustive list, but it captures the main network elements that might be reasonably shared.

The Directive explicitly excludes cables, dark fibre, and drinking water networks. Land is not considered to be physical infrastructure for the purpose of this Directive.

QUESTION 1: Is there any type of physical infrastructure not mentioned in the Directive definition that may be suitable for sharing?

Undertakings affected by the Directive

The Directive facilitates access to the physical infrastructure of 'network operators'. These are defined as:

> *"an undertaking providing or authorised to provide public communications networks as well as an undertaking providing a physical infrastructure intended to provide:*
>
> > *(a) a service of production, transport or distribution of: gas; electricity, including public lighting; heating; water, including disposal or treatment of waste water and sewage, and drainage systems;*
> >
> > *(b) transport services, including railways, roads, ports and airports"*

Parts of this definition are less obviously applicable to the United Kingdom, for example the reference to heating infrastructure. The definition encompasses the following categories of undertaking in the UK:

- In the UK, an "undertaking providing or authorised to provide public communications networks" should be interpreted with reference to the definition of a 'public communications network' (PCN) in the Ofcom General Conditions of Entitlement, namely *"an Electronic Communications Network used wholly or mainly for the provision of Public Electronic Communications Services which support the transfer of information between Network Termination Points"* which is the same definition provided in the Framework Directive (Article 2(d) of Directive 2002/21/EC). Anyone providing such a network and therefore subject to

regulation by Ofcom in relation to this activity, is subject also to the provisions of the Directive.

- In the UK, an "undertaking providing a physical infrastructure intended to provide… production, transport or distribution of gas" includes the four gas distribution network operators (GDNs) and six independent gas transporters (IGTs) regulated by Ofgem in England, Scotland and Wales, as well as the four gas transmission pipeline systems, two gas distribution systems, and ten gas suppliers regulated by the Utility Regulator in Northern Ireland.
- In the UK, an "undertaking providing a physical infrastructure intended to provide… production, transport or distribution of electricity, including public lighting" includes the seven main electricity distribution network operators (DNOs) and six independent DNOs regulated by Ofcom in England, Scotland and Wales, as well as the electricity suppliers, generators and transmission and distribution companies regulated by the Utility Regulator in Northern Ireland. This will also include electricity generators where they own qualifying physical infrastructure.
- We are aware of district heat systems, some small scale infrastructure, or old heating infrastructure that is no longer used for this purpose, but generally this type of infrastructure is not present in the UK. An "undertaking providing a physical infrastructure intended to provide… *water, including disposal or treatment of waste water and sewage, and drainage systems"* should be taken to mean the water and sewerage companies (WaSCs) regulated by Ofwat in England and Wales, and the Water Industry Commission for Scotland in Scotland. In Northern Ireland it should be taken to mean NI Water, the single WaSC, regulated by the Utilities Regulator.
- An "undertaking providing a physical infrastructure intended to provide transport services" should be taken to mean the various highway authorities (in many cases local authorities for non-trunk roads), trams, the rail infrastructure companies including Network Rail, Channel Tunnel, Heathrow Express, and London Underground, all commercial airports in the UK including those in Northern Ireland (not only major airports that are regulated by the CAA), and the 47 TEN-T inland and sea ports throughout England, Scotland, Wales and Northern Ireland.
- Physical infrastructure owned by local authorities or other public bodies, that fall within the above definitions, will also be subject to the Directive.

While there may be other undertakings that fall within the definition of network operator, we consider that these are likely to be isolated cases and are unlikely to be of interest for the purposes of sharing physical infrastructure or coordinating civil engineering works. Where there is doubt whether an organisation qualifies as a network operator, it will be for parties to argue whether or not this is the case and ultimately for the dispute resolution body to decide.

We consider that the remaining definitions in the Directive (Article 2(3) to 2(11)) are self-explanatory.

The Directive applies to all physical infrastructure as set out above, both publicly and privately funded. However, the requirement to coordinate civil works under Article 5 of the Directive only applies to civil works that are publically financed, this is explained in more detail below and within the **Right to coordinate civil works** section.

The Directive applies to BT Openreach as they are a PCN provider. The Directive does not seek to interfere with access arrangements that are already in place on fair and reasonable terms, and the Directive will not frustrate any existing terms imposed by Ofcom.

QUESTION 2: Are there any organisations not listed above that may be subject to provisions of the Directive?

QUESTION 3: Do you consider further clarification is needed in relation to any of the definitions in the Directive?

Wholesale infrastructure providers

The definition of 'network operator' extends to anyone who provides a Public Communications Network (PCN) as defined under Article 2(d) of the EU Regulatory Framework for Electronic Communications Directive.

Wholesale infrastructure providers (WIPs) are not automatically subject to the Directive if they only provide 'associated facilities' and not a PCN. The Directive provides rights for PCN providers, against network operators (which includes other PCN providers). Under this interpretation of the Directive, if WIPs do not operate a PCN, they would not automatically be subject to the Directive, but would also not enjoy any of the rights the Directive provides.

We understand that it may be desirable for WIPs to be more generally subject to the Directive, while recognising that their activities may provide grounds for refusal of access to physical infrastructure because they already provide alternative wholesale access (Article 3(3)(f). We would welcome responses that consider this issue.

QUESTION 4: Are there cases where wholesale infrastructure providers provide a public communications network, and where they would therefore fall within the definition of a 'network operator'?

QUESTION 5: Should physical infrastructure operated by wholesale infrastructure providers be treated in the same way as physical infrastructure operated by other 'network operators'? What would be the impacts of doing so?

Undertakings with obligations under Article 5 of the Directive (coordination of civil works)

Article 5(2) of the Directive requires coordination of civil works to enable roll-out of high speed networks by *"every network operator performing directly or indirectly civil works, either fully or partially financed by public means"*.

We consider that determining whether a network operator is performing works financed by public means should be determined without reference to their status as a public body and should depend on whether the works in question have received public funding. Government defines 'public funding' as funding based on taxation or other government revenues. Thus investments by privately owned utility companies are not "financed by public means". On the other hand, works carried out by BT, and other providers, in relation to Government funded Broadband UK projects, while carried out by a private company would qualify as being financed by public means.

QUESTION 6: Will it be sufficiently clear what civil work is financed by public means, and what is not?

KEY POINTS

(1) The main parties captured will be PCN providers, utility companies in the waste water and sewerage, electricity and gas sectors, rail infrastructure owners, major airports, and ports;
(2) Wholesale infrastructure providers are not automatically subject to any part of the Directive unless they operate a PCN, and they do not automatically acquire any rights under the Directive; we have asked whether it is appropriate for WIPs to be more generally subject to the Directive;
(3) Coordination of works is required only if they are publicly funded, irrespective of whether they are executed by a private undertaking;
(4) The Directive applies to physical infrastructure that is both publicly and privately funded

Right to access information on existing infrastructure and planned works

The Directive grants the right to access information on existing physical infrastructure and planned civil works, and provides conditions and timeframes relating to how and when this information must be made available.

Existing Physical Infrastructure

- Article 4(1): Communication networks must have a right to access 'minimum information' held by other network operators relating to existing physical infrastructure: **the location, route, type and current use of the existing infrastructure and a point of contact**. Requests must specify the area in which the PCN envisages deploying network elements;
- Article 4(4): information must be provided within 2 months of a request:
- Article 4(5): Requests for physical on-site surveys 'shall be granted under proportionate, non-discriminatory and transparent terms within one month'. Such requests must specify the elements of the network to be surveyed;
- Article 4(7): Exemptions where the infrastructure is considered 'not technically suitable for the deployment of high-speed electronic communications networks or in case of critical national infrastructure';
- Article 4(6): Dispute resolution if information not provided within 2 months, if survey not granted within 1 month, or in the event of a disagreement concerning a request that has been limited or refused. Disputes must be decided within 2 months except in exceptional circumstances;
- Article 4(8): to protect commercial information, PCN operators that access the minimum information must take appropriate measures to ensure respect for confidentiality and to protect competition.

Planned Civil Works

- Article 6(1): Transparency of civil works. Network operators must, on request, make available information relating to 'on-going or planned civil works related to its physical infrastructure for which a permit has been granted, a permit granting procedure is pending or first submission to the competent authorities for permit granting is envisaged in the following six months';
- Article 6(1): 'Minimum information' must be provided within 2 weeks of a request, comprising **location and type of works, the network elements involved, estimated date for starting the works and their duration and a point of contact;**
- Article 6(2): Network operators may refuse requests for information that is already publically available in electronic format or if the information has already been provided to, and is therefore available via, the SIP;
- Article 6(3): 'Minimum information' must be made available via a 'single information point' once it has been provided in answer to a request.

Interpretation

Providing access to minimum information about existing physical infrastructure will enable PCN providers to determine whether existing physical infrastructure may be suitable for hosting elements of their network, prior to planning or carrying out their own civil works to provide physical infrastructure for hosting these elements. Transparency concerning planned civil works will enable network operators to co-ordinate works and subsequently negotiate agreements to reduce the cost of deploying network elements.

We do not think there will be any additional cost as a result of supplying this information:

- Some network operators are already required to document their infrastructure and make information available on request to property developers or other network operators who are carrying out works.
- We understand that those network operators that are not required to document their infrastructure nevertheless do this for commercial and operational reasons and could provide this simply and cheaply.
- Information on planned civil works is already widely available via local authority websites, such as published planning applications and street works registers. Where information is not openly available then there will be a right to access it directly via the network operator.

Network operators will be able to use existing systems to provide minimum information, or if elements of the minimum information are not available then the network operator should provide that information which is available. We will not require network operators to develop new systems or map infrastructure that is currently unmapped.

In order to prevent additional administrative burden, requests should only be made in order to facilitate a decision to share infrastructure or co-ordinate civil works.

Process and Timings

The Directive requires that network operators respond to (i) requests for minimum information about existing physical infrastructure within two months, (ii) requests to survey within one month; and (iii) requests relating to planned civil works within two weeks. Requests for information will be made directly to the network operator that owns the infrastructure or is planning the works. To avoid doubt as to whether a request is 'complete', we propose that a standard form prepared by the dispute settlement body is used when making requests. This should include basic information such as the identity of the requesting party, but should otherwise be an administrative instrument that formalises a request. The time period for responding should be calculated from the date on which the form is received.

The requirements to provide minimum information and surveys are independent. For example, where a PCN provider already knows infrastructure to exist, they could request a survey of or access to that infrastructure without first requesting the associated minimum information.

We propose that non-disclosure agreements form part of the process of requesting information on physical infrastructure to ensure respect for confidentiality, and operating and business secrets.

Existing systems

There are existing legislative requirements to document civil works and physical infrastructure, such as apparatus placed on a street or under a road. We understand that information systems currently exist to document such infrastructure and make this information accessible. It is our view that, where possible, these systems should be used or adapted to meet the requirements of the Directive.

The Directive aims to make the information that network operators and local authorities already hold, using existing information systems, more widely available to facilitate agreements to share physical infrastructure. We do not propose to require network operators to map currently unmapped infrastructure or to develop new systems for providing this information.

QUESTION 7: Where there are existing systems for storing and sharing infrastructure information, will you be able to use them either as they are or with minor adjustments to comply with the requirements of the Directive? If you won't be able to, why not?

Ensuring only authorised access (verifying bona fides)

Since 2003 the EU telecommunications framework has set out how communications providers should be authorised and licensed. PCN operators in the UK no longer require a license. Instead PCNs are generally permitted to provide electronic communications services as long as they adhere to a set of general and specific conditions. We propose to allow network operators to take reasonable measures to satisfy themselves that a request is from an operating or prospective PCN.

To meet similar requirements in other industries, industry bodies and undertakings have developed central registration systems to expedite the process of verifying requests. We do not intend to establish such a system but would welcome views on the costs, benefits and risks associated with such a system. While it would not be reasonable to reject requests made outside any such system, those PCNs who are members would benefit from quicker access to the minimum information.

A PCN requesting access to the minimum information must specify the "area in which it envisages deploying elements…" of a communications network. This may provide a further way to verify the requester's credentials and ensure that requests are made only where there is a serious intent to deploy network elements. The requirements for specification may go beyond the mere identification of an area on the map, and could require the submission of further detail by the PCN making the request.

QUESTION 8: How do you propose to verify the credentials of a requester, i.e. that a request is from a genuine (or prospective) public communications network operator and for the stated purpose?

Charging for access to information

Network operators may charge for requests but only to recover costs that they incur in complying with the request. This could however include the cost of installing or developing any required physical IT or systems for meeting requests.

QUESTION 9: Do you agree that cost-recovery is the best approach to charging for providing access to information?

We are aware that electricity and gas operators have existing statutory requirements to maintain records of their underground networks and provide a copy on request. There is also an existing requirement under section 79 of the New Roads and Street Works Act 1991 for all undertakers placing apparatus on (or in) the road to record the location of the apparatus, stating the nature of the apparatus and whether it is in use. We would not expect network operators that already operate such systems to fund creation of new systems to provide the minimum information by making additional charges for requests in relation to the Directive.

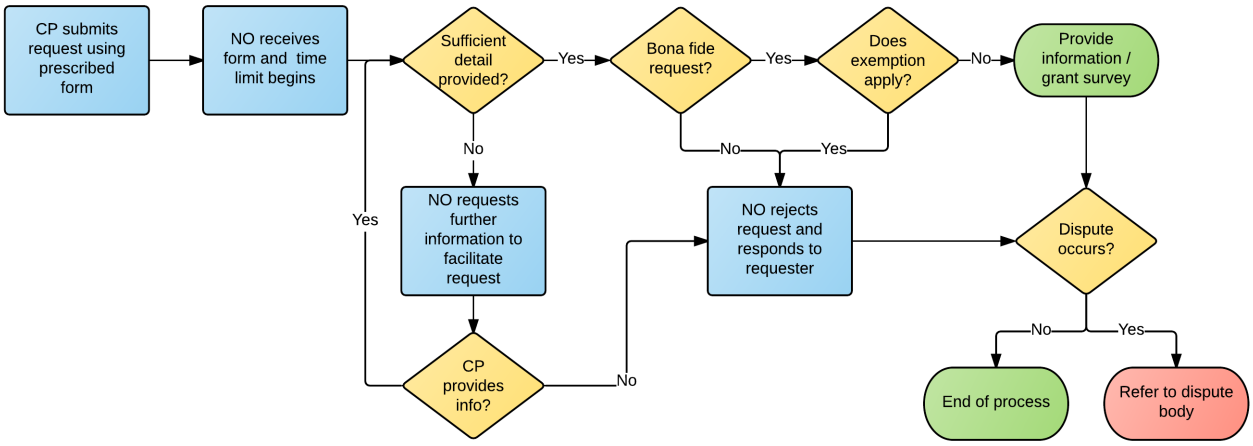
QUESTION 10: Would you seek to charge for access to the minimum information? How might you calculate and collect this charge?

Charging for requests to survey

We think a survey of infrastructure will involve professionals from (or appointed by) both parties in order to ensure a thorough assessment of the infrastructure and suitability of the infrastructure to host network elements. Cost sharing may be appropriate on the basis that both parties might benefit, but we would like views on the costs of carrying out surveys and how costs should be shared to protect competition and fair compensation to network operators, without providing a disincentive to investment. It may also be appropriate for network operators to charge on a cost recovery basis.

QUESTION 11: What will be the likely costs of carrying out surveys in most cases? How should costs be shared fairly?

Flow diagram of request process



QUESTION 12: Do you agree with the process that we have set out for requesting access to the 'minimum information' on physical infrastructure and civil works?

QUESTION 13: What do you think might be examples of strong cases for an extension of the time period allowed to respond to a request?

