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Review of the UK Broadband Fund

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ES1 Summary

ES1.1 Introduction

This report is concerned with the independent review and evaluation of the [UK Broadband Fund](#) (the Fund).

ES1.2 Context

Government recognized broadband as a key technology for the furtherance of UK economic prosperity but was concerned over coverage and the slow take up. It was apparent even in early 2001 that uneven access would create a “broadband divide”¹.

In seeking to address the challenges facing them the Government published *UK online: the broadband future* in February 2001, to accompany the white paper “Opportunity for All in a World of Change” which set a new target – “*for the UK to have the most extensive and competitive broadband market in the G7 by 2005*”.

The White paper announced the Fund, which was established through DTI in late 2001. Its purpose was to help develop innovative broadband related schemes to meet local requirements, to ensure that as many people and businesses as possible across the UK were provided with access to affordable broadband services. Whilst the focus was not solely rural, the prevailing market conditions determined that the majority of the projects would have that focus.

The Fund was disseminated to the 12 Regional Development Agencies/Devolved Administrations (RDA/DA) of the UK and each has used the Fund in different ways and focused on different strategies according to local priorities. Although designed to run to March 2004, the Fund was not intended to work in isolation and there were many other significant local, regional and central Government and European interventions that operated along side it

ES1.3 Broadband Knowledge In The RDA/DAs

In 2001, amongst the hierarchy of the RDA/DAs, while there may have been an awareness of broadband there was little knowledge or experience relating to its possible impact on UK businesses.

¹ UK online: the broadband future. Feb 2001.

ES1.4 Strategy and Action Plans

In distributing the Fund, DTI required the RDA/DAs to develop action plans to describe how the Fund monies would be spent. Hyder Consulting received widespread comment that the DTI imposed short time scales on the preparation of these plans. It could be said that RDA/DAs might have taken greater notice of the earliest announcements of the Fund (i.e. the White Paper), using them to guide their advanced thinking and planning for the Fund when it was notified more directly some eight months later. In their defence we have established that many RDA/DAs were relatively poorly equipped to pick-up on or recognise the importance of ICT related pronouncements before the direct communication of the Fund.

Broadly speaking the majority of RDA/DA strategies focused on more than one of the following areas in order to achieve their overarching ambition of increasing economic effectiveness amongst UK businesses:

- Improving [access](#) through more widespread availability.
- Stimulating and recognising [demand](#).
- Raising [awareness](#).
- Improving ICT and [e-Skills](#).
- Demonstrating or encouraging [content](#) development.
- Promotion, influence and the ability to provide good quality [information](#).

In developing their plans the RDA/DAs exhibited certain traits that we consider led to the development of a good action plan:

- Spreading focus across three or more key themes.
- Time and timing.
- Expertise and experience.
- Contacts and/or a developed network of likeminded support.
- Well developed understanding of the environment in question and the factors driving it and an ability to relate it to previous similar experience.
- An ability to consult with many yet decide within a small highly focused team.
- Robust management and leadership and a local champion.

The requirement for an action plan was sensible and appropriate but we express concerns in Section 5 as to the level of attention paid to risk; targets and outcomes; and the management of performance at both the DTI and within the RDA/DAs.

ES1.5 Projects and Initiatives Arising

Table 1 describes the number of projects carried forward by the RDA/DA and where there was an element of community engagement we highlight the level of interest and how many projects were ultimately awarded funding by the RDA/DA.

RDA/DA	Centrally Driven Initiatives	Proposals Resulting From Local Large Scale Competitions	Projects Arising From Local Proposals	Comment
SWRDA	5	N/A	N/A	Including RABBIT
SEEDA	2	N/A	N/A	
LDA	1	N/A	N/A	
AWM	5	N/A	N/A	
EMDA	5	N/A	N/A	
EEDA	6	87	21 winners	Proposals resulted from the Connecting Communities Competition (one of the six central initiatives)
NWDA	1	71	22 projects	The centrally driven initiative includes needs analysis, marketing, centralised administration and management and the Sub-Regional needs analysis leading to the broadband projects
YF	4	N/A	N/A	Of the 4, 2 projects were cancelled and the other two became the Business Insight Programme
ONE	4	N/A	N/A	
DETI(NI)		110	43 projects	
Wales	2	N/A	N/A	
Scotland	12	N/A	N/A	

Table 1 – High Level View Of RDA/DA Project Activity

The results indicate that the majority of projects and initiatives have fallen into three categories:

- 39% Subsidised trials and technology pilots.
- 37% Marketing and promotion and content oriented initiatives.
- 18% Research and feasibility studies and the direct funding of human resource.

ES1.6 Results

The Fund has been responsible for the origination of well over 130 projects or initiatives and has been instrumental in securing circa £65 million of additional funding.

Results are considered in terms of those which are quantifiable and those that are not.

Table 2 provides a useful insight into the quantifiable impact made by the Fund. Owing to outstanding Project Evaluation Reports these are the minimum levels experienced and, particularly in the East Midlands region where Fund projects are only now moving beyond the tendering phase, will only continue to grow.

Category	Outcome
New Connections – Public	306
New Connections ² – Private (SMEs)	2,733
New Connections – Citizen	5
New Connections – Non Specific	3,865
New Connections Total	6,909
Projects extending broadband coverage	79
Number of people or SMEs exposed to broadband related awareness raising ³	957,961
SMEs/Communities receiving broadband related presentations	14,857
Broadband related workshops / seminars held	615
Citizen / SME visits to Access Centres	4,266
Specific use of website / portal by a project to promote broadband or allow registration of interest	14
Content - Applications, demonstrators or facilities developed	93
Citizens / SMEs demonstrating commitment to broadband	27,445
Sustainable projects / networks	35

² Includes RABBIT grants.

³ Includes estimate of those exposed via S4C Welsh television documentary on fund initiative.

Category	Outcome
Instances where the feeling was expressed that the Funded projects had a direct impact on the BT ADSL Programme – i.e. the local exchange was enabled due to local Funded activity.	11
Number of residents thought to have had broadband services made available to them as a direct or indirect result of the Fund	1,606,021
Number of SMEs thought to have had broadband services made available to them as a direct or indirect result of the Fund	76,901

Table 2 – Quantifiable Outcomes To Projects Initiated By The Fund

Hyder Consulting considers that the Fund has had a positive effect and it can be confirmed that it has largely met its original objectives, the following are some of the less quantifiable, yet pleasing outcomes stimulated by the Fund:

- RDA/DAs now recognise the importance of the availability of high quality telecommunication services to the continuing economic competitiveness of their regions and, thanks to the Fund, have put IT and telecoms strategic planning on a much firmer footing.
- The Fund was the catalyst for a greater focus on broadband within the RDA/DAs and has led to a number of new appointments in strategic positions or re-alignment of existing posts.
- The Fund has allowed a deal of experimentation and learning about broadband, this has benefited a variety of people and organisations from the RDA/DAs, local authorities and partnerships through the suppliers, content developers, centres of learning, consultants, SMEs and citizens. Considerable experience has been gained regardless of whether the projects and initiatives were a huge success or a major disappointment.
- The Fund has acted as the stimulus for a range of other projects/initiatives and, in the case of ONE, developed it as a knowledge-based region and world centre for data storage and recovery.
- The Fund has contributed to the activity in the supplier market place, where once few were known to exist it is now possible to readily identify in excess of 120 broadband suppliers and service providers.
- It is particularly satisfying to note the widespread innovation expressed through the projects, business and the communities, some wonderful concepts have had life breathed into them by the Fund.

- Many parties with a vested interest in broadband have benefited from the significant activity caused through the Fund. Marketing and other awareness raising initiatives not only benefited the Fund projects but will undoubtedly have helped the major service providers, particularly through independent promotion of the technology, accelerating the overall programme pace for BT and others.
- It would appear that in seeking to protect its own interests the Fund may have influenced BT in its ADSL enablement programme. If that could categorically be proven then it is not stretching the point to suggest that millions have benefited in an indirect manner through having earlier access to ADSL services than might have been the case.

ES1.7 Lessons Learned

The strategies adopted by the RDA/DAs have, naturally enough, witnessed successes and disappointments. The more obvious disappointments have been caused by:

- BT's ADSL roll-out.
- The lack of information supplied by principal service providers.
- Supplier failure.

These three factors have accounted for more projects being cancelled or re-focused than all other factors put together. Other factors which also adversely effected the projects are discussed in greater detail in Section 8.

ES1.8 Best Practice

We believe that a number of the projects originated in one RDA/DA would work equally well in other regions. A review of these projects is given in Section 9.

ES1.9 Recommendations

A single page of recommendations is presented at Section 11.

ES1.10 Legacy Of The Fund

During the lifetime of the Fund coverage of the nation by a terrestrial broadband solution increased from 63% in November 2001 to 90% in June 2004. Connections, or penetration, calculated as a percentage of total households and businesses, grew from 1.4% in February 2002 to 13.9%

March 2004⁴ and nearly 30% amongst those having an internet connection - a more focused user group. As of September 2004 the number of broadband connections had risen to 5.3 million.

Towards the end of 2003, the Government reported on the UK's progress in relation to other G7 nations.

- Based on the extensiveness index, which combines coverage and the addressable market, the UK moved up to **third** equal with the USA (was 5th in 2001).
- Based on the competitiveness index, which measures choice, price and regulation, the UK was ranked **third** (was 4th in 2001).
- Based on the take-up index, the UK was joint **sixth** in the G7 with Italy (was 7th in 2001).

Clearly there is still work to do to achieve the desired targets but progress is being made and the Fund has been an important contributory factor.

The Fund has been responsible, along with other market stimuli, for raising broadband to a new level. There are still problems to be overcome, but the future is looking particularly promising in the light of recent BT announcements concerning coverage enhancements. Take-up and content remain thorny issues but we are convinced that the market is looking healthy, which will encourage innovation in content delivery in many quarters and in turn lead to increased take up amongst SMEs and residents of the UK.

The Fund was announced at a relevant time and has spawned some highly innovative and interesting projects and initiatives. The market is an entirely different place to that of 2001 and the RDA/DAs have learnt many useful lessons during the period that will enable them to perpetuate their success in the coming months and years.

The Government's target is for the UK to have the most extensive and competitive broadband market in the G7 by 2005. Thanks in part to the Fund, we are moving in the right direction!

⁴ Analysys/DTI

1 Introduction

1.1 General

In 2000 the UK first began to witness the deployment of broadband technologies to the mass market. Immediately, it was recognised at Government level that broadband had the potential to make a positive impact on the UK social and economic fabric and commenced work to monitor and report the progress being made in broadband deployment and take up. Early signs indicated the need for intervention.

The UK Broadband Fund (the Fund) was established through the DTI in late 2001 to help develop innovative broadband related schemes to meet local requirements, to ensure that as many people and businesses as possible across the UK were provided with access to affordable broadband services. Whilst the focus was not solely rural, the prevailing market conditions determined that the majority of the projects would have that focus.

The Fund was disseminated to the 12 RDA/DA of the UK and as a consequence each has used the Fund in different ways and focused on different strategies according to local priorities.

The Fund finished at the end of March 2004 and good practice requires a concluding study in order to judge its effectiveness in terms of its overall objectives and as a matter of accountability.

1.2 Assignment Objectives

The requirement placed on Hyder Consulting (UK) Limited is to provide the DTI with an independent review and evaluation of the Fund. The evaluation has three overall aims:

- To understand the impact that the £30 million Fund has had on the availability and take-up of broadband services in the UK as well as any impact on content development.
- To understand any changes in distribution of resources and behaviour of those working in RDAs and the wider community.
- To identify examples of best practice that can be more widely applied in the UK.

