

# Y Pwyllgor Menter, Arloesi a Rhwydweithiau

**EIN(2) 08-06(p7)**

**Dyddiad: 18 Hydref 2006**

**Lleoliad: Ystafell Bwyllgora 3, y Senedd, Bae Caerdydd**

**Teitl: Y Prosiect Cyflymder Ffeibr**

## **Diben**

1. Gofynnir i'r Pwyllgor nodi:

- bod y prosiect Cyflymder Ffeibr wedi cyrraedd y cam gweithredu a
- y sail economaidd i'r prosiect cyffredinol.

## **Crynodeb**

2. Yn y papur hwn ceir amlinelliad o'r costau, y buddiannau, y risgiau a'r cyfleoedd sy'n gysylltiedig ?weithredu rhwydwaith mynediad agored yng Ngogledd Cymru.

3. Mae'r papur hwn yn cael ei gyflwyno i'r Pwyllgor er gwybodaeth. Cafodd ei baratoi yn sgil cais gan Leighton Andrews, AC y Rhondda, a chafodd ei ategu gan gais tebyg gan ysgrifenyddiaeth y Pwyllgor ar 20 Medi 2006.

## **Y cefndir**

4. Datblygwyd y prosiect Cyflymder Ffeibr gan Lywodraeth Cynulliad Cymru fel menter strategol hirdymor i fynd i'r afael ?annau lle mae methiant yn y farchnad delathrebu yng Nghymru. Nod y prosiect yw mynd i'r afael ?hai o'r heriau y bydd Cymru'n eu hwynebu yn y 15-20 mlynedd nesaf o ran cael seilwaith delathrebu gadarn, gystadleuol a fforddiadwy.

5. Diben y papur a gyflwynir i'r Pwyllgor yw rhoi crynodeb o'r gwaith a wneir gan Lywodraeth Cynulliad Cymru i glustnodi a dilysu'r galw am rwydwaith mynediad agored cyflym iawn i fynd i'r afael ?146;r manau lle mae'r farchnad yn methu yng Nghymru.

6. Mae peth risg ynghlwm wrth y prosiect Cyflymder Ffeibr, ond mae'r dadansoddiad o'r galw yn seiliedig ar ddull ymchwilio cadarn sy'n anelu at roi'r amcangyfrif gorau posibl o fuddiannau a allai ddod yn sgil y prosiect.

## **Y goblygiadau ariannol**

7. Ar hyn o bryd mae'r prosiect Cyflymder Ffeibr yn destun gweithdrefn "Deialog Gystadleuol" o

dan y rheoliadau caffael Ewropeaidd. Er bod cyllid wedi'i neilltuo o gyllideb yr Adran Menter, Arloesi a Rhwydweithiau, gyda chymorth cyllid Ewropeaidd, nid yw'r gyllideb gyffredinol ar gyfer y prosiect Cyflymder Ffeibr wedi'i datgelu fel rhan o'r broses gaffael. Mae Llywodraeth y Cynulliad yn awyddus i ddenu buddsoddiad o'r sector preifat i'r prosiect a gallai datgelu'r dyraniad cyllidebol gyfyngu ar ein gallu i ddenu cymaint o'rosibl o'r cyfryw fuddsoddiad.

## **Camau i'r Pwyllgor Pwnc eu cymryd**

8. Nodi cynnwys y papur yn Atodiad 1.

**Andrew Davies AC**  
**Y Gweinidog dros Fenter, Arloesi a Rhwydweithiau**

## **Annex 1**

### **Introduction**

The FibreSpeed project has been developed by the Welsh Assembly Government as a long-term strategic investment initiative to address areas of market failure in the telecoms market in Wales. The project, which follows similar tried and tested models adopted elsewhere in the world, seeks to overcome some of the challenges that Wales will face over the next 15-20 years in terms of a robust, competitive and affordable telecommunications infrastructure. Such an infrastructure is fundamental to allowing Wales to compete economically with other countries across the globe, who themselves seek to create their own knowledge driven economies. By itself FibreSpeed will not create economic prosperity, but will deliver an advanced, world-class infrastructure that helps form a foundation for long-term economic growth.

The purpose of this document is to provide a summary of the work undertaken by the Welsh Assembly Government to identify and validate the level of demand which exists for an open access high-speed network to address areas of market failure in Wales.

It should be noted that there are many imponderables that exist in relation to forecast demand, project costs and around the issue of dynamic technological change. This is why the Welsh Assembly are seeking proposals from the telecoms sector by way of an output based specification on how it can best meet it's objectives providing best value for money, as opposed to issuing a detailed technical specification for a bespoke infrastructure build.