Definitions & Issues

Meaning of terms: 'type and current use', 'location and route', 'contact point':

- The type and current use of infrastructure should be specified either (a) as fully as is required for the requester to make an effective decision about whether to request access, or (b) if this level of detailed information is not held, then in the fullest form that it is held.

- The location and route of the existing infrastructure should be provided in the most precise form that this information is held. Location means geographical location, and route should mean geographical as well as structural routing where available (i.e. how the physical infrastructure is configured, such as where there are footway boxes).

- The contact person should be a person (or a named position within an organisation corresponding to such persons) who is able to route requests for access to the appropriate decision making locus within the network operator and should be acquainted with the requirements of Articles 3 and 4 of the Directive.

- Planned works for which "a permit has been granted or permit granting procedure is pending" means works for which a request to carry out works has been submitted to the relevant authority. This includes implicit permits such as works that are carried out on a notification basis, e.g. under the New Roads and Street Works Act 1991.

- Planned works for which a "first submission to the competent authorities for permit granting is envisaged in the following six months" includes all works which are known about at the time of the request and for which a permit is likely to be requested within the next 6 months.

Limiting 'minimum information'

Article 4(1) and Article 6(1) of the Directive allow that the information provided in the response to a request for access to the minimum information be limited in some circumstances, but only if necessary to maintain the security, integrity or confidentiality of the network or operating or business secrets.

It is not possible to limit or refuse to provide information on purely anti-competitive grounds. Nor is it possible to limit or refuse to provide information on the grounds that it would be disproportionate to grant the request. Network operators must always provide terms that are 'proportionate, non-discriminatory and transparent' on which access to the minimum information would be granted, even where those terms might, in practice, never be agreed by the access seeker.

There are two separate competitive contexts in which requests for information might be made:

1. Non-competitive context: where a PCN makes a request of a network operator that does not operate or compete in the communications market; and

2. Competitive context: where a PCN makes a request of another PCN.

Non-competitive Requests

In the non-competitive context, competition issues do not arise and therefore it should not be necessary to limit the minimum information provided.

Competitive Requests

In the competitive context, there is a risk that commercially sensitive information is shared, which could potentially be harmful to competition. It is well established that the sharing of information between competitors is likely to distort or harm competition. Examples might include information that enables another competitor to work out the underlying cost inputs in a competitor's network, or details about the configuration of a network that might affect its competitive qualities (either as to performance or cost).

Nevertheless, sharing of commercially sensitive information does currently take place in communications contexts. An example of this is provided by recent litigation[1] in which the Competition Appeal Tribunal ordered the creation of a 'confidentiality ring', requiring 'confidential information' to be restricted to legal advisers and forensic economists.

We therefore propose to make clear in our implementing regulation that access to information in the context of information sharing under the Directive might similarly be limited. We invite views as to how this might be practically achieved, and whether the regulations should go further by allowing network operators to limit "information which may harm competition".

[1] TalkTalk Telecom Group Plc & British Telecommunications Plc v Ofcom [2015] CAT 13

[2] Article 3(5) of the Directive says that where an access dispute is between two PCNs and the national regulatory authority (NRA) is the NDSB, it must take into account Article 8 of the Framework Directive. In the UK, the NRA is Ofcom.

QUESTION 14: What type of and how much information is required in order for the 'minimum information' to be useful (i.e. to inform a decision to request a survey or access to infrastructure, or to co-ordinate civil works)?

QUESTION 15: Do you agree that the use of the wording in the Directive is appropriate and should be copied into the regulations? Do you think the regulations should explicitly allow network operators to limit "information which may harm competition"?

However, most passive infrastructure is of such a type that disclosing the minimum information will not present such concerns. Information about the location, route, and type of passive physical infrastructure, and a contact point to that infrastructure, will not usually involve disclosing commercially sensitive information. The requirement that PCN operators provide the 'current use' of the infrastructure may be more concerning depending on the level of information that is shared. We consider that the level of detail need only be sufficient to (i) inform the decision to survey and (ii) inform the type of survey(s) that could be required. For example, we think it should be sufficient to convey that a duct is currently being used to host telecoms cables. This should avoid the sharing of commercially sensitive information.

Additional measures to protect confidentiality

Article 4(8) provides a further basis for limiting the sharing of information. In the context of access to minimum information about infrastructure only, it requires that member states take measure to ensure the PCNs accessing the minimum information respect confidentiality and operating and business secrets. We think this could include a range of measures, such as requiring PCNs to ensure that only specified persons within the business receive such information, or undertakings to not disclose the information to other parties. In this way, it may be possible to realise the benefits of coordination of passive infrastructure sharing without losing competitive incentives in network design.

QUESTION 16: Do you think additional measures should be used to ensure respect for confidentiality and operating and business secrets? If so what measures do you think would be appropriate? Will it be sufficient to leave these arrangements to be agreed between requesters and the relevant network operator?

Exemptions

We propose exemptions for critical national infrastructure as well as infrastructure that is technically unsuitable for sharing, for example, pipes below a certain diameter. These exemptions are set out below in the **Exemptions** section.

KEY POINTS

(1) Requests for 'minimum information' should be made directly to the relevant network operator, using a prescribed standard form where this request is not automated;
(2) Existing systems may be used where desired, providing they supply the minimum information;
(3) Network operators may verify requesters' bona fides provided this process is proportionate, and a reasonable charge may be made for accessing the 'minimum information';
(4) The minimum information should be made available only where it already exists;
(5) We propose exemptions to information sharing requirements for critical national infrastructure and some infrastructure that is not technically suitable for sharing;
(6) Network operators should not be required to provide 'confidential information', but we do not think that the 'minimum information' will routinely include such information;
(7) Network operators may require non-disclosure agreements or make practical information handling requirements to protect the information they provide.

Access right to existing physical infrastructure

Directive requirements

One of the key elements of the Directive concerns PCNs being able to access existing physical infrastructure owned by other PCNs or by other 'network operators'. This is set out in Article 3 of the Directive, which requires the following:

- Article 3(1): PCNs must have a right to offer physical infrastructure access to other PCNs
- Article 3(2): All network operators (PCNs and other infrastructures) must meet 'all reasonable requests' for access to their physical infrastructure from PCNs and this must be done on 'fair and reasonable' terms;
- Article 3(3): Refusal of access must be reasoned on 'objective, transparent and proportionate criteria' within 2 months;
- Article 3(4): Dispute resolution if terms or price have not been reached within 2 months; disputes must be decided within 4 months except in exceptional circumstances;
- Article 3(5): If Ofcom[2] decides on a dispute about access to another PCN's infrastructure, it must take into account the objectives in Article 8 of the Framework Directive;
- Article 3(6): the access right conveyed by Article 3 is without prejudice to the property rights of any third party (e.g. the landowner on whose land the physical infrastructure is located).

Interpretation

The right to access physical infrastructure is fundamentally about encouraging PCNs and network operators to reach agreements to share physical infrastructure. Network operators are required to meet requests and agree terms swiftly and if they do not, a dispute resolution body may grant access and set terms including access pricing. The general principle is therefore that access should be granted (in the absence of grounds for refusal), and this is reinforced by the incentive to avoid an imposed settlement. This should ensure that PCNs and network operators approach negotiations constructively.

We consider that there are two distinct types of access request: (i) requests made by one PCN to another PCN (which we think it appropriate to describe as 'competitive access'); and (ii) requests made to a 'network operator' that is not a PCN (which we refer to as 'non-competitive access'). Our view is that competitive and non-competitive requests engage different considerations and that decisions to grant access and the price paid for access will need to reflect these differences.

[2] Article 3(5) of the Directive says that where an access dispute is between two PCNs and the national regulatory authority (NRA) is the NDSB, it must take into account Article 8 of the Framework Directive. In the UK, the NRA is Ofcom.

We consider that there should be a single system of dispute resolution for all potential disputes for which the Directive requires dispute resolution, including disputes concerning physical infrastructure access. This is considered more fully below in the **Dispute resolution** section.

Refusals of access

In the case of 'non-competitive' requests, refusals are expected to be largely on grounds of technical unsuitability, safety, or interference to the main service being provided over the relevant infrastructure, including where providing access would significantly reduce capacity (e.g. of a sewer) and the capability to meet future service demands. This reflects that the infrastructure has been designed to deliver a non-telecoms service and access by a PCN may present hazards or technical issues specific to that other service (e.g. the presence of high voltage lines, or the potential for blockages in a sewer). Conversely, telecoms equipment may not be suitable for deployment on some types of infrastructure.

In the case of 'competitive' requests involving two PCNs, the potential for safety or technical obstacles is reduced, as the relevant physical infrastructure is already used, or intended to be used, to host electronic communications apparatus. We therefore expect refusals to concentrate on demonstrating that capacity (e.g. in ducts) is required for future business needs and cannot be shared or that the PCN which has received the access request already offers alternative wholesale physical infrastructure access on fair and reasonable terms. While the list of reasons for refusals under Article 3(3) is not exhaustive, any additional reasons for refusal relied on would need to be based on objective, transparent and proportionate criteria of a similar nature to those already listed.

Please note also that we consider any exemptions that may be provided for under Article 4(7) (discussed below) would logically constitute reasonable grounds for refusing access under Article 3(3).

Can a competitive request for access be *refused* on grounds that it will damage the competitive position of the PCN receiving the request?

A fundamental issue is whether a PCN receiving a 'competitive' request for access can refuse access on the self-interested (or anti-competitive) grounds that it may not be desirable for their business model or competitive position. Our view is that this should not be possible, and that the Directive does not permit access to be formally refused on such grounds. The price for access should appropriately reflect the potential impact on the infrastructure owner's business, such as:

- The economic viability of investments based on their risk profile;
- Downstream competition and it's impact on return on the investment;
- Depreciation of the network assets at the time of the access request;
- Any business case underpinning the investment; and
- Any offer previously made to the access seeker to co-deploy in the area in which access is being sought.

Such a price may, in some circumstances, be one that no access seeker would pay. We reach this view because refusal of access is permitted only on "objective, transparent and proportionate criteria".

Can the PCN receiving the access request discriminate between different PCN access seekers?
Article 3(3) does not expressly state that refusals must be non-discriminatory. However, the requirement for refusals to be based on objective criteria would prevent a PCN from discriminating against requests on the basis of anti-competitive reasons (e.g. to penalise or dissuade competitors).

The Directive (recital 12) states that providing access should be *"without prejudice to the Union regulatory framework for electronic communications set out in [the Framework Directive]".* While it is clear that the Directive does not permit network operators to refuse access on grounds of economic self-interest alone, some types of access would clearly raise competitive concerns and/or endanger long term investment in infrastructure. In such cases the network operator should be able to refer the matter to the "national dispute settlement body" (NDSB) so that it can consider whether the requested access would conflict with the objectives in Article 8 of the Framework Directive (Article 3(5)). In order for access to be granted, full account should be taken of the economic viability of associated infrastructure investments based on their risk profile, planned return on investment, impact on downstream competition (and consequently on prices and return on investment), depreciation of the network assets, and any business case underpinning the investment.

Access pricing

The Directive requires that the NDSB ultimately decides what terms and pricing for access are 'fair and reasonable'. However the Directive requires different considerations in 'competitive' and 'non-competitive' cases[3].

We consider that there are at least three material principles that are likely to be relevant when judging whether pricing and terms are 'fair and reasonable' for a competitive request. The first is that the access provider should be able to recover their efficiently incurred costs in deploying and maintaining the relevant infrastructure. The second is that the price and terms should (i) provide benefits to consumers, and (ii) not entail a material distortion of competition. The third is that implementing the pricing and terms should be reasonably practicable (i.e. so should not be disproportionately burdensome). UK courts, in an analogous telecommunications context, have upheld similar principles[4].

A non-competitive request from a PCN to the operator of another infrastructure may not compete with that network operator and in many cases may not deprive the network operator of any facility it was planning to use for its own purposes. If the network operator could demonstrate plans to use the physical infrastructure in question, they would be entitled to refuse access or (if they preferred) to negotiate access on terms that reflect the option value attached to that infrastructure, but otherwise any request that is granted would relate to spare capacity for which the network operator

[3] This is understood from the formulation of Article 3(5), which states that competitive access will require consideration of Article 8 of the Framework Directive, and then goes on to make general requirements for *any* price set by the NDSB.

[4] See the following judgement in British Telecommunications plc vs Telefonica O2 UK Ltd and Others [2014]: https://www.supremecourt.uk/decided-cases/docs/UKSC_2012_0204_Judgment.pdf

has no alternative use. In the absence of any clear option value associated with this capacity, installation of electronic communications equipment should result in no identifiable cost to the network operator, apart from any cost incurred to facilitate sharing or overcome any technical obstacles.

QUESTION 17: Do you agree that that the factors we have identified are likely to be relevant to the pricing of access?

The purpose of the directive is 'to reduce the cost of rolling out high speed electronic communications networks', and to achieve this the cost of accessing existing physical infrastructure should be minimised as far as possible. Recitals 7-9 of the Directive describe the source of these costs. Conversely, the Directive does not seek to reduce the cost of building or running other (non-PCN) networks, or to create a profitable and competitive market in the provision of physical infrastructure access.

We therefore consider that the two distinct access regimes will be required to function as follows:

1. A 'competitive regime' where a request is made by one PCN to another PCN. In setting a price, the dispute body must adequately account for the costs to the PCN from whom access is requested, the basis on which investments have been made, and ensure that investment incentives are protected for PCNs to roll out high-speed networks.
2. A 'non-competitive regime' where a request is made by a PCN to a non-PCN network operator. Here the price must account more narrowly for any material loss suffered as a result of providing access and possibly for the option value the infrastructure represents to its owner.

We consider accordingly that the implementing regulations must make a clear distinction between 'competitive' and 'non-competitive' access requests.

QUESTION 18: Do you agree that minimising the cost of access for installing communications infrastructure achieves the aims of the directive?

QUESTION 19: How should fair and reasonable be interpreted when there is a potential alternative use for a given physical infrastructure and this use can be associated with an option value?

Impact on rights to property

Article 3(6) makes clear that the rights of any third party property owner must not be affected by the right to access physical infrastructure on their property. This means that if a wayleave or other right would generally be required from the landowner, the fact of accessing another network operator's infrastructure does not change the need to obtain such a right. For 'competitive' access it will be important to ensure that the requesting PCN cannot 'freeload' on the other PCN's wayleave or lease, and conversely that they do not inappropriately subsidise this element of the access provider's costs.

If the network operator is also the landowner, then they should remain free to charge for use of their land, for both 'competitive' and 'non-competitive' access. Where applicable, conferral of any land right will remain subject to the provisions of the Electronic Communication Code.

Relationship of Directive to existing access remedies relating to significant market power (SMP)

There are existing access remedies that are imposed by Ofcom on BT in specific telecommunications markets, and there are clear contextual differences between these remedies and the physical

infrastructure access required by the Directive. This may lead to different prices for access under the Directive and access as a result of an SMP remedy.

Existing remedies seek to correct a market imbalance, namely the difficulty faced by new entrants wishing to compete with a previously state-owned incumbent that possesses extensive infrastructure acquired on unequal terms, leaving other undertakings unable to duplicate their historically 'free' infrastructure on a comparable cost base. A 'fair' price in this context may mean balancing the cost of access in favour of new entrants.

By contrast, the Directive seeks to activate dormant infrastructure that its owners are unwilling or not incentivised to use. Here 'fair and reasonable' must mean that access is equitable to both access seeker and infrastructure owner, and should take into account the impact of the requested access on the business plan of the infrastructure owner. The objective here is to ensure that parties are encouraged to negotiate and reach agreements, rather than to create a single system of access that imposes fixed terms and prices.

In the context of 'competitive' requests for access, the Directive will ensure that infrastructure is not underutilised, reduce the up-front costs of market entry (or expansion), and ensure that the infrastructure owner is fairly compensated for sharing their infrastructure. The Directive may equally incentivise PCN providers to make greater use of their own infrastructure, both as a result of increased competition and in order to avoid sharing that infrastructure with potential competitors.

