

Work Package 5 Consensus Building and Validation

Deliverable 5.2

Final Toolkit and Guidelines

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SABER (Satellite Broadband for European Regions) is a CIP ICT PSP co-funded Thematic Network

For more info see: <http://www.project-saber.eu/>

Document setup table:

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Introduction	Slí Nua	Drafted in WP4 31-05-2014 Updated 24-07-2014 Finalised in WP5 31-10-2014
1. Technology solutions & deployment models	Eutelsat & Slí Nua	Drafted in WP4 31-05-2014 Updated 08-10-2014 Finalised in WP5 31-10-2014
2. Building the business case	Slí Nua	Drafted in WP4 31-05-2014 Updated 17-10-2014 Finalised in WP5 31-10-2014
3. Choosing a funding model	Slí Nua	Drafted in WP4 31-05-2014 Updated 24-07-2014 Updated 17-10-2014 Finalised in WP5 31-10-2014
4. Addressing State Aid	Slí Nua	Drafted in WP4 31-05-2014 Updated 08-10-2014 Finalised in WP5 31-10-2014
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Disclaimer:

Please note that these guidelines are the result of SABER partner contributions and do not necessarily reflect the view of the European Commission.

The current version is pending European Commission approval therefore it cannot be considered the officially released version.

The European Commission is evaluating the compliance of the document within the current EU regulatory framework.

Following the approval of the European Commission the official version will be published.

Meanwhile the use of this information is submitted to prior consent of the project coordinator. In any case, the source of the information must be quoted.

Table of Contents

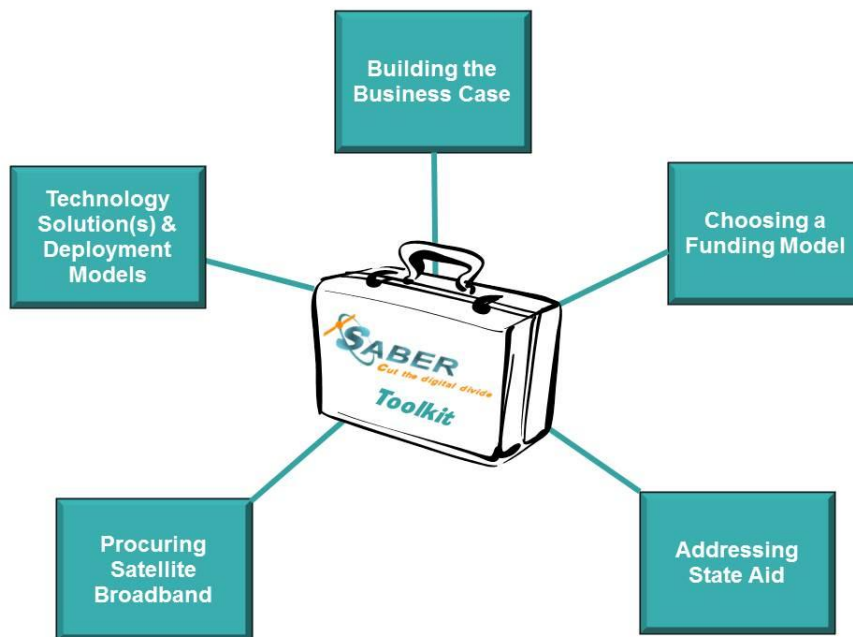
Introduction.....	1
1. Technology Solutions and Deployment Models	2
2. Developing the Business Case.....	12
3. Choosing a Funding Model	21
4. Addressing State Aid	24
Bibliography.....	35

Introduction

This toolkit provides practical guidance and suggested models and approaches for regions that are planning a satellite broadband deployment. The guidance is presented in five modules as follows:

- 1) Technology solutions and deployment models
- 2) Building the business case
- 3) Choosing a funding model
- 4) Addressing State Aid
- 5) Procuring Satellite Broadband – this guidance is presented in *D4.3 Guidelines & Recommendations on satellite broadband services procurement, deployment and management*.

The following diagram illustrates the toolkit structure:



These guidelines were initially drafted within WP4 of the SABER project and have been subjected to a regional testing and validation process to prepare this final version of the toolkit and guidelines. SABER received 17 reviews of the toolkit and guidance from 13 regions across 7 Member States and Norway.

1. Technology Solutions and Deployment Models

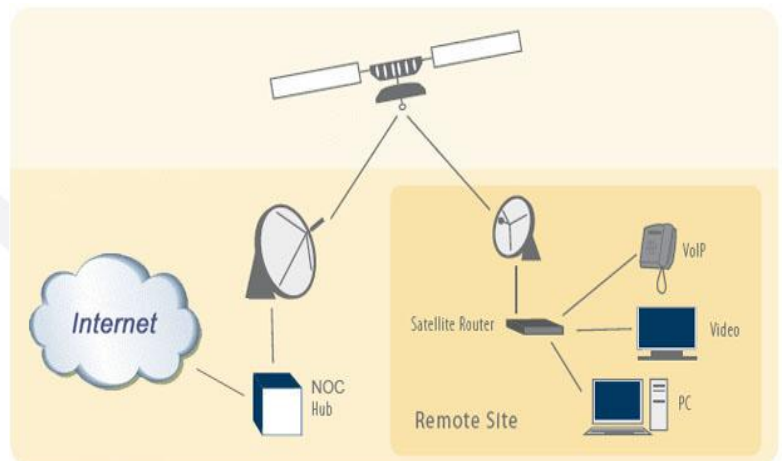
What is satellite broadband?

- **Satellite broadband provides high-speed internet connection via communications satellites** rather than via fibre, copper or wireless connections. As of today, bidirectional, consumer related satellite broadband services enable users to enjoy download speeds up to 20Mbps and upload speeds up to 6Mbps, with a comparable subscription cost similar to that of ADSL.

- The satellite operator, with its satellites and ground infrastructure (teleports), has the capability to deliver **broadband internet for all end-users regardless of their location**. They can be connected effortlessly

to the broadband service with non-complex equipment, comprising an antenna (70 cm) and a satellite modem. It is also possible to have digital TV and VoIP to take advantage of a Triple-Play service.

Figure 1: Typical satellite connection diagram



European Commissioner Neelie Kroes, in charge of the Digital Agenda for Europe (DAE), stated in October 2013: *“Thanks to the extra coverage provided by satellite broadband, we have achieved our 2013 { Digital Agenda for Europe (DAE) } target of broadband for all”*.

Therefore, satellite is recognized by the EU as a complement to DSL, in the frame of a technological mix to economically deliver broadband to users who live in areas without (or with slow) terrestrial wired or wireless / mobile broadband access.

Why choose satellite broadband?

- Satellite broadband services have an intrinsic strength due to the position of geostationary satellites, making them **available everywhere and immediately across Europe**. Figure 2 overleaf is an illustration of the reach of the KA-Satellite which clearly shows that all of the 28 member states of the Europe Union have the capability of receiving satellite broadband services.

- Choosing satellite broadband services enables Public Authorities to ensure the seamless provision of public services, for instance in the domains **of e-health and e-administration**.

Due to the distance between the Earth and the satellite, satellite broadband solutions have an intrinsic constant delay of 500ms (so called latency). Therefore, satellite broadband might not be the most appropriate solution for online interactive “first-shooter” gaming. As for any wireless subscription (3G, 4G), monthly volume allowances exist that limit excessive downloading. All

other services are provided in a similar way (at an equivalent speed of ADSL), including triple-play.