FibreSpeed is not without a degree of risk, but the demand analysis has been based on a sound and robust research methodology that seeks to provide a rigorous estimate of projected benefits.

### **Current Status**

FibreSpeed is currently in the early stages of procurement to secure a long-term strategic partner to deliver the FibreSpeed project in partnership with the Welsh Assembly and the pre-qualification stage is currently in progress.

Pre-qualification responses have been received and are currently under evaluation. A maximum of five organisations will be short-listed to enter into a "competitive dialogue" process to refine the commercial and technical details of the project prior to formal Invitation to Tender. It is anticipated that a contract would be awarded by Summer, 2007.

## **Background**

Since early 2005 a detailed work programme has been ongoing to look at the level of existing and forecast demand for the products and services which the FibreSpeed project will deliver. This work programme has been undertaken jointly with a team of expert, independent consultants and is largely primary research based. The work programme has four component parts and is detailed in Annex 1 & 2 of this document. These include: -

- Primary research with telecoms suppliers
- Primary research with end users in North Wales
- An assessment of the impact of FibreSpeed from a Foreign Direct Investment (FDI) perspective
- Research into the impact projects such as FibreSpeed have had elsewhere in the world.

The rationale behind this work programme was to establish the level and type of demand from all sectors of the value chain including end-users and telecoms sector organisations. It was also used to understand the constraints and inhibiting factors that restrict investment in telecoms infrastructure in Wales and the further constraints considered by International Business Wales (IBW), Welsh Assembly Government officials which currently limit their ability to attract high value technology oriented FDI into Wales.

## **Expected Project Benefits**

The primary objectives of FibreSpeed as outlined within the Broadband Wales Strategy '05-'07 are:-

- Aim to ensure high-speed services, minimum 10Mbps symmetric with Gigabit capability and beyond are available to strategic business parks and locations at an affordable price benchmarked against the most competitive price in the UK, namely London & the South East of England.
- Aim to ensure that Wales has extensive geographic access to competitive wholesale infrastructure

It has been estimated through independent evaluation that the net economic benefits of FibreSpeed Phase 1 (North Wales) could deliver an increase in GVA up to ?27.1million per annum. This is based on the assumption that over time, projected productivity increases will benefit all firms currently and likely to be operating at the North Wales business parks. It also assumes that investment is made in Year 1, FibreSpeed is operational in Year 2 and benefits start to accrue in Year 3 (2009 onwards).

The key project benefit for FibreSpeed is to achieve retail pricing parity of high-speed services with

the most competitive parts of the UK. Continued studies by officials during the development of the project have confirmed that businesses in Wales are significantly disadvantaged compared to urban areas. The latest study, which took place in March 2006, highlighted that Wales is still between 2 & 6.5 times more expensive at the retail level for 10Mbps – 1Gbps symmetric dedicated internet access services than the most competitive services available in London.

To place this in context, as at March 2006, the cost of a 10Mbps symmetrical connection in North Wales cost approximately ?155,000 per annum. The lowest price the Welsh Assembly Government was quoted for the same connection in London was around ?23,000 per annum. Whilst 100Mbps seems an extreme level of bandwidth today, FibreSpeed is focused on meeting the growing demands of businesses over the next 15-20 years. There are many examples world-wide where this level of connectivity is already starting to be deployed to residential users, not just businesses.

FibreSpeed is seeking to achieve this pricing parity by opening up the Welsh market place through investment in wholesale infrastructure allowing for innovative service providers to supply a range of retail services to businesses initially and down-stream citizens, communities and potentially the public sector.

FibreSpeed will not intervene at the retail price level, this will be left to the market themselves, but it will facilitate the setting of wholesale prices that will provide a range of wholesale services and products that allow service providers to access the Welsh marketplace cost effectively. The market has consistently told the Assembly Government through the market testing process that the current cost of such services is inhibiting their ability to serve parts of Wales and thereby restricting their own investment in Wales. Ultimately this impacts end-users with a limited range of service providers, or in some cases, only one monopoly provider resulting in the high cost of these services to the end user.

## **Additional Sites**

It is intended over the life of FibreSpeed that additional sites may be added in-line with the Assembly Government's property development strategy, thereby ensuring that Wales' strategic sites are equipped to support the needs of users over the long-term. Any new sites will be subject to prior consent from the European Commission. This should include locations such as Cibyn Industrial Park, Caernarfon to support the media sector requirements and Kinmel Park, Bodelwyddan which we are informed also has a latent demand.