Timings and processes for requesting access

The Directive requires that terms and conditions of access be granted, or reasons for refusal be stated, within two months of the request. Requests for access should be made directly to the infrastructure owner, and it will be possible to identify a contact through the information sharing provisions in Article 4 of the Directive. To avoid doubt as to whether a request is 'complete' (required by Article 3(3)), we propose that a standard form prepared by the NDSB is used when making requests. This should include basic information such as the identity of the requesting party, but should otherwise be an administrative instrument that formalises a request, rather than including all relevant information. The two month period for agreeing access should be calculated from the date on which the prescribed form is received.

QUESTION 20: Do you agree that using a standard prescribed will simplify the administrative aspects of making requests?

Right for network operators to offer physical infrastructure access to ECN providers (Article 3(1))

We consider that there are currently no legislative or regulatory obstacles in the UK that prevent network operators from providing ECNs with access to physical infrastructure. Telecoms networks are also able to offer physical infrastructure access to other ECNs. This is evident because (i) some non-telecoms networks already have access agreements to host ECNs[5], and (ii) BT is required to

[5] For example, BT uses poles belonging to electricity distribution network operators to delivery telephony services in some areas.

provide physical infrastructure access to other telecoms networks[6]. Though some network operators' non-regulated activities are still subject to an element of financial regulation, we consider that this does not prevent such operators from offering access[7].

QUESTION 21: Do you agree that, in practice, PCNs already enjoy a right to offer access?

Reciprocal right for PCN providers to offer physical infrastructure access to other network operators (Article 3(1))

The purpose of the Directive is to facilitate roll-out of high-speed electronic communications networks, rather than assisting the roll-out of other infrastructure networks. Existing physical infrastructure used for telecoms networks is also generally not suitable for hosting other networks (it is for example clearly not possible to accommodate sewerage in telecoms ducts). We therefore do not propose to provide a reciprocal right for telecoms operators to offer access to non-telecoms network operators, though we recognise that PCNs enjoy a *de facto* right to share infrastructure with non-telecoms network operators if they see benefit in doing so (i.e. there is no regulatory barrier to their doing so).

QUESTION 22: Do you agree that there should be no reciprocal right for non-communications networks to request access to share communications infrastructure? (E.g. an energy network operator should not have a right to request access to communications infrastructure in order to roll out its electricity network)

End-use of shared infrastructure

The directive does not require any restriction on the downstream use of networks deployed over shared infrastructure. Our view is that that not restricting downstream use will encourage innovative uses of shared infrastructure. We therefore do not propose to limit access provided under the Directive to specific markets or uses.

QUESTION 23: Do you agree that there should be no restriction on the downstream use of shared infrastructure?

Wholesale infrastructure providers

As mentioned above in the **Parties affected and definitions** section wholesale infrastructure providers (WIPs) are excluded from the requirements of the Directive where they not provide public communications networks. Where WIPs are not subject to the requirements of the Directive, they also gain no additional rights.

[6] As per Ofcom's Review of the Wholesale Local Access Market, 7 October 2010. See http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf

[7] For an explanation of this, see Ofwat document "The treatment of regulated and unregulated business in setting price controls for monopoly water and sewerage services in England and Wales – a discussion paper" available on their website: http://www.ofwat.gov.uk/future/monopolies/fpl/prs_inf_1010fplregunreg.pdf

KEY POINTS

(1) It is clear that 'competitive' requests (between PCN providers) and non-competitive requests engage different considerations regarding price and granting of access, and we propose to recognise this in the implementing regulation;
(2) Pricing for non-competitive access should be on a compensatory basis;
(3) Pricing for competitive access must fully account for specificities of the telecoms market and must respect the objectives in Article 8 of the Framework Directive;
(4) A PCN provider cannot simply refuse access for anti-competitive reasons;
(5) Requests for access shall be made using a prescribed standard form and this will also be used for calculating the period before a dispute can be lodged with the NDSB;
(6) The right to access physical infrastructure does not affect the rights of landowners or the need to obtain appropriate wayleaves to roll out networks;
(7) We do not propose to create any new right to *offer* access and consider this *de facto* exists already both for PCN and non-PCN infrastructure;
(8) We do not propose to create a right for non-PCN networks to access physical infrastructure of PCN networks;
(9) We do not propose to limit the types of products that should be delivered using shared physical infrastructure or restricting this to any geographic are or market segment;
(10) Exemptions that may be provided for under Article 4(7) (discussed below) would logically constitute reasonable grounds for refusing access under Article 3(3)

Right to coordinate civil engineering works

Directive requirements

The Directive identifies carrying out civil engineering works as a major cost in rolling out high speed electronic communications networks, and seeks to encourage coordination of civil works (i.e. jointly carrying out works to reduce the cost for each party). The Directive requires the following:

- Article 5(1) right for network operators to negotiate agreements to coordinate civil works with PCN providers;
- Article 5(2) right for PCN providers to coordinate works if a network operator is using public funds to carry out such works (subject to limitations);
- Article 5(3) right to dispute resolution within one month of a request if there is failure to agree coordination (disputes must be decided within two months).

Existing requirements and right to offer coordination

Civil engineering work is already coordinated in many cases, particularly where this involves carrying out street works, where duplicating works may cause public disruption. In England, the New Roads and Street Works Act 1991 (NRSWA) requires street authorities, who are responsible for granting permission to carry out street works, to coordinate works in the interests of safety, to minimise inconvenience, and to protect the structure of the street. In Scotland, the Scottish Road Works Commissioner is responsible for planned road works, and the Scottish Road Works Register is used for this purpose.

In the case of all other civil works, no requirement exists to coordinate works, though there is also no legal obstacle to coordination. In the case of some underground infrastructure, there are existing industry practices regarding safety, e.g. requiring a minimum separation between pipes or ducts carrying certain types of infrastructure.

The Directive does not replace any existing requirements regarding street works or alter industry practices regarding the technical parameters under which civil engineering works are coordinated. Where there are existing requirements to coordinate works, these should remain, along with associated dispute functions. The requirements of the Directive to coordinate works will only apply to those works where coordination is not required by existing legislation.

Given that network operators carrying out civil works are not prevented from making agreements to co-ordinate works, we do not consider it necessary to create an express right to do so.

Coordination of works involving public funds

If civil engineering works involve the use of public funds, a PCN has the right to request a network operator carrying out the works to co-ordinate those works, provided the request is reasonable and the network operator is compensated for any additional cost (including due to any delay) incurred as a result of co-ordinating works.

While the three requirements for coordination set out in Article 5(2) (additional cost, control of works, and requests being made well in advance) should serve as indication of whether a request is reasonable, there may be cases where these requirements are met but the coordination is still unreasonable. We consider that it should be left to network operators to decide whether the requested coordination under Article 5(2) is reasonable, and the requester will be able to refer any refusal to coordinate works to the NDSB.

The Directive provides that it does not matter whether the network operator itself carries out the works, or pays another party to do so[8] - the relevant criterion is that public money has been used. Thus if a network operator contracts a third party to carry out works, these will still subject to Article 5(2). Likewise if a network operator uses public funding to support works, even if only indirectly (e.g. to enjoy the eventual benefit of works carried out by someone else) these may also be subject to Article 5(2).

'Fully or partially financed by public means' does not mean that payment is simply made by a 'public body', but instead refers to the source of the funding. Government defines 'public means' as funding based on taxation or other government revenues, whereas 'private means' is defined as funding through bills and user charges on consumers. This definition excludes most work carried out in the UK by privately owned utility companies, where customer bills are used to fund investments in infrastructure. Under this definition, any works using funding that would qualify as state aid, e.g. the BDUK programme should clearly be included and coordination will be required. Whether the network operator carrying out or ordering the work is a private company is not relevant to deciding whether co-ordination of works is required.

QUESTION 24: Do you agree with our definition of works fully or partially funded by public means?

Refusal to coordinate works

The network operator may refuse to coordinate works involving public funding if: (i) this entails additional costs, including because of delays; or (ii) this impedes control over the coordination of the works; and (iii) the request to coordinate is not made at least one month before the final application for relevant permits. Considering each reason in turn:

1. We consider that 'additional costs' means costs incurred wholly or partly due to coordinating works, and which the party requesting coordination has declined to reimburse. Costs due to delays should be clearly demonstrable in order to constitute a valid reason for refusal to coordinate works. It should not be possible to refuse coordination on the basis that there *may* be additional delays that *may* incur costs, as such eventualities can be handled by

[8] Article 5(2) – *"every network operator performing directly or indirectly civil works"*

contractual arrangement. Instead a specific element of delay should be identified and a specific resulting cost. The requester should be given an opportunity to suggest a remedy for any delay or cost, and the network operator should consider this before definitively refusing coordination.

2. Coordination must not prevent the network operator from being in control of the works and effectively managing timings and outcomes of the works. We consider that 'impedes control' means that timings or successful execution of the works can no longer be ensured (e.g. because this becomes fundamentally dependent on the requester completing their work successfully). It should not simply mean having to adjust schedules or plans to enable coordination (where some financial compensation may be appropriate, but execution of the works is not endangered).
3. In order to allow sufficient time to agree coordination, requests must be made a month before 'submission of the final project' for permit granting. We consider that 'submission' means submitting planning applications or in the case of street works requesting a permit or notifying the relevant street authority. In the case of major projects, this could be an application to the Planning Inspectorate that would result in a Development Consent Order. If there is no requirement to 'submit' the project for approval (e.g. for some generally permitted developments), then requests to coordinate should be made a minimum of one month before works begin.

QUESTION 25: Do you agree with our interpretation of the possible grounds for refusing coordination of publically funded works?

Costs involved in coordination

We do not intend to provide any rules on apportioning the costs associated with coordinating civil works. This should be for the network operator and requester to consider and agree. Failure to agree terms within one month is grounds for referral of the matter to the NDSB.

QUESTION 26: Do you agree that we should not provide rules in apportioning costs?

Process and administrative issues

Requests to coordinate works should be made directly to the network operator planning the works, and it will be possible to identify a contact through the information sharing provisions in Article 6 of the Directive. To avoid doubt as to whether a request for coordination is 'complete', we propose that a standard form prepared by the NDSB is used when making requests. This should include basic information such as the identity of the requesting party, but should otherwise be a purely administrative instrument. The one month period for agreeing coordination should be calculated from the date on which the prescribed form is received.

KEY POINTS

(1) Network operators already enjoy a right to offer coordination of works, and we do not propose to create any express right;
(2) The use of public funds from taxation or levies should be the key test for whether coordination of works is required;
(3) PCN operators should be entitled to meet additional costs due to coordination, and only costs which cannot be met should count as 'additional cost' for refusing requests;
(4) It should not be possible to refuse coordination simply because it would entail rescheduling or re-planning elements of works – 'impeding control' must be interpreted as endangering successful execution of the works;
(5) We do not propose to create rules on apportioning costs associated with coordinating works;
(6) Requests for coordination shall be made using a prescribed standard form and this will also be used for calculating the period before a dispute can be lodged with the NDSB.

Permit granting

Directive requirements

Article 7(3) of the Directive sets a requirement for authorities responsible for granting or refusing the relevant permits to do so within four months of receiving a complete permit request.

Analysis of existing regimes

Analysis of street works regime

In England, highway authorities may use 'noticing', under the New Roads and Street Works Act 1991 (NRSWA), or operate a permit scheme under the Traffic Management Act 2004 TMA. Utilities with statutory powers must submit a notice or apply for a permit accordingly. Those wishing to work in the street that do not have statutory powers must apply to the authority for a 'section 50 licence' under NRSWA.

The time that a permit application must be submitted by those carrying out the works, and the response time for authorities are set out in the Permit Scheme statutory guidance. For noticing the time-scales are set in the Street Works (Registers, Notices, Directions and Designations) (England) Regulations 2007. Both essentially follow the same time-scales.

In Scotland, in the case of noticing, written permission is given in place of a section 50 licence. Once a licence (or written permission) has been given to a person or organisation, they can carry out street works to install or maintain apparatus on or under the street by giving notice to the relevant authority. Implied rights of access, without licence, are also given to statutory providers to maintain, replace, inspect (and so on) their existing assets and infrastructure or lay new assets or infrastructure.

Some streets are subject to special controls and activities of undertakers and highway authorities will be severely restricted; apparatus may not be placed in the street without the street authority's consent:

- **Protected streets** - all "special roads" as defined in the Highways Act 1980 (i.e. motorways) are protected. In addition, a street authority may protect other streets which serve, or will serve, a specific strategic traffic need with high and constant traffic flows
- **Streets with special engineering difficulties** - such as streets or parts of streets associated with structures, or streets of extraordinary construction, where works must be carefully planned and executed
- **Traffic-sensitive streets -** streets can also be designated as traffic-sensitive, highlighting that works in these situations are likely to be particularly disruptive to other road users, but this does not necessarily prevent occupation during traffic-sensitive times

Where special controls are in place greater coordination and planning may be required, or alternative access routes considered.

Analysis of planning regime

Planning is a devolved matter. Planning permission may be required to carry out some civil works, for example, where work would substantially alter the visible appearance of a structure or building and for larger mobile masts. The planning regime allows for the local authority (or national authority where applicable) to receive and decide on applications for planning permission.

- England: planning requests are usually decided within 8 weeks, or 13 weeks for major development.
- Scotland: planning requests are usually decided within 2 months, or 4 months for major development.
- Wales: planning requests are usually decided within 8 weeks.
- Northern Ireland: planning requests are usually decided within 8 weeks, or 16 weeks for major development.

Some major works also require an Environmental Impact Assessment. In England & Wales it takes up to 16 weeks for a decision on planning requests for such works.

Analysis of General Permitted Development (GPD) rights

Some development is 'Permitted Development'. This grants, in prescribed circumstances, automatic planning consent for the installation of certain infrastructure of network operators, including electronic communications equipment, subject to limited conditions.

Permitted development rights vary between the devolved administrations. Some permitted development rights require the prior approval of the local authority which enables the consideration of additional specified factors before development commences other rights are permitted development and may be installed without approval from the local authority.

There are also legislative powers to grant network operators rights to assist with the deployment of infrastructure. To make use of permitted development rights a network operator has to secure Ofcom's agreement to become a Code Operator. The Electronic Communications Code (Conditions and Restrictions) Regulators 2003 imposes non-planning duties on code operators to co-operate and consult (28 days) with planning and highways authorities and to follow guidelines on the installation of how they should conduct the installation of their infrastructure.

There are GPD rights available to airports, rail infrastructure operators and water and power network operators – see Parts 9, 10, 12, 13, 5, 16 of Schedule 2 to the General Permitted Development Order 2015 (England).

There are a range of exclusions: protected areas which have recognised national importance for example, national parks, world heritage sites, conservation areas, areas of outstanding natural beauty, sites of special scientific interest (SSSIs) have enjoyed less permitted development rights.

Planning for ports is governed by individuals ports legislation and orders, more general work is carried out under GPD rights and would likely apply to most telecoms works, except, for example,

where a mast is to be raised over 15m high or if the works would substantially alter the external appearance of the port, for which normal planning permission processes would apply.

Other permits

A long list of other unconsolidated acts and regulations have an impact on planning in the UK, these are not in scope. It is also our understanding that no prior notice is necessary to carry out 'emergency' works, notice should instead be given within a specified time period after the works have started.