It is important that the DTI has an overall picture of the Fund and has the ability to compare and contrast the different projects undertaken regionally to be able to identify best practice that might be applied nationally. Therefore, the DTI has a need to develop a robust and relevant evidence base for evaluating/assessing the possible focus for interventions to promote access and take-up of ICT and broadband in rural areas in the

future. Furthermore, the results will also inform wider government policy development on broadband.

1.3 This Report

This report consists of:

- The main body of the report – drawing together and summarising the information gleaned through interviews and research focused on each of the 12 RDA/DAs.
- 12 Annexes – providing an analysis of the state of broadband before and after the Fund by RDA/DA, together with commentary on the approach taken to the Fund, how the money was spent and what lessons were learned.
- A number of Appendices to the Annexes giving further details about certain local projects.

It must be stressed that the basis of our evaluation of the impact of the Fund is predominantly based on the series of interviews conducted with the RDA/DAs and the associated documentation and supporting evidence supplied by the RDA/DAs.

1.4 Audience

This report has been prepared by Hyder Consulting for the attention of the DTI/Defra Rural Broadband Unit.

1.5 Acknowledgements

Hyder Consulting wishes to recognise the time, support and assistance it has received from the DTI/Defra Rural Broadband Unit, OFCOM, BT and each of the RDAs and DAs.

2 Introduction to Broadband

2.1 What is Broadband?

To establish this we quote a popular definition, provided in the UK online Broadband Strategy of December 2001. “Broadband’ is the term used for ‘always on’, higher speed access to the Internet. This additional bandwidth, over and above the typical 56kbps provided by a standard dial-up modem, allows new value-added services to be delivered to consumers and businesses. Consumers will benefit from video and audio streaming, new forms of interactive entertainment and new ways of learning over the Internet. Businesses stand to benefit from productivity improvements; for example, improved low transaction cost communications with customers and suppliers. Broadband also enables application service provision that permits the outsourcing of IT functions and enables companies to focus on their core business.”

2.2 Why is Broadband Important to the UK Economy?

Broadband is important for a variety of reasons, for example, the use of always-on technologies tends to make the user’s experience of internet access a more pleasant one - no more frustrating waits while modems hand-shake and connect etc.; the data rates enjoyed by broadband users allow swifter download of email and web information; and the additional bandwidth makes it possible to produce information and applications in ever more complex, exciting delivery formats (content).

It is perhaps true to say that the better the experience – whether that be for personal or business use, the more one is likely to demand more of the same. If this is true of broadband then what starts as a general appreciation for easier and more pleasurable access to the internet and email is likely to encourage a more pervasive attitude and further the evolution towards the electronic delivery of business activities and public services. This is set to be a significant factor in making the UK a leading competitor in the world economy and, as a consequence, a key objective of government.

While there has been an underlying belief that ICT, especially where facilitated by broadband connection, is good for business little solid evidence existed until fairly recently. SWRDA commissioned a report⁵ by independent experts based around a comprehensive survey of internet usage by businesses in the South West. A headline finding of the survey was that “Companies that use ICT have, on average, improved turnover by 6 per cent, whereas companies without have improved by 3.5 per cent.”

The report also identified that broadband has already delivered positive benefits to so-called “early adopters”; these are reproduced in Figure 1.

⁵ SWRDA briefing paper summarising the report, May 2004.

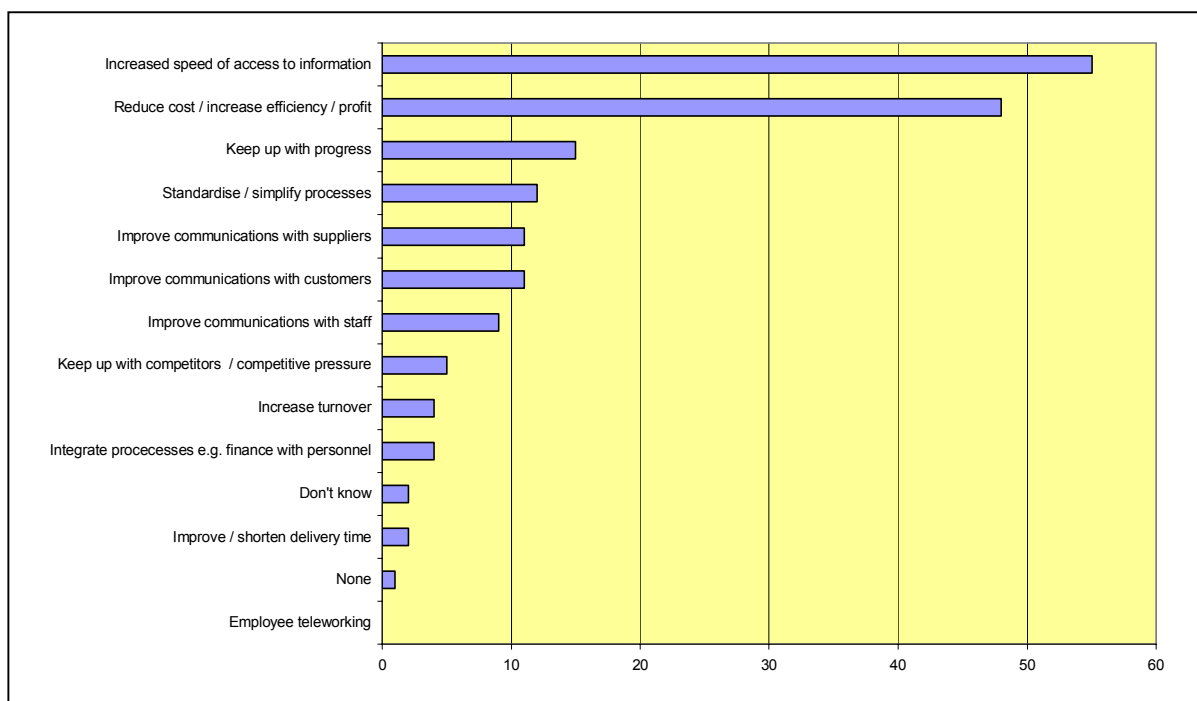


Figure 1 – Reasons For Changing Internet Connection (%)⁶

2.3 Key Mass Market Broadband Technologies

Any subscriber with a fixed telephone line can achieve slower, dial-up narrowband data transmission. Broadband technologies offer important enhancements that promote the economic and social well being of UK businesses and residents. Many large corporations and other users who are prepared to pay higher prices for dedicated circuits have long enjoyed broadband speeds. This report addresses the drive to provide similar services to the nation at large – so called ‘mass market broadband’.

Mass market broadband is effectively offered in four ways. The fixed line network operators will upgrade traditional exchanges with DSL technology to provide high-speed access via the telephone line to the building, sometimes in-filling with wireless technologies. Cable network operators use their cable networks to extend broadband to households or businesses. Finally, access is provided through high capacity fixed wireless or satellite systems.

Each of the above technologies has its pros and cons. Telephone system network operators have fought to overcome problems associated with distance of the target subscriber from the local exchange; the cable operators have only a relatively limited network through which to extend broadband coverage and have mixed quality of infrastructure; satellite has suffered from issues surrounding the speed of up-loading information to the internet (so called “latency”); and fixed wireless solutions, like many

⁶ Source. SWRDA ICT Benchmarking Study.

wireless based concepts, have had a myriad of issues to overcome in terms of spectrum availability and licensing, location and backhaul.

2.4 Service Providers

Looking across the four different technology solutions there are many companies from whom these broadband service can be procured. While many potential subscribers would not look further than BT or cable companies through which to procure broadband needs the market is in fact much wider. Through the process of Local Loop Unbundling (LLU) fixed line network providers will rent space inside the local (e.g. BT) exchange and install their own access equipment in order to provide DSL services to the market. This has allowed a range of fixed line service providers to come to market and compete for subscribers with BT.

To attempt to list service providers would be unwise as the list would be out of date within weeks and would be unlikely to name most let alone all providers. However, there are various internet web sites where lists of service providers are given and allow comparison. We highlight just two, one of which (RABBIT) was created by the Fund:

- www.adslguide.org.uk;
- www.rabbit-broadband.org.uk.

3 Broadband in the UK In The Period To 2001

3.1 Internet Usage

Broadband is a transportation device; it improves the ability of computers to communicate and capitalise on the opportunities presented through email and internet. Thus in considering broadband it is useful to firstly understand the penetration of internet usage in our daily lives. In November 2001 the following applied:

- % UK homes with Internet access - 39%;
- % UK SMEs with Internet access - 61%;
- Number of UK homes with Internet access - 10 million;
- Number of UK SMEs with Internet access - 2 million.

3.2 Broadband Availability

BT had enabled an initial 400 exchanges by April 2000, providing 26% coverage of UK residents and businesses and had plans to implement a further 100 by the middle of 2000. The initial availability is shown in Figure 2 and identifies that coverage was largely concentrated on more densely populated urban/sub-urban centres and conurbations. This was not surprising and mirrored the roll out plans of numerous other mass-market services, particularly perhaps those of the mobile telephone networks through the 1980s and 90s.

2001 saw a modest increase in the deployment of broadband services across the UK. Nationally, BT increased the number of exchanges ADSL enabled from 839 to 1000 during the year, giving a corresponding rise in coverage from 50% to 60% of UK households. At this time, cable modem services provided coverage to around 39% of homes and businesses.

In November 2001, terrestrial broadband solution availability stood at 63%⁷ of households across the nation.

⁷ Analysys/DTI

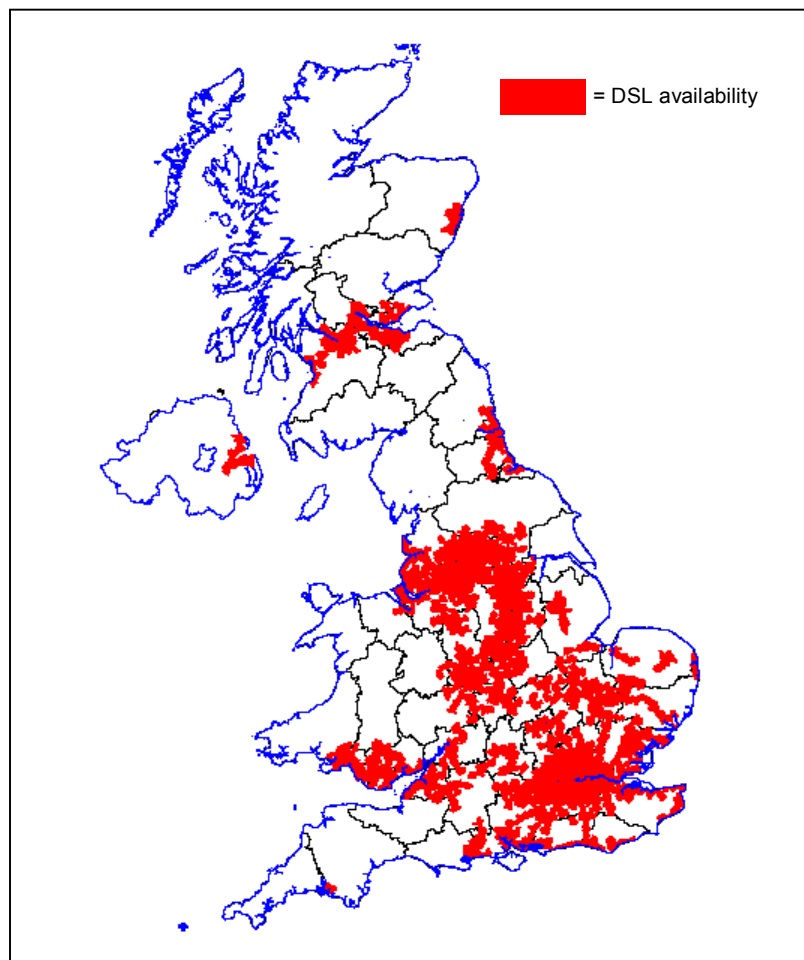


Figure 2 – DSL Coverage Of The UK Circa Mid 2000

3.3 Take-Up

In November 2001 Office of the e-Envoy studied eleven markets in which UK was 6th on extensiveness, 6th on competitiveness and 10th on take up. Cable modem coverage was 40%; DSL sat at 55% coverage. Cable take up was faster than DSL until 2003.