## **Primary Research with Telecoms Suppliers**

A series of individual consultations/meetings were held with 36 leading players across the telecoms sector and supply industries to determine their interest in FibreSpeed and the factors limiting their own investment or interest in Wales as a market opportunity. The key findings from the research are detailed at Annex 1.

## **Primary Research with End Users in North Wales**

This study was undertaken by the former WDA between October and December 2005 in respect of the FibreSpeed Project by independent advisors. The study comprised 237 telephone interviews and 27 face-to-face interviews with businesses based on the 14 identified strategic business parks in North Wales. The key findings from the research are outlined at Annex 1

## **FibreSpeed Impact from an FDI Perspective**

As part of the evaluation of demand for FibreSpeed, officials within International Business Wales undertook an assessment of the benefits of the project in respect of Wales' ability to secure Foreign Direct Investment from bandwidth intensive organisations. The details of which are outlined in Appendix 1.

## **Projects similar to FibreSpeed**

Outlined in Appendix 2 is a summary of projects that are similar to FibreSpeed where the public sector has invested to address market failure.

## **European Commission View of FibreSpeed**

On 22<sup>nd</sup> February 2006, the European Commission approved the FibreSpeed project (N131/2005) as Compatible State Aid under Article 87 (3)(c) of the Treaty.

In assessing the compatibility of the proposed Aid the Commission concluded that:-

"The measure (FibreSpeed) therefore creates a significant and direct incentive effect for operators: the provision of a neutral open wholesale infrastructure and wholesale services reduces the high fixed cost of establishing a network, which represents the most important barrier to market entry to alternative operators".

"The Welsh Authorities have designed the measure in such a way as to, for the given project, minimise the state aid and the potential distortions of competition arising from the measure".

"In view of the characteristics of the project and the safeguards applied by the Welsh authorities, the overall impact on competition is deemed to be positive. On the effect on trade, the Commission does not identify negative spillovers for other Member States. In particular, the availability of an open wholesale infrastructure facilitates market entry for operators from other Member States on the Welsh markets for electronic communications."

"On balance – and in view of the peculiarities of the particular market situation in the target areas – the Commission concludes that the overall effect of the measure on competition and supply of broadband connectivity in North Wales is deemed to be positive. The intervention is designed in a way that does not distort competition or affect trading conditions to an extent contrary to the common interest."

## **Conclusion**

Following each of the market testing activities both industry and end-users have indicated that ICT activity is inhibited by affordability issues and that pent-up demand exists in Wales for a competitive wholesale infrastructure.

Industry is of the view that operators were unwilling to undertake significant market risk because of the high costs associated with installing telecommunications infrastructure. As a result there is no commercial proposition for the private sector to make this investment on its' own without Public Sector support and service providers will find it extremely difficult to serve Welsh businesses and communities with competitively priced high-speed services.

If Wales were not to make this investment, it would be at risk of losing significant ground to it's major European and Global competitors in securing future high value FDI projects and would find it even more challenging to retain its' current base of indigenous high technology sector organisations.

In order to ensure that Wales continues to achieve best value for money, the project is structured in such a way (to be delivered on a phased basis) that will allow for assessment of the early-stage benefits to the project prior to any further commitment being made to implement additional phases of the project. Coupled with an evaluation of the market conditions that prevail at that time, this will allow for an informed investment decision to be made.

## **Appendix 1 – Primary Research Information**

### **Primary Research with Telecoms Suppliers**

A series of individual consultations/meetings were held with 36 leading players across the telecoms sector and supply industries to determine their interest in FibreSpeed and the factors limiting their own investment or interest in Wales as a market opportunity.

Key findings from the exercise were as follows:-

- there is evidence of demand for high bandwidth and 'dark fibre' services – just one example given was the construction of new fibre in South Wales between two data centres, the reasons given by the client was that the existing solution (leased fibre from an existing network operator) was too expensive
- several organisations interested, in Local Loop Unbundling (LLU) believed that FibreSpeed would have a very positive impact on LLU in Wales.
- the exercise confirmed that industry operators consider the business case in Wales too challenging to invest by themselves. This is because the investment required to create infrastructure in Wales is so high that it cannot meet their ROI criteria – without public sector support Wales will not get competitive wholesale infrastructure built in rural areas.
- there is a proven demand for an open access network, with ISPs, LLU operators, system

integrators, mobile operators and other entities operating within the industry all having expressed strong interest and support for FibreSpeed;