Table of various permits and statutory deadlines showing compliance

Devolved Authority	Act/Order	Part	Timeframe
England & Wales	New Roads and Street Works Act 1991	Part III, 55, Para 1	**7 days**
England & Wales	The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999	Regulation 32(2)	**16 weeks**
England	Statutory Guidance for Highway Authority Permit Schemes October 2015	Para 3.62	**4 months** for complex cases **1 month*** in any other case
England	The Town and Country Planning (Development Management Procedure) (England) Order 2015	Part 6, 34, Para 2(a)(b)	**13 weeks** for major development **8 weeks** for development which is not major development
Wales	The Town and Country Planning (Development Management Procedure) (Wales) Order 2012	Part 4, Article 22, Para 2(a)	**8 weeks**
Scotland	New Roads and Street Works Act 1991	Part IV, 114, Para 1	**7 days**
Scotland	Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013	Part 4, 26, Para 2	**4 months** for major development **2 months** in any other case
Northern Ireland	The Street Works (Northern Ireland) Order 1995	Article 15, Para 1	**7 days**
Northern Ireland	Planning (General Development Procedure) Order (Northern Ireland) 2015	Article 20, Para 2	**16 weeks** for major development **8 weeks** in any other case

* The statutory operational guidance cites 3 months as the minimum application period before the proposed start date of the works, however the response time for issuing a permit is only 1 month. 10 days is the time period for processing the application/requesting further information etc.

QUESTION 27: Are you aware of any other permits that are normally required in order to carry out civil works to roll out high-speed electronic communications networks?

Compensation and the existence of effective appeal routes

The street works and planning regimes in the UK are maintained by an appeal system via the courts, this includes cases where an authority fails to process an application within the statutory period (or agreed extension period). The Directive permits that compensation may be paid where damage has been suffered as a result of non-compliance with applicable deadlines. However, as an effective appeal process already exists, our view is that it is not appropriate to add an additional layer of administration that might involve paying public funds to private PCNs in the form of compensation.

QUESTION 28: Do you agree that there should be no additional administrative appeal route for compensation in case of non-compliance with deadlines for deciding permit applications?

Conclusion

The planning system in the UK already requires that planning permission or permit requests be granted or refused within the four months required by Article 7(3) of the Directive.

QUESTION 29: Do you agree with our analysis and conclusion that no further action is required in order for the UK to comply with Article 7(3) of the Directive?

KEY POINTS

(1) Existing permits throughout the UK already comply with the requirements of the Directive;
(2) We do not propose to create any new right to compensation for non-compliance with deadlines for deciding permit applications

Single information point

Directive requirements

Article 6(1) requirement for transparency of current and planned civil works: network operators are required to make available, upon request, minimum information concerning any current works, works for which a planning permit has been granted or is being considered, or works for which it is envisaged that a planning or permit application will be submitted within the next 6 months.

The 'minimum information' is defined as:

- the location and type of works;
- the network elements involved;
- the estimated date for starting the works and their duration; and
- a point of contact.

Article 6(3) requires that the network operator make the requested minimum information available via the single information point (SIP).

Article 7(1) requirement to make available information on civil works permits: All relevant information on the permits required to carry out civil works in order to deploy elements of communications networks must be available via the SIP.

Article 10(4) requires the appointment of 'one or more competent bodies at national, regional or local level to perform the functions of the single information point…'

Interpretation

These provisions are about ensuring sufficient transparency of civil works to enable PCNs to co-ordinate with other network operators and reach commercial agreements to share the cost of works, subsequently reducing the cost of deploying elements of high-speed electronic communications networks.

Recital 22 of the Directive states that *"[w]here minimum information is not available via the single information point, the possibility of [PCNs] to directly request such specific information from any network operator in the area concerned should nevertheless be ensured. […] Advanced transparency of planned civil works by network operators themselves, or via single information points should be incentivised, in particular for areas of greatest utility, by redirecting authorised operators to such information whenever available."*

Article 6(1) places an obligation on network operators to respond to requests for access to the 'minimum information'. In order to prevent additional administrative burden on PCNs, network operators may redirect the request if "access to such information is ensured via the single information point."

Recital 26 explains measures to reduce the complexity of identifying necessary permits: "*while preserving the right of each competent authority to be involved and maintain its decision making prerogatives in accordance with the subsidiarity principle, all relevant information on the procedures and general conditions applicable to civil works should be available via the single information point.*"

As planning services are largely provided at a local level and are generally devolved, it is appropriate to have a solution that accounts for the local variation in these requirements.

Decision making authorities as the single Information points

We consider that the UK already meets the requirements of a SIP under the Directive. In this context, we refer to all bodies with responsibility for making decisions in relation to planning (including street works) as "decision makers", such as district authorities, London borough councils, national parks authorities and highways authorities. The Government intends to appoint all such decision makers as SIPs, including local planning authorities, but we do not think this will place a requirement on any of those bodies to provide services other than those they currently provide.

These bodies already provide the following services required of the SIP under the Directive:

- Article 6(3) requirements:
    - Decision makers already publish planning applications on their websites.
    - The relevant authorities also publish information on current and planned road and street works.
    - Prior to the submission of a planning application, the 'minimum information' will be available via the network operator.
    - We do not think minimum information concerning civil works 'envisaged' within the next six months (i.e. works for which a permit application has not yet been submitted) should be available via the SIP. This information has the potential to be highly changeable and therefore cumbersome for a third party to maintain.
    - Due to the nature of the UK planning and street works regimes, we do not think the start date and duration of works will normally be available via the SIP. Requests for this information should instead be directed to the network operator.
- Article 7(1) requirements:
    - Decision makers, by the nature of their duties, already provide information on all relevant permits and processes to carry out civil works.
    - Individual planning authorities may not hold all information about all types of necessary permit. However, they will be able to make the information available by signposting the enquiry to the relevant body.

Our view is that local planning and highways authorities currently provide the services required by the SIP for most of the infrastructure in the UK relevant to the Directive. The table below outlines the main legislative requirements of local authorities and the analogous function required by the SIP:

Table of legislative requirements for local planning and highways authorities

Directive Article	Directive Requirement	Existing Legislation	Existing requirement
6(3)	Requirement to make available minimum information under Article 6(1). This information only needs to be available via the SIP after an application for a permit has been made.	The Town and Country Planning (Development Management Procedure) (England) Order 2015, Part 3, Article 15	Publicity for applications for planning permission (including website publication in all instances).
6(3)	Requirement to make available minimum information under Article 6(1). This information only needs to be available via the SIP after an application for a permit has been made.	The New Roads and Street Works Act 1991, Part 3, Section 59	General requirement to co-ordinate works.
7(1)	Requirement to provide information on the permits required and how to obtain them.	The Town and Country Planning Act 1990	General legislation devolving planning responsibility to local government

We do not propose for the minimum information relating to works that are "envisaged" within the next six months to be made available via the SIP, due to the changeable nature of such information it would not be practical for any 3rd party to maintain it. In addition, we do not propose for works carried out solely under GPD rights (and without any other permission or notification) to be made available via the SIP, such works are minor and therefore not suitable for coordination. Our interpretation is that the Directive requires this information be available directly from the network operator until a permit application is submitted to and published by the SIP. Any requirement for the SIP to make this information available prior to a permit application being submitted would attract significant cost and administrative burden, which would frustrate the aims of the Directive.

QUESTION 30: Do you agree that information relating to works "envisaged" within the next 6 months should only be available from the network operator, and that it would be unreasonable to expect any third party to handle such information?

QUESTION 31: Do you agree that works carried out solely under GPD rights are generally minor works and consequently unsuitable for coordination?

Timings

Article 6(1) requires that network operators respond to requests for access to the minimum information concerning civil works within 2 weeks, and that they do so up to 6 months in advance of works commencing. We do not think the same timeframe applies to the Article 6(3) requirement of making the information available via the SIP.

The Government's view is that the existing timescales provided by the UK planning regime for publishing planning requests is sufficient for making the information available via the SIP.

We do not expect local planning authorities (or any other appointed competent body) to receive or to publish any planning information any sooner or in any other format than required by current processes.

Charging

Article 10(4) allows that Member States permit the single information point(s) to charge for the services provided. We do not propose to implement charging measures because, as outlined above, we do not think the Directive imposes any new requirements on the bodies we intend to appoint.

Publication by network operators

In order to maximise the availability of information relating to planned civil works we may also implement a measure that requires network operators to publish their responses to requests for the minimum information on planned works. This would ensure that information exchanges do not remain exclusively bilateral.

QUESTION 32: Do you agree that network operators should publish responses to requests for the minimum information relating to planned civil works?

QUESTION 33: What measures do you propose to ensure that responses to requests for the minimum information relating to planned civil works are widely available to all PCN operators?

Single Central SIP

The option of a single central SIP has also been explored, such as a website that would provide all necessary planning information and hold copies of all responses to requests for information concerning planned civil works and existing physical infrastructure.

While we appreciate the benefits a single central information database, such as an interactive infrastructure atlas, might bring to the industry, we think the implementation of such an option would constitute gold plating as it goes beyond the minimum requirements of the Directive. We would be interested to receive respondents' views on the costs involved in setting up this kind of central national infrastructure atlas and whether this would be useful and appropriate.

Conclusion

We consider that the only action required in order to comply with the Directive requirement to establish a 'single information point', is to appoint as single information points the relevant bodies that currently carry out these functions. We therefore propose the following:

- To appoint all bodies with decision making responsibility in relation to planning matters as 'single information points' on the basis that they already perform the required functions and this introduces no additional administrative burden.
- PCNs should primarily approach network operators directly, and consult planning authorities for the information they make publicly available
- We may also require that network operators publish their responses to requests for the minimum information relating to planned civil works

QUESTION 34: Do you agree that the decision making authorities (all authorities with a responsibility for planning and street work licenses) are the correct designated bodies to perform the functions of the SIP?

QUESTION 35: Do you agree that the decision making authorities (all authorities with a responsibility for planning and street works licenses) already perform the necessary functions to comply with the minimum requirements of the Directive?

Devolved administrations

We think the conclusion drawn applies to the whole of the UK including the devolved administrations. We understand the devolved administrations would also choose to adopt this approach, they would need only appoint the relevant bodies as 'single information points' that already perform the required functions in order to comply with the Directive.

KEY POINTS

(1) Competent bodies already carry out SIP functions across the UK. Our proposal is to appoint the relevant bodies as single information points.

(2) PCNs should primarily approach network operators to request the minimum information for planned civil works.

(3) Network operators may redirect requests where the information is openly available elsewhere, e.g. a planning permission application published on a planning authority website.

In-building physical infrastructure

Directive requirements:

The Directive makes the following requirements regarding access to in-building physical infrastructure (both pre-existing and installed under the requirements of Article 8) and the ability to provide services to individual premises:

- Article 9(1): PCN providers have the right to roll out their network to the 'access point' in multi-dwelling buildings;
- Article 9(2): PCN providers have a right to access any in-building physical infrastructure, and relevant parties must meet these requests under fair and non-discriminatory terms and conditions;
- Article 9(5): PCN providers have a right to terminate their network at subscribers' premises;
- Article 9(3): Dispute system where agreement on access is not reached within 2 months;
- Article 9(6): These rights must not prejudice the property rights of third parties

Installation of high-speed ready in-building physical infrastructure

Article 8 of the Directive sets out minimum requirements for in-building physical infrastructure to support high-speed communications networks in all new buildings and major renovations where a building permit application has been made after 31 December 2016. The Department for Communities and Local Government (DCLG) is implementing that requirement in England through amendment to the building regulations and it is therefore not considered within this consultation. Building regulations are a devolved matter in Scotland, Wales, and Northern Ireland; the devolved administrations are managing their own public consultations on the requirements of Article 8.

Interpretation

In order to make sure that high-speed networks are available to the maximum possible number of premises, it is important to bring the network as close as possible to the end-user's location as this creates significant savings and avoids duplicating civil engineering works. To achieve this, PCN providers should be able to terminate their network at the building access point (where one exists), regardless of whether they have existing subscribers in that building. Once the network is terminated at the access point, it is significantly cheaper to connect additional customers in the building, particularly by using existing risers or ducts (the in-building infrastructure required by Article 8).

The requirements of Article 9 apply to dwellings, commercial premises, and mixed-use premises. There are clearly some types of building where it would not be appropriate either to require in-building physical infrastructure or to require access to that infrastructure (e.g. railway stations). Therefore any building where in-building physical infrastructure would not be required under Article 8 if it were a new building (e.g. because the building is exempted due to its use or other characteristics) will not be required to comply with Article 9 of the Directive.

Individual premises

For single occupancy premises, the rights required by the Directive are straightforward. There is no access point required, so there is no right to roll out networks to the 'access point'. The required in-building physical infrastructure is also minimal, essentially amounting to a point of entry to the premises, and the freeholder or leaseholder of the property will generally hold the right to access. As the subscriber's consent is required to connect the premises, acquiring a right to access this infrastructure is unproblematic.

Multiple dwelling premises

There are currently two possible models for reaching subscribers in a multiple dwelling premise: (1) network demarcation points (NDPs) as close as possible to (or inside) individual customer premises with an aggregation point somewhere outside the building; and (2) a single NDP for the entire building with the in-building network provided by the property owner.

Model 1 is prevalent in the UK, and there is little evidence of one PCN provider trying to exclude others (e.g. by gaining an exclusive right to access the risers) as the building owner has a clear incentive to collect wayleaves from multiple PCN providers. The PCN operator assures physical security of the equipment up to the NDP, and this has advantages to all parties in terms of liability and maintenance. An obstacle here is that PCN operators do not routinely remove cables from risers, as this risks disruption to other subscribers. It may therefore be necessary to duplicate physical infrastructure where a riser has no available capacity.

While we understand there to be significant variation in the levels of wayleave charges for such access, the Directive does not alter the basis on which wayleaves should be granted. The Electronic Communications Code regulates agreements for access to land between landowners and communications providers to whom Ofcom has applied the Code.

We consider that in-building physical infrastructure should not count as physical infrastructure *belonging to the PCN operator* under the definitions in Article 2 of the Directive. Instead, it remains the property of the building owner. This means that the only holder of a right to use the access point and in-building physical infrastructure (in the sense intended by Article 9(3)) must be the building owner. The only changes introduced by the Directive are that terms, conditions, and the price for accessing in-building infrastructure must be fair and non-discriminatory, and the building owner cannot prevent a PCN operator from terminating its network at a subscriber's premises subject to grant of an appropriate wayleave.

QUESTION 36: Do you agree that in-building physical infrastructure should not count as physical infrastructure belonging to the PCN operator?

Exemptions and compensation

We do not propose to provide exemptions from Articles 9(1) to 9(3) where an existing wholesale network is provided, as this may discourage innovation (and provision of very high speed networks) and does not reflect that in the UK NTPs are generally located at or inside individual subscriber premises. We also do not propose to provide rules for compensating damage as a result of the exercise of the rights in Article 9, as we consider that existing recourse to the courts is sufficient for this purpose.

QUESTION 37: Do you agree with our proposal not to provide exemptions where an existing wholesale network is provided?

QUESTION 38: Do you agree with our proposal not to provide rules for compensating damage, on the grounds that the existing recourse to the courts is sufficient?

KEY POINTS

(1) The requirements of Article 8 are being implemented by DCLG in England, and by the corresponding Departments in each devolved administration;
(2) The requirements of Article 9 do not alter the need to obtain a wayleave to access the property on which in-building infrastructure is installed;
(3) We consider that individual premises do not present any particular issues;
(4) In multiple dwellings, the property owner (not the PCN provider) is required to grant access to in-building physical infrastructure;
(5) We do not propose any exemption where an existing wholesale network is provided;
(6) We do not propose to provide rules for compensating damage to property.