In February 2002 broadband service take-up amongst all households and businesses stood at 1.4% nationally.

The market was at an early stage of its development in 2001 and these figures represented an understandable start point. Amongst those who believed or recognised the benefits of broadband this presented a challenge to achieve a greater emphasis on encouraging the adoption of broadband. At that time it was estimated that between 10-15% of households would not have broadband by the 2005 target unless something more was done.

3.4 Available Services and Price

ADSL creates a high-speed digital connection over an existing telephone line using a pair of modems, one at the user end and the other at the exchange. The downstream data rate is much higher than the upstream data rate. DSL is a distance-dependant technology and in 2001 this meant that it was normally available to those consumers who lived within 3.5km distance of their local exchange.

In November 2001, BT's key products were:

- IPStream 500: an entry-level ADSL product aimed at the residential market. It used rate adaptive technology to extend the range from 3.5km to 5.5km from the local exchange at the expense of slower upstream speeds.
- IPStream S: was available in 500, 1000 and 2000 kbps variants. Its higher prices and better service quality meant that it was aimed at the SME market.
- VideoStream: enabled the provision of video-on-demand services.
- DataStream: enabled the provision of IP-based networks, such as corporate intranets.

There were around 195 operators, service providers and corporates that had signed a contract for BT's wholesale ADSL products, including BT's own service provider, BTOpenworld.

On 1 September of 2001, BT reduced its wholesale monthly rental charge for IP Stream 500 from £35 to £30 a month to enable BT's wholesale customers to stimulate take up by end users. BT also introduced some special offers on wholesale connection charges. For example, the connection charge for IPStream 500 was reduced from £150 to £75 for 3 months starting on 1 October 2001. The connection charge for VideoStream was to be reduced from £625 to £50 for six months.

In November 2001, both Ntl and Telewest offered high-speed Internet access over their cable networks via cable modems. Data rates were 512kbps downstream and 128kbps upstream.

Telewest charged £50 connection and a monthly fee of £33 or £25 if you subscribed to other Telewest services. Ntl charged £25 for installation and either £150 for the modem and a £20 monthly fee, or a monthly charge of £25 including the cost of the modem. Customers could also pay around £30 per month to receive telephone and digital television services bundled with broadband Internet access.

3.5 Issues Facing the Government and Industry in 2001

Government recognized broadband as a key technology for the furtherance of UK economic prosperity but was concerned over the slow take up. It was

apparent even in early 2001 that uneven access would create a “broadband divide”⁸.

Achieving coverage and take-up reflected the classic “chicken and egg” scenario. On the one hand government wanted coverage to overcome the urban/rural divide while on the other the network providers wanted improved take-up amongst those who had access to confirm the business case for further investment. Both sides, given their perspectives and drivers, were right.

While the market was still in its infancy it was becoming clear that in order to achieve a win/win situation for government and the private sector the key challenges would be:

- Achieving technology diversity and maturity.
- Creating and motivating a competitive and vibrant market place.
- Providing an exciting and stimulating user experience.
- Encouraging new business concepts and ways of working.
- Providing leadership.

3.6 Reaction

In seeking to address the challenges facing them, and in the belief that the rapid roll-out and adoption of broadband across the UK was important to both its social and economic objectives the Government published *UK online: the broadband future* in February 2001, to accompany the white paper “Opportunity for All in a World of Change” which set a new target – “for the UK to have the most extensive and competitive broadband market in the G7 by 2005”.

The White paper announced the Governments intentions: “As an initial step, we will set up a new £30 million fund over the next three years to support innovative schemes to meet local requirements, to see how we can ensure that as many people and businesses as possible across the UK have access to affordable broadband services.”

It went on to say of this fund: “A new fund of £30 million over the next three years will support the Regional Development Agencies and Devolved Administrations in taking forward innovative schemes to meet local requirements for extending broadband networks, building on international best practice.”

These publications also committed the Government to establishing the Broadband Stakeholder Group to develop a detailed strategy for meeting that target.

⁸ UK online: the broadband future. Feb 2001.

In determining its leadership role the Government had to consider what represented an appropriate level of intervention and the mechanism through which this could occur. In recognition that RDA/DAs had a pivotal role to play in harnessing private sector investment, regional funding and public sector demand for broadband, the Government developed the £30 million Fund, which was subsequently channeled through the DTI to RDA/DAs to help them stimulate supply and demand for broadband services in rural areas.

The following extract from the Broadband Stakeholder Group's report "The Impact of Public Sector Interventions on Broadband in Rural Areas" published in 2003 noted the following about the Fund. "When the DTI announced the Fund in 2001, the UK broadband market was at a nascent stage and it was not clear what the most appropriate public sector interventions to stimulate supply and demand for broadband services in rural areas might be." Although designed to run to March 2004, the Fund was not intended to work in isolation and there were many other significant local, regional and central Government and European interventions that operated along side it, for example the establishment of the DTI/Defra Rural Broadband Unit in 2002 was another.

3.7 Broadband Awareness of RDA/DAs in 2001

RDA/DAs exist to deliver lasting economic success to their regions yet it is true to say that in 2001, amongst the hierarchy of the RDA/DAs, while there may have been an awareness of a thing called broadband there was little knowledge or experience relating to its possible impact on UK businesses. This is not true in all cases, some RDA/DAs had already begun to be involved in or established broadband activities (e.g. Yorkshire Forward, SWRDA) but it was a mixed picture across the UK.

It remains Hyder Consulting's feeling that the identification of broadband as a delivery mechanism for social and economic benefits at RDA/DA level would not have been as regularised as it now is had it not been for the Fund.

4 Raising Awareness And Distribution Of The Fund

4.1 Concept and Key Objectives

The Fund was established to help develop innovative schemes to meet local requirements in order that as many people and businesses as possible across the UK had access to affordable broadband services. Whilst the focus was not solely rural, the market conditions meant that the majority of the projects were to have that focus.

Each RDA/DA used the Fund in different ways and focused on different strategies as a result of the prevailing socio-economic and other circumstances.

4.2 Raising Awareness Amongst RDA/DAs

The Fund was announced in the White Paper in February 2001 and as such all RDA/DAs might have begun to consider broadband more actively from this date.

The DTI issued an initial letter to all RDA/DAs on 21st May 2001 in which it drew attention to the White Paper's announcement and gave initial views on the distribution of the Fund, guidance, and principles of operation. Furthermore, the letter encouraged RDA/DA views on the matter by 11th June. Little feedback was received. In discussing this letter with the DTI it was agreed that a number of factors influenced the effectiveness of this letter in galvanising RDA/DA activity and reaction:

- DTI's broadband resources were only installed in April 2001.
- The DTI – RDA/DA relationship more generally was still relatively immature.
- As broadband was a novel concept, awareness in the RDA/DAs was limited and there was no established network through which to distribute such information. As a result DTI and the RDA/DAs were unsure who had the responsibility for these issues within the RDA/DAs and the letter was addressed to those who it appeared would be most appropriate – it appears probable that the letter never left some "in-trays".

The next significant communication about the Fund was presented to RDA/DAs through a letter from the DTI dated 8 October 2001 and accompanying "Guidance for Devolved Administrations and Regional Development Agencies". Experience had been gained by DTI since May and fledgling networks were in existence, which ensured the letter was acted upon immediately. This document detailed the following about the Fund:

- Background.
- Objectives.
- Arrangements.
- Examples of how the Fund might be used.
- Requirement for Fund Action Plans.
- Criteria for the assessment of the action plans.
- Comment on State Aid.
- Next steps.

The Funding allocation was notified in an Annex to the Guidance Notes.

4.3 Timings

The Next Steps section of the DTI letter dated 8 October 2001 asked for final versions of Fund Action Plans by 20 December 2001 (10¹/₂ weeks) in order that Funds would be released by January 2002. Draft action plans were required by 9 November 2001 (4 weeks).

Most, if not all RDA/DAs felt that the timescales imposed by the DTI were too short and that advanced notice should have been given that something was afoot; this might have helped in terms of facilitating preliminary negotiations with other public bodies/private organisations and to possibly elicit further funding. As we have in fact demonstrated, the RDA/DAs were informed directly as early as May 2001, but for various reasons the importance of the Fund failed to register with the right people.

Some RDAs thought that the time available to react to the DTI's letter of October 2001 focused people's attention, which, despite the short timescales, did create a very positive situation. This is evidenced by the flurry of activity that we noted at various RDA/DAs in terms of hiring new staff and consultations.

4.4 Requirements Placed on the Organisation

The development and drafting of the action plan was the single requirement placed on the RDA/DAs. The Guidance Notes demanded the creation of a plan that was to outline how the Funding allocation was to be used. These plans were to be linked to existing and near-future corporate strategies. The plans were discussed and agreed with the DTI.

The DTI stated that the plans were to include detail and comment on:

- An overview of the strategy for the use of the Fund, including the context and stakeholders.

- A description of the proposed activities, noting process, objectives and timescales.
- Targets for each proposed activity.
- A framework for the monitoring and appraisal of projects (Performance Management).

Most took the view that the requirements placed on the RDA/DAs in terms of submitting Fund Action Plans were necessary and appropriate.

Some RDAs suggested that the DTI's instruction was not as clear as it might have been and felt it allowed too much interpretation, which required subsequent clarification by the DTI; DTI's view is that they did not want to be too prescriptive in order not to inhibit innovation and were more than happy to enter into a dialogue with RDA/DAs as their plans developed. Furthermore, although the instruction discussed performance monitoring it was felt in some quarters that the DTI gave little firm direction relating to project management expectations, risk, performance monitoring or reporting of Fund activities. Again, DTI felt that RDAs had been established to deliver regional projects and were best placed to determine appropriate project management mechanisms.

4.5 Funding Awards

Funds were awarded by the DTI on the basis of a formula created around the number of residents who did not have affordable access to broadband services at that time. Funding was to be allocated over three financial years commencing with 2001/02. Total Funds were awarded by the DTI as detailed in Table 3.

RDA/DA	Funding Awarded
North East	£1.46m
North West	£2.68m
Yorkshire and Humberside	£3.1m
East Midlands	£2.09m
West Midlands	£2.08m
East of England	£3.22m
London	£0.113m
South East	£2.9m
South West	£3.78m
Scotland	£4.39m
Wales	£2.67m
Northern Ireland	£1.46m

Table 3 – UK Broadband Fund Allocations

5 The RDA/DA Action Plans

5.1 Broadband and the Wider Strategic Context

In all cases the Fund Action Plans demonstrated an awareness of national, regional and local economic issues peculiar to the region as well as local technology focused strategies, where applicable. There were a couple of cases where the RDA had no existing ICT Strategy in place, and so used the opportunity to develop this in tandem with the Fund Action Plan.

The actual strategy relating to spending the Fund differed between RDA/DAs and is starkly reflected in those adopted by, for example SEEDA and DETI(NI). SEEDA concentrated its efforts on two projects aimed at increasing availability of broadband infrastructure or choice of service provider while DETI(NI) encouraged projects across a much broader front based on a 3 phase strategy that first concentrated on raising awareness, then 'building' of infrastructure and finally content development (and stimulating of take-up).