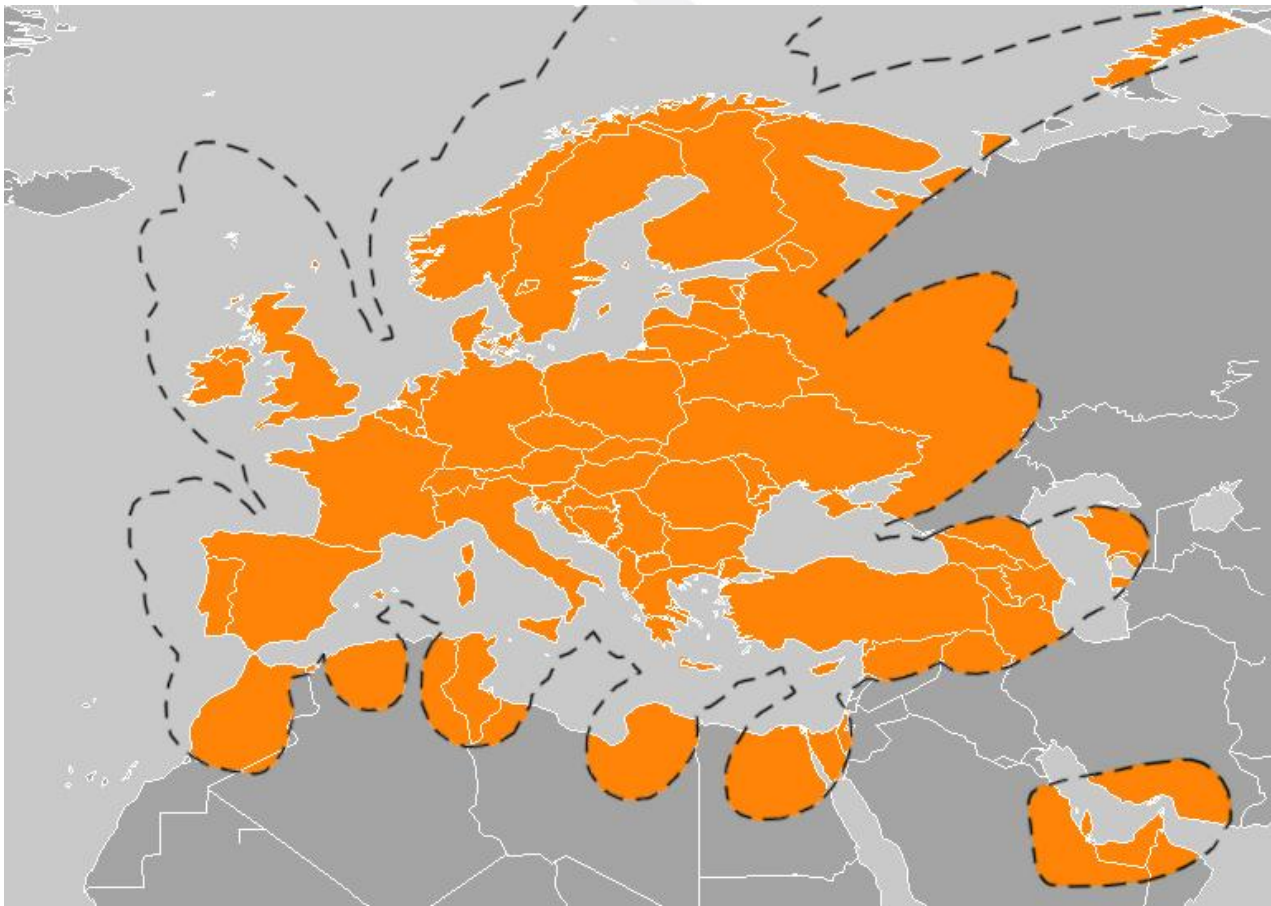


Figure 2: KA-SAT Downlink

Who delivers satellite broadband?

- In the **satellite broadband value chain**, satellite network operators shape and manage the network while the satellite ISPs (**Internet Service Providers**, also referred to as Distributors) interact with the end-user, provide the service and related activities, such as the Customer Premise Equipment (CPE) installation, and generally provides the first level of assistance.

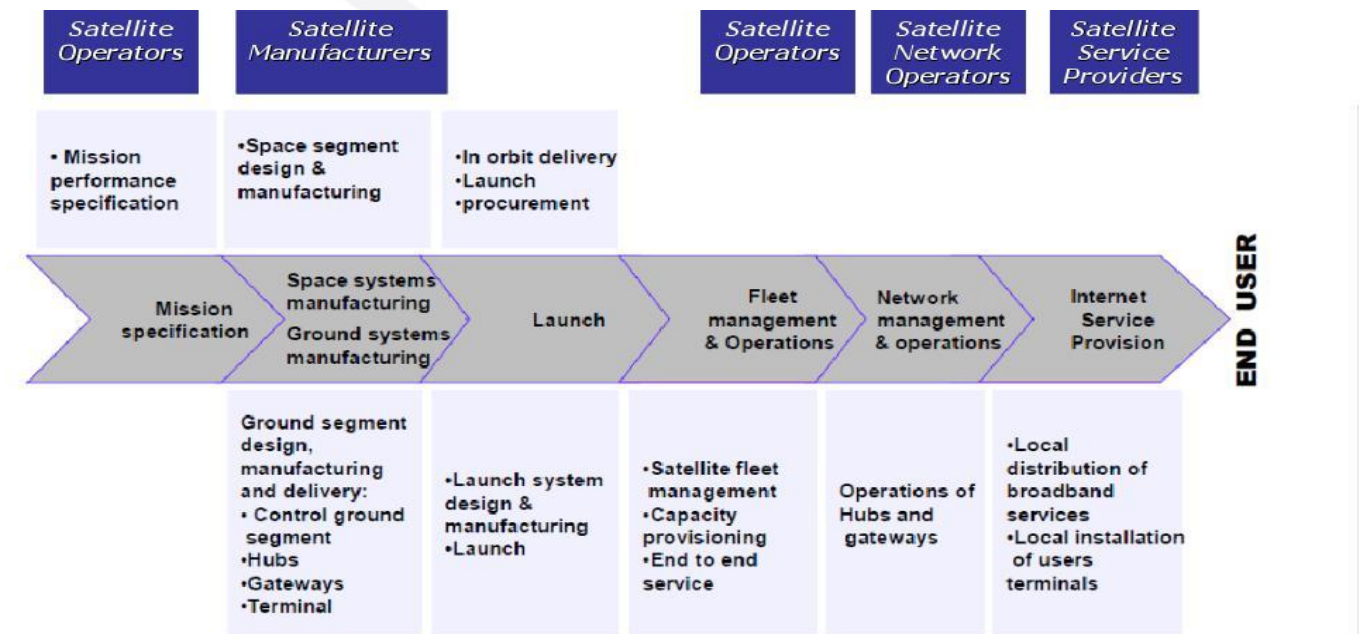
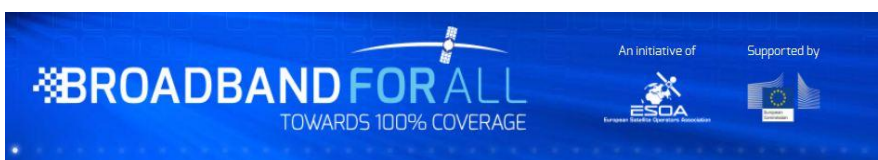


Figure 3: Satellite broadband value chain

- The need for qualified ISPs and antenna installers offers an additional opportunity for the creation of new local jobs.

To find your satellite Internet Service Provider:

Please check the website: <http://www.broadbandforall.eu/>



How can public authorities support the take-up of satellite broadband solutions?

- The average cost of a **satellite broadband subscription is circa €30/month** for a download speed up to 20 Mbps and 10 GB of data per month. However there are known to be large variations across Europe in the cost of subscriptions, for example, in Norway the same offer would cost circa €66/month. Further details relating to the price of satellite services, upload and download speeds, limits of data downloads if any, and

provision of Service Level Agreement (SLA) can be sought from the local Satellite Internet Service Provider (to find your local Satellite Internet Service Provider please check the website provided above).

- The subscriber has to procure what is known as customer premises equipment (CPE), i.e. a satellite antenna and a modem.
- As the price of the CPE is generally a barrier for the consumer's take-up of a satellite broadband solution, CPE and its installation have been recognised as an infrastructure that is eligible for a public subsidy.
- To overcome the financial barrier of upfront CPE costs, a **voucher scheme** has been successfully implemented in some European regions (for example Auvergne, France) to connect remote communities to the internet using satellite broadband services. The Public Authority provides financial aid (in the form of a voucher) to eligible end-users with which they can "pay" a registered internet service provider for the purchase, installation and activation of the CPE. The service provider is then able to seek reimbursement of this cost from the Public Authority implementing the voucher support scheme. The voucher scheme is recognized by the EC as an **appropriate model to help reach the DAE objectives** and has been recommended in the SABER deliverables for use in the framework of encouraging the take-up of broadband services via satellite broadband.
- In addition to National, Regional and Local funds, the main EU funds available for such financial support, managed at the National/Regional level, are the **European Agriculture Fund for Rural Development (EAFRD)** and the **European Regional Development Fund (ERDF)**.
- The SABER actions have triggered an EC clarification on the eligibility of satellite broadband solutions in the framework of the **2014–20 EU Structural and Investments Funds**. Investment decision makers, in particular at the National and Regional levels responsible for the delivery of the DAE targets should note the following:
 - In December 2013 Mr. Michel de Rosen, Chairman of the European Satellite Operators Association, contacted Johannes Hahn, Commissioner for Regional Policy seeking clarification on two points, the first point related to the ongoing eligibility of satellite broadband user equipment during the next financial period. The second point related to the "assessment indicator for ICT infrastructure of at least 30 Mbps results in the unfortunate situation that national and regional administrations believe that technologies such as satellite [...] are not eligible".
 - Responding to Mr. Michel de Rosen, Mr. Mikel Landabaso, Head of Unit, writing on behalf of the Commissioner for Regional Policy, stated that *"eligibility of satellite broadband is not put in question in the current draft regulations, as adopted by the European Parliament plenary session on 20th November 2013"*. Mr. Landabaso, in his response also clarified that *"since broadband access of at least 30Mbps for all is a priority of the Digital Agenda for Europe, this does not*

prevent ERDF from supporting broadband roll out below 30Mbps if the predictable path towards such target speed by 2020 is confirmed”¹.

- Whilst the main financial support thus far provided by the public sector support has been to support users access to satellite broadband services using such mechanisms as voucher schemes, the above statement from DG REGIO makes it clear that other public sector schemes that supports, in particular the availability and take-up of more advanced broadband services using satellite as the delivery mechanism, are eligible to receive EU funds. The next section proposes such other support schemes.
- However, satellite broadband still suffers from a **lack of awareness** by Public Authorities, due in the main by their historical perceptions of older generations of satellite services being expensive, having limited performance and poor records of reliability. This is despite satellite broadband services’ recent technological progress in terms of speed, reliability and cost effective. Therefore, satellite broadband penetration remains low, even where it is ideally suited (e.g. for remote areas with low population density and without or with slow terrestrial broadband access).
- The SABER project is seeking to remedy this lack of awareness of satellite broadband among the population and is producing **recommendations for Public Authorities to overcome non-technological roadblocks encountered in European policy and regulation** so that satellite broadband solutions can be better integrated into public broadband programmes. The recognition of existing satellite infrastructure within public policies in respect of technology neutrality would enable the public sector to significantly reduce the investment needed for internet broadband deployment in those areas most in need.