- a wide range of technological solutions exist for both the backbone and in particular the local access network. The Assembly's procurement process supports a technology neutral approach.
- There was general agreement that the economics of telecoms are very challenging in Wales, especially serving customers located anywhere beyond Cardiff
- These views were further consolidated by an Information Day held by the former WDA where c.126 attendees representing 95 telecoms sector organisations from across the UK & Europe attended to discuss and feedback their views on the project during its' development stage

## **Primary Research with End Users in North Wales**

The following section outlines the key findings from the Study undertaken by the former WDA between October and December 2005 in respect of the FibreSpeed Project by independent advisors. The study comprised 237 telephone interviews and 27 face-to-face interviews with businesses based on the 14 identified strategic business parks in North Wales.

- 20-30% of companies are looking to increase their bandwidth requirements during the next two years but pricing is the biggest factor holding companies back from increasing their bandwidth;
- Companies operating in the e-business sector, but also across a wide range of other sectors confirmed that the availability of cheaper, faster connectivity would improve productivity, revenues, profitability and their ability to compete in a highly competitive environment.
- Companies in the e-commerce sector and those who are/maybe located in OPTIC & CAST Technium's are each facing a range of issues caused by limited competitive supply and high costs for high-speed services
- At face-to-face interviews several North Wales businesses operating in the e-business supply sector stated they are both positive towards FibreSpeed and believe it will help them provide more innovative solutions to SME's across the region as well as aiding there own organic growth
- 14% of companies already had broadband connections in excess of 2Mbps and knew they would need even more bandwidth in the future.
- 60% of total respondents stated they needed to upgrade their connections within the next two years.
- The evidence suggests that demand for high-speed Internet services in Wales is set to rise. Of those expressing a clear view on the issue of broadband availability 85% took the view that the infrastructure, although improving, is still lagging behind that in other UK regions. There is little wholesale and limited retail competition, and local providers are paying more for back-haul services because of their distance from the backbone network.
- A Wireless Service provider serving communities in North West Wales has stated that it is paying 5 times more for backhaul than its competitors based in Manchester
- 35% of businesses responding thought Broadband cost more in Wales than elsewhere in the UK
- Companies from different business sectors were unanimous in their view that broadband availability is key to attracting investment to Wales.
- Respondents pointed out that broadband connectivity would be even more of a deterrent to

inward investment were it not for Government intervention.

- The Assembly Government will need to clearly communicate all the necessary details about FibreSpeed to interested parties to ensure potential beneficiaries do not miss out as a result of not having a very clear picture of the project.
- Only 7% of those interviewed face-to-face took the view that there remained no major infrastructure issue for Wales.

## **FibreSpeed Impact from an FDI Perspective**

Officials in International Business Wales believe that the FibreSpeed project will provide a greater level of choice for indigenous and foreign owned companies alike, and reduce the cost of service to companies thus making Wales as competitive a location as anywhere in the UK. IBW highlight three specific areas where Wales could be competitively disadvantaged if FibreSpeed did not exist:-

- Wales does not score highly compared to other UK regions at the first crucial stage of location search analysis. The initial stage of investment appraisal is undertaken with an initial desk research study and if telecoms infrastructure is a crucial component to the investment criteria, generally a Welsh option is ruled out at this early stage. Where a company undertakes this activity itself we are never aware of the issue, however, this location search activity is often out-sourced. Through our relationship with organisations such as Deloitte and PwC who both offer such services on behalf of clients' they have confirmed that Wales does not score highly compared to other regions on this issue.
- The second relates to those companies who have expressed concern over the limited supply of telecoms providers and costs within the region. Companies such as Tiny, Google, DELL, AOL all highlighted this issue as a major negative and was detrimental to the position of Wales for their investments. It is worth noting that none of these companies decided to invest in Wales.
- The third area is with respect to companies that have located in Wales due to the pull of wider proposition factors yet still feel, and did so during the investment decision process, that the communications infrastructure is limited and costly. With over 70% of investment coming from existing companies our ability to retain and build on this base is paramount but can be limited when there are negative experiences. In the IT service sector, for example, where off-shoring is at its most dominant, the constant pressure to reduce cost is driving investment away from the UK. Wales' proposition would be vastly improved if the costs associated with communications could be reduced.

Further observations by 3<sup>rd</sup> parties included the following comments:

- Companies who have invested in Wales would be less inclined to retain and build on this investment.
- Feedback back from potential inward investors have indicated that Wales would never be a realistic destination for data centre type of investment as long as the number of carriers with their own infrastructure was so few.
- Evidence of the level of demand for the FibreSpeed project has most recently been highlighted at Kinmel Park where a non-telecom related business has suggested that it is willing to deploy



its own infrastructure to connect to a FibreSpeed target site as the current alternative option from its existing service provider is too expensive.