Broadly speaking the majority of RDA/DA strategies focused on more than one of the following areas in order to achieve the overarching ambition of increasing economic effectiveness amongst UK businesses:

- Improving [access](#) through more widespread availability.
- Stimulating and recognising [demand](#).
- Raising [awareness](#).
- Improving ICT and [e-Skills](#).
- Demonstrating or encouraging [content](#) development.
- Promotion, influence and the ability to provide good quality [information](#).

In summarising RDA/DA strategies we highlight just some examples of the many credible visions or aims and objectives proposed:

- To provide an affordable and pervasive broadband solution.
- To educate and mobilise end users.
- To educate and interest suppliers.
- To aid the formation of public/private partnerships.
- To increase the overall level of broadband awareness.
- To demonstrate the level of demand for service by end users.
- To grow businesses by demonstrating commercial benefits of broadband and e-Business.

- To improve learning and skills in ICT and broadband.
- To study the implications of establishing community broadband networks.
- To provide on-line opportunities for the sharing of best practice and lessons learned.

5.2 Effect on RDA Resources

In some instances the RDA/DA possessed a regional ICT strategy team or similar at the time that the Fund was announced (e.g. Wales, EMDA and Yorkshire Forward). In other cases there were no dedicated ICT-oriented resources whatsoever (e.g. SWRDA).

An early success for the Fund was the immediate elevation of broadband onto the RDA “radar”. Instantly senior staff recognised the interest that the Government was paying to broadband and reacted to follow suit. Where they were missing, resources were made available allowing a more strategic and structured approach to broadband. The regional annexes include many examples of the raised profile of broadband with appointments of new staff or realignment of existing staff. For example, the NWDA Broadband Champion was keen to stress that the Fund had a profound effect on the awareness and approach to ICT within NWDA, which now has a coherent and structured approach to broadband and funding including the establishment of five Digital Development Agencies.

5.3 Development of the Action Plan

The DTI, in its letter of the 8 October 2001, gave instruction that a Fund Action Plan would be required and that these should be worked up in accordance with Government practice.

The approach that RDA/DAs took to the development of Fund Action Plans fell into two broad categories; those that consulted widely and, particularly, externally of the RDA/DA (often using external consultants) and those that did not relying instead on recently commissioned reports or personal experience. Plans such as those developed by NWDA, the Scottish Executive and DETI(NI) fall into the former category while those created by SEEDA, SWRDA and the Welsh Broadband Unit appear to fall into the latter.

The availability of established networks of ICT/broadband people and organisations may have influenced the ability or desire to consult widely. However, while we acknowledge the strengths that a consultation process can bring we also recognise that it can bring confusion and weakness to eventual plans through the desire to please everybody. In our experience of such matters strong, focused leadership and robust analytical skills tend to be required by those taking such consultation exercises forward.

The ready availability of in-house resources with the appropriate skills and experience also tended to determine which approach was ultimately decided upon. We note for instance that in the case of SWRDA there were no resources focused entirely on ICT/broadband until after the arrangements for the Fund had been announced in October 2001 and thus, given the prevailing circumstances relating to time and networking, it is entirely understandable that no widespread consultation took place. Indeed it was fortunate that SWRDA filled a full time post with a person who had appropriate knowledge, experience and contacts.

DETI(NI) appears to have been a mixture of the two categories of approach in so far as it developed its early plans in isolation based on the results of a pre-commissioned independent consultancy report. Discussion followed with local public sector organisations together with advertising the Fund opportunities in the press. The resulting feedback prompted a re-evaluation and amendment of the action plan to include further participation and management of certain Funded projects by some of those consulted under the supervision of the DETI.

It is clear from the results achieved by the various RDA/DAs that to some extent both approaches eventually led to well understood and thought out strategies and projects or some hard lessons learned. We would suggest that best practice exhibited by the various RDA/DAs identifies the following key criteria that influence the development of a good action plan:

- Time and timing.
- Expertise and experience.
- Contacts and/or a developed network of likeminded support.
- Well developed understanding of the environment in question and the factors driving it and an ability to relate it to previous similar experience.
- An ability to consult with many yet decide within a small highly focused team.
- Robust management and leadership and a local champion.
- Sound and thorough guidance from above.

5.4 Risk

We recognise and appreciate that risk is inherent in any project and particularly those of an innovative nature, as such we were not surprised to discover that a number of Fund projects did not live up to expectations or suffered from changes in focus and direction. We are certain that this eventuality would have been anticipated and it should not be forgotten that 'failure' provides valuable lessons.

However, perhaps because of the level of innovation inherent in the Fund we feel that the level of attention paid to risk in the various action plans was

poor. In particular given the amount of time and energy that has been afforded to this particular subject by central government bodies over time. We were somewhat surprised that the DTI did not address risk or require action plans to comment on this in its guidance notification to RDA/DAs of 8 Oct 2001. We were equally surprised that few of the action plans mentioned risk in any more detail than a reference as to how ultimately they would manage individual project risks.

The action plans were generally conceived to describe how the allocation of Funds would be spent on innovative schemes to meet local requirements and ensure that as many people and businesses as possible across the UK would have access to affordable broadband services. The requirements of the Fund were bound to send RDA/DAs into a largely uncharted and potentially fast changing environment. We firmly believe that these plans should have at the outset considered a wide range of “what if?” scenarios applicable to them. At this planning stage we believe it was possible to consider questions such as “What if the general thrust of our strategy is incorrect? What if the environment changes quickly? Have we got sufficient flexibility in our strategy to cater for disappointment? What might cause this to happen and what would be the effect?”

We appreciate that the Fund needed expeditious handling in order to maintain its relevance in the fast changing environment and thus the DTI and RDA/DAs were undoubtedly pushed hard by Ministers leaving little chance to stop and think when preparing plans, yet still we would question why this subject was not given more time? Perhaps it was a reflection of the timescales imposed on RDA/DAs by the DTI, perhaps because the DTI did not take the lead in requiring a risk assessment? We are aware that latterly some returned to review what had been written but we believe others effectively ploughed on when the Funds were released.

We would certainly recommend that in future the higher or coordinating authority provides its own analysis of considered risk in its guidance documentation and demands that plans carry a risk assessment.

Where risks to the plans were analysed by RDA/DAs in the action plan they rarely considered associated management strategies. Risks that were anticipated included:

- The ability to find suitable partners – lack of participation in the business community and amongst service and technology providers.
- Collapse of a service provider.
- Applicability of State Aid.
- The difficulties surrounding identification of proof of concept delivery facilities.
- Managing expectations.
- Reliance on the progression of facets of other projects.

- Insufficient participants coming forward.
- Inexperience of the RDA/DA staff in ICT
- Budgetary constraints.
- Knowledge of current broadband availability or demand for services.
- Limited resources or communications networks.
- Buy-in from influential RDA/DA Director level staff.
- Failure to achieve a critical mass for self-sustaining development.
- Failure to engage with users in a meaningful way.
- Skills shortage in the workplace.

Interestingly, we saw only one or two mentions of the effect on projects of BT altering its DSL enablement programme in the face of significant challenges to its market share. This risk did indeed occur in a number of instances across the country as identified in a number of the RDA reports presented in the annexes. One such mention was from ONE where, in the case of its satellite trials, it was recognised that users were reluctant to enter into lengthy satellite contracts if ADSL became available to them, and as a result the contracts were made sufficiently flexible to mitigate against this scenario.

5.5 Targets/Outcomes Expected

Following risk, this is another interesting area. The DTI required the RDA/DAs to establish targets in the action plans that would be SMART (Specific, Measurable, Agreed, Realistic, Timed). We fully accept that in forming targets this represents common and good practice, yet given the DTI's expectation that projects and initiatives would be innovative and untried, more guidance might have been given on the extent and nature of targets.

Given the time that was available to prepare action plans and individual project plans and the unfamiliar territory it is not surprising that "obvious" targets were sought and established – this was both understandable and admirable, yet, in our opinion reflects the urgency introduced through the political imperative. For example a project seeking to demonstrate content through workshops and seminars probably felt it had to make a target saying how many SMEs would attend these. However, given that little of this nature had gone before we feel that such targets were likely to have been little more than a wet finger in the air. A better alternative might have been to pledge outcomes that stated how many seminars would be held, where and record the numbers and types of SMEs attending together with any trends identified. Such an approach would prevent unrealistic targets being set and incorrect conclusions being drawn as to the effectiveness or not of the initiative. Furthermore, this would lead to the establishment of a

benchmark position around which future more prescriptive targets might be set⁹.

We feel that in today's target oriented society those demanding that targets are established have a responsibility to give more time and consideration to the purpose of the target and give guidance accordingly. We feel that on this occasion the DTI did not adequately position this matter and was not sufficiently definitive about what might constitute acceptable and realistic targets. We would also anticipate that future documentation requiring target setting would require the target organisation to not only set the targets but give an explanation as to the basis / derivation of the target.

At RDA/DA level we have identified that in a number of instances targets were not sufficiently well thought out and led to either apparently poor or very good performance. Targets, to be effective, must have a basis in previous experience and must be consulted upon and agreed with key stakeholders; we are aware of some instances where this did not occur. In one instance we were informed that targets were requested by the DTI but due to "lack of time" the RDA was unable to consult with others and felt pressured into creating best-guess targets. We understand how this situation arose from the pressure of time and lack of expertise in this new technology area and recognise the best intentions of all concerned. Indeed the targets may have proved effective, but were far from ideal. Targets are useful and can be used in many positive ways to encourage, motivate, compare and contrast, but to have any significance they must be approached with care and due diligence.

In summary, our feeling is that where the ground is well trodden then targets can be more prescriptive, but where it is not then they should be explorative and generally descriptive in nature. Importantly, however, they must be reported on, learned from and re-evaluated regularly to ensure their continuing relevance.

5.6 Performance Management

We have interviewed all RDA/DAs in the process of developing this report and in some cases the availability of information, particularly key information such as evaluation reports, has been somewhat lacking. Reporting for management purposes in day-to-day activities is important but when the subject under consideration is a pilot or trial then it is absolutely imperative that appropriate reporting is completed, particularly the final project evaluation reports. Without the latter a significant amount of high quality information is forgotten or lost and cannot be used for the benefit of enhancing future solutions or projects. We can only attribute the failure to produce evaluation reports as a failure of the performance management and reporting structure adopted by the RDA/DA. It was observed that in some cases the people closest to the projects were re-deployed at the end of the project and before evaluation could occur. We

⁹ Few RDA/DAs possessed benchmarking data at the time of writing their plans and had little time to get any and thus it would inevitably be awkward to set 'realistic outcomes and then to gauge 'improvements'.

believe it should be possible for higher authorities to develop mechanisms for ensuring that evaluations are completed in a timely manner; perhaps through the imposition of penalties, final project reviews, retention of funds or similar.

The Funded programmes were either managed centrally by the RDA/DA staff with internal reporting to higher-level staff or managed locally and monitored/appraised at RDA/DA level. To some degree the approach taken depended on the maturity of relations with the various partners, in Scotland and Northern Ireland for instance the latter approach applied exactly for this reason.

We noted through interview and document review that the DTI requested RDA/DAs to provide details of the intended structure and key responsible officers but that there was a mixed response, either in the methods of performance management adopted or the detail with which it was related. We feel it would have been possible for the DTI to be more prescriptive about the format and content of the response from RDA/DAs if not the method.

RDA/DAs readily identified the need for a project management structure and methodology and some identified the government supported PRINCE2 methodology. Some went further and detailed the wider programme relationships with strategy and audit bodies.