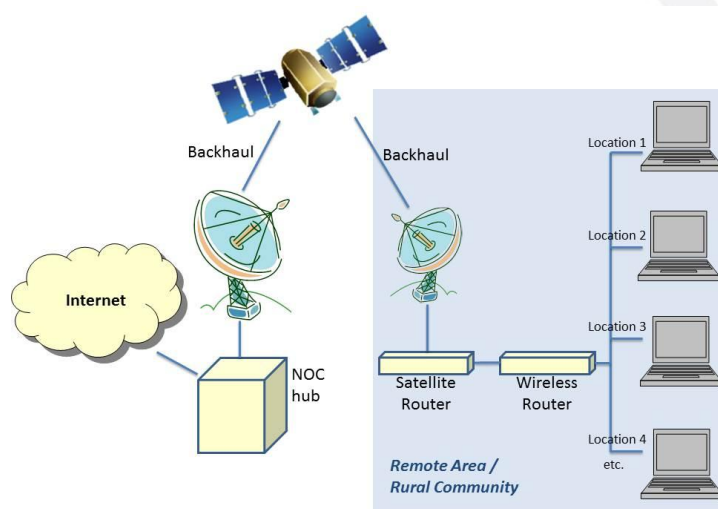
Towards business and deployment models for satellite broadband in public procurement

In parallel with the voucher scheme outlined above, SABER partners have studied different business and deployment models for satellite broadband solutions, which could be used by Public Authorities to support the wider rollout and take-up of satellite broadband:

- **Public Administrations providing backhaul for local remote communities**

In many remote rural areas across Europe a number of small communities and villages of between 3 and 20 dwellings exist. Invariably, these dwellings are unable, because of

Figure 4: Satellite connection providing backhaul services to a community



¹ A full copy of the letter from Mr. Mikel Landabaso, Head of Unit, is included as an Annex.

their location, to get access to affordable broadband services. We have discussed the availability of satellite broadband services to satisfy the demand from such communities, however public authorities, through community initiatives, could facilitate access to broadband services more cost effectively by providing support to offer the community individual wireless connectivity to backhaul capacity provided through satellite services.

Given the concept is feasible, Public Authorities could support local communities to avail of a hybrid wireless/satellite service to satisfy their needs. Such support could include helping the local communities with building relationships with the operators and scoping out a project proposal by providing consultancy type support through to grant aiding the provision of equipment and installation costs. Given the number of dwellings/businesses involved, as there will only be one satellite broadband service supplying the backhaul, the relative cost to the end users should be very competitive as they will be sharing the cost of the satellite service between them.

Initiatives of this nature should be considered as part of the broadband mix if take-up of satellite broadband services is going to continue to support the realisation of the DAE targets going forward.

- **Wholesale purchase by Public Administrations**

Public Authorities could identify groups of end-users that are best suited for satellite coverage and leverage regional, national or supranational level investments to procure sufficient numbers of subscriptions at a wholesale level. This would result in a critical mass of connections resulting in the reduction of monthly costs for the individual subscribers as the discounts secured at a wholesale level could be passed on to the individual subscriber. Depending on how the intervention is designed, over time, if the anticipated levels of subscribers connecting to the service are achieved, this could be at no cost to the public sector as the wholesale costs could be fully recovered from the individual subscribers.

However, the wholesale approach has not been adopted so far because of the perceived complexity, at the contractual and operational levels, and with the management of European funding at a regional level. Furthermore there is a fear that sufficient economies of scale to create the required critical mass of satellite broadband internet connections would not be achieved in order to attract the appropriate levels of discount to make the intervention feasible.

Consideration should be given to combining the needs of a number of regions from within the Member State to achieve the required critical mass for a successful and cost effective solution.

- **The public-private partnership approach (PPP)**

Currently this approach has not been adopted to-date. However, PPPs may be suitable for the long-term strategic needs of the industry, including, for the public sector to grant aid industrial R & D for the next-generation satellites in a structured EU policy framework, and

for the launch of additional satellite capacity, in partnership with national and regional authorities, to provide additional capacity on a subsidised basis for remote and rural areas.

A further option would be for the Public Administration to consider leasing transponder space from the satellite operator. If there is sufficient demand from their constituents, this could be a valid way of national and regional authorities securing advance satellite capacity that, via an appointment of an ISP(s) through a public procurement process, could be made available at relatively competitive rates through the implementation of a relevant demand aggregation scheme. It is likely that the resources required would only be feasible if this was undertaken at a Member State or pan Member State level. The following section describes briefly the concept of demand aggregation.

- **Demand aggregation concept**

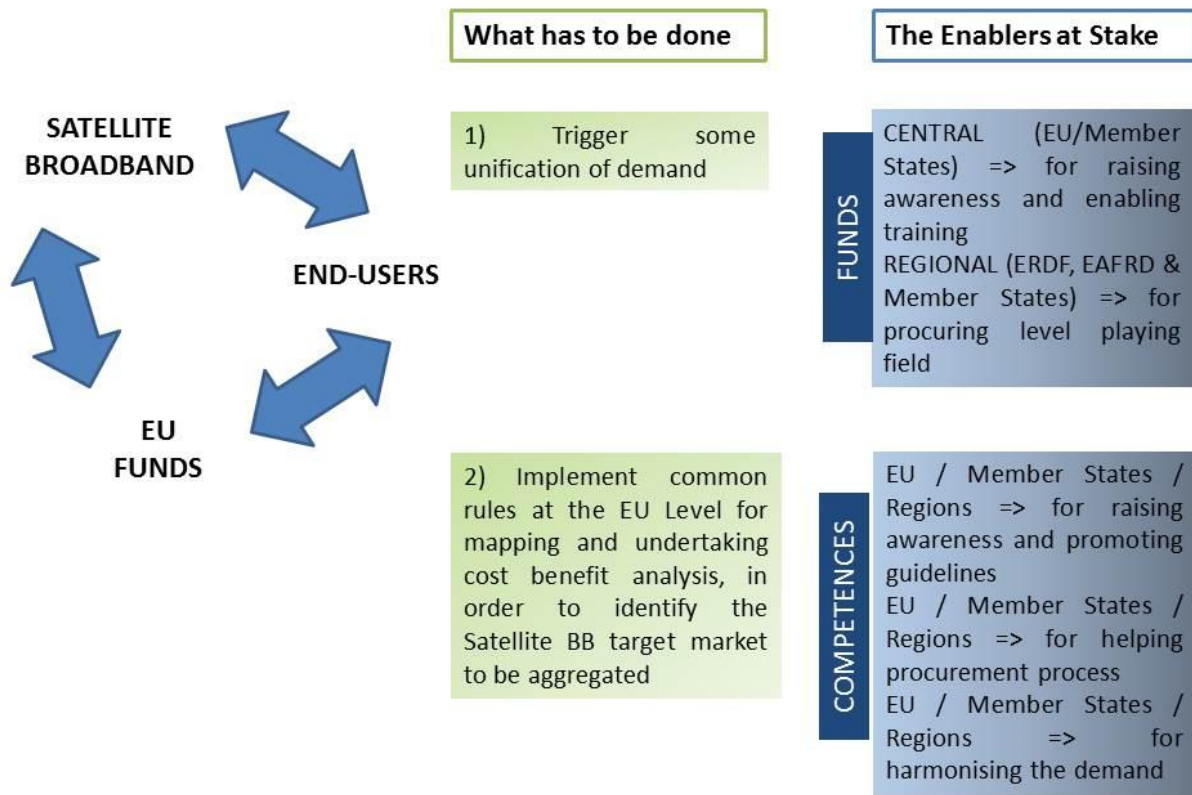
In theory, the implementation of demand aggregation schemes for public procurement of satellite broadband could present the following advantages:

- Creating a **consistent single market** from dispersed demand thus making the public broadband market more attractive for operators and ISPs;
- Realising **savings of public money**, in particular where there is demand aggregation for public sector broadband requirements, e.g. through a public tender to provide satellite broadband services to small remote/rural government offices, which are spread out throughout the geographical area of the authority(ies). A so called **“corporate demand aggregation”**;
- Favouring the emergence of a more **convenient and competitive offer** for end users.

The wholesale example above provides scope to address white spots at a Member State level through demand aggregation. At an EU level however, the absence of a telecommunications single market, a centralised public fund, or a central managing authority, the implementation of measures to close the digital divide on a pan European basis, has made, so far, demand aggregation impossible to achieve on a pan-European scale.

In the current context SABER recommends that, the EC issues and manages central guidelines intended to harmonise demand when undertaking local procurement of broadband services, and that the EC actively supports accompanying measures such as awareness raising and demand stimulation actions which will also be key factors in delivering on the DAE targets.

How to obtain demand aggregation benefits?



Annex - Copy of the letter from Mr. Mikel Landabaso, Head of Unit.