Exemptions

Directive requirements

The Directive includes various optional provisions for exemptions that member states may choose to implement. These are:

Article	Obligations	Possible Exemptions
4 (1)-(5)	Right to request information about existing physical infrastructure. Article 4(1) already limits access if necessary in view of the security of the networks and their integrity, national security, public health or safety, confidentiality or operating and business secrets.	Article 4(7) – Allows exemptions for infrastructure that is not technically suitable or classified as critical national infrastructure.
5 (2)	Obligation to co-ordinate civil works financed by public means.	Article 5(5) – Allows exemptions for network operators for works of insignificant importance or in the case of critical national infrastructure.
6 (1) – (3)	Requires network operators to make available plans for civil works up to 6 months in advance.	Article 6(5) – Allows exemptions for civil works of insignificant value or in the case of critical national infrastructure.
9 (1) – (3)	Right for PCNs to connect their networks at their own costs to access point and right to access (existing) in-building physical infrastructure.	Article 9(4) – Allows exemption if wholesale access is provided inside a building.

Proposed exemptions

Exemptions from Article 4(1)-4(5):

Technical unsuitability

Water and sewerage: under Article 4(7) we intend to exempt the following water and sewerage infrastructure from the requirements to provide 'minimum information':

(1) any pipe with an internal diameter less than 225mm;

(2) sewers downstream of combined storm overflows, including the continuation pipe and the overflow pipe

(3) sewers in areas of known inundation or hydraulic insufficiency (this may be based on the Undertakers' registers of properties at risk of sewer flooding - DG5 register or future equivalent/replacement; and

(4) any sewer where cables would need to be installed in the invert of the sewer.

(5) any sewer where regular maintenance work needs to be carried out.

Gas: we intend to make a similar exemption for gas infrastructure, for any pipe with an internal diameter less than XX mm.
Other infrastructure types: we do not intend to make any further exemptions under Article 4(7) from the requirements to provide 'minimum information'.

QUESTION 39: Are the exemptions proposed under Article 4(7) appropriate? Should there be any further exemptions under this article?

Critical National Infrastructure:

We intend to provide an exemption for Network Operators from having to provide information on any infrastructure classified as critical national infrastructure at or above level CAT 3 under the Cabinet Office Criticality Scale[9].

Exemptions from Article 5(1) – coordination of civil works

Critical National Infrastructure:

We intend to provide an exemption for Network Operators from having to coordinate civil works funded by public means that concern any infrastructure classified as critical national infrastructure at or above level CAT 3 under the Cabinet Office Criticality Scale.

Works of insignificant importance:

- **Ports**: We intend to exempt small ports in Scotland and we are still developing an appropriate definition for these. Any works involving these ports are likely to be of insignificant size and value, and it is very unlikely that there will be demand from PCN providers to coordinate such works. Providing this exemption will minimise administrative costs for these small ports, and will mean they do not have to incur costs in familiarising themselves with the requirements of the Directive.
- **Water and sewers**: we intend to exempt works involving water and sewerage infrastructure where the works have a value of less than £XXXX, a duration of less than XX days, or are being carried out over a geographical area that does not exceed XX m in any linear dimension.
- **Gas**: we intend to exempt works involving gas infrastructure where the works have a value of less than £ XXXX, a duration of less than XX days, or are being carried out over a geographical area that does not exceed XX m in any linear dimension.
- **Electricity**: we intend to exempt works involving electricity infrastructure where the works have a value of less than £ XXXX, a duration of less than XX days, or are being carried out over a geographical area that does not exceed XX m in any linear dimension.
- **Telecoms**: we intend to exempt works involving telecoms infrastructure where the works have a value of less than £ XXXX, a duration of less than XX days, or are being carried out over a geographical area that does not exceed XX m in any linear dimension.

[9] See "Strategic Framework and Policy Statement on Improving the Resilience of Critical Infrastructure to Disruption from Natural Hazards", page 29, accessible at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/62504/strategic-framework.pdf

- **Rail**: we intend to exempt works involving rail infrastructure where the works have a value of less than £ XXXX, a duration of less than XX days, or are being carried out over a geographical area that does not exceed XX m in any linear dimension.
- **Other infrastructure types**: we do not intend to make any further exemptions under article 5(5) from the requirement to coordinate civil works funded by 'public means'.

The exemptions described above will ensure that only those works where coordination would bring substantial benefits in terms of cost savings are coordinated, and that there is not a disproportionate cost in handling requests to coordinate insignificant works.

QUESTION 40: Are the exemptions proposed under Article 5(5) appropriate? Should there be any further exemptions under this article?

QUESTION 41: What might be suitable values for each of the placeholders indicated by 'XX' in the above text? Are there any other metrics that may be suitable for specifying civil works that should be exempted from information sharing requirements?

Exemptions from Article 6(1) – 6(3) – information on planned civil works

Critical National Infrastructure:

We intend to provide an exemption for Network Operators from having to provide minimum information about planned civil works that concern any infrastructure classified as critical national infrastructure at or above level CAT 3 under the Cabinet Office Criticality Scale. Such works are not subject to any requirement for coordination of works, and it would not generally be in the public interest to make available information regarding plans to carry out these works.

Works of insignificant importance:

We intend to provide the same exemptions from requirements to share minimum information about planned civil works as we have set out above for coordination of works financed by public means.

QUESTION 42: Are the exemptions proposed under Article 6(5) appropriate? Should there be any further exemptions under this Article?

Exemptions from Article 9(1) – 9(3) - rights to share in-building infrastructure

We do not intend to provide any exemptions from the requirements in Articles 9(1) – 9(3). Such an exemption would not reflect the way networks are delivered to end users in the UK, and in some circumstances could present a barrier to delivering very high-speed networks.

QUESTION 43: Would an exemption under Article 9(4) be appropriate? If so, how might this best be specified?

Creation, removal, and modification of exemptions:

The standard review period of five years for EU legislation will provide an opportunity to review the efficacy of the exemptions we set out above. Where the Secretary of State considers that the prescribed exemptions are not effective, that additional exemptions are desirable, or that exemptions should be removed, we propose that he may produce an order to this effect.
Before making such an order, we propose that the Secretary of State should consult Ofcom and may consult any other such other persons as he thinks may have an interest in the matter.
Ofcom's role as the national dispute settlement body will allow it to gather considerable expertise in dispute resolution and the practical operation of exemptions. We recommend that Ofcom should able to request the Secretary of State to make, remove, or modify exemptions.

We propose that statutory regulators in the other infrastructure sectors subject to the Directive should be able to recommend to the Secretary of state a review of any exemption relevant to the sector they regulate. This is important as individual utility regulators will have knowledge of the effects of the existing exemptions and will understand the technical issues limiting sharing of physical infrastructure and coordination of civil works

QUESTION 44: Do you agree with our approach to the creation, removal, and modification of exemptions?

KEY POINTS

(1) It is clear that to create a system with the correct balances' to safeguard information, exemptions should be made for (i) infrastructure that is not technically suitable for sharing, and (ii) infrastructure that is classified as critical national infrastructure.
(2) It should be possible to limit the amount of information shared regarding existing physical infrastructure on the grounds of network integrity, national security, public health or safety, and confidentiality or operating and business secrets.
(3) It is clear that certain industry specific exemptions with precise wording will also need to be provided. For example certain sewers of a smaller diameter will be exempt.
(4) Coordination of civil works and information on planned civil works are to be exempt in two cases: (i) infrastructure classified as critical national infrastructure (ii) works of insignificant importance, defined in days, monetary value, or geographic extent.
(5) We do not intend to implement any exemption under Article 9 as this would not reflect the way networks are delivered to end users in the UK, and in some circumstances could present a barrier to delivering very high-speed networks.
(6) A standard review of five years is recommended to test the efficiency of the exemptions.
(7) The Secretary of State should have the power to make, remove, or amend exemptions, and should consult Ofcom and other relevant persons before doing so. Ofcom should be able to request that the Secretary of State make, remove, or amend exemptions.

Dispute resolution

Directive requirements

The Directive requires dispute resolution processes in 5 different contexts. Generally, there are two levels of process required – reference of a dispute to a "national dispute settlement body" ("NDSB"), and then recourse to a court. These are:

1. Article 3(4) and (5): access to existing physical infrastructure: requires that there is an NDSB to which parties may refer disagreements following refusal of access to infrastructure or disagreement as to terms and conditions of access.
2. Article 4(6): transparency concerning physical infrastructure: requires that there is an NDSB to which parties may refer disputes under the physical infrastructure transparency regime. There are two possible sources of dispute in this context: the provision of information in Art. 4(4) and the right to a survey in 4(5).
3. Article 5(3) and 5(4): coordination of civil works: requires that the parties can refer a dispute in relation to the coordination of civil works under this article to an NDSB.
4. Article 6(4): transparency concerning planned civil works: requires that each party can refer disputes in connection with the provision of information about planned civil works.
5. Article 9((3): access to in-building physical infrastructure: requires that where agreement for access to any existing in-building physical infrastructure is not achieved (within two months of the date of receipt of a request for access) the parties may refer the issue to an NDSB.

Proposed system for dispute resolution

The Government proposes to appoint Ofcom as the sole "national dispute settlement body" to operate throughout the UK across all five dispute contexts described above.

We consider there are several advantages to Ofcom being the sole NDSB:

- Ofcom already possesses a considerable depth of relevant experience in contentious regulatory disputes in a largely competition law context;
- A single NDSB will ensure there is a single route of appeal, with a single standard of appeal;
- A single NDSB would be able to accumulate and increase expertise with successive disputes (rather than dispersing this knowledge across many bodies);
- Ofcom would be able to handle those disputes where there is no suitable regulator;
- All provisions of the Directive ultimately concern installation of (high-speed) electronic communications apparatus, an area that properly lies within Ofcom's regulatory remit.
- We recognise certain disputes may entail infrastructures that already have a regulator and propose in such cases that Ofcom will pay utmost regard to advice received from such regulators or experts.

We consider it will be necessary to provide Ofcom with specific powers to handle these disputes. We would also require Ofcom to request advice from any relevant sectorial regulator when deciding a

dispute that relates to non-telecoms infrastructure, and to take appropriate account of such advice where provided. Effectively this will mean that Ofcom would have a statutory duty to make and enforce decisions, but in practice could not contradict the advice of a competent sectoral regulator regarding any insurmountable safety, operational, or technical issues in that sector.

QUESTION 45: Do you agree that Ofcom is the appropriate national dispute body throughout the UK across all of the dispute contexts described above?

We recognise that there may be some types of dispute (e.g. in relation to coordination of civil engineering works), where Ofcom may not have particular expertise, and where other bodies may have substantial technical or operational knowledge that could contribute to the dispute settlement process. We welcome responses that consider whether other bodies should be involved in the dispute process or should be responsible for settling disputes.

QUESTION 46: What other bodies should be involved in resolving disputes when Ofcom lacks expertise?

Proposals for appeals to decisions resulting from disputes

Appeals against Ofcom in their role as the single NDSB would be to the Competition Appeal Tribunal (CAT). It should not be possible to refer the matter to a court (in this case the CAT) before the NDSB has issued a decision. This ensures that the CAT will be able to receive expert input from the NDSB (Ofcom in the model proposed above), and that parties are not able to go straight to litigation, bypassing the more inquisitorial dispute process provided by the NDSB.

Appeal to the CAT has several advantages over other potential appeal routes:

- Fewer levels of appeal compared to other potential appellate bodies (cf. using the County Court which would provide five levels of appeal);
- The CAT has a high level of expertise in related economic matters;
- The CAT can sit as a panel involving non-judicial members - this allows it to include relevant expertise in making its decision; and
- The CAT would clearly qualify as a 'court' in the sense intended by the Directive, as it is able to exercise judicial power (unlike, for example, the Competition and Markets Authority).

QUESTION 47: Do you agree that the Competition Appeal Tribunal is the correct appeal body for decisions from the NDSB?

The Directive requires that appeals should be heard 'in accordance with national law', leaving member states to determine the threshold and form of appeal. This means either hearing appeals on a 'judicial review' standard (which focuses on the decision making process rather than the facts and merits of the case), or a 'merits review' standard (where the facts and merits of the case may be more substantively considered to identify an error in the appealed decision). Ofcom considers that, given the aims of the Directive, appeals on the standard of judicial review would better encourage swift and effective dispute resolution.

QUESTION 48: Do you agree that appeals of decisions by the NDSB should be heard on a 'judicial review' standard and that this would encourage swift and effective dispute resolution?

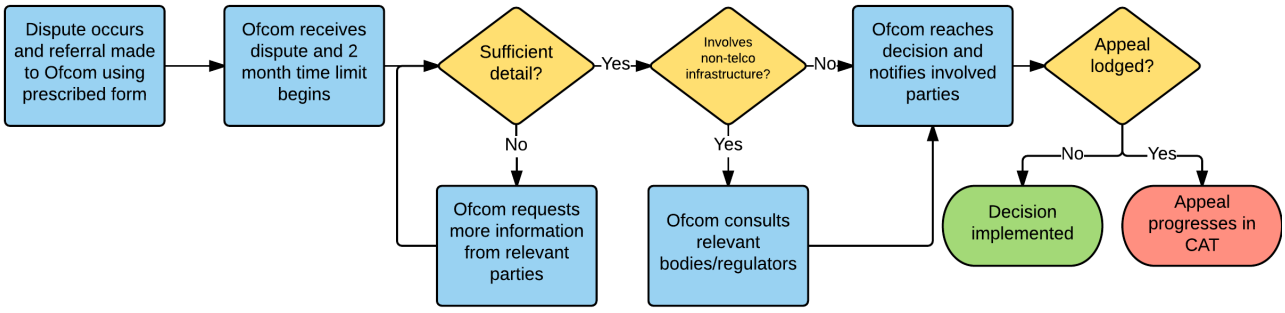
Administrative matters concerning dispute resolution

In order to avoid legal uncertainty (and in particular technical points being taken as to whether for example a request had been properly made), we propose that the NDSB prescribe standard forms for the various parts of the Directive that are subject to dispute resolution. For example, companies wishing to request the minimum information under Article 4 would use such a form as conclusive proof of having carried out the required procedural steps (and of the prescribed period having elapsed) prior to bringing a dispute to Ofcom. The period prescribed before a dispute can be brought to the NDSB varies across the five dispute contexts, and would be calculated with reference to the date that the relevant standard form is received. We would expect Ofcom to prescribe forms and for these to be incontestable (it should not be possible to argue that Ofcom has prescribed an inappropriate form, as the form itself serves as little more than an administrative formality).

Ofcom funds its existing dispute settlement functions in the telecoms market through administrative charges on communications providers with a turnover greater than £5m per annum. As the Directive requires additional dispute resolution functions, we propose that it should generally be possible for Ofcom to recover the cost of handling disputes from the disputing parties where it considers this appropriate, either directly or indirectly. Where a dispute involves non-telecoms infrastructure and a relevant sectoral regulator has incurred costs in providing advice to Ofcom as part of a dispute process, it may also be appropriate for Ofcom to recover these costs from the disputing parties where the other regulator requests that these costs be recovered on their behalf. Where disputes are between a PCN operator and a non-telecoms network operator, it may not in all cases be appropriate to charge for dispute resolution, for example where the dispute involves a utility funded by bill payers.

Diagram of disputes process & timings

The following diagram sets out an overview of the dispute process:



KEY POINTS

(1) We propose that Ofcom should act as the single national dispute settlement body across all five dispute contexts required by the Directive;
(2) Ofcom should seek input from other relevant statutory regulators where these exist; Ofcom should be able to source additional advice;
(3) Appeal of Ofcom's decisions should be to the Competition Appeal Tribunal, on the judicial standard of review (as in other telecoms appeals);
(4) Ofcom should be able to recover costs where they consider this to be appropriate, which may include the costs of other sectoral regulators involved in the process; and
(5) Referral of a dispute to Ofcom shall be made using a prescribed standard form, receipt of which will also be used for determining the period for Ofcom to decide disputes.