In terms of good practice, we highlight just two of the different yet generally successful approaches. The NWDA approach provided a robust and inclusive management structure that had been established early on and was used continuously throughout the period to, amongst other things, ensure regular reporting and final evaluation reports. Likewise the SWRDA approach also appeared to provide a sound basis for performance management and assessment and the capture and dissemination of information. SWRDA proposed that these activities would be carried through the Broadband Informative Action Project. An independent consultant was taken on to manage this project which was one of the five undertaken by the RDA through the Fund, its primary objectives were performance management of most of the Funded projects and the collation and dissemination of project information through the ConnectingSW website. Both these approaches, which are explained in more depth in the annexes, appear to have been instrumental in keeping projects on track and ensuring project/pilot deliverables were forthcoming.

5.7 Selection of Projects/Applicants

The approach taken to the selection of projects reflected the convergence at each RDA/DA of three different factors; timescales set by the DTI; the resources available at RDA/DA level; and the availability/maturity of a regional network of likeminded people and organisations. For instance in the South West there were no resources at the RDA and no network to consult with when the resource was appointed. Thus the approach taken was to identify a series of projects which fulfilled local, regional and national strategies and then to find organisations to undertake them. In the East Midlands on the other hand the RDA possessed an ICT team, and a regional network had already been established to consider more ICT oriented matters. Thus when the Fund was announced it was a simple matter to give the challenge to the RDA's team, which was then able to consult with the established network. This latter situation was also largely prevalent in, for example, the North West and West Midlands.

Where the network and resources already existed the choice of approach then differed in terms of the identification of the projects. In some cases the opportunities to run projects and methods for getting involved was announced to the public, private and voluntary sectors and communities through widespread publicity and attracted many proposals – i.e. in excess of 70 proposals in the North West, while a number of other fledgling ideas never made it to proposal status (but at least it got many people thinking about the use and benefits of broadband). This influx of proposals presented its own challenges for these RDAs as they had to be prepared to evaluate them all; one reason why this approach is unlikely to have worked in an area like the South West where the RDA was approaching this from a standing start. The other approach was akin to that in the East Midlands where the RDA used the established network to define what the priorities were and then the RDA or other sub-regional partners identified and worked up projects internally. In some cases there was a mix of both of these approaches; EEDA was a mix of internal initiatives designed to provide specific outcomes in certain key areas, while its Connecting Communities Competition was a direct call to the communities of the East of England to create a local business case for broadband, effectively 'dragging' broadband into the communities.

Where project proposals were sought it fell to RDA/DAs to establish the mechanism through which these would be appraised and approved. In most cases the job of project evaluation fell to a small team of central resources, perhaps supplemented by a consultant (DETI(NI)). In Scotland the process was subtly different in that the Scottish Executive – which received the Funds – sought proposals from the two Scottish Enterprises which themselves consulted with local businesses and other bodies.

Where proposals were to be appraised we understand that evaluation score sheets were used to enable equality and an audit trail. In the case of the North West the award criteria included:

- Relevance.
- Visibility.
- Impact.
- Quality.
- Budget.
- Cost effectiveness.

These criteria were encompassed in three guiding principles, those being adding value, achieving broadband market competitiveness and enhancing economic development.

5.8 Number of Funded Initiatives/Activities

In order to examine the number of Funded initiatives it must be understood that different approaches to the allocation of Funds were adopted. In a number of cases there was no community engagement as such, rather projects were developed within the awarding authority or its immediate public sector partners, some with selected private sector involvement. In other cases the sole work of the RDA/DA was focused on advertising the Fund as widely as possible and awarding Funding to successful projects based on evaluation against key criteria. In some cases, such as EEDA, there was a mix of the two approaches. Table 4 describes the number of projects carried forward by the RDA/DA and where there was an element of community engagement we highlight the level of interest and how many projects were ultimately awarded Funding by the RDA/DA.

RDA/DA	Centrally Driven Initiatives	Proposals Resulting From Local Large Scale Competitions	Projects Arising From Local Proposals	Comment
SWRDA	5	N/A	N/A	Including RABBIT
SEEDA	2	N/A	N/A	
LDA	1	N/A	N/A	
AWM	5	N/A	N/A	3 projects and 2 centrally driven activities revolving around project management and coordination
EMDA	5	N/A	N/A	

RDA/DA	Centrally Driven Initiatives	Proposals Resulting From Local Large Scale Competitions	Projects Arising From Local Proposals	Comment
EEDA	6	87	21 winners	Proposals resulted from the Connecting Communities Competition (one of the six central initiatives)
NWDA	1	71	22 projects	The centrally driven initiative includes needs analysis, marketing, centralised administration and management and the Sub-Regional needs analysis leading to the broadband projects
YF	4	N/A	N/A	Of the 4, 2 projects were cancelled and the other two became the Business Insight Programme
ONE	4	N/A	N/A	
DETI(NI)	N/A	110	43 projects	
Wales	2	N/A	N/A	
Scotland	12	N/A	N/A	

Table 4 – High Level View Of RDA/DA Project Activity

All of the RDA/DAs used some of the Fund monies for central administration, management and coordination of the Fund, in some cases (e.g. SWRDA) this was a discrete project and is thus included in the list above, in other cases it was a less formal arrangement.

5.9 Post Application Activity

There was recognition that the Fund Action Plan process was a necessary hurdle to be overcome to secure the Funding as notified in the letter from the DTI dated 8 October 2001. A number of the RDA/DAs confirmed that they did rush to complete the Fund Action Plans but, importantly, then returned to review them and to complete more detailed planning, preparation and refinement of projects in early 2002.

5.10 Summary

In February 2001 the White Paper “Opportunity for All in a World of Change” not only announced the UK Fund, but established the target “*for the UK to have the most extensive and competitive broadband market in the G7 by 2005*”. It could be said that RDA/DAs might have taken greater notice of these announcements, using them to guide their advanced thinking and planning for the Fund when it was notified more directly some eight months later. In their defence we have established that many RDA/DAs were relatively poorly equipped to pick-up on or recognise the importance of ICT related pronouncements before the Fund.

Hyder has raised concerns over the approach to risk and target setting as required by the DTI and provided by the RDA/DAs in their action plans. However, we recognise the economic importance of this growing market and, as a result understand why the rapid progression of broadband issues was a ministerial imperative. We are left in little doubt that the desire for rapid progression of the broadband agenda undoubtedly affected normal practices and that under normal circumstances risk, targets and benchmarks would have been better understood by all.

6 Assessing the Impact of the Fund

6.1 Introduction

In assessing the impact of the Fund we have adopted the following approach:

- Used understood and published criteria to categorise the projects arising from the Fund.
- Analysed the results of the categorisation process to determine the motivation behind the choice of project.
- Related this to the strategies adopted by the various RDA/DAs to determine whether any strategy appeared to meet with more success in terms of:
 - Successful trials.
 - Infrastructure projects.
 - Raising awareness and commitment from the citizen and the business community.
 - Developing content.
 - Positioning the RDA/DA for greater success in this area.
- Compiled a spreadsheet of quantifiable outcomes made known to us by the RDA/DAs.
- Analysed and drawn conclusions from the information afforded by the spreadsheet.

6.2 RDA/DA Projects and Strategies

6.2.1 Categorising the Projects

In its 2003 report “The Impact of Public Sector Interventions on Broadband in Rural Areas” the BSG identified the following models of intervention for the provision of broadband in rural areas, as detailed in Table 5.

Intervention Type	Characteristics
1. Infrastructure provision	Public sector subsidises the investment in, or procures the network or network elements for use by both the public and private sector.
2. Demand Aggregation	Procurement by the public sector provides a demand stimulus for private sector provision
3. Public/Private Partnerships	Multiple partners from both the public and private sector cooperate to share the investment and operational risks. These projects often combine supply side initiatives with demand stimulation.
4. Subsidised broadband trials and technology pilots	Demand subsidies to trial a broadband technology and supply subsidies for community broadband networks and to trial new technologies
5. Promotion and content commissioning	Demand registration schemes; marketing and promotion events; public broadband centres; Commissioning content creation
6. Community Network Projects	Receive minimal or no Public Sector assistance. Delivered through 'grassroots' community action

Table 5 - Models of Intervention

In order to provide a general view of how the Fund was spent we have assessed each project undertaken by the RDAs and have classified them according to this model. Two additional classifications have been introduced for projects mostly aimed or related to project or programme management activities (PM) or "Other" for projects that we felt did not sit comfortably in any previous category. The assessment is recorded at Table 6.

RDA/DA	Intervention Model (See Table 5)						Other	PM
	1	2	3	4	5	6		
SWRDA				3	1			1
SEEDA	1			1				
LDA					1			
AWM		1		1	1		1	1
EMDA				1	1		1	1
EEDA					4		1	1
NWDA				13	10		2	1
YF	1			1	2			
ONE				3	1			
DETI(NI)				14	15		13	
Wales	1						1	
Scotland				5	4		1	
TOTAL	3	1	0	42	40	0	20	5

Table 6 – Projects by RDA/DA by Intervention Type

Projects identified as “Other” in the above table are further described below:

- **AWM.** Central coordination of locally driven projects.
- **EMDA.** Direct Funding of 7 Sub Regional Strategic Partnership Broadband Project Managers and mapping/other research projects.
- **EEDA.** Business case to provide broadband to 20-30 business and incubator sites. Encourage investment in R&D for various broadband related technologies.
- **Wales.** A research project to understand what the impact of broadband on a community could be – without actually rolling out the network at that time.
- **DETI(NI).** Feasibility, reports, analysis of demand and other research oriented studies.
- **Scotland.** Provision of office space and wireless infrastructure to allow SMEs to research, test and promote wireless applications.

The results indicate that the majority of projects and initiatives have fallen into three categories:

- Subsidised trials and technology pilots.
- Marketing and promotion and content oriented.
- Research and feasibility studies.

This is perhaps understandable for a number of reasons, including:

- The DTI instruction of 8 October 2001 included a number of indicators anticipating these kind of projects.
- The DTI's letter of 8 October 2001 included a draft press release and this also identified six examples of schemes that tended to be more specific about projects.
- The Fund had a pre-defined life span – thus the adoption of a strategy where projects also had a defined beginning, middle and end would also appear to be sensible.
- The Fund appears to have been intended to allow experimentation in order to develop RDA/DA knowledge and awareness of the importance of broadband in achieving economic goals.
- The White Paper on Enterprise, Skills and Innovation noted the objectives of the Fund as being to support innovative schemes to meet local requirements, to see how it can be ensured that as many people and businesses as possible across the UK have access to affordable broadband services.

6.2.2 Commenting on RDA/DA Strategies

Largely, the strategies leading to the wide-range of projects identified in the RDA/DA Fund Action Plans exhibit the traits highlighted above. In the main, projects have been started and finished allowing the RDA/DA to learn and consider how the experiences should be taken forward. In some cases the projects achieved sustainability, but we note that although this is a useful outcome the subject of sustainability was not raised directly by the DTI in its letter of instruction.

Amongst the more notable strategies we would highlight those that tended to spread their focus across perhaps four or five key themes or discrete activities as opposed to those with a very narrow focus. The opportunity for disappointment appears to be greater in the latter case and offers few chances to re-focus energy towards other more successful initiatives in the portfolio.

6.3 Project Outcomes

During interview and since, we requested quantifiable data from RDA/DAs to allow us to develop a clear view of the impact that the Fund has had in a number of areas, such as new connections, expressions of commitment to broadband, etc. Obtaining quantifiable data has, surprisingly, proved more difficult than we imagined it would, but where this information has been provided, we have totalled it to provide the following key analysis, which, given that many projects are still to undergo evaluation, represents the **minimum** achieved. Within this analysis we have tried to distinguish between 'direct' impact (e.g. Funded connections) and indirect impact (e.g. Fund activities that may have encouraged or influenced BT and others).