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
REGIONAL AND URBAN POLICY
Smart and Sustainable Growth and Southern Europe
Competence Centre Smart and Sustainable Growth

ARES (2013) 3800305

Brussels, 23. 12. 2013
REGIO G1/MP/jh (2013)

Dear Mr de Rosen,

On 3 December last, you contacted Johannes Hahn, Commissioner for Regional Policy, expressing your concerns about the ongoing eligibility of satellite broadband user equipment during the next financial period asking to inform the DG REGIO Geographical Units presently negotiating with national and regional authorities about the eligibility of Satellite Broadband.

1) I confirm that eligibility of satellite broadband is not put in question in the current draft regulations, as adopted by the EP plenary session on 20 November 2013:

- Article 3 (Scope of support) of the European Regional Development Fund Regulation foresees that ERDF shall support i.e. : "investments in infrastructure providing basic services to citizens in the areas of energy, environment, transport, and information and communication technologies (ICT)";
- Article 5 of the ERDF Regulation lists among its investment priorities "enhancing access to and use and quality of ICT through: (a) extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy"
- Article 21 of the Rural Development Regulation concerning "Basic services and village renewal in rural areas" foresees that the EAFRD shall finance "broadband infrastructure, including its creation, improvement and expansion, passive broadband infrastructure and provision of access to broadband...".

2) As to the statement that "the assessment indicator for ICT infrastructure of at least 30 Mbps results in the unfortunate situation that national and regional administrations believe that technologies such as satellite [...] are not eligible":

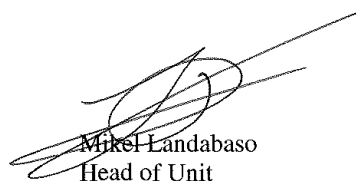
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Commission européenne, B-1049 Bruxelles / Europese Commissie, B-1049 Brussel - Belgium. Telephone: (32-2) 299 11 11.
Office: BU-1 4/179. Telephone: direct line (32-2) 2957371.
U:\2013\09 STRATEGIE POLITIQUE\913.140 Information Society\02 Policy Initiatives\Broadband Satellite\131220_Satellite_Broadband_De_Rosen_final.doc
http://ec.europa.eu/comm/regional_policy/
E-mail: marco.pino@ec.europa.eu
http://ec.europa.eu/regional_policy/

It is true that the current ERDF Regulation proposal foresees as a common output indicator for ERDF support under the Investment for growth and jobs goal: "ICT Infrastructure / Households/ Additional households with broadband access of at least 30 Mbps".

Since BB access of at least 30 Mbps for all is a priority of the Digital Agenda for Europe, this does not prevent ERDF from supporting broadband roll out below 30 Mbps if the predictable path towards such target speed by 2020 is confirmed.

Each Member State, Region will define its own priorities through Operational Programmes and we recommend that all tenders and calls for projects be technology neutral – i.e. seeking the best/only technological solutions to achieve internet connectivity according to the local context, including through demand stimulation measures.



Mikel Landabaso
Head of Unit

2. Developing the Business Case

Defining the problem or need to be addressed

The first step in developing the business case is to clearly set out the particular problem or need to be addressed by investing in satellite broadband. The rationale for a public administration to invest in broadband infrastructure is invariably linked to the drive to achieve economic and social competitiveness.

The ability to create, distribute and exploit knowledge and information is the main source of competitive advantage, wealth creation and improvements in quality of life. The transition to a knowledge-based economy provides regions with unparalleled opportunities for economic growth and improved social development. World class broadband telecommunications infrastructure and services, that enable the flow of data, voice and image communications simultaneously at very high speeds, are essential to the development of a knowledge-based economy. The availability of advanced broadband services is a critical factor in the investment location decisions of companies. The full exploitation of the potential of eBusiness is not possible in the absence of these advanced communications networks. The presence or absence of these networks, therefore, affects the potential of countries, and of regions within countries, to exploit the opportunities for higher-paid, higher value added employment.

Strategic Networks Group (SNG)² (2014) has considered how broadband relates to economic development:

Access, Adoption, and Usage are not the same concepts - Just because people have access to broadband infrastructure does not mean people are connected to the network; just because people have adopted broadband does not mean they are using the available Internet-enabled solutions that increases their productivity and business competitiveness.

It is not just about investing in broadband infrastructure, but driving usage – Not only is driving usage critical to network sustainability, it is foundational to realising full economic and community benefits from the network investment.

Bolstering rural economies – Broadband is essential infrastructure for effective participation in the economy for urban and rural areas alike, with adoption driven by personalising the value of broadband to individual businesses, organizations and households.

A broadband lifecycle approach – Maximum returns on broadband investments require looking beyond the supply-side to make sure that each step of the process is addressed with a holistic planning approach. This is accomplished by building access, encouraging adoption, and tracking usage, focusing on the demand-side of broadband and understanding how individual businesses, organizations and households are using the network.

² [http://blandinfoundation.org/uls/resources/SNG-ROI from Broadband Infrastructure and Utilization-01-31-14.pdf](http://blandinfoundation.org/uls/resources/SNG-ROI%20from%20Broadband%20Infrastructure%20and%20Utilization-01-31-14.pdf)

SNG's Broadband Lifecycle Approach[®]



SNG³ suggests that there are two arguments for public funding:

Market Failure – When markets without public intervention fail to deliver an outcome that would yield the highest possible welfare for society. For example, socially profitable investments are not undertaken because some benefits cannot be taken into account in a private business case (externalities), and/or

Equity – When Governments choose to intervene to correct social or regional inequalities generated by a market outcome. For example, lack of investment in a region with limited market demand and/or high costs is not an indication of a market failure if there are insufficient public benefits, but Governments may want to see investment take place anyway for social reasons (e.g. bridging the digital divide).

The first step in SNG's Broadband Lifecycle Approach, in particular from a public policy perspective, is to understand the need that is to be addressed. In order to understand the specific gap or need to be addressed in the region to help justify public intervention, existing broadband services available in the locality need to be mapped. Mapping is generally undertaken at the National level; regional and local gaps should be identified through existing mapping where possible. Where mapping has not already taken place user surveys to assess demand, at the regional or local level, can be undertaken to clarify the specific need to be addressed.

³ <http://sngroup.com/public-investment-in-broadband-a-balancing-act>

The advantages that satellite broadband can offer

In the context of addressing regional inequalities, satellite broadband has much to offer on the basis of providing instant solutions for fast reliable broadband internet access for remote and rural areas and other not-spots. The satellite industry has already invested itself in developing and innovating satellites and ground segments which has resulted in current service offerings of up to 20Mbps download speeds and up to 6Mbps upload speeds.

An advantage that satellite can offer over other terrestrial infrastructures is its ability to provide wide coverage of service without incurring increasing investment costs for the final percentage of customers. The only element of the network that needs to be added to access services is the customer service/premise equipment which can be installed very easily and quickly allowing users to take immediate advantage of services. In this respect satellite can offer a complementary service to other terrestrial solutions, particularly for underserved areas.

In summary satellite broadband can offer the following benefits:

- It is ubiquitously available
- It is cost effective
- It is immediately available
- It offers resilience to earth/ground based events
- It offers reliability and security

For more details on the benefits that satellite broadband can provide, please refer to the Guidance on Technology Solutions and Deployment Models

Identifying the key stakeholders

Once the gap or need to be addressed is defined the relevant stakeholders must be identified and brought together. This section covers the key steps and elements involved in engaging the various stakeholders and players required in the implementation of a satellite broadband scheme/project. There are several key roles that need to be fulfilled which will require a range of different regional players being involved. This section sets out the key roles and suggests the types of organisations or players that typically could undertake the roles.

A stakeholder can be defined as any organisation or entity who will be affected by the project, so identifying them can take some time. The company, organisation or region who is seeking to implement a satellite broadband solution will need to identify a champion to see the initiative /project through. This organisation, through its nominated representative,⁴ will be responsible for taking the region through the process of defining, elaborating and implementing their specific project/scheme. Having a satellite broadband champion in place will help to drive the success of implementing a satellite broadband solution. The champion would be responsible for ensuring that all the necessary players are brought together to plan, design and implement the satellite

⁴ In many regions, the champion is likely to be a senior level policy implementor if the deployment is driven from a government perspective, a senior player within the targeted industry if the deployment is industry driven or a community activist if the deployment is driven at the community level.

broadband project. The following are some key elements that the champion will need to oversee:

- Working with potential influencers⁵ and regional/local catalysts to identify broadband deployment and exploitation opportunities.
- Engaging the necessary regional players that would have a role to play.
- Bringing all the players together for example in a facilitated workshop to agree the precise scope of the satellite broadband initiative.
- **Facilitate** working through various components such as:
 - Examining the regional context and current broadband penetration levels;
 - Developing and articulating a broadband deployment and exploitation model of the area to be addressed;
 - Planning and executing an awareness raising programme with all key players;
 - Assessing the legal and governance issues;
 - Preparation of a financial plan to include a cost-benefit analysis;
 - Ongoing assessment of demand stimulation opportunities;
 - Work with satellite broadband service providers through a procurement process;
 - Negotiate a service model and service level agreement with the chosen service provider.

In carrying out these functions, it is clear that the champion needs to have a remit and sufficient influence to be able to bring all the players together and motivate them to work through the satellite broadband initiative and exploitation planning process.