## **Appendix 2 Broadband initiatives in Europe and the USA**

### **Broadband in Europe**

The following are a few examples that provide a general overview of the typical models currently used to fund the development of broadband across Europe. It could be argued that some countries are more dynamic in funding broadband development than others; in Sweden, for example, 200 of the 290 municipalities have their own open network infrastructure. The Netherlands, and France are also relatively dynamic in this respect.

There are many other broadband fibre projects in the European Union, for instance in Italy and in Spain, where the Catalan government and Localret, an association of 782 municipalities, recently announced a EUR488 million regional broadband project.

### **Stokab – Stockholm - Sweden**

#### **Overview**

Stokab was founded in 1994 when the City of Stockholm chartered a company to lay a publicly owned fibre-optic network throughout the city to provide dark fibre to telecommunications operators and other users at cost-based rates. Stokab's core tasks are to build, operate and maintain the fibre optic communication network in the Stockholm region and to lease fibre optic connections. The company also operates the City of Stockholm's internal networks to serve both administrative purposes and public needs in the areas of education, child-care, recreation and culture.

#### **Status**

Stokab finished deploying its initial round of fibre in the course of 2004 and is now profitable. It has over 450 customers, among them operators, ISPs, large companies, property owners and public sector bodies. Stokab is not limited to the provision of fibre and its most recent investments are now directed to a range of different access technologies, such as WiMAX (high-speed wireless) or shared cables across residential homes. Most recently, Stokab developed Fibre To The Home (FTTH) partnerships with municipal housing corporations such as Svenska Botsader and Jarfallabingdens Hus. In 2004 Stokab generated wholesale revenues of SEK375 million (SGD79 million).

#### **Financial and legal structure, liabilities of parties**

AB Stokab is wholly owned by the company group Stockholms Stadshus AB, which is in turn wholly owned by the City of Stockholm. Stokab started as a construction company regulated by the Swedish

government. Stokab's mandate from the City of Stockholm is due to terminate at the end of 2006.

## **Cost, overall budget**

Stokab progressively built its network over the ten-year period following 1994 and is now in a low investment period. In July 2005, the network was believed to cover about 5000 kilometres of cable and a total of 450 000 kilometres of fibre. Stokab's current tangible assets approximately amount to EUR121 million.

## **Status under EC law, competition neutrality and network openness**

As per its mandate from the City of Stockholm, the company provides a network that is open to all players on equal terms. We are not aware of any specific European Commission notification regarding state aid having been filed, and no specific legal case has arisen.

## **Business model**

The local authorities believed Stokab was a better option than having many operators digging and deploying fibre, for the following reasons:

- less disruption to citizens
- common access to resources
- easy access to the city's ducts
- the need to foster service-based competition.

Stokab is now considering the best use of the network on a social basis and is looking to deploy fibre preferentially to poorer areas.

## **Fibre MANs / e-net – Ireland**

### **Overview**

e-net runs interconnected local fibre networks on behalf of the Irish government, operating as an independent wholesaler by providing access to the 24 MANs to a range of telecoms operators and service providers including Aurora, BT, Chorus, ESB Telecom and Eircom.

### **Status**

Following the initial plan to connect 27 Irish cities, e-net is currently drafting the specifications and conditions for an additional national interconnection of a further 87 towns. e-net also recently signed a EUR10 million contract over 10 years with Vodafone, to carry traffic overflow from the operator's mobile network. e-net also recently launched a campaign to connect 3000 businesses located close to the MANs and encourage them to drive demand for services in their area. Currently, there are around 20 MANs operational and is expecting wholesale revenues of EUR3 million this year.

## **Financial and legal structure, liabilities of parties**

e-net benefits from a 15-year concession contract issued by the Ministry for Communications, Marine and Natural Resources in June 2004. Further to government funding, e-net is backed by a EUR12 million fund raised by a combination of ACT Venture Capital, Anglo Irish Bank, Bank of Ireland and private equity.

## **Cost, overall budget**

The government has invested EUR70 million to date in building a broadband network connecting 27 cities and towns, consisting of fibre, duct, sub-duct and co-location facilities and covering an estimated 1300km. The MANs currently connected will be further expanded to a total of 120 towns.

## **Status under EC law**

The government received compatible state aid approval under Article 87 (3) (c) for Phase 2 of the Irish MAN project to expand to a further 120 towns in March 2006.