Category	Outcome
New Connections – Public bodies	306
New Connections ¹⁰ – Private (SMEs)	2,733
New Connections – Citizen	5
New Connections – Non Specific	3,865
<i>New Connections Total</i>	6,909
Projects extending broadband coverage	79
Number of people or SMEs exposed to broadband related awareness raising ¹¹	957,961
SMEs/Communities receiving broadband related presentations	14,857
Broadband related workshops / seminars held	615
Citizen / SME visits to Access Centres	4,266
Specific use of website / portal by a project to promote broadband or allow registration of interest	14
Content - Applications, demonstrators or facilities developed	93
Citizens / SMEs demonstrating commitment to broadband	27,445
Sustainable projects / networks	35
Instances where the feeling was expressed that the Funded projects had a direct impact on the BT ADSL Programme – i.e. the local exchange was enabled due to local Funded activity.	11
Number of residents thought to have had broadband services made available to them as a direct or indirect result of the Fund	1,606,021
Number of SMEs thought to have had broadband services made available to them as a direct or indirect result of the Fund	76,901

Table 7 – Quantifiable Outcomes To Projects Initiated By The Fund

¹⁰ Includes RABBIT grants.

¹¹ Includes estimate of those exposed via S4C Welsh television documentary on the fund initiative.

Table 7 provides a useful insight into the impact made by the Fund. Remembering that these are the minimum levels experienced and, particularly in the East Midlands region where Fund projects are only now moving beyond the tendering phase, will only continue to grow. It must be pleasing that the Fund has contributed to nearly 7,000 new connections to broadband services, of which 1,721 of these were connecting through the RABBIT project. These connections were largely drawn from the 79 projects run across all RDA/DAs that established networks, trials or, as in the case of RABBIT, provided grants.

The RDA/DA projects originated through the Fund appear to have stimulated the broadband supplier marketplace, certainly making it more transparent (e.g. consider the response to the EEDA and RABBIT supplier registration programmes), and we have no doubt that this had an important part to play in the decisions taken by BT in relation to the ADSL enablement of exchanges. Thus even if the BT activity had an adverse effect on some Funded projects, for example the cancellation of two of Yorkshire Forward's projects, it could be said that the result of increased broadband availability was achieved. Whether this is accepted or not it is a fact that, where it was recorded by RDA/DAs, 1,606,021 residents and 76,901 SMEs who did not have the choice of wireless, cable or ADSL services before the Fund, have so now.

A number of projects were aimed at raising awareness of broadband and the benefits it has to business. Nearly one million people or SMEs were exposed, even at a basic level, to the issues surrounding broadband, particular successes here included the exposure given to one of the Welsh projects through an S4C documentary on the subject and the estimated 40,000 citizens or SMEs receiving the Leicestershire mailshot.

Content is viewed by many as the lifeblood that will create the desire for broadband services. The Fund has provided a minimum of 93 applications / demonstrators or facilities dedicated to presenting these.

6.4 The Influence of the Fund in Attracting Additional Funding

RDA/DAs took two primary approaches to the financial management of the Fund. Essentially monies were either treated as a total amount for spend on new broadband projects i.e. ring fenced, or added to other funds available in the single pot and used as more general funding for broadband related projects. This accounts for the disparity in the level of funding spent on broadband related projects between RDAs, i.e. in the case of West Midlands the project funding totalled that provided by the DTI in its allocation, whereas in the case of the East Midlands the Fund was used in tandem with other monies to provide an overall initial RDA pot of £5.3m to spend on broadband related activities.

The dilution of the Fund with other single pot funds introduces an interesting conundrum in terms of analysing the effectiveness of the Fund as where this occurred it is difficult to state that the Fund was directly responsible for the outcomes and benefits achieved. The simple answer, which is true to a large extent, is that in most cases the new money allocated by the DTI was the absolute stimulus for the projects and the attraction of further RDA/DA funding was simply a reflection of the newly raised awareness of this important issue. For example the £2.68m awarded to NWDA is thought to have directly influenced the RDA and the DTI to commit over £30m (includes the funding for the impending Project Access, a major broadband project for Cumbria).

Beyond the monies put up by the RDA/DAs in some cases project sponsors were invited, or mandated, to contribute match funding while some projects attracted a wide variety of support funding from participating organisations, special funds and Europe. A further example of enhanced funding is that of EEDA where £3.22m was received from the DTI; the RDA itself contributed another £2.58m and it elicited a further £2.3m in match funding from those participating in the Connecting Communities Competition.

Finally, it is apparent that in some cases when the Fund concluded the projects were of sufficient interest and/or worth to be sustained through the provision of new funding which may have come from a range of sources including the public sector, the RDA/DA and other related projects such as those being promoted through the UK Online initiative.

6.5 Effect at DTI and RDA/DA Level

Without a doubt the Fund had an immediate effect at both DTI and RDA/DAs. As detailed in paragraph 5.2, in almost all cases the Fund well and truly placed broadband onto the radar of the RDA/DAs as an important driver for economic and social development. Resources were found to administer and plan for the Fund either internally by widening the scope of work undertaken by ICT or telecoms staff, or externally by recruitment of new staff. In some cases new staff were taken on in a full time capacity in recognition of the continued importance that broadband will have within the RDA/DA, or part-time in support of specific Funded projects. At DTI, it is also true to say that new resources were found to handle broadband matters.

The Fund has led to a development of local expertise and knowledge and this will be greater still when the remaining evaluations have been completed.

To support the view that the subject of broadband has been raised with RDA/DAs, other organisations and the wider community as a result of the Fund we again highlight the minimum figures exhibited in Table 7, and the significant funds which have already been given or are pledged to broadband related projects, e.g. in EMDA we noted that the £2.09m of UK Fund has seen a further (minimum) £24 million attracted or pledged from other agencies.

Taken in its entirety we conclude that the Fund has firmly placed broadband at the heart of the RDA/DAs thinking along with more traditional factors and planning has now been placed on an appropriate footing for the future. Furthermore, at a time when the DTI – RDA/DA relationship was relatively immature the Fund helped in furthering the evolution of that relationship.

7 Broadband In The UK in April 2004

7.1 General

The Fund was announced in October 2001 and concluded in March 2004 – a period of some 30 months. In that time the broadband marketplace has changed considerably. This section seeks to demonstrate the key changes over that time.

7.2 Internet Usage by UK Residents and SMEs

During the period of the Fund internet access by home users and SMEs has risen:

- 53% of UK adults have internet access at home (up from 39% in Nov 2001).
- 68% of small businesses have internet access (up from 61% in Nov 2001).

This growth is shown in graphical form in Figure 3.

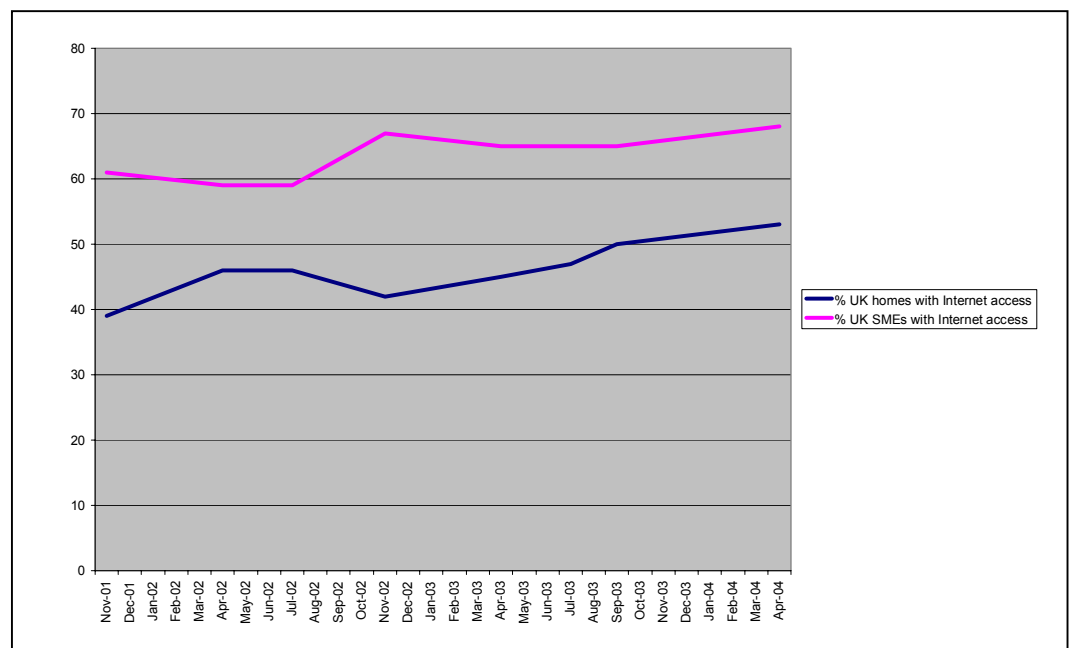


Figure 3 - UK Residents and SMEs with Internet Access¹²

¹² Source. OFTEL/OFCOM Broadband Briefings. 2001 – 2004.

7.3 The Availability Of Broadband

At the conclusion of the Fund, OFCOM reported in its April Internet and Broadband Briefing that around 84% of the UK homes and businesses had access to broadband via DSL – up from 60% in 2001 (high is London at 100% and low is Northern Ireland at just below 80%) and around 45% via cable modem. Broadband fixed wireless access offers broadband to around 13% of the UK and satellite, though not currently a mass-market product, has the potential to deliver broadband across the UK. By June 2004 the coverage afforded nationally through terrestrial broadband solutions stood at 90%¹³.

In order to target investment against demand BT commenced its Demand Registration Scheme in July 2002. By its closure in April 2004 the scheme had influenced the enablement of 1,644 exchanges. The greatest lift in the number of exchanges enabled in a month appears to have taken place between March and July 03 – just over half way through the life of the Fund.

The BT exchange enablement programme and associated impact on ADSL coverage is demonstrated in Figure 4.

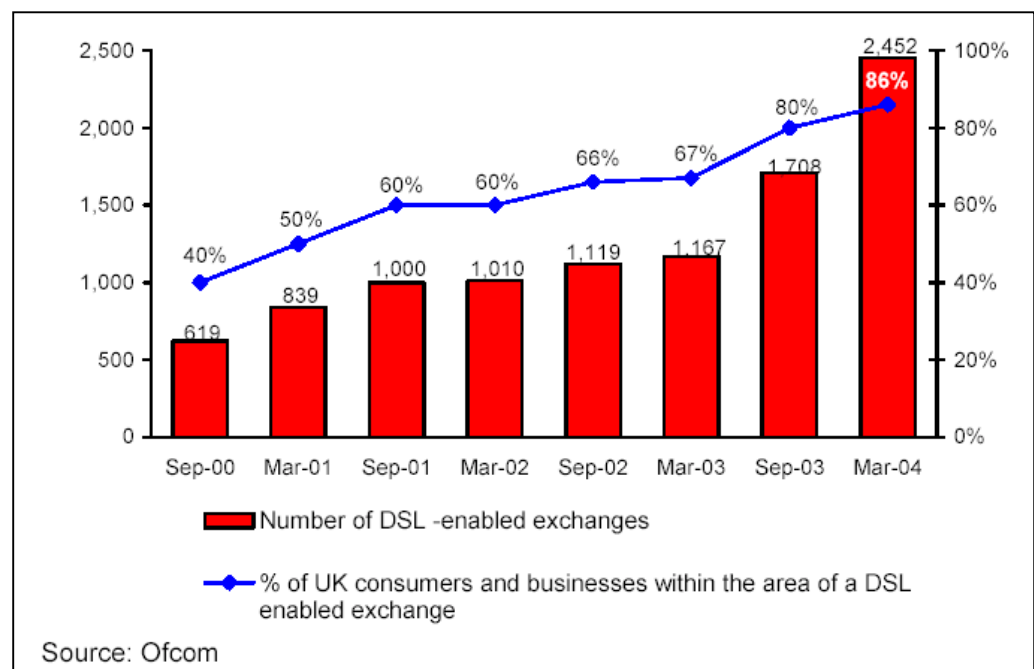


Figure 4 – Roll out of DSL Across the UK¹⁴

¹³ Analysys/DTI

¹⁴ Source. The Ofcom Internet and Broadband Update - April 2004.