The role of the influencer could be the impetus for implementing the satellite broadband initiative/project. They could have a key role to play in the initiation of the dialogue on satellite broadband and engagement of regional/local players in the first instance. The influencers key responsibilities could be summarised as follows:

- Convey the requirement of addressing a particular need or challenge in the region, put simply they initially identify the 'problem' or issue that needs to be addressed.
- Engaging the necessary regional players that can help to address the issue.
- Maintaining an involvement in the implementation process to ensure that the end solution fully addresses the needs identified at the outset.
- Keeping the implementation team informed of any additional changes in the environment that would impact on the satellite broadband initiative/project.
- Help to define the technical specification
- Help to define the training and up-skilling requirements of the end beneficiaries.

⁵ A potential influencer could be the policy maker e.g., for ICT or rural development in the region or locality, a local politician or industrialist in the area that is driving the availability of broadband in the area.

Identifying the beneficiaries

The identification of regional catalysts can also help to engage potential beneficiaries in the planning and demand stimulation process.

It is important to understand the characteristics of households and businesses that are not connected in terms of their socio-demographic profile (e.g. their willingness and ability to pay for infrastructure). Demand surveys can be used to glean as much information as possible about potential beneficiaries.

A key aim for the regional catalyst(s) would be to articulate economic and social benefits that broadband access through satellite could offer. The regional catalyst needs to be able to engage potential beneficiaries at both group (clusters, networks, associations etc.) and individual levels to encourage their interest and demand for satellite broadband services. The key requirement is that they have access to and an understanding of their target audiences. They need to be able to engage with their target audience on their level and be able to articulate the potential benefits in their specific context. For example in a rural community a tourism association could be a good option for a regional catalyst in order to stimulate interest and demand from smaller players such as coffee shops, guest houses, activity centres etc. In a community context, the catalyst could be a community activist looking to stimulate the availability of broadband access in small communities in the region. In a regional development context the regional catalyst could be part of the regional development agency or authority, and in a more local context could be part of the local authority/council.

Developing the project plan

The project plan should define the overall timeframe for the satellite broadband project/initiative and exploitation project. The key stakeholders should be engaged to define the goals and objectives of the project. Once the high level goals and objectives are defined a more detailed project plan can be developed.

The project plan should;

- Translate the high-level business objectives into a detailed 'road-map' of concrete deliverables.
- Provide a detailed list of resource requirements; including finance requirements, skills requirements, facility requirements etc.
- Provide a realistic assessment of project timescales.
- Estimate and validate (as far as possible) project costs and potential revenues back to the project.
- Allow for potential risks to be identified early on, for example tasks taking longer than expected, slippage in target dates and demand levels not being as high as originally anticipated.
- Detail an awareness raising, demand stimulation programme.

It is widely accepted that satellite broadband provides access to broadband across the whole of Europe. The next key stage is to drive take up of these facilities in a way they are efficiently and effectively exploited in order to achieve both the economic and social benefits for the companies, individuals and the area as a whole.

Awareness raising and demand stimulation is therefore critical for the success of the satellite broadband initiative/project and as such must be included in the project plan. A variety of tools and techniques can be employed to support the awareness raising, demand stimulation campaigns. These include the use of:

- Workshops, seminars and focus groups;
- Roadshows;
- Posters, leaflets, and mail shots;
- The regional media (TV, radio and press);
- Videos;
- Conferences and exhibitions;
- Publications, newsletters and reports;
- Socialising with journalists.

Small group events entailing face-to-face interaction have the benefit that they encourage feedback and are more likely to stimulate interest, enthusiasm and commitment.

Depending on the size of the satellite broadband scheme/project, it is suggested that a Marketing, Information and Communications Plan covering all aspects of the project is created including awareness raising and demand stimulation. Cascading information about the initiative (by communicating with a network of catalysts and influencers to spread the message) can be a cost-effective means of reaching a wider audience. Care needs to be taken to ensure a consistent message is conveyed.

Crunching the numbers

Once the full project costs and potential revenues are estimated these can be used to compare against the potential value of the benefits that the project could deliver. Having some sense of the potential demand in a given area is essential for this process. If key consumer groups are identified by working with regional catalysts in underserved areas, a demand survey as previously mentioned can provide some insight into what the likely demand for and take up of satellite broadband services will be. From this a cost benefit analysis can be conducted to assist in the justification of a budget if one does not already exist. If a budget exists, the project sponsor will need to assess whether the project costs and potential revenues are within the budget available or whether a case may be needed to increase the budget.

Cost Benefit Analysis (CBA)

JASPERS (2013)⁶ has undertaken research, commissioned from Analysys Mason, to develop a cost-benefit analysis (CBA) model to assess the potential impact of broadband connectivity projects⁷.

⁶JASPERS ('Joint Assistance to Support Projects in European Regions') is a technical assistance partnership between the European Commission, the European Investment Bank, and the European Bank for Reconstruction and Development. Its purpose is to promote the efficient use of EU Structural Funds, thereby stimulating future investment.

The objective of their working paper is to provide guidance on the possible use of the CBA model in order to evaluate economic viability of investments on a project level in broadband projects within JASPERS countries, including sensitivity and risk assessment, along with job creation estimates.

The model is intended as a suggested approach and may require further modifications once the regulations and guidelines for the new programming period are known.

In their report they have defined the following broadband speed categories:

Broadband category	speed	Description
From 'nothing' to 'basic broadband'		This category represents residential premises or business employees currently not experiencing any broadband but they are expected to experience at least 2Mbit/s broadband connectivity as a result of the project.
From 'nothing' to 'NGA broadband'		This category represents residential premises or business employees currently not experiencing any broadband, but they are expected to experience at least 30Mbit/s broadband connectivity as a result of the project.
From 'basic broadband' to 'NGA broadband'		This category represents residential premises or business employees currently experiencing about 2Mbit/s broadband connectivity, but they are expected to experience at least 30Mbit/s broadband connectivity as a result of the project.

⁷<http://www.jaspersnetwork.org/display/for/Cost+Benefit+Analysis+framework+for+broadband+connectivity+projects>

The JASPERS report⁸ goes on to identify the following parameter values and assumptions which can be used in the CBA model:

Parameter	Assumptions
Business benefit per employee	Business benefit per employee can be assumed to account for a 6% rise in local Gross Value Added (GVA) per employee in the private sector due to the availability of NGA broadband taking four years to fully emerge. For basic broadband , it is assumed that there will be a 4.5% rise in GVA per employee connected to the project's infrastructure taking four years to fully emerge. For 'NGA broadband' network evolving from 'basic broadband' network, the assumed rise in local GVA per employee is 1.5% taking four years to fully emerge, which is the differential between an 'NGA broadband' network and a 'basic broadband' network.
Consumer surplus per household	The assumed consumer surplus per connected household in this working paper is set at EUR12 monthly for households moving from no broadband to NGA broadband category and EUR8 monthly for households moving from no broadband to basic broadband category . For households moving from basic broadband to NGA broadband, it is assumed to be the differential between consumer surplus of NGA broadband and basic broadband, that is, EUR4 monthly.
e-Government savings	The anticipated e-Government saving figure will be available within the country, probably in an e-Government strategy. The estimation of impact within that strategy is then scaled according to the impact of the new network. If no such local estimate exists, then the project beneficiary can estimate this figure using the proposed methodology described later in this paper. For basic to NGA broadband category , it is proposed to apply an 80% scaling factor when calculating e-Government savings.
Tele-health care benefits	It is assumed that 1% of the local health budget (national or regional as appropriate) until five years from roll-out and 3% thereafter will be regarded as tele-health care benefits. For basic to NGA broadband category , it is proposed to apply an 80% scaling factor when calculating tele-health care benefits.

The estimation of the likely employment impact of the project is made based on the following assumption:

Parameter	Assumptions
Job creation	The direct impact of the total spending on the network is likely to generate 20 job years per EUR million . The major impact after implementation is likely to be seen in higher value added rather than additional employment.

⁸ ibid

There are of course other benefits/impacts to be achieved from the take-up of satellite broadband that can be included in the assessment of the cost benefit analysis. These benefits/impacts, which are not directly related to costs and savings, include social benefits such as engaging people in social networks, combatting isolation and upskilling of local labour through the use of ICT.

An Intel (2011) report on using Universal Service Funds identified the following economic benefits as a result of investment in broadband⁹:

- Latin America/Caribbean: A 1 percent rise in broadband penetration was found to yield a 0.017 point rise in GDP growth.
- Brazil: A study found that broadband added up to 1.4 percent to the employment growth rate.
- China: Every 10 percent increase in dial-up and broadband penetration may contribute as much as 2.5 percent to GDP growth.
- Thailand: Estimates suggest that broadband could add nearly 1 percent to the country's GDP growth rate.

The reader should note that the European Space Agency (ESA) has, during the summer of 2014, issued a call for tender to address the development of a CBA tool for satellite broadband. The tool should be available towards the end of 2015.

⁹ <http://www.intel.ie/content/dam/www/public/us/en/documents/white-papers/usf-support-ict-broadband-programs-paper.pdf>

3. Choosing a Funding Model

The European Commission¹⁰ recognises that broadband projects are initiated by different groups of project promoters and target areas with different degrees of commercial viability. Consequently, projects often rely on a variety of funding sources. Many of these sources can be used in combination: EU funding can often be combined with national or local public sector funding and should also aim to leverage private sector investment where possible.