## **Business model**

e-net serves the public sector and licensed operators. e-net wants to establish a flat fee irrespective of where the end customer is located. The company has also recently been involved in deals with property development firms such as Birchdale Developments about fibre-enabling entire new housing developments.

## **Project ATLAS – Scotland, United Kingdom**

### **Overview**

Project ATLAS connects business parks within Scotland

### **Status**

Construction is underway and is due to finish by the end of 2006 – this covers 6 business parks (further parks may be added at a later stage); the service is not yet commercially available.

## **Financial and legal structure, liabilities of parties**

ATLAS aims at setting up a special purpose vehicle with the asset manager being procured for a period of 15 years. The initiative belongs to the Scottish Enterprise and the project is further funded by both the UK government and by the European Regional Development Fund.

## **Cost, overall budget**

The budget is estimated to be in the region of GBP30 million.

## **Status under EC law**

The European Commission decided that the project is compatible with Article 87(3)(c) of the EC Treaty.

## **Business model**

The ATLAS project aims at connecting business parks in Scotland on an open-access basis, the service being offered wholesale to retail service providers. The EC's approval however only allows Project ATLAS to construct infrastructure on the business parks, and not to construct backhaul – this may become an issue in the future.

## **Citynet – Amsterdam, the Netherlands**

### **Overview**

Early in November 2005, the City of Amsterdam announced the launch of a fibre project to provide Amsterdam with a citywide fibre-to-the-home (FTTH) network.

### **Status**

The City of Amsterdam retained the tentative winners of the bid to lay the fibre but the decision is still awaiting the City Council's approval.

### **Financial and legal structure, liabilities of parties**

The network is owned by Glasvezelnet Amsterdam BV (GNA), a third of which is owned by the Municipality of Amsterdam, a third by five Amsterdam housing corporations, and a third by ING Bank. GNA will commission the construction of the network from Draka (a cable company) and BAM (a construction firm). The initial service provider, bbned, will rent the infrastructure and will have to provide wholesale access to other service providers.

### **Cost, overall budget**

The overall budget for the network is believed to be in the region of EUR300 million, although the first phase, covering 10% of the population (40 000 households) amounts to EUR25 million, of which EUR6 million is being financed by the City of Amsterdam.

### **Status under EC law**

The shareholders of Glasvezelnet Amsterdam BV invest under the same conditions in a profitable business with an acceptable risk/reward relationship. The municipality is currently in talks with the

European Commission and is seeking compliance with the EU's market economy investor principles (MEIP). The network is provided at wholesale level on a non-discriminatory conditions basis.

## **Business model**

Citynet is not a pilot project as such but is seeking recognition of the model in low-income neighbourhoods so that the deployment to these 40 000 homes in representative parts of the city will provide a showcase for potential investors. The Citynet project is aimed at satisfying both the public sector's increasing needs and the market potential for triple-play services.

## **Iris?#150; Paris, France**

### **Overview**

Iris?as founded in April 2001, shortly before the French law of July 2001 allowed local public authorities to join forces and build infrastructure-only telecommunications networks. Iris?supplies a community of 80 cities and 4 million inhabitants around Paris with a dark fibre offering that other telecoms operators may operate.

### **Status**

Iris?as been commercially operational since 2003.

### **Financial and legal structure, liabilities of parties**

SIPPEREC is a community of 80 municipalities around Paris. In February 2001, SIPPEREC procured the build-out of a fibre network from LDCollectivit? whose 18-year contract was fully transferred to Iris?n April the same year, following negotiations between LDCollectivit?and the SIPPEREC. Iris?s composed of LDCollectivit? Caisse des D?ts, Telcit?a telecoms subsidiary, of the Parisian regional transport authority) and Dexia (a private equity bank). It was further granted a debt allowance of EUR19.8 million in March 2002.

### **Cost, overall budget**

The overall investment made by Iris?mounted in December 2004 to EUR35 million with EUR27 million directly invested in network assets. The network currently represents about 580km of fibre.

### **Status under EC law**

We are not aware of any current notification to the European Commission for this network. The services are provided both to the public sector and to retailers on a non discriminatory basis.

## **Business model**

In addition to deploying fibre for local authorities, hospitals and schools and managing the network for them, Iris? recently partnered with housing corporations to help them develop leased fibre solutions rented to service providers in order to offer residential triple-play services to end customers. Part of the Iris? fibre infrastructure (111km of fibre) is actually outside the scope of the overall mandate from SIPPEREC.