The Ntl and Telewest cable network programmes have not advanced anything like the BT DSL roll out, in fact they appear to have been fairly stagnant during the period of the Fund. That being said the number of end users has risen as demonstrated in Figure 5.

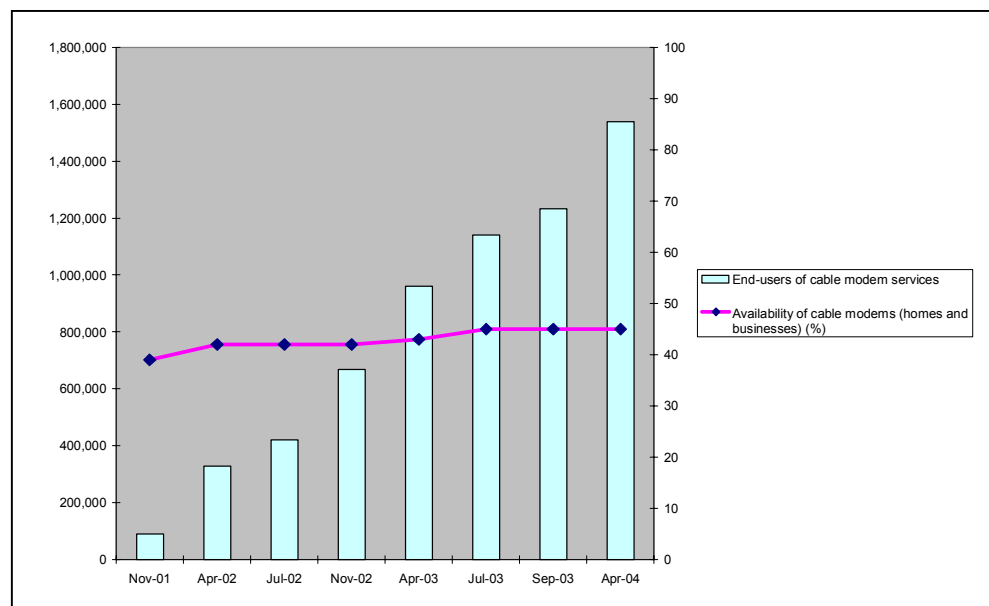


Figure 5 - Cable Broadband Services. Availability Versus Take-Up¹⁵

7.4 Take-Up

At the conclusion of the Fund the following numbers of connections were published¹⁶:

- 3.99 million total broadband connections, of which there are:
 - 2.45 million DSL connections.
 - 1.54 million cable modem connections.

At the end of February 2004¹⁷, there were over 2,500 end-users of fixed wireless access services while by the end of 2003 there were over 6,000 end-users of satellite services.

Nevertheless, take-up is heading in the right direction. Figure 6 provides the view of how take-up has advanced during the years of the Fund. Overall it appears that adoption has grown from circa 200,000 in Nov 01 to just short of 4 million in April 04 at the end of the Fund, with a further substantial increase to circa 5.3 million connections in September 2004.

An interesting fact is that during June 2004 the numbers of internet users had risen to 15.1 million while broadband connections stood at 4.4million.

¹⁵ Source. OFTEL/OFCOM Broadband Briefings. 2001 – 2004.

¹⁶ Source. The Ofcom Internet and Broadband Update - April 2004.

¹⁷ Source. OFCOM.

Assuming all these connections were being used to access the internet then broadband penetration amongst internet users stood at 30%, significantly higher than amongst all users.

BT and other major suppliers have had a key role in raising the profile of broadband in their attempts to encourage take-up through their national advertising. Countryside organisations, including the then Countryside Agency, had a deal to say about the urban/rural divide which certainly confirmed the early problems, and have no doubt also helped to shape the subsequent roll out plans of the key providers.

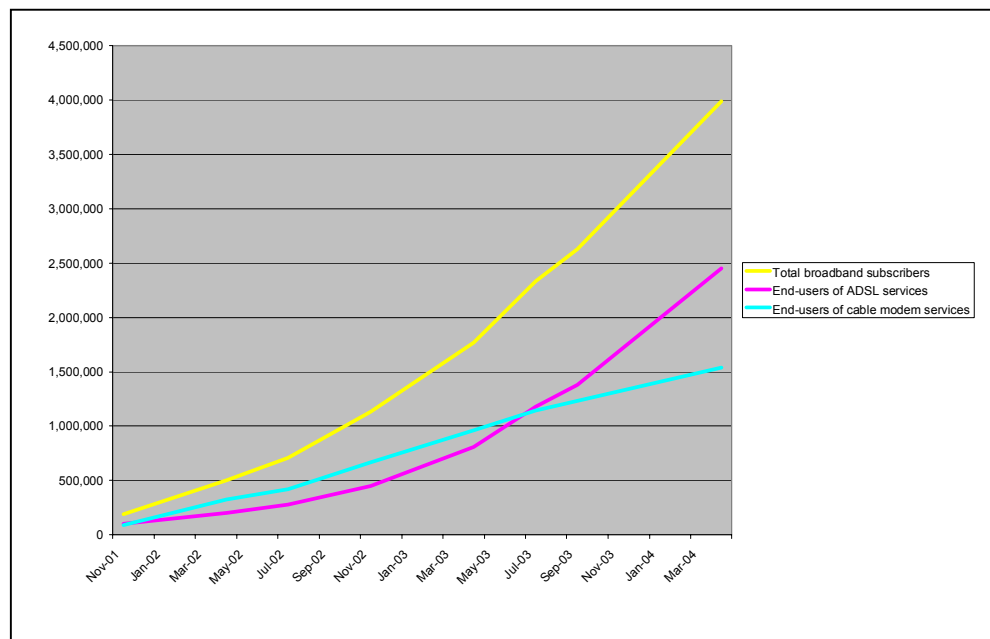


Figure 6 - Growth In UK Broadband Connections¹⁸

Judging from the current levels of take up much work still needs to be done to influence and educate potential users. What is clear is that, generally speaking, when users adopt broadband they do not want to let go of it again.

¹⁸ Source. OFTEL/OFCOM Broadband Briefings. 2001 – 2004.

7.5 Government Targets

The Government's target is for the UK to have the most extensive and competitive broadband market in the G7 by 2005. The DTI measures the UK's progress every six months based on an index developed jointly by Government and the BSG. Towards the end of 2003, the Government reported on the UK's progress.

- Based on the extensiveness index, which combines coverage and the addressable market, the UK moved up to **third** equal with the USA (was 5th in 2001).
- Based on the competitiveness index, which measures choice, price and regulation, the UK was ranked **third** (was 4th in 2001).
- Based on the take-up index, the UK was joint **sixth** in the G7 with Italy (was 7th in 2001).

Clearly there is still work to do to achieve these targets, however, progress is being made and the Fund has been an important contributory factor.

7.6 Broadband: Looking Forward

In April 2004, BT announced a planned upgrade programme to roll out broadband to a further 1,200 exchanges, serving 99.6 per cent of all UK households by summer 2005. This new approach replaces the broadband registration scheme that has helped BT match investment to demand and has led to the upgrade of more than 2,000 exchanges to date¹⁹. This is a fascinating situation and has to be applauded, yet it does present a challenge for wireless solution providers to remain competitive and retain their customer base, particularly those that were created by the Fund and are currently sustainable. This announcement also poses a risk to those Funded infrastructure oriented projects still in their infancy and we would recommend that the risk posed be assessed as a matter of urgency.

In addition to the planned exchange programme BT Wholesale announced on 19th April 2004 it was planning to trial ADSL on lines up to 10kms from the local exchange. The initial trial involved up to 1,000 people and was centered on Milton Keynes where approximately 18 per cent of people were out of reach of the existing services which extended to around 6km from the exchange. BT recruited trialists with the help of Milton Keynes Broadband Action Group. On 18 August 2004, BT announced the removal of the distance-related limits for 512kb/sec ADSL, which should enable 99.8% of lines that are connected to a broadband exchange to receive this service making a tremendous difference to the availability of broadband to those in more remote areas.

¹⁹ Source. OFCOM Internet and Broadband Update. Apr 04

Ntl has announced on its website changes to the speeds of its broadband cable modem services. Three tiers of service will now exist for new customers: 1Mbps priced at £17.99 per month, 2Mbps at £24.99 and 3Mbps at £37.99. Ntl currently has around 1.1 million customers on its broadband platform, out of a total of 3.1 million homes taking a cable service. This is a very high take-up of its cable modem service, and with the new tariffs should rise further. Ntl is only marketable to around 7.9 million homes.

Telewest plan to upgrade the blueyonder network from early December, with work scheduled to be completed region by region by January 2005 with no price change to customers. The upgrade will offer the following new services:

- blueyonder broadband 3Mb becomes 4Mb - a 4Mb connection which offers speeds up to 80 times faster than dial-up access. Telewest will also increase the upload speed for this service to 384k. The price will remain at £50 a month.
- blueyonder broadband 1.5Mb becomes 2Mb - the price will remain at £35 a month.
- blueyonder broadband 750k becomes 1Mb - the price will remain at £25 a month.
- blueyonder broadband 256Kb – this entry-level service will remain unchanged, costing £17.99 a month.

At the time of writing this report BT reported that current UK coverage of ADSL was 91%²⁰ with projected coverage by Summer 2005 of 99.6%.

²⁰Announced 18th Aug 2004.

8 Lessons Learned

8.1 General

The strategies adopted by the RDA/DAs have, naturally enough, witnessed successes and disappointments. The more obvious disappointments have been caused rapid by:

- BT's ADSL roll-out. Reacting perhaps to commercial threats or having a growing understanding of the desire for ADSL BT's capacity to re-assess its roll-out plans and implement new programmes has been a lesson for all.
- The lack of information supplied by principal service providers.
- Supplier failure.

These three factors have accounted for more projects being cancelled or re-focused than all other factors put together.

Other factors affecting or lessons learned identified to us included:

- **State Aid.** The RDA/DAs were acutely aware of the implications of State Aid and in most cases implemented measures to stay within bounds i.e. careful selection of projects and partnering organisations and through limiting the amount of Funding awarded. However, State Aid has delayed the progress of plans in a few instances and we would refer the DTI to the Lincolnshire and Northamptonshire Broadband Project Managers for EMDA as to the specifics.
- **Regional Capacity.** While those close to the Fund projects had the requisite knowledge and enthusiasm for broadband project development it was noted that in some cases there was insufficient skills, expertise and capacity at higher levels to progress projects more rapidly.
- **Project Conflict.** There were occasions when potential conflict of interests between projects affected the performance and partnering relations.
- **Security of Wireless Equipment.** Consider the physical security of such equipment.
- **ICT Training.** Network provision is only a part of the story; users and core management staff must be trained in the basics of the systems. The skill level of users was difficult to conceptualise in the planning phase.
- **Overstretch and Timing.** Avoid being too ambitious in network coverage plans and try to be realistic in timescales.