A key distinction is to be made between two forms of public intervention: on the one side, grants or subsidies can be given to cover (parts of) the costs of network rollout. On the other hand, public entities can support projects through so-called financial instruments such as loans, guarantees, and project bonds. These instruments can be an effective means of support for infrastructure projects which have potential for commercial revenues but which face constraints in accessing usual sources of financing. In providing support through financial instruments, public authorities cooperate with promotional banks such as the European Investment Bank.

Sources of Funding for Broadband Programmes

The following table summarises the main sources of funding for broadband programmes:

Funding Programme	Description
Structural Funds - EAFRD	The EAFRD is designed to contribute to enhancing quality of life and to fostering economic activity in rural areas. A key objective is to encourage ICT development in rural areas. EAFRD money can be used for infrastructure investment, but also in development of services and IT businesses in rural areas, demand stimulation measures, and vocational training in ICT. Projects funded through the EAFRD could cover broadband infrastructure, including its construction, upgrading and expansion, passive broadband infrastructure and provision of access to broadband and public e-government solutions.
Structural Funds - ERDF	<p>One of the thematic objectives of the ERDF is to enhance access to Information and Communication Technologies (ICT) and its use and quality, especially extending broadband deployment and the roll-out of high-speed networks that contribute to achieving the high-speed broadband targets of the Digital Agenda for Europe (full coverage with 30 Mbps by 2020 and at least 50% of households subscribing to connections of 100 Mbps or higher by the same year). ERDF money is used for co-financing of project costs and has to be supplemented by some funding from other sources at European, national or local government level, or from the private sector.</p> <p>The responsibility for the management of the Structural Funds, including ERDF and EAFRD, are shared between the European Commission and so-called Managing Authorities in the Member States and regions. Citizens and enterprises interested in funding opportunities for broadband projects</p>

¹⁰ <https://ec.europa.eu/digital-agenda/en/broadband-financing-and-funding>

	should first contact the relevant Managing Authorities.
Connecting Europe Facility (CEF)	Digital infrastructures represent one of the priorities of the Connecting Europe Facility (CEF) which spans the transport, energy and ICT sectors. For broadband, the Connecting Europe Facility will provide seed funding for a limited number of broadband projects, together with the European Investment Bank (EIB), as well as technical assistance. Projects that wish to benefit directly from CEF will need to demonstrate state-of-the-art technological solutions and represent either innovative business models or highly replicable solutions (including those which successfully combine grants and long term financing). The pilot scheme for project bonds which is currently being implemented will be continued under CEF and serves to facilitate the access of projects to capital market financing solutions.
National Finance Instruments	Member States notify their individual programmes, which have to be approved by DG Competition before implementation – see section 4 on State Aid. Member State Operational Programmes may not make direct reference to satellite broadband however all programmes are required to observe the principle of technology neutrality which should allow for satellite broadband to be considered as part of the technology mix in particular in addressing broadband deficiencies. Funding for satellite broadband programmes could also be considered under areas of the programme addressing the needs of particular sectors such as tourism or themes such as rural development and innovation.
Private Financial Instruments	<ul style="list-style-type: none"> • Public Authorities own resources • Bank loans and bank loan guarantees; • Soft and micro loans from non-bank bodies; • Grants for covering whole or part costs; • Other aid, subsidies, price support.

EC Guide to High-Speed Broadband Investment

The European Commission has published in October 2014 an updated Broadband Guide to Investment¹¹ which replaces the guide produced in 2011. The guide reviews four different investment models for consideration by Public Authorities¹²; these include:

- Direct investment; publicly run municipal network model;
- Indirect investment; privately run municipal network model;
- Community led initiatives; the community broadband model and
- Operator subsidy; gap funding model.

¹¹European Commission, *Guide to High-Speed Broadband Investment*, Release 1.1 – 22 October 2014
http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?action=display&doc_id=6908

¹² ibid (pp22-26).

The guide also reviews five main financing models for Public Authorities¹³; these include:

- Revenue based financing; self-financing through reinvestment of revenues.
- Private capital and financial markets; equity and debt financing.
- Government-backed bank loan and bonds (guarantees).
- Bottom-up community finance; from end users or local associations.

Financing Satellite Broadband in the Region

The SABER guidance refers to a number of different types of interventions that local and regional authorities could use to extend the accessibility of broadband to remote and rural areas using satellite broadband services. These are described briefly in the “Technology Solutions and Deployment Models” guidance under the heading ‘how can Public Authorities support the take-up of satellite broadband solutions’. By far the most popular type of intervention is the voucher scheme.

In order to receive satellite broadband services, the subscriber has to procure what is known as customer premises equipment (CPE), i.e. a satellite antenna and a modem. This equipment has also to be installed in the premises by a qualified engineer which can be relatively more expensive in remote rural areas compared to urban areas. As the price and installation of the CPE is generally a barrier for the consumer’s take-up of a satellite broadband solution, CPE and its installation have been recognised as an infrastructure that is eligible for a public subsidy.

To overcome such a financial barrier, a voucher scheme has been successfully implemented in some European Regions. The public authority provides financial aid (in the form of a voucher) to eligible end users with which they can pay a registered internet service provider a percentage contribution of the overall costs. The voucher scheme is recognised by the EC as an **appropriate model to help reach the DAE objectives** and has been recommended in the SABER deliverables for use in the framework of encouraging the take-up of broadband services via satellite broadband.

As the costs per installation are relatively low, most installations would be funded by the end user with a financial contribution from the local public authority or regional authority. As such, the Public Authority’s contribution would generally be funded from the authority’s own funds or through a structural funds programme using ERDF or EARDF. For Satellite Broadband services it is unlikely therefore that equity, loan or other types of funding instruments would be used by the end consumer to support the installation of a satellite broadband solution.

¹³ *ibid* (pp32-35).

4. Addressing State Aid

Introduction

This brief guide, one of the outputs of the SABER project, is aimed at helping, in particular, individuals working in the public sector who are considering an investment of public resources to support the implementation of initiatives to address the availability of broadband services in their geographical areas; the so called ‘white spots’.

The guidance provided is interpreted from the regulations and other documentation published by the European Commission on its website which remains the definitive source of information¹⁴. A further information source is the “Communication from the Commission on EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks (2013/C 25/01)” which should be read by any public sector investment decision maker considering an investment in the roll-out of broadband infrastructure and/or services and/or investing in support initiatives that will encourage businesses to take-up broadband services.

The European Commission acknowledges that the DAE objectives, in particular the 2020 objectives of all Europeans having access to much higher internet speeds of above 30Mbps and 50% or more of European households subscribing to internet connections above 100Mbps, cannot be reached without the support of public funds. For this reason the DAE calls on Member States to use ‘public financing in line with EU competition and State aid rules’ in order to meet the coverage, speed and take-up targets defined in EU2020¹⁵

The Commission notes that State aid policy should focus on facilitating well-designed aid targeted at market failures and objectives of common European Interest¹⁶. In its Guidelines for the application of State aid rules, the Commission notes that where markets provide efficient outcomes but these are deemed unsatisfactory from a cohesion policy point of view, State aid may be used to obtain a more desirable, equitable market outcome¹⁷. The communication continues to note that in particular, a well-targeted State intervention in the broadband field can contribute to reducing the ‘digital divide’ between areas or regions where affordable and competitive broadband services are on offer and areas where such services are not.

The guide presents an overview of the State Aid rules in relation to the rapid deployment of broadband networks and services to help public sector investment decision makers ensure that any public sector investment made in the deployment of such networks and services are in line with ‘EU competition and State aid rules’.

For more detailed guidance please refer to the ‘Communication from the Commission on EU Guidelines for the application of State aid rules in relation to the rapid deployment of Broadband networks (2013/C 25/01).

¹⁴ http://ec.europa.eu/competition/state_aid/overview/index_en.html

¹⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions COM(2010) 245 final, *A Digital Agenda for Europe*, Paragraph 2.4, Key Action 8.

¹⁶ Communication from the Commission on EU State Aid Modernisation (SAM). Brussels, 8.5.2012. COM(2012) 209.

¹⁷ Communication from the Commission on EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks (2013/C 25/01).

There are initially five options when considering how to deal with State aid related to Satellite Broadband interventions and support. These five options are described at the end of this Guide to Addressing State Aid.

What qualifies as State Aid?

When public sector investment decision makers are considering making an investment in the roll out and/or encouraging the take-up of broadband networks and services, they must first consider whether their investment is likely to constitute State aid, and if it does, they need to consider the most appropriate action to take to ensure that the investment would be in line with EU competition and State aid rules. If the investment does not constitute State aid, subject to regulatory and other factors to consider, the investment decision maker would be free to make the investment.

So what does constitute State aid?

According to Article 107(1) of the Treaty on the Functioning of the European Union (TFEU), 'any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the common market'. It follows that in order for a measure (investment) to qualify as State aid, the following cumulative conditions have to be met i.e. all the conditions have to be met:

1. The measure has to be granted out of **State resources**;
2. It has to confer an economic advantage to **undertakings**;
3. The **advantage** has to be **selective**; and
4. Distort or threaten to **distort competition**;
5. The measure has to **affect trade** between Member States.