Penalties

Penalties

Article 11 of the Directive requires penalties be introduced to enforce the obligations and requirements set out within the Directive. Where EU legislation does not make specific provision, the choice of appropriate penalties is a matter for the Member State. As the Directive does not make such specific provision, Government must determine the appropriate enforcement mechanisms, which must comply with the criteria, well established in EU case law, that these should be "effective, proportionate and dissuasive.

Process

As set out in the **Dispute resolution** section, we propose that Ofcom should be nominated as the NDSB, with appeals of its decisions to be heard by the Competition Appeal Tribunal. Under this system, Ofcom would issue a decision on any dispute referred to it, and in the event of non-compliance would levy a fine on the incompliant party. This could be a lump sum or an on-going fine. Ofcom would be informed of non-compliance by the aggrieved party, and thereafter seek representations regarding the alleged non-compliance. Ofcom would then issue a further decision, directing that a penalty should be paid, the amount of the penalty, and the period for payment.

QUESTION 49: Do you agree that financial penalties levied by Ofcom are appropriate?

Amount of penalty

The amount of any penalty would need to be both proportionate and dissuasive. In this respect it would need to be set at a level that would effectively act as a disincentive to network operators to deliberate non-compliance with Ofcom's decisions for their own advantage (for instance, to obstruct roll-out of a competitor's network).

Right of appeal

Ofcom's decision to direct that a penalty should be paid, and the amount of the penalty, would be open to appeal. The implementing regulation will need to provide that any person whom Ofcom directs to pay a penalty is obliged to do so, and that the penalty is to be recoverable by Ofcom in case of non-payment.

QUESTION 50: Do you agree that Ofcom, as the NDSB, is the correct body to enforce the collection of penalties?

Implementation

We plan to provide for Ofcom to impose financial penalties and will engage with relevant parties to implement this.

Optional provisions

The Directive includes various optional provisions that Member States may choose to implement. These are:

- to provide a reciprocal right for PCN operators to offer physical infrastructure for deploying non-PCN networks (Article 3(1))
- to allow access to the 'minimum information' on existing physical infrastructure to be limited for various reasons (Article 4(1))
- to require public sector bodies holding 'minimum information' to provide this on the SIP (Article 4(2))
- to provide exemptions from sharing 'minimum information' for infrastructure not technically suitable for sharing and for critical national infrastructure (Article 4(7))
- to provide rules on apportioning costs of coordinating civil works (Article 5(2))
- to provide exemptions from coordinating civil works for works of insignificant importance and for critical national infrastructure (Article 5(5))
- to provide exemptions from sharing 'minimum information' on planned civil works of insignificant importance and for critical national infrastructure (Article 6(5))
- to provide electronic permitting for PCN operators (Article 7(2))
- to provide for extensions to the four month permit deadline (Article 7(3))
- to provide a right to compensation for PCN operators that suffer damage due to delays in permit granting (Article 7(4))
- to provide exemptions from rights to share in-building infrastructure if wholesale access to an existing network is provided (Article 9(4))
- to provide rules on compensation resulting from rights under Article 9 (Article 9(6))
- to allow the dispute settlement body to charge fees (Article 10(2))
- to allow the SIP to charge fees (Article 10(4))

Considering each of these optional elements in turn:

1. Article 3(1): Reciprocal right for PCN operators to offer physical infrastructure for deploying non-PCN networks
   We do not intend implement this. The objective of the Directive is to assist roll out of high-speed ECNs, not to assist roll out of other infrastructure networks. This position is supported by the Government's guiding principle when transposing Directives to not implement optional elements.
2. Article 4(1): Limiting access to 'minimum information' on existing physical infrastructure
   We intend to permit limiting of minimum information, as we consider this absolutely necessary for such a system of information exchange to work in practice.
3. Article 4(7): Exemptions from sharing 'minimum information' on existing physical infrastructure
   We intend to provide exemptions from sharing 'minimum information' for critical national

infrastructure, as we consider this necessary for the system of information exchange to work in practice. We also intend to provide exemptions for infrastructure that is not technically suitable for sharing.

4. Article 5(2): Rules on apportioning costs of coordinating civil engineering works
   We do not intend to implement this. As civil engineering works are already routinely coordinated, not only for the purposes installing electronic communications networks, and as methods for apportioning costs already exist, we do not consider it necessary to make any further requirements.
5. Article 5(5): Exemptions from coordinating civil engineering works
   We intend to provide exemptions from coordinating works for critical national infrastructure, as we consider this necessary in order to provide any right to coordinate works. We do not intend to make exemptions for civil works of insignificant importance.
6. Article 6(5): Exemptions from sharing 'minimum information' on planned civil works
   As with coordination of civil works, we intend to provide exemptions from sharing 'minimum information' about planned works for critical national infrastructure, as we consider this necessary to allow information sharing. We do not intend to make exemptions for civil works of insignificant importance.
7. Article 7(2): Electronic permitting for PCN operators
   We do not intend to implement this. Local authorities almost exclusively deal with permits, and it would not be appropriate or proportionate to establish a single electronic system for such permit applications.
8. Article 7(3): Extensions to four month permit deadline
   We do not intend to implement this. We consider this is already sufficient flexibility in the planning and street works regimes to allow extension of the relevant decision period where this is necessary.
9. Article 7(4): Compensation for PCN operators that suffer damage due to delays in permit granting
   We do not intend to implement this. We consider there are sufficient and effective routes of appeal against permit granting decisions. It would also not be appropriate for public sector bodies (in most cases local planning authorities) to pay compensation and would not represent good use of public money.
10. Article 9(4): Exemptions from rights to share in-building infrastructure if wholesale access already provided
    We do not intend to implement this. We consider that such an exemption may create a bottleneck where a PCN operator with a more advanced network technology (e.g. an FTTP deployment) would be forced to request access to a less advanced technology (e.g. an existing PTSN network). In order to ensure that PCN operators are able to deploy appropriate network technologies right up to the subscriber premises, we propose that they should be able to request access to in-building physical infrastructure regardless of the presence of existing wholesale network access.
11. Article 9(6): Compensation resulting from rights under Article 9
    We do not intend to implement this. We consider that this should be dealt with through contractual obligations, and that existing mechanisms for disputing any damage to property through the courts should continue to apply.
12. Article 10(2): Charging of fees by the national dispute settlement body
    We intend to permit the national dispute settlement body to charge fees, even if they do not

choose to exercise this possibility. This will ensure that no burden is placed on Ofcom (as per our proposals for dispute resolution) that cannot be recouped if desired.

13. Article 10(4): Charging of fees by the single information points
    We intend to permit the single information points to charge fees. As planning authorities already carry many of the SIP functions out, we do not envisage that they would choose to charge for these. If the volume of work related to SIP functions is substantial, the ability to charge fees will ensure that local authorities are not subject to any additional financial burden.

QUESTION 51: Do you agree with our decision not to implement the above optional provisions?

Annex A: List of questions

General considerations & Definitions

QUESTION 1: Is there any class of physical infrastructure not mentioned in the Directive definition that may be suitable for sharing?

QUESTION 2: Are there any organisations not listed above that may be subject to provisions of the Directive?

QUESTION 3: Do you consider further clarification is needed in relation to any of the definitions in the Directive?

QUESTION 4: Are there cases where wholesale infrastructure providers provide a public communications network, and where they would therefore fall within the definition of a 'network operator'?

QUESTION 5: Should physical infrastructure operated by wholesale infrastructure providers be treated in the same way as physical infrastructure operated by other 'network operators'? What would be the impacts of doing so?

QUESTION 6: Will it be sufficiently clear what civil work is financed by public means, and what is not?

Right to access minimum information

QUESTION 7: Where there are existing systems for storing and sharing infrastructure information, will you be able to use them either as they are or with minor adjustments to comply with the requirements of the Directive? If you won't be able to, why not?

QUESTION 8: How do you propose to verify the credentials of a requester, i.e. that a request is from a genuine (or prospective) public communications network operator and for the stated purpose?

QUESTION 9: Do you agree that cost-recovery is the best approach to charging for providing access to information?

QUESTION 10: Would you seek to charge for access to the minimum information? How might you calculate and collect this charge?

QUESTION 11: Do you agree with the process that we have set out for requesting access to the 'minimum information' on physical infrastructure and civil works?

QUESTION 12: What do you think might be examples of strong cases for an extension of the time period allowed to respond to a request?

QUESTION 13: What will be the likely costs of carrying out surveys in most cases? How should costs be shared fairly?

QUESTION 14: What type of and how much information is required in order for the 'minimum information' to be useful (i.e. to inform a decision to request a survey or access to infrastructure, or to co-ordinate civil works)?

QUESTION 15: Do you agree that the use of the wording in the Directive is appropriate and should be copied into the regulations? Do you think the regulations should explicitly allow network operators to limit "information which may harm competition"?

QUESTION 16: Do you think additional measures should be used to ensure respect for confidentiality and operating and business secrets? If so what measures do you think would be appropriate? Will it be sufficient to leave these arrangements to be agreed between requesters and the relevant network operator?

Access right to existing physical infrastructure

QUESTION 17: Do you agree that that the factors we have identified are likely to be relevant to the pricing of access?

QUESTION 18: Do you agree that minimising the cost of access for installing communications infrastructure achieves the aims of the directive?

QUESTION 19: How should fair and reasonable be interpreted when there is a potential alternative use for a given physical infrastructure and this use can be associated with an option value?

QUESTION 20: Do you agree that using a standard prescribed will simplify the administrative aspects of making requests?

QUESTION 21: Do you agree that, in practice, PCNs already enjoy a right to offer access?

QUESTION 22: Do you agree that there should be no reciprocal right for non-communications networks to request access to share communications infrastructure? (E.g. an energy network operator should not have a right to request access to communications infrastructure in order to roll out its electricity network)

QUESTION 23: Do you agree that there should be no restriction on the downstream use of shared infrastructure?

Right to coordinate works

QUESTION 24: Do you agree with our definition of works fully or partially funded by public means?

QUESTION 25: Do you agree with our interpretation of the possible grounds for refusing coordination of publically funded works?

QUESTION 26: Do you agree that we should not provide rules in apportioning costs?

Permit granting

QUESTION 27: Are you aware of any other permits that are normally required in order to carry out civil works to roll out high-speed electronic communications networks?

QUESTION 28: Do you agree that there should be no additional administrative appeal route for compensation in case of non-compliance with deadlines for deciding permit applications?

QUESTION 29: Do you agree with our analysis and conclusion that no further action is required in order for the UK to comply with Article 7(3) of the Directive?

Single information point

QUESTION 30: Do you agree that information relating to works “envisaged” within the next 6 months should only be available from the network operator, and that it would be unreasonable to expect any third party to handle such information?

QUESTION 31: Do you agree that works carried out solely under GPD rights are generally minor works and consequently unsuitable for coordination?

QUESTION 32: Do you agree that network operators should publish responses to requests for the minimum information relating to planned civil works?

QUESTION 33: What measures do you propose to ensure that responses to requests for the minimum information relating to planned civil works are widely available to all PCN operators?

QUESTION 34: Do you agree that the planning authorities (all authorities with a responsibility for planning) are the correct designated bodies to perform the functions of the SIP?

QUESTION 35: Do you agree that the planning authorities (all authorities with a responsibility for planning) already perform the necessary functions to comply with the minimum requirements of the Directive?

In-building Physical Infrastructure

QUESTION 36: Do you agree that in-building physical infrastructure should not count as physical infrastructure belonging to the PCN operator?

QUESTION 37: Do you agree with our proposal not to provide exemptions where an existing wholesale network is provided?

QUESTION 38: Do you agree with our proposal not to provide rules for compensating damage, on the grounds that the existing recourse to the courts is sufficient?

Exemptions

QUESTION 39: Are the exemptions proposed under Article 4(7) appropriate? Should there be any further exemptions under this article?

QUESTION 40: Are the exemptions proposed under article 5(5) appropriate? Should there be any further exemptions under this article?

QUESTION 41: What might be suitable values for each of the placeholders indicated by 'XX' in the above text? Are there any other metrics that may be suitable for specifying civil works that should be exempted from information sharing requirements?

QUESTION 42: Are the exemptions proposed under article 6(5) appropriate? Should there be any further exemptions under this article?

QUESTION 43: Would an exemption under article 9(4) be appropriate? If so, how might this be specified?

QUESTION 44: Do you agree with our approach to the creation, removal, and modification of exemptions?

Dispute resolution

QUESTION 45: Do you agree that Ofcom is the appropriate national dispute body throughout the UK across all of the dispute contexts described above?

QUESTION 46: What other bodies should be involved in resolving disputes when Ofcom lacks expertise?

QUESTION 47: Do you agree that the Competition Appeal Tribunal is the correct appeal body for decisions from the NDSB?

QUESTION 48: Do you agree that appeals of decisions by the NDSB should be heard on a 'judicial review' standard and that this would encourage swift and effective dispute resolution?

Penalties

QUESTION 49: Do you agree that financial penalties levied by Ofcom are appropriate?

QUESTION 50: Do you agree that Ofcom, as the NDSB, is the correct body to enforce the collection of penalties?

Optional Provisions

QUESTION 51: Do you agree with our decision not to implement the above optional provisions?

Annex B – Technical issues

QUESTION 52: Are there any other technical issues that are of significant importance (i.e. that will regularly be relevant in negotiations for infrastructure sharing)?

Annex C – DCMS Impact Assessment

QUESTION 53: Do you agree with the assessment of firms within scope or do you believe that more / less firms will be impacted by the Directive? If you disagree, can you provide an estimate of the number of firms within scope?

QUESTION 54: Do you agree that the Directive will not lead to a notable increase in infrastructure sharing? If you disagree, can you provide an estimate of the volume and type of additional sharing that you think will take place?

QUESTION 55: Do you agree that the Directive will not lead to a large volume of disputes? If you disagree, can you provide an estimate of the volume and type of disputes that you think will take place?

QUESTION 56: Do you agree the Directive will not directly lead to a notable increase in information requests? If you disagree, can you provide an estimate of the volume and type of additional information requests that you think will take place?

QUESTION 57: Do you agree with this assessment of familiarisation costs or do you think costs will be higher / lower? If you disagree, can you provide an estimate of familiarisation costs?

Annex B: Technical/practical issues with infrastructure sharing and co-deployment

There are a number of technical and practical factors that will need to be considered when reaching agreements; some of these may lead to grounds for refusal. Below is a non-exhaustive of list of some envisioned obstacles, terms and general considerations across a broad set of industries:

1. **Potential obstacles to sharing**

I. **Financial disincentives:** apply where liability for failure is very high. For example, allowing installation of a cable immediately downstream of a Combined Storm Overflow could be seen as negligence by the Environment Agency should a pollution incident occur, potentially leading to a £100m prosecution. Other financial conditions may also apply, for example, DNOs have a licence condition (CRC5C) that specifies that the installation of equipment for the purpose of electronic communications or data transfer should be treated as a directly remunerated service.

II. **Overhead line clearances:** overhead electricity lines must comply with minimum clearances to the ground and over roads. For a 33,000 volt line the clearance above a road is 5.8 meters. Health and safety is paramount and any other cables must be kept at a similar height.

III. **Overloading of poles:** should not be a major issue from pole to pole due to the lightness of the fibre optic cable. However significant problems may be incurred when wires are "dropped" off from a single pole to individual houses. The continued overloading of poles can block a large amount of light from reaching the ground, raising way leave issues.

IV. **Possible impact on service restoration speed:** if placing extra cables alongside the power lines it is possible that manoeuvring around these wires may affect the restoration of power supply. Under their price control arrangements DNOs face financial penalties if their performance in this area fails to meet established targets.

V. **Pole replacement:** when poles are required to be replaced, this will need to be co-ordinated and may cause disruption to the communications service.