- **Facilities.** Advertise the facilities available to users.
- **Backhaul.** Take care in the choice of terrestrial backhaul solution in support of wireless and satellite options.
- **Project Duration.** There should be more flexibility in the duration of projects (i.e. Fund was for three years but due to the time it took to get some projects off the ground and there was little time to monitor and evaluate the project).
- **Business Apprehension.** Many businesses were said to be apprehensive about adopting broadband (lack of security, unclear benefits, etc.). This needs to be overcome with better education and awareness raising.
- **Trialist Tolerance.** Those users involved in the trials tended to demonstrate a low level of tolerance. When things went wrong a number of participants withdrew from trials.
- **Legal and Public Interest Issues.** The projects identified a range of minor legal and public interest issues. E.g. mounting of aerials on Graded buildings, actual or considered social abuse of project deliverables such as webcam feeds being used by some for illegal activities.
- **Use of External Resource.** A number of projects benefited from the use of external human resource in their progress. This included use of consultants and specialist marketing and PR companies.
- **Community Competitions.** Consider the risks associated with adverse reaction by the losers in such competitions.
- **Number and Spread of Projects.** When developing action plans time must be taken to consider more carefully the future RDA/DA management implications of the range and number of projects approached. I.e. can the RDA/DA adequately manage and control the projects.
- **Customer Loyalty.** The customer will only pay the market rate for a service, business loyalty is much less of an issue for customers today.
- **Commercial Use of Publicly Funded Infrastructure.** Some schemes suffered delay or other consequence because there was uncertainty about this issue at the time in all quarters. However, central policy guidance continues to become clearer as more projects reach maturity.
- **Access Centres.** The conundrum of the importance of Access Centres versus their financial viability.
- **Stakeholders.** Having too many stakeholders can introduce confusion, conflict and delay.

Above and beyond these practical issues, we reiterate our belief that inadequate attention was paid to all matters surrounding risk and that insufficient time and thought was devoted to target setting.

Establishing these important matters takes time and the timeframes defined by the DTI did not appreciate the position that most RDA/DAs were in at the time in terms of ICT resources. Closer collaboration between the DTI and the RDA/DAs may have influenced the timescales.

9 Best Practice

We believe that a number of the projects originated in one RDA/DA would work equally well in other regions. In Table 8 we suggest those projects that, in our opinion, have demonstrated good practice, achieved success or have proved to be good ideas.

Topic	RDA/DA	Project	Comment
Strategy and Action Planning	SWRDA	Action Plan	Considered, appropriate, timely and well presented
	DETI(NI)	Action Plan	Phased approach was interesting
	NWDA	Action Plan	Good organisational structure and general approach
	EMDA	Project Managers	Physical resources provided strategic resource and presence to push broadband activities at local level
Awareness Raising	EMDA	Leicestershire Broadband Campaign	Excellent concept in reaching the populace demonstrating a high level of return interest
	Wales	e-Fro Project	Secured interest of national television in promoting broadband
	Scotland	Neutral Broadband Website	Jargon free, technology neutral information zone
	EEDA	Connecting Communities Competition	Stimulated significant response from communities where the need and the business case for broadband was generated from within the community. Provided infrastructure for circa 710,000 people
	EEDA	Demand Registration Scheme	Successful scheme thought to be latterly imitated highly successfully by BT
	EMDA	e-Business Club	Significant interest achieved within the business community provides a ready made forum for the exchange of good ideas and practice

Topic	RDA/DA	Project	Comment
Technology Trials	SWRDA, SEEDA, EMDA, AWM, EEDA and DETI(NI)	RABBIT	Widespread success in achieving recognition by both users and the supplier community. While generally viewed as a success it has, perhaps, a limited future lifespan
	DETI(NI)	Portable 1Mbps Broadband Wireless Service at NI Science Park	This project delivered the first fully portable 1 Mbps wireless broadband service in Europe
	NWDA	The Malpas Mesh	Successful demonstration of mesh wireless at this frequency, and commercially realistic subscriber packages
	Scotland	Power Line Technology Trials	Use of power lines to deliver broadband
	SWRDA	Buckfastleigh	Community network now sustained through private sector support
Content Development or Showcasing	Scotland	e-Business Demonstration centres	610 businesses attracted to the 12 demonstration sites
	SWRDA	The Broadbandshow	Effective high level development of market oriented applications and supporting demonstration roadshows
Education or Skilling	EMDA	Community and Business CLICK	Northamptonshire Partnership originated initiative to increase awareness of the benefits of broadband, the internet and e-commerce.
	NWDA	Alston Cybermoor	Community set up a not for profit Social Enterprise Company for sustainability and the betterment of the community. Specialist wireless knowledge established within the core members of the project team which has now been exported to other community projects
	EMDA	Lincolnshire's ICT Action Plan	Huge aspirations to provide one-to-one advice to SMEs

Topic	RDA/DA	Project	Comment
Public Sector Aggregation	AWM	West Midlands Regional Broadband Backbone	This project was the blue print for the national approach fulfilled through Broadband Aggregation Programme for the aggregation of public sector demand
Lateral Thinking	EMDA	The 4 th Service	Seeking to establish telecoms as the 4 th utility in the eyes of property developers and planners
Social / business Improvement	NWDA	Salterbeck Project	Providing 2 community access points and e-Learning, this project has encouraged members of the community to stay or to move into this estate - one of the worst 2% in England
	YF	Business Insight	Encouraged SME broadening into broadband service delivery and four more establishing community networks of their own good will.

Table 8 – Best Practice Projects

In addition to the projects demonstrating best practice the RDA/DAs have also originated various comments giving sound advice including:

- Local champions to build markets and learning champions to support on-line learners were identified as key factors in the promotion of broadband services.
- Foster relations with associated local, regional and national projects.
- A baseline against which to judge the success of projects should be established from the outset.
- The adoption of rigorous management techniques, particularly regarding budgets, timelines and specifications.
- Technology demonstrators tend not to be sustainable without regular injections of public sector funding.
- The demonstrator assisted SMEs in understanding that changes to the business process were an important aspect of adopting broadband.
- All content required sound project management and proof of concept experience.

- The lack of broadband availability to SMEs during the time of the demonstrator was a barrier and a frustration to SMEs who could not exploit what they had seen. It may be that such demonstrators have a role during network roll out and afterwards when networks and services are available.
- Access centre onsite user support is required, which adds to costs and jeopardises sustainability.
- Creative digital clusters have matured and the need for dedicated access centres has diminished as high bandwidth can now join them collaboratively when they are dispersed, i.e. virtual clusters of demand.
- Frequent marketing of access centre resources is essential.
- Initiatives to build a critical commercial mass of rural users do not give exclusive rights to service the market created.
- Rural users expect to pay similar service costs even though the provider risk and delivery costs are significantly higher.
- Critical mass numbers – 40/100 subscribers per node and at least 10 viable communities to break even.

10 Conclusions

10.1 Outcomes of the Fund

Hyder Consulting considers that the Fund has had a positive effect and it can be confirmed that it has largely met its original objectives in a number of areas:

- RDA/DAs now recognise the importance of the availability of high quality telecommunication services to the continuing economic competitiveness of their regions and, thanks to the Fund, have put IT and telecoms strategic planning on a much firmer footing.
- The Fund was the catalyst for a greater focus on broadband within the RDA/DAs and has led to a number of new appointments in strategic positions or re-alignment of existing posts.
- The Fund has allowed a deal of experimentation and learning about broadband. This has benefited a variety of people and organisations from the RDA/DAs, local authorities and partnerships through the suppliers, content developers, centres of learning, consultants, SMEs and citizens. Considerable experience has been gained regardless of whether the projects and initiatives were a huge success or a major disappointment.
- The Fund has been responsible for the origination of well over 130 projects or initiatives and has been instrumental in securing circa £65 million of additional funding.
- Many individuals, communities and SMEs have been exposed to broadband through awareness raising or educational events.
- The Fund has acted as the stimulus for a range of other projects/initiatives and, in the case of ONE, developed it as a knowledge-based region and world centre for data storage and recovery.
- The Fund has contributed to the activity in the supplier market place, where once few were known to exist it is now possible to readily identify in excess of 120 broadband suppliers and service providers.
- It is particularly satisfying to note the widespread innovation expressed through the projects, business and the communities, some wonderful concepts have had life breathed into them by the Fund.
- The trials of wireless technologies may prove to have been extremely worthwhile if the best practices lessons can be replicated in areas where ADSL coverage will still remain problematic. The particular geography and existing non-telecoms infrastructure will influence the selection of technology in these areas.

- Many parties with a vested interest in broadband have benefited from the significant activity caused through the Fund. Marketing and other awareness raising initiatives not only benefited the Fund projects but will undoubtedly have helped the major service providers, particularly through independent promotion of the technology, accelerating the overall programme pace for BT and others.
- It would appear that in seeking to protect its own interests the Fund may have influenced BT in its ADSL enablement programme. If that could categorically be proven then it is not stretching the point to suggest that millions have benefited in an indirect manner through having earlier access to ADSL services than might have been the case.
- A number of SMEs have been allowed to experiment with broadband and once they have tried it they appear reluctant to give it up.

10.2 The Legacy of the Fund

The Fund has been responsible, along with other market stimuli, for raising broadband to a new level. There are still problems to be overcome, but the future is looking particularly promising in the light of recent BT announcements concerning coverage. Take-up and content remain thorny issues, but we are convinced that the market is looking healthy, which will encourage innovation in content delivery in many quarters, which in turn will lead to increasing take up amongst SMEs and residents of the UK.

The Fund was announced at a relevant time and has spawned some highly innovative and interesting projects and initiatives. The market is an entirely different place to that of 2001 and the RDA/DAs have learnt many useful lessons during the period that will enable them to perpetuate their success in the coming months and years.

Could the money have been better spent elsewhere? There will always be disagreement where this kind of scheme is concerned but Hyder Consulting believes that given the Fund's objectives and the Government's priorities there has been a positive outcome to this initiative. Furthermore, the effects of the Fund will continue to be felt at RDA/DA level through the newly raised prominence of broadband and ICT.

11 Recommendations

As a result of our evaluation of the Fund we have the following primary recommendations for consideration by the DTI:

- **Risk Assessment.** That the higher or coordinating authority provides its own analysis of what may constitute project risks in its guidance documentation.
- **Risk Analysis.** The higher or coordinating authority demands that plans address risk analysis and management.
- **Targets - Guidance.** Detailed instruction about the requirements relating to targets needs to be given to those in receipt of guidance notes.
- **Targets – Basis and Derivation.** Reporting organisations should be expected to explain the basis and derivation of any targets defined in proposals in order to allow an informed judgement as to their appropriateness.
- **Strategy.** The overarching strategy ought to be flexible enough to accept disappointment in one or two areas without detriment to the whole.
- **Evaluation Reports.** All projects should be subject to an evaluation. This must be completed in a timely manner at the conclusion of the project. This is particularly important where the project is innovative in nature as many were in this instance. We feel it is the responsibility of the “purchasing authority” to ensure that this occurs through the imposition of suitable “hooks” that maintain continued interest by all in the projects .
- **Project Evaluation.** During project start up (see PRINCE2) the evaluation metrics for the overall project need to be established so far as they can be for development as the project progresses.
- **Discussion and Communication.** We have not been able to determine whether the RDA/DAs had a single forum or other mechanism for the sharing of ideas, information, lessons learned etc. We believe such a facility or opportunity should exist in order that good practice or joint ventures can be more readily exploited.
- **Lessons Learned and Knowledge Gained.** It is vital that the lessons learned and knowledge gained through the Fund are made available to as wide an audience as possible;
- **BT’s ADSL Programme.** Following BTs announcement of its plan to upgrade exchanges to facilitate 99.6% coverage by Summer 2005, it is recommended that all ongoing projects conduct a risk assessment of ADSL deployment in their region initiating a change in project circumstances.