If one or more of the above conditions is not met the investment will not constitute State Aid.

Let us take each one of these conditions in turn:

The use of State resources: These may take many forms including direct grants (to operators, or in the case of end beneficiaries, grants to subsidise the cost of end user premises equipment when utilising satellite broadband services), tax rebates, soft loans, or a benefit in kind such as when the public sector invests in the construction of (part) of the broadband infrastructure or makes available part of its own fibre network (e.g. deployed along a highway which is used for traffic management) to a network operator(s).

Undertaking: by investing in broadband, whether for the construction, operation or granting of access to broadband infrastructure or enabling the provision of connectivity (e.g. by subsidising end user equipment) will usually address the exercise of an economic activity undertaken by an undertaking. In cases where the end user is a citizen/household and is directly receiving the subsidy and the access to the network is for non-commercial purposes this would not generally constitute state aid as the end beneficiary is not an undertaking. However, if an operator receives the subsidy to provide citizens access to the services then this may constitute state aid

as it may be conferring an advantage to an undertaking.

Advantage: When investing in the construction, operation or granting of access to publicly owned infrastructure, the beneficiaries of the aid are usually selected through a competitive tendering process which ensures that any aid is limited to the minimum amount necessary for the particular project. However it does not eliminate the aid, as the public authority will still provide a subsidy to the winning bidder. The financial support received will enable the successful bidder to conduct this commercial activity on conditions that would not otherwise be available on the market and therefore provides the successful bidder with an advantage in the market. This will also be true when the public sector invites undertakings to apply for grants to access, for example, satellite services through subsidising end user premises equipment. Such grants will confer an advantage to those undertakings receiving the grants as they are receiving the equipment at a cost below what the market would normally provide.

Selectivity: Selectivity will exist if the broadband deployment or subsidy is specifically addressed to dedicated business users, for instance if the regional authority's subsidy scheme is targeted at, and in favour of, predetermined companies which are not chosen according to general criteria applicable in the entire area for which the granting authority is responsible. This could be for instance the selection of specific geographical areas (remote areas) and/or specific sectors such as tourism.

Distort competition: According to the case law of the Court of Justice of the European Union (the Court), financial support or support in kind distorts competition insofar as it strengthens the position of an undertaking compared with other undertakings¹⁸. Due to the State aid granted to a competitor, existing operators might reduce capacity or potential operators might decide not to enter into a new market or geographical area. This may also be the case when subsidies are granted to undertakings to support the procurement of end user equipment and hence gain access to satellite broadband services. This might also deter their competitors from accessing the market.

Effect on Trade: Finally, insofar as the State intervention is liable to affect service providers, or in the case of the tourism example above undertakings (which could be offering more attractive tourism destinations as a result of there being access to broadband services), from other Member States, it also has an effect on trade since the markets for electronic communications services and tourism are open to competition between operators and services providers, and tourism operators.

The following are some examples of State aid within the scope of Article 107(1), which could be of relevance to broadband satellite service availability and provision:

- Grants
- Direct subsidies, e.g. by providing rent free periods to tenants and rate relief
- Preferential interest rates for loans
- Tax credits
- Consultancy advise

¹⁸ Case C-310/99, *Italian Republic v Commission* [2002] ECR-I-02289, paragraph 65.

- Preferential access to State owned infrastructure
- State guarantees

General exceptions

In addition to applying the Article 107(1) conditions above to establish whether the initiative/investment constitutes State Aid, the Treaty allows for certain categories of aid to be approved by the European Commission. The following categories of aid that could be of relevance to supporting the availability and take-up of satellite broadband services are as follows:

- Article 107(3) allows the possibility of approving State aid to:
 - Facilitate development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions and competition to an extent contrary to the common interest;
 - Promote economic development of areas of abnormally low standard of living or serious unemployment;
- Other Treaty provisions for specific purposes include aid necessary for undertakings to provide Services of General Economic Interest (SGEI).

There are however points that should be noted, in particular under Article 107(3). Operating aid (for the normal costs of running a business, such as salary costs) is not likely to be approved as an exception, and that there is still a requirement to notify the European Commission of proposed exceptional aid so that it can decide whether or not it is compatible with the Treaty.

Additionally, if the Member State is acting in a way that a private investor would in a market economy, for example in providing loans or capital on similar terms to that of a private investor, it is not providing State aid in the meaning of Article 107(1). This type of intervention would be made under what is known as the Market Economy Investor Principle (MEIP).

The Communication from the European Commission on EU Guidelines for the Application of State aid rules in relation to the rapid deployment of broadband networks provides further interpretation of SGEI and MEIP.

What to do if proposed investment is deemed to be State Aid

It is important to think about State aid and its implications for the proposed investment at an early stage in the design of the initiative. Giving State aid illegally could result in the intervention being closed down and any investment already made being clawed back from the beneficiaries.

If the investment/support is deemed to be State aid, ideally the intervention should be re-designed so that it is not.

The investment decision maker, when assessing whether or not a proposed intervention or support mechanism constitutes State aid by considering whether it meets the five cumulative

conditions above could, if the intervention or support mechanism constitutes State aid, consider the following options for dealing with it ¹⁹:

1. Consider developing or adapting proposals to omit or minimise the element of State aid within the meaning of Article 107(1);
2. Design or adapt the proposed aid to fit within the terms of one of the State aid schemes which the European Commission has approved for your Member State²⁰;
3. Design or adapt the proposed aid to fit one or more of the categories of State aid within the General Block Exemption Regulation (GBER);
4. Design or adapt the aid to fit within the terms of published guidelines, frameworks, notices and communications which the Commission uses when deciding whether proposed State aid may, exceptionally, be compatible with the Treaty. (NOTE: This option requires you to obtain advance approval from the Commission²¹);
5. Design the assistance within other relevant permissible Articles of the Treaty. (NOTE: May require Commission advance approval);
6. Design a proposal which, although it may not fit within existing approved schemes, Commission Regulations, frameworks or guidelines, may be capable of individual approval by the Commission. (NOTE: Advance approval of the Commission required);
7. Design or adapt the aid to fit within the de minimis regulation;
8. Design or adapt the aid to fit relevant categories of State aid in Article 107(2) of the Treaty which are declared compatible with the Treaty. (NOTE: rarely arise);

The reader should consider under all options special sectoral rules, eg for agriculture, fisheries, transport and sensitive sectors, which may limit the possibilities. Certain sectors are excluded from block exemptions, for example, and sectoral rules are generally more restrictive than the guidelines and frameworks that apply across the industry in general.

It is likely, when considering interventions and support mechanisms relating to satellite broadband, that only numbers 2, 3, 4, 6, and 7 above would be applicable.

Good Practice: The reader is strongly advised that unless certain, you should always, at the earliest opportunity, consult your local source of advice such as your regional and/or national authority, State Aid Branch or equivalent even before concluding that your plans do not involve State aid, or that your proposed plan to avoid it, really does escape the scope of Article 107(1). Seeking advice is not a last resort: the earlier the better, to avoid problems later on. Neither is seeking advice a one off event, seek further advice at all stages of considering all the available options.

EU State aid control requires prior notification of all new aid measures to the Commission (see notes 4, 5 & 6 above). Member States must wait for the Commission's decision before they can put the measure into effect. There are a few exceptions to mandatory notification, for example:

¹⁹ As presented in the UK's Department for Business Innovation & Skills Guidance for State Aid Practitioners, June 2013, Part II – Options for Dealing with State Aid, P8

²⁰ See State aid cases on the Commission's website http://ec.europa.eu/competition/state_aid/register/

²¹ See Notification procedures on the Commission's website http://ec.europa.eu/competition/state_aid/legislation/rules/html

- Aid covered by a Block Exemption (giving automatic approval for a range of aid measures defined by the Commission) (see note 3 above),
- *De minimis* aid not exceeding 200,000 per undertaking over any period of 3 fiscal years (see note 7 above), or
- Aid granted under an aid scheme already authorised by the Commission (see note 2 above).

Options available when considering how to deal with State aid related to Satellite Broadband interventions and support

There are initially five options when considering how to deal with State aid related to Satellite Broadband interventions and support. Each of these options will be described briefly²².

1. Notification of a Scheme/Measure

The Commission recently adopted “The Best Practice Code²³”, a final part of its Simplification Process. The code sets out day-to-day best practices to contribute to speedier, more transparent and more predictable state aid procedures at each step of the investigation of a notified case. A process introduced within this code is the pre-notification process.

Pre-Notification Process

There is added value where a pre-notification contact has been made within the European Commission as this provides the Commission services and the notifying Member States the opportunity to refine their arguments, in discussions with the Commission, prior to formal notification. This is aimed at expediting the approval process. Pre-notification contacts from within the Commission are strongly recommended for most cases except for a few that could be classified as very straightforward cases.

Each notification triggers a preliminary investigation by the Commission. The Commission may request information from the notifying Member State, if the notification is incomplete. If the Member State fails to reply to an information request in the prescribed period of time, the notification is deemed to be withdrawn. From the time it has received a completed notification, the Commission has two months to decide that:

- there is **no aid** within the meaning of the EU rules, and the measure may be implemented; or
- the aid is **compatible with EU rules**, because its positive effects outweigh distortions of competition, and may be implemented; or
- **serious doubts** remain as to the compatibility of the notified measure with EU State aid rules, prompting the Commission to open an **in-depth investigation**. In this instance, the measure may not be implemented until the investigation is concluded. (See formal investigation procedure).