## **Dorsal – Limousin, France**

### **Overview**

Faced with difficulties having operators propose a broadband offering in rural areas of Limousin, public local authorities created a special purpose vehicle to manage their right to operate a fibre network and deploy an infrastructure spanning several cities. The project encompasses a mix of fibre, DSL and wireless technologies.

### **Status**

In November 2005, Axione Limousin had deployed about 100km of fibre. It is not yet available for commercial service.

### **Financial and legal structure, liabilities of parties**

Although local public authorities in France have had the right to own and operate telecommunications networks since June 2004, the local public authorities in Limousin decided to delegate their rights to a Syndicat Mixte legal structure called Dorsal. Dorsal procured the construction and operation of the broadband infrastructure by means of a twenty-year public service delegation in the form of a concession under French public law. The vehicle operating the network, Axione Limousin, is further funded by the Caisse des D?ts.

### **Cost, overall budget**

The project has a total budget of EUR85 million, provided by several public and private sector parties. The network should cover about 1000km of fibre by the end of the project.

### **Status under EC law**

The European Commission recognised access to broadband services for all citizens as a service of general economic interest (SGEI) for this project and also recognized that funds originating from public sector bodies should not constitute state aid in this case. The Commission considers that the public co-funding of the infrastructure constitutes compensation for the provision of an SGEI and hence is not state aid because the project fulfils the four criteria established by the Court of Justice in the Altmark ruling (24 July 2003, in Case C-280/00).

### **Business model**

Axione Limousin is not allowed to sell any services other than to operators as specified by the delegation contract. It can however provide local public sector institutions with managed fibre services, in addition to which service operators will propose other services.

## **Iris 64 – Pyr es Atlantiques, France**

### **Overview**

After two general studies on the development of broadband in the Pyr es Atlantiques showing lack of broadband infrastructure, and following the French law number 2004-575 of 21 June 2004 on Confidence in the Digital Economy, the Conseil G ral of Pyr es Atlantiques decided to tender out the construction of a regional fibre network spanning both cities and rural areas. The project consists of a mixture of fibre and DSL deployments to both public sector sites and business parks.

### **Status**

The construction of the network began in February 2005; 360km of the projected 970km had been deployed by October 2005. The service is not yet commercially available.

### **Financial and legal structure, liabilities of parties**

Iris 64 is the special purpose vehicle financed jointly by the partnering delegates (LDCollectivit and Sogetrel) and by the Caisse des D ts. It benefits from a twenty-year public service delegation contract (in the form of a concession) issued by the Conseil G ral des Pyr es Atlantiques.

### **Cost, overall budget**

The overall budget is EUR61.8 million, with 67.8% funded by diverse public sector bodies

### **Status under EC law**

The project of the Conseil G ral des Pyr es Atlantiques was the first project in France recognised as a service of general economic interest (SGEI), on similar grounds to the project in Limousin, since it complied with the four criteria defined in the Altmark law case.

### **Business model**

Iris 64 will serve both the public sector and the operators at the wholesale level. It will aim at proposing a single tariff per unit of bandwidth capacity across the whole region

## **Broadband initiatives in the USA**

### **Utopia – Utah, United States**

## **Overview**

Utopia (Utah Telecommunication Open Infrastructure Agency) is a government entity resulting from an inter-local agreement between 14 municipalities of the state of Utah guided by a common set of specific goals regarding competition in broadband services, ubiquitous deployment and the avoidance of redundant connections and multiple public works by building an open network fibre infrastructure.

## **Status**

Utopia entered the fourth phase of its initial development plan earlier this year when Tetra Tech carried out a fibre deployment. At the same time, 11 out of the original 14 cities restated their commitment to the financial backing of the project and backed a bond issued by Utopia.

## **Financial and legal structure, liabilities of parties**

Utopia is organising the network development along as a series of procurements. The network construction was tendered out and attributed to Tetra Tech. Electronics. Infrastructure contracts have also been granted to Amino, Riverstone, Allied Telesyn and Provo Video Headend. The service procurement attributed the service market to DynamicCity, Inc., which now operates the network.

## **Cost, overall budget**

The overall budget required to construct networks in the 11 cities backing the project is approximately USD340 million. A 1.5% construction loan is specifically obtained for each build phase and later converted to a 20-year bond with 6% coupon backed by the municipality. EUR85 million has been allocated to the first phase of the project.

## **Status relative to State Law, competition neutrality and network openness**

There has been no known cases of legal filing against Utopia except Qwest filing a lawsuit during 1H05 against UTOPIA and one of its member cities. The network service contract holder is only allowed to provide wholesale services, while the network is open access and service offers are non-discriminatory.