VI. **Access to assets by telecoms engineers:** will need to consider responsibility for safety of engineers whilst carrying out works on different infrastructure types.

VII. **Limitations:** energy networks may seek to introduce limitations if existing telecoms infrastructure is already installed. (Energy Networks Association Engineering Recommendation EB/ TP3)

VIII. **Trench Sharing (Gas)**: trench sharing is constrained by proximity/clearance distances of pipes and ducting and the mandatory requirement is that there is adequate access in the future for maintenance work on assets.

IX. **Size of gas pipes:** in some cases smaller capacity pipes may be unsuitable for use by PCNs, both technically and for maintenance reasons.

X. **Safety issues**: general safety will need to be considered which encompasses many issues including the type of cables, e.g. HV/EHV, and the size of pipes.

XI. **Physical space**: the use of pipes of ducting for the conduits of cables is only feasible if physical space to deploy extra cables exists. Lack of space is likely to be a key issue on London Underground networks; enough space would need to be protected to allow removal and refitting of Transport for London cables as part of repairs or upgrades.

XII. **Health & Safety licensing (Rail):** any party accessing the rail corridor will be subject to the same health, safety and licensing conditions as the other parties on the rail corridor.

XIII. **Specific constraints:** very specific constraints will exist with regards to the use of masts, towers and poles, while more general constraints will exist with regards to items such as buildings and cabinets.

XIV. **Wind tolerances:** there are specific tolerances allowed for wind loading in relation to mast and tower infrastructure concerning the size of the antennas that are deployed. This varies by mast dependant upon which antenna are currently fitted, height of installation, geographical location (wind speeds typically increase further north) and altitude of the mast above sea level.

XV. **Design of masts**: the majority of masts are monopoles and there are some lattice masts. Monopoles typically have a low engineering margin and as such, only two small incremental antennas can be mounted. If a 3rd party were to be given access, it may preclude the future utilisation of this infrastructure for other applications, such as the development of improved mobile connectivity along the GB rail network.

XVI. **Heat generation within buildings**: in buildings, cabinets and under ground, utilisation may trigger operational risks. Communications network elements can generate a substantial amount of heat meaning a risk of failure of the host network operational elements. There are possible remedial measures such as increased air conditioning and properly aligning equipment within each building so that hot air is not channelled into the cool air sources.

XVII. **Railway protection**: requirements such as adherence to standards that protect from electromagnetic interference, NVH (noise, vibration and harshness) and fire safety will need to be understood. Requests that would result in disruption to the host's operations or to install equipment that would impede the cost effective maintenance of the host's network elements are also likely be refused. For example, a request to deploy armoured cable beside a railway track.

XVIII. **Technical suitability:** overall suitability of the infrastructure will be a factor in terms of the amount of alteration/addition required to existing infrastructure, including detailed items such as cable bending radii and fault/failure modes of third party cables/equipment. A simple thing like a cable falling onto railway running lines can have very significant effects.

XIX. **Asset suitability:** agreement would be subject to whether the condition of the asset is appropriate for the cable being installed and whether the size is sufficient. For example, in the case of sewers, to prevent solids catching on cables leading to "ragging" causing blockages and service failures.

XX. **Small pipes:** smaller diameter pipes (as a rule of thumb where the cable is >100th of the host pipe (working assumption is >225mm or 9in) would be unsuitable for hosting cables. Trials by Scottish Water using sewers from 250-600mm provide evidence for issues with ragging at the point where cables enter sewers, as well as difficulties with maintenance. It has been suggested these issues could be overcome in sewers above 1.2m in diameter.

XXI. **New development (Sewers):** if new development is planned in an area where sewers are shared, the right to connect to the sewer could be complicated by the presence of telecoms cables.

XXII. **Land constraints (Ports):** some ports are very land-constrained and 24/7 working is fairly widespread in the ports industry, potentially limiting access.

XXIII. **Secure areas (Ports):** ports are (or contain) secure areas, which could lead to refusal of access in some circumstances.

XXIV. **Increase in costs**: increase in operating, maintenance, renewal or system enhancement or extension costs for the water infrastructure owner/operator.

2. **Terms/Conditions/Considerations**

I. **Risk:** the sharing of infrastructure in order to deploy elements of communications networks will attract risk, it will be the responsibility of the requester (the PCN) to ensure that such risks are managed and addressed during negotiations for access.

II. **Energy Network Operators:** will need to be able to meet their statutory obligations, finance their activities and not be hindered in delivering the outputs underpinned by their price control settlement that Government believes to reflect the interests of energy consumers.

III. **Infrastructure investment (DNO):** network companies use a portion of revenues from energy bills to finance infrastructure investments. Other costs are recovered directly from individual consumers - e.g. new connections.

IV. **Industry codes of practice:** any agreement to coordinate should have regard to all relevant industry codes. For example, the electricity code or the gas code, which include objectives designed to protect consumer interests.

V. **Liability:** parties in agreement will need to consider liability for damage and costs of repairs as part of that agreement, for example:
   a. A tree falling on lines hosted on a mast
   b. In the event of the third party systems/equipment causing interference with the operation of the host network operators business.
   c. Damage to items such as cabling during (rail) trackside maintenance, for example, micro-fracture damage to fibre-optics during trackside maintenance – as will be required to maintain the railway.

VI. **Bill Payers:** bill payers should not face any additional burden.

VII. **Security Deposit:** terms and conditions should be drawn up with the aim of preventing any risk of additional costs to network operators and their customers. The requirement on an access seeker to pay a security deposit as a pre-condition of obtaining access to infrastructure may achieve this.

VIII. **Operational Disruption:** regard should be given to operational disruption and terms will need to be considered to prevent disruption of the host's business. For example, cables should not be allowed in the invert of a sewer or embedded in a lining, as this will increase the likelihood of ragging and blockages. Cables should be fixed to the top half of sewers.

IX. **Access considerations:** it will be important to consider access by operatives to install, maintain and repair cables. All access issues will need to be fully considered, for example, if the host network requires an emergency repair; operators would need to gain immediate access to minimise damage or pollution but may not be skilled in handling telecoms equipment. Liability for damage to telecoms equipment would need to form part of any agreement.

X. **Sewer condition inspection:** pre-installation CCTV inspections may be required to determine the physical condition of a sewer. If the structural condition is found to be 'not good' then it

may need to be repaired before installing any telecoms equipment.

XI. **Time frames for access**: will need to incorporate a degree of flexibility as circumstances beyond the control of the infrastructure owner/operator (such as the weather) may make access impossible at times.

XII. **Sources of funding (Sewers):** England and Wales sewer undertakers are private companies and recover costs from customers as provided for in the Water Industry Act 1991. Scotland and NI use public financing. Some capital schemes attract partnership funding (e.g. Councils contributing to a sewer upsizing scheme so they can add extra gullies).

XIII. **Technical competency:** it may be necessary to consider the technical competency of parties wishing to coordinate works.

XIV. **Safety (Network Rail):** Network Rail is subject to the Health and Safety at Work Act 1974, the Railway Safety Directive 2004/49/EC and a range of safety rules arising from this including an obligation to establish a 'safety management system' and hold a safety certificate approved by ORR (see http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs). This framework will form the basis of Network Rail's decisions in respect of safety. This applies to other rail infrastructure, to varying extents.

XV. **Asset protection (Rail):** the Asset Protection Agreement sets out terms and working arrangements to ensure railway assets are not damaged whilst third parties undertake work.

XVI. **Access at specific times (Rail):** terms relating to access to maintain and repair cables and equipment will be an important consideration. Access to the railway and its equipment/cables etc. has to be strictly limited to specific times in order that such work doesn't impede the operation of rail or station services. Site surveys generally have to take place when railways are closed to traffic and typically involve considerable preparatory effort to bring out all of the pre-existing detailed records, to arrange safe access and to ensure safety of personnel during the survey.

XVII. **Liability calculations (Rail):** the methods by which potential liability is calculated are transparent and non-discriminatory, but because they count-in the social dis-benefit of disruption to public transport services they can be very high, setting a high bar to entry.

XVIII. **London Underground (Rail)**: operates a space allocation process, by which means, space is reserved for a particular use post-survey.

XIX. **WaSC Rights (Sewers):** most WaSCs will have the same rights under the Electronic Communications Code (ECC) as other network operators, which will allow them to deploy communications equipment. Some WaSCs that were not using their powers may have applied to Ofcom to have them revoked. In order to enter into commercial infrastructure sharing agreements under the Directive, it may be beneficial or even required for such WaSCs to apply to Ofcom to have those powers re-instated. A current list of code power operators can be found at:
http://stakeholders.ofcom.org.uk/telecoms/policy/electronic-comm-code/register-persons-

power

3. **Site surveys**

I. The level of on-site surveys required would vary but may include CCTV inspections or manual inspections if possible.

II. In sewers, CCTV surveys cost in the region of £3/m and would need to be carried out to the industry standard. Broadband companies would be charged for this service on a cost recovery basis.

III. Both pre and post-installation surveys would be required, as would regular inspections after installation.

IV. Surveying of tunnels and large conduits is more expensive because CCTV does not work in large sewers. Specialist survey techniques may be required.

V. Landowner agreement for surveys should not be problematic; we think most network operators have the powers to inspect their infrastructure. This may be limited to a specific purpose but it would eventually be possible to gain access. Alternatively, the process may take a few months if land entry notices are required.

VI. The type of survey(s) required will be highly dependent on the subject area in question but may include a) as built survey, b) wind loading for masts etc., c) civil survey for foundations associated with masts etc., d) survey to understand utilisation, e) building and cabinet surveys for space, power and ventilation, f) radio planning surveys and interference assessments.

VII. Network Rail's duty to operate a safe, reliable railway will influence its views about access. This would include the arrangements necessary to grant third parties access to its track or faculties - termed 'possession'. Possession, in order to carry out engineering works (such as installation or maintenance of equipment), must be pre-arranged with Network Rail. Network Rail manages this through the Engineering Access Statement (http://www.networkrail.co.uk/aspx/3741.aspx). Other rail infrastructure will follow similar arrangements.

VIII. Some businesses operate 24/7, such as ports, which might impede access to carry out surveys.

QUESTION 52: Are there any other technical issues that are of significant importance (i.e. that will regularly be relevant in negotiations for infrastructure sharing)?

Annex C: DCMS impact assessment

Regulatory Triage Assessment (RTA)

Department for Culture Media & Sport

Title of regulatory proposal	Broadband Cost Reduction Directive
Lead Department/Agency	DCMS
Expected date of implementation	01/07/2016
Origin	EU
Date	04/11/2015
Lead Departmental Contact	Dominic Lague (020 7211 2381)
Departmental Triage Assessment	Fast Track

BRU (SGP) signoff: *Matt Rogers* Date: 04/11/2015

BRU (EAU) signoff: *Lawrie Morgan* Date: 05/11/2015

Chief Economist signoff: *Paul Crawford* Date: 05/11/2015

SUMMARY

Rationale for government intervention

Greater access to high-speed broadband is a stated policy goal of both the UK and the EU. The cost of civil engineering works to deploy the necessary infrastructure is clearly an important factor in how far and how quickly this goal can be met. Various studies have established the potential cost savings that can be achieved through sharing existing infrastructure (one study finding savings of up to 75% in certain circumstances) or greater coordination of civil works. At the EU level barriers to cost savings have been identified: a lack of transparency about existing available infrastructure, a lack of regulated procedures for infrastructure sharing, administrative obstacles to receiving permits from authorities and the poor in-building equipment for receiving high-speed networks. This Directive tackles those barriers.

In the UK many of these barriers are far less influential or problematic. Market based infrastructure sharing agreements already exist where there is a solution that is economically attractive to both sides. There have also been extensive trials to explore options for further sharing, for example Virgin Media's trials using electricity poles to carry fibre cables in Wales. The measures in the

Directive do not materially change the incentives to make such a sharing agreement in the UK as they may do in other EU countries. Where it is economically attractive for both sides to share the market will deliver this activity, and that will continue to happen once the Directive comes into force. The Directive simply provides a regulatory underpinning to activity that already exists and will continue to exist in the future.

In several sectors sharing infrastructure with broadband providers is less feasible, for example for technical or safety reasons. Again, the Directive does not change this position as it takes into account that there may be objective reasons for refusing a sharing agreement before the question of a commercial price is even considered. Therefore sharing activity that doesn't happen now for various technical reasons will not be mandated by the Directive.

It appears unlikely that the Directive will lead to a significant change in the level of successful infrastructure sharing activity. The Department therefore aims to implement the Directive in a way that protects firms' investment incentives. Should the Directive lead to additional infrastructure sharing, it must be on terms that are fair and reasonable to both parties.

Policy options

This policy is an EU Directive which is being implemented with minimum requirements and no gold plating. As such, no other options have been considered.

The policies included in this Directive can be divided into five key pillars:

Pillar 1 - Infrastructure sharing: Requires existing network infrastructure owners (gas, electricity, rail, highways, roads, waste water and sewerage) to give high-speed internet providers access to and information about relevant existing physical infrastructure at a fair and reasonable price (Articles 3 & 4)

Pillar 2 – Coordination of civil works: Requires infrastructure owners provide information and coordinate planned civil works (Articles 5 & 6)

Pillar 3 – Efficient Permits Mechanism: Streamlines permit granting for civil works (Article 7)

Pillar 4 – In-building infrastructure: Requires new buildings and major building refurbishments to be equipped with high-speed internet-ready in-building infrastructure (Articles 8 and 9)

Pillar 5 – Administration of the Directive: Proposes setting up a "Competent Body" to deal with disputes and penalties (Article 10-12)

The UK permit granting regime is already considered compliant with the Directive's requirements, so no legislative changes will be required for Pillar 3. The impact of Pillar 4 is being assessed separately by CLG and a RTA has already been validated for this measure (reference: RPC15-FT-CLG-2399). This is because those measures affect an entirely different set of businesses (housebuilders), will use different legislation, and is being taken forward on a different timeline to the other measures covered in this assessment. For Pillar 5 the Directive is to be administered through Ofcom who already operate all the systems required for handling this type of dispute. Ofcom do not charge for dispute resolution except in extreme circumstances and should they be required to carry out activity to support the Directive this would not normally be charged to firms so imposes no cost on business. Therefore the analysis below focuses on Pillars 1, 2, and the access to in-building infrastructure required by Pillar 4.

Assessment of business impact

The Directive includes a number of major infrastructure provision sectors within its scope, as it aims to encourage cross sectoral sharing. Some of these are owned and managed by public sector bodies (for example, local roads that are owned and operated by local authorities) but many are private companies. Given the nature of owning and operating infrastructure networks, there are

relatively few firms which do this. We have identified 257 private businesses that could reasonably fall within scope, which breaks down by sector as:

Sector	Number of firms identified
Telecoms operators	123
Electricity distribution	11
Gas distribution	10
Water and sewerage companies	32
Rail	4
Ports	18
Airports	58
Roads	1

In reality the majority of these firms will not be affected in any way by the Directive.

Pillar 1
Some of the sectors are highly unlikely ever to be used for sharing, either because they offer little opportunity for broadband rollout (e.g. ports and airports) or because sharing is less feasible for established safety reasons (e.g. gas networks or large amounts of sewerage infrastructure). In other sectors sharing may technically be feasible but it is already well established and understood that the costs are too high for relatively little benefit (for example, through trials that have failed). We believe that realistically only 20-30 firms are likely to be within scope of the type of sharing activity the Directive envisages, comprising the larger telecoms operators, some energy companies, rail infrastructure operators (e.g. Network Rail), and possibly some water and sewerage companies. Further detail on the firms and sectors within scope is contained in the evidence annex.

QUESTION 53: Do you agree with the assessment of firms within scope or do you believe that more / less firms will be impacted by the Directive? If you disagree, can you provide an estimate of the number of firms within scope?