²² For more detailed explanations refer to the Commission’s website

http://ec.europa.eu/competition/state_aid/legislation/legislation.html

²³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:136:0013:0020:EN:PDF>

2. Simplified procedure

This procedure is intended to expedite more straightforward cases. For certain categories of aid and if all the conditions are met, the Commission must adopt a short-form approval decision within 20 working days from the date of notification.

Forms and detailed guidance are available from the Commission's website for Notifying schemes²⁴. A very useful flowchart has been prepared by the UK's Department for Business Innovation and Skills covering the State Aid Notification Process²⁵.

3. General Block Exemption Regulations (GBER)

This section summarises the GBER, which declares certain categories of aid compatible with the internal market in applications of Article 107 and 108 of the Treaty and exempts aid givers from the obligation to formally notify the European Commission of the proposed scheme/intervention. Under the Block Exemption regulation aid givers only have to inform the Commission up to 20 working days after the aid has been granted using a simple information sheet.

The GBER applies to the following categories of aid:

1. Regional aid;
2. Aid to SMEs;
3. Aid for access to Finance for SMEs;
4. Aid for research and development and innovation;
5. Training aid;
6. Aid for disadvantages workers and for workers with disabilities;
7. Aid for environmental protection;
8. Aid to make good the damage caused by certain natural disasters;
9. Social aid for transport for residents of remote regions;
10. Aid for broadband infrastructures;
11. Aid for culture and heritage conservation;
12. Aid for sport and multifunctional recreational infrastructures; and
13. Aid for local infrastructures.

The GBER does not apply to sectors including fisheries and aquaculture, agriculture, and parts of the coal sector. However, training aid, risk capital, R&D&I, aid for disadvantaged and disabled workers and environmental aid might be applied in certain circumstances, subject to GBER conditions.

The GBER does not apply also to export related activities or to preferred use of domestic over imported goods.

It is advisable that investment decision makers should always check the original legal text of the GBER when developing proposals for aid to business. The text is available from the Commission's website²⁶. The General Block Exemption regulation contains detailed

²⁴ http://ec.europa.eu/competition/state_aid/legislation/forms.html

²⁵ <https://www.gov.uk/government/publications/state-aid-notification-flowcharts>

²⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1404295693570&uri=CELEX:32014R0651>

guidelines and conditions particularly as regards definitions, eligible costs, maximum aid amounts and scope (ie sectors or areas that can or cannot be supported).

The category of aid of most relevance to the roll-out and take up of satellite broadband infrastructure and services is under Section 10. For ease of reference this section is replicated below:

Aid for Broadband Infrastructure

1. Investment aid for broadband network development shall be compatible with the internal market pursuant to Article 107(3) of the Treaty and shall be exempted from the notification requirement of Article 108(3) of the Treaty, provided that the conditions laid down in this Article and in Chapter I are fulfilled.
2. The eligible costs shall be the following:
 - a) investment costs for the deployment of a passive broadband infrastructure;
 - b) investment costs of broadband-related civil engineering works;
 - c) investment costs for the deployment of basic broadband networks ; and
 - d) investment costs for the deployment of next generation access ('NGA') networks.
3. The investment shall be located in areas where there is no infrastructure of the same category (either basic broadband or NGA network) and where no such infrastructure is likely to be developed on commercial terms within three years from the moment of publication of the planned aid measure, which shall also be verified through an open public consultation.
4. The aid shall be allocated on the basis of an open, transparent and non-discriminatory competitive selection process respecting the principle of technology neutrality.
5. The network operator shall offer the widest possible active and passive wholesale access, according to Article 2, point 138 of this Regulation, under fair and nondiscriminatory conditions, including physical unbundling in the case of NGA networks. Such wholesale access shall be granted for at least seven years and the right of access to ducts or poles shall not be limited in time. In the case of aid for the construction of ducts, the ducts shall be large enough to cater for several cable networks and different network topologies.
6. The wholesale access price shall be based on the pricing principles set by the national regulatory authority and on benchmarks that prevail in other comparable, more competitive areas of the Member State or the Union taking into account the aid received by the network operator. The national regulatory authority shall be consulted on access conditions, including pricing, and in the event of dispute between access seekers and the subsidised infrastructure operator.

7. Member States shall put in place a monitoring and claw-back mechanism if the amount of aid granted to the project exceeds EUR 10 million.

Other categories of aid could be of relevance to supporting the roll-out and take-up of satellite broadband services including aid to SMEs (Section 2) and aid for disadvantaged workers and for workers with disabilities (Section 6). Each category of aid would need to be considered on a case by case basis before adopting the GBER as the basis for the provision of aid.

4. De Minimis Aid Regulation

The Regulation covers small amounts of aid (“de minimis” aid) which do not count as State aid in the sense of Article 107(1). The regulation sets a threshold figure below which Article 107(1) can be considered not to apply. As such the measure need not be notified in advance to the Commission. This is based on an assumption that in most cases, aid up to this amount will not affect trade and competition between Member States. The full text of the De Minimis Aid Regulation can be found on the Commission’s website²⁷.

The regulation applies to aid granted to undertakings in all sectors, with the exception of:

- undertakings active in the fishery and aquaculture sector;
- undertakings active in the primary production of agriculture products;
- undertakings active in the sector of processing and marketing of agricultural products, in the following cases:
 - a. where the amount of the aid is fixed on the basis of the price or quantity of such products purchased from primary producers or put on the market by the undertakings concerned;
 - b. where the aid is conditional on being partly or entirely passed on to primary producers;
- aid to export related activities towards third countries or Member States, namely aid directly linked to the quantities exported, to the establishment and operation of a distribution network or to other current expenditure linked to the export activity;
- aid contingent upon the use of domestic over imported goods.

De Minimis Aid Thresholds

The total amount of *de minimis* aid granted per Member State to a single undertaking shall not exceed €200,000 over any period of three fiscal years. There are anomalies stated in the regulations that investment decision makers need to be mindful of, for example, the total amount of *de minimis* aid granted per Member State to a single undertaking performing road freight transport for hire or reward shall not exceed €100,000 over any period of three fiscal years. Therefore, when implementing support schemes, such as a Satellite Voucher scheme for supporting the acquisition of

²⁷ http://ec.europa.eu/competition/state_aid/legislation/de_minimis_regulation_en.pdf

satellite customer premises equipment, targeted at different sectors, the project sponsors will need to ensure that, when calculating the total *de minimis* aid received by the potential beneficiary (to ensure that the aid to be provided does not cause the three fiscal year limit to be exceeded), the actual limits of aid for the undertaking (e.g. €200,000 or €100,000) needs to be determined in accordance with the regulations before the aid is granted.

Cumulation

De Minimis aid granted in accordance with this Regulation may be cumulated with *de minimis* aid granted in accordance with Commission Regulation (EU) No 360/2012 (*de minimis* aid granted to undertakings providing services of general economic interest) up to the ceiling laid down in that Regulation. It may be cumulated with *de minimis* aid granted in accordance with other *de minimis* regulations up to the relevant ceiling laid down in Article 3(2) of this regulation (see thresholds above regarding the limits of €200,000 or €100,000).

Monitoring of *De Minimis* aid awarded and obligations

Where a sponsor (investment decision maker) intends to grant *de minimis* aid in accordance with this regulation to an undertaking, it shall inform that undertaking in writing of the prospective amount of the aid and of its *de minimis* character.

The granting of new *de minimis* aid, in accordance with this regulation, can only be provided after having checked that the aid will not raise the total amount of *de minimis* aid granted (from whatever source) to the undertaking to a level above the relevant ceiling laid down in Article 3(2) (see above) and that all the conditions laid down in the regulation are complied with.

Record Keeping

Before granting the aid, the provider of the aid shall obtain a declaration from the undertaking concerned, in written or electronic form, about any other *de minimis* aid received to which the regulation or other *de minimis* regulations apply during the previous two fiscal years and the current fiscal year.

The Regulation requires Member States to record information necessary to demonstrate that the Regulation has been complied with, and to keep records of all *de minimis* aid paid for ten years from the last payment.

On written request, Member States must provide the Commission within 20 working days, or within a longer period fixed in the request, with all the information that the Commission considers necessary for assessing whether the conditions of this Regulation have been complied with.

The application of *de minimis* aid can be very time consuming from an administrative point of view. It is crucial that administrators of schemes liaise with their respective

Member State's representatives to ensure that all records are adequately maintained and kept in accordance with the requirements of the Regulation.

Period of Validity of the Regulation

The Regulation entered into force on the 1st January 2014 and it shall apply until the 31st December 2020.

5. State aid schemes which the European Commission has approved for your Member State

We conclude the guide by highlighting that the European Commission may already have approved schemes for your Member State (approved schemes). If this is the case, the scheme/initiative that is being proposed may well comply completely with an already approved scheme. If this is the case then the proposed scheme may not require any other approvals in order to proceed. The Commission publishes a register on such schemes on its website²⁸ so it could be very worthwhile to peruse the register to ascertain whether the proposed scheme could be implemented under the auspices of the already approved scheme.

²⁸ See State aid cases on the Commission's website http://ec.europa.eu/competition/state_aid/register/

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