## **Business model**

DynamicCity is allowed to pursue any type of customer but only those that are licensed operators or from the public sector. Utopia is facing strong reaction from other cable competitors in its roll-out areas, specifically on price.

## **BELD – Braintree, Massachusetts, United States**

### **Overview**



Braintree Electric Light Department (BELD) was founded in 1892 and is a not-for-profit public power utility owned and operated by the citizens of Braintree, supplying electric, Internet, and cable television service to the town. In 1998 it began installing a Hybrid Fibre Coax system in conjunction with an automated meter-reading project. Since 2000, Braintree has been operating a cable TV licence over this fibre-based network

## **Status**

Because of reinvestment pressures in response to new Comcast digital services, BELD had to raise its cable rates for its various packages by about 20% during 2004

## **Financial and legal structure, liabilities of parties**

The Braintree Electric Light Department is a public power utility

## **Costs, overall budget**

The overall budget is believed to be approximately USD5.8 million

## **Status relative to State Law, competition neutrality and network openness**

We are not aware of any specific cases having been filed against BELD related to the competitiveness of broadband services

## **Business model**

The Braintree model relies on cable TV developed in an HFC environment

## **BVU Optinet – Bristol, Virginia, United States**

### **Overview**

Bristol Virginia Utilities (BVU) is a municipally owned provider of electric, water, wastewater and fibre-optic services to the greater Bristol, Virginia, area. BVU OptiNet, the municipality's BVU's communications subsidiary, began building its fibre-optic network in 1999. Initially, the service was offered to local schools and government. After carrying out a customer survey in 2001, OptiNet began pursuing the ability to offer phone, cable TV, and Internet solutions to residential and business customers in its region

### **Status**

The service is currently commercially available

### **Financial and legal structure, liabilities of parties**

In 2003 the Braintree Electric Light Department was granted USD4 million by the Virginia Tobacco Indemnification scheme and a loan of USD43 million was arranged and backed by the municipality. Later in 2003 the City of Bristol raised USD27.5 million in capital for Optinet out of a USD50 million bond issuance

### **Costs, overall budget**

The overall budget is believed to be approximately USD31 million

### **Status relative to State Law, competition neutrality and network openness**

In 2002, Sprint filed a complaint concerning predatory or below-cost pricing. The Virginia State Corporation Division ruled against this complaint in February 2005.

### **Business model**

The company started by addressing demand from the public sector. It now addresses all residential and business customers in its fibre area.

## **Lafayette Utility System – Lafayette, Louisiana, United States**

### **Overview**

Lafayette Utilities System (LUS) is a department of the Lafayette Consolidated government. The utility employs about 400 people in supplying electric, water and wastewater services. Over the last year, LUS has raised a firestorm of criticism and galvanized political support regarding a proposal to serve 110 000 of its customers with communications services using a new fibre network as the city already has extensive broadband services provided by two large telecommunications carriers, BellSouth and Cox Communications, and several smaller competitors.

### **Status**

On July 16, 2005, LUS won a vote to issue up to USD125 million in bonds to build an all-fibre network that is to support low-cost phone, cable and high-speed Internet services for the homes and businesses in the community.

### **Financial and legal structure, liabilities of parties**

LUS is a public power utility

### **Costs, overall budget**

The overall budget is believed to be USD125 million

## **Status relative to State Law, competition neutrality and network openness**

The company status allows the sale of broadband services to the retail market. The project does not include, so far, any limitation to a wholesale offer to other market competitors

## **Business model**

The utility company would focus on the retail residential market with a triple-play offering

## **Cedar Falls Utilities - Cedar Falls, Iowa, United States**

### **Overview**

Established as a municipal utility in 1958, Cedar Falls Utilities (CFU) is now the largest municipally-owned service utility offering broadband access in Iowa. Since 1996, the town has offered high-speed Internet services and point-to-point connection products to Cedar Falls' businesses using a fibre-optic network. The division also offers cable television services

### **Status**

After eight years of unprofitable operations, the broadband operations has been in 2003 and 2004 very close to breakeven

## **Financial and legal structure, liabilities of parties**

CFU is a public power utility

## **Costs, overall budget**

The budget is estimated at USD12.5 million

## **Status relative to State Law, competition neutrality and network openness**

To our knowledge no cases have been filed against CFU on grounds of service competitiveness in the market

## **Business model**

The broadband operations will focus on the retail residential market with a triple-play offering