As set out above in the rationale section our understanding is that it is unclear that this measure will lead to any additional activity taking place. The Directive only requires sharing activity to take place on fair and reasonable terms, which should therefore be mutually beneficial to both parties. The consideration of what determines 'fair and reasonable' pricing and terms is clearly important to ensuring that any activity is mutually beneficial. In particular, for 'competitive' cases where sharing may take place between two competing providers of communications networks, the price would reflect the basis on which investments were made, and ensure that investment incentives for communications providers are protected. For 'non-competitive' cases where the firms sharing are not directly competing for customers as they operate in different markets (e.g. a communications provider accessing electricity infrastructure), the price would more narrowly reflect any material loss suffered as a result of providing access and possibly the option value the infrastructure represents to its owner.

Given that agreements should be mutually beneficial (or, at the very least, compensate for all costs in non-competitive cases), it is reasonable to assume that rational firms will make such agreements themselves. Such agreements already exist and it is likely that they will continue to be explored and developed in the future. Given the small number of firms for which infrastructure sharing is feasible and the number of agreements or trials that have already taken place, the volume of new sharing activity is likely to be limited to a small number of potential agreements, whether the Directive is in place or not. The implementation of the Directive may also create an incentive for firms in existing sharing agreements to try and renegotiate. However, we understand there are only a very small number of such deals in existence, and given that the Directive will not apply retrospectively it would require breaking existing contracts. This appears unlikely to be attractive given the risks associated with this and it also unclear whether any extra benefit could be achieved by either side in many cases given the requirement for agreements to be fair and reasonable.

The Department has consulted with industry stakeholders (infrastructure owners across different sectors, industry groups and regulatory bodies), asking a series of questions about the potential impacts of the Directive, the potential for greater sharing and the associated costs. The responses indicated that either sharing already happens, sharing was not likely in their sector, or there was no evidence of any demand for increased sharing, so estimating the cost of the Directive was not possible.

The only material change brought in by the Directive in relation to sharing existing infrastructure is to provide some regulatory underpinning to infrastructure sharing transactions and the recourse to dispute resolution should a commercial deal not be forthcoming.

QUESTION 54: Do you agree that the Directive will not lead to a notable increase in infrastructure sharing? If you disagree, can you provide an estimate of the volume and type of additional sharing that you think will take place?

If there is a request to share infrastructure and the terms offered are not in the economic interest of the asset owner, then (as now) they will have the right to refuse the request. Under the current unregulated process this would result in both parties accepting that no commercial deal can be made and they would not pursue it further. Under the Directive the requesting party will have the option to challenge this refusal through Ofcom as a dispute resolution body.

Ofcom could only impose terms for a sharing agreement in a way that reflects a fair and reasonable price, including adequate compensation for any loss of competitive advantage. The Directive also sets out a list of objective reasons for refusal (such as technical suitability, safety, existence of alternatives, etc.) which Ofcom will be required to consider in any decision. Asset owners behaving in a rational manner will either have refused the request because of such objective reasons or will have offered terms that reflect their view of a fair and reasonable price. Therefore there will be little incentive for requesting parties to take a dispute to Ofcom unless they believe the asset owner is behaving irrationally.

It is impossible to accurately predict how the dispute resolution system will be used and the number and scale of disputes. There may be a small number of test cases to establish the legal boundaries and set precedents of what Ofcom considers to be objective reasons for refusal and what constitutes fair and reasonable pricing. However, the understanding on all sides that only a commercially fair deal can be imposed should discourage unnecessary disputes.

Where a dispute does occur it will be assessed by Ofcom who do not normally charge for dispute resolution (except in extreme cases), and who will be required to come to a clear, binding outcome based on the substantive issues within four months. In addition the asset owner will likely have prepared their arguments in refusing the request, or in establishing their price quote, already so there will be limited additional cost for them. As the requester has a choice whether to bring a dispute, any costs they incur in presenting their case are not imposed by the Directive.

If a dispute were to occur we believe it is unlikely that an asset owner which has behaved rationally will have a deal imposed on them, because a rational firm should not have refused an arrangement that is beneficial to them in the first place. If a sharing arrangement is ever imposed by Ofcom this can only impose terms that are mutually beneficial (i.e. are 'fair and reasonable').

The key conclusion therefore is that the only material difference from the counterfactual (no Directive) in terms of sharing agreements is that some arrangements may end up going to dispute resolution. However, this should only occur if firms have turned down agreements that are beneficial to them, or perhaps if they wish to test the limits of the regulation.

QUESTION 55: Do you agree that the Directive will not lead to a large volume of disputes? If you disagree, can you provide an estimate of the volume and type of disputes that you think will take place?

As well as providing a regulatory underpinning to sharing agreements Pillar 1 of the Directive also provides obligations on firms to provide information on the existence and location of their infrastructure so that firms can explore the possibility of sharing agreements. As with sharing agreements and existing trials this activity already occurs (in most cases for safety and asset protection) and some firms already charge for providing information. The Directive allows firms to continue charging for this and allows for refusing requests on certain grounds, so again it will not materially change the current operation of the market in the UK. As we believe it is unlikely there will be a significant increase in sharing agreements it also follows that there is unlikely to be an accompanying increase in information requests to explore sharing opportunities.

QUESTION 56: Do you agree the Directive will not directly lead to a notable increase in information requests? If you disagree, can you provide an estimate of the volume and type of additional information requests that you think will take place?

For **Pillar 2** on coordination of civil works (for example, excavation to lay pipes or cables) the Directive explicitly states that coordination is only required where it *"will not entail any additional costs, including […] delays, for the initially envisaged civil works".* Given such a requirement it appears unlikely that this will lead to additional coordinated civil works and where it does it will be explicitly on the basis that it imposes no additional costs.

Pillar 4 requires access to in-building physical infrastructure in multiple dwellings on fair and non-discriminatory terms. In most cases (e.g. where the request is made to a freehold owner, or a tenants' association) there is no reason for the market to operate any differently compared with the counterfactual. The exception is where a telecoms provider may have acquired an exclusive right to access in-building infrastructure, in which case they would have to provide access upon request on mutually beneficial terms. This is essentially an extension of article 3 to include in-building infrastructure, operating on similar principles and through the same dispute resolution system, but on a smaller scale with lower barriers to duplication by the requester. As with article 3 we do not think this will lead to a material change in the operation of the market, or impose any additional gross costs.

Although it appears that it is unlikely to make a substantial difference to the operation of the market for infrastructure sharing the transposition of the Directive will require firms to familiarise themselves with the legislation. Government expects to publish guidance on how the Directive should operate, and we expect the dispute resolution system to produce further guidance on how disputes will be managed. This should simplify familiarisation with the Directive. We will involve key businesses likely to have responsibilities under the Directive in formulating this guidance, so they will require minimal further familiarisation.

Because any additional familiarisation will be minimal, we estimate that the majority of firms within scope will take two hours of a legal professional and one hour of a senior manager / director to familiarise themselves with the legislation. However, for the 20-30 firms who are more directly affected by the Directive they may choose to dedicate a greater deal of scrutiny to the detailed regulations. Therefore for those firms we have estimated that they will take 40 hours of a legal professional and 10 hours of a senior manager / director to familiarise themselves. Using gross hourly wage costs from the Annual Survey of Hours and Earnings for 2014 and applying an uplift for overheads of 30% this imposes familiarisation costs of £101 for the majority of firms within scope and £1,607 for the firms more clearly in scope as set out below:

	Median hourly gross wage	Hours	Total gross wage cost	Including uplift for overheads
Legal professional	£23.08	2	£46.16	£60.01
Information technology and telecommunications directors	£31.33	1	£31.33	£40.73
Total (majority of firms)				**£100.74**
Legal professional	£23.08	40	£923.20	£1,200.16
Information technology and telecommunications directors	£31.33	10	£313.30	£407.29
Total (firms clearly in scope)				**£1,607.45**

Earlier we identified 257 firms across different sectors which may be in scope of the Directive and 20-30 firms who are likely to more clearly in scope. Applying the £1,607 cost to 25 firms and the £101 cost to the remaining 232 firms provides an estimate of gross familiarisation costs of approximately **£64,000**.

QUESTION 57: Do you agree with this assessment of familiarisation costs or do you think costs will be higher / lower? If you disagree, can you provide an estimate of familiarisation costs?

Rationale for Triage rating

As set out above we conclude the Directive will not substantially change the existing market for infrastructure sharing, including the ability to make information requests, to negotiate and agree mutually beneficial agreements and to coordinate civil works. It may impact more substantially in other EU countries but in the UK we believe it is unlikely to lead to greater activity.

As such the gross costs imposed by the Directive are effectively zero under the most likely scenarios. Although it will underpin some infrastructure sharing activity this is likely to be activity that would have happened anyway whether the Directive was in place or not. Should the Directive lead to additional infrastructure sharing it must be on terms that are fair and reasonable to both parties. There may be some costs associated with dispute resolution which would not happen in the absence of the Directive. However, given that firms behaving rationally should either reach a mutually beneficial commercial agreement or walk away where one isn't possible there appears to be little incentive for firms to go through a dispute process that can only impose such mutually beneficial commercial terms.

There will be some familiarisation costs associated with the Directive. However, given the small number of firms who own and operate infrastructure networks these costs are low and are estimated at just £64,000. Therefore the Directive is considered to be a low-cost regulation well below the gross costs threshold of £1m in any one year.

SUPPORTING EVIDENCE

The Directive includes a number of major infrastructure sectors within its scope, as it aims to encourage cross sectoral sharing. Some of these are owned and managed by public sector bodies (for example, local roads that are owned and operated by local authorities) but many are private companies. Given the nature of owning and operating infrastructure networks there are relatively few firms which do this. We have identified 257 private businesses that could reasonably fall within scope which breaks down by sector as:

Telecoms operators: 123 companies. This is the number of code power operators (i.e. firms that build networks at scale). There are a multitude of smaller operators (about 500+) but they either don't operate networks (e.g. they run call centres or resell wholesale products) or don't operate at the scale where anyone would reasonably request access from them. In reality, it's mainly the few largest operators with national networks that we expect would receive requests for sharing.

Electricity distribution: 11 companies. 7 distribution network operators plus 4 independent distribution network operators. There has already been a degree of sharing with the electricity sector and during the 1990s fibre was extensively deployed on high and medium voltage electricity infrastructure. There have also been more recent trials of using electricity infrastructure such as Virgin Media in Wales. However, the DCMS 2010 consultation on infrastructure sharing revealed a number of operational concerns for using the electricity network, including overhead line clearance and access safety issues, structural loading, clutter and physical access, as well as legal issues related to ownership.

Gas distribution: 10 companies. 6 gas distribution networks plus 4 independent gas transporters. The opportunities for sharing gas infrastructure are likely to be limited by technical and safety reasons and the summary of responses to the 2010 DCMS consultation stated “Respondents agreed that drinking water and gas infrastructures were not suitable for sharing although abandoned gas pipes might offer some limited scope for sharing”.

Water and sewerage: 32 companies. A large amount of the infrastructure is likely to be unsuitable for sharing for technical reasons (including size, location within the network and geographical factors). Of the 32 companies 9 are water-only, and may not be in scope given drinking water infrastructure is exempted. There have been some trials using the sewerage network in the UK and the Geo Network Thames Water Fibre project is a small scale example of a successful project. However, the response to the DCMS 2010 consultation from Water UK showed how appropriately sized pipes were less available in rural areas which are the areas where further broadband rollout is most likely.

Rail: 4 companies. Network Rail, Channel Tunnel Rail Link, Heathrow Express and London Underground. Three of these are publicly owned.

Ports: 18 companies. 9 privatised ports plus 9 large companies operating 39 major ports (members of the Major Ports Group) that may qualify as relevant ports. We have excluded 31 municipal ports and 42 trust ports, as these are not businesses. Ports are a very unlikely target for infrastructure sharing.

Airports: 58 companies. 27 in Scotland (counting only those with commercial services, which we understand includes some very small airfields) and 31 in the rest of the UK. Airports are in general a very unlikely target for infrastructure sharing.

Roads: 1 company. The operator of the M6 Toll. All the other owners or operators of roads are public authorities, not businesses.

In reality the majority of these firms will not be affected in any way by the Directive. Some of the sectors are highly unlikely ever to be used for sharing, either because they offer little opportunity for broadband rollout (e.g. ports and airports) or because sharing is less feasible for established safety reasons (e.g. gas networks or large amounts of sewerage infrastructure). In other sectors sharing may technically be feasible but it is already well established and understood that the costs are too high for relatively little benefit (for example, through trials that have failed). We believe that realistically only 20-30 firms are likely to be within scope of the type of sharing activity the Directive envisages, comprising the larger telecoms operators, some energy companies, Network Rail, potentially Heathrow Airport and possibly some water and sewerage companies.

Annex D: Glossary of terms

- **Access Point:** the point of entry into a building for cables or ducting.

- **Active Infrastructure:** active infrastructure means elements of a network that actively provide the network service, such as fibre cables or electricity cables.

- **Civil works:** civil engineering works deals with the design, construction and maintenance of the physical environment, such as roads, bridges and buildings.

- **Public Communications Network Operator (PCN):** is a service provider that transports information electronically, such as by phone or internet.

- **Dark Fibre:** refers to fibre cables that have been laid but are inactive/not currently in use. Fibre cables use light to transport data electronically, hence 'dark' fibre is fibre that is not lit and therefore not carrying any data.

- **Development Consent Order:** is the means of obtaining permission for developments that are categorised as "Nationally Significant Infrastructure Projects". Works of this type tend to mean constructing premises or structures that are significant in appearance and will alter the landscape significantly, or works that cover a large area but might not necessarily involve erecting a structure.

- **Distribution Network Operator (DNO):** own and operate the distribution network of towers and cables that bring electricity from National Grid's national transmission network to homes and businesses. DNOs do not sell electricity to consumers. The electricity suppliers do this.

- **Ducting:** a duct refers to the 'tubes' (usually plastic) that cables are run through, such as underground. Ducting keeps cables together and protect them from external damage or erosion.

  Judicial review: a type of court proceeding in which a judge reviews the lawfulness of a decision or action made by a public body. Judicial review challenges the way in which a decision has been made, rather than the rights and wrongs of the conclusion reached.

- **Member State:** is the term for countries that are members of the European Union, and that are thereby subject to the privileges and obligations of membership.

- **National Dispute Settlement Body (NDSB)**: a national dispute settlement body is a body that presides over disputes on a topic or sector for the whole of the UK.

- **Network Operator:** the term Network Operator means any company or organisation that runs a network in the UK which is made up of physical networked elements, e.g. a network of gas pipes, electricity cables, wastewater pipes or telecoms cables.

- **Network Termination Point**: the point at which ownership and responsibility for a communications network ends, this is usually the point at which it enters the consumer's premises.

- **Passive Infrastructure:** elements of a network that are not active (see **Active Infrastructure**), e.g. the plastic pipes (see **Ducting**) used to contain cables in the ground, or the masts that support overhead cables.

- **Physical Infrastructure:** in context of the Directive, relates to physical elements of a network such as ducts (see **Ducting**) or masts, but also includes buildings, and transport infrastructure such as railways and roads.

- **Public Funds:** relates to funding raised through taxation and other Government revenues. It does not include funding raised through bills or charges on consumers. Civil works funded by public funds means works for which the taxpayer bears the cost, either fully or partially, such as to get the project started and support associated jobs.

- **Water and Sewerage Companies (WaSCs)**: the companies that provide water supply and sanitation services in the UK.

- **Wholesale Infrastructure Provider (WIP):** wholesale infrastructure providers sell or lease infrastructure, e.g. cables, ducts and masts. Some WIPs also provide communications services.

Department for Culture Media & Sport