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West Midlands *high impact* ICT Strategy

EXECUTIVE REPORT

Prepared by Adroit Economics in association with Regeneris Consulting and InterConnect Communications

For and on behalf of

AWM – ICT Cluster Group

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1. Introduction

1.1 This document sets out the basis for a high impact ICT strategy for the West Midlands. To do this, the document:

- Assesses the potential impact of ICTs on the West Midlands regional economy – demonstrating that this is large.
- Identifies the principal factors that may slow, frustrate or even prevent these impacts being realised.
- Assesses how far behind the region is and the scale of the barriers and obstacles
- Outlines the nature and scale of actions public sector can take to tackle these issues, thereby ensuring the region benefits from the impacts.

1.2 This document is the ***executive summary***, which should be read in conjunction with the executive and technical reports that provide further detail.

1.3 All the reports have been prepared by Adroit Economics Ltd (Steve Sheppard) supported by Regeneris Consulting Ltd (Mike Phillips) and InterConnect Communications (Steve Morgan) and build on similar exercises we have jointly undertaken for ONE North East and EEDA, and for e-Skills UK, in respect of the economics of all nine English regions and of the devolved administrations (excluding Northern Ireland).

1.4 If you have any questions or require further information please do not hesitate to contact us:

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2. Optimisation of ICTs will generate 3bn GVA uplift

ICTs, if optimised, can generate an additional £3 billion GVA uplift in the region

2.1 ICTs have, and will continue to impact the regional economy significantly – circa £3 billion GVA uplift can be achieved over the next 5 to 7 years, if the majority of the region's business base adopts and fully exploits advanced ICTs. For example, only 30% of West Midland's businesses are currently engaged in e-Commerce. The impact of increasing this alone would be substantial.

2.2 This £3bn figure is based on calculations for *realistic* rather than optimistic economic scenarios – the evidence suggests that actual impacts (over 10% productivity enhancement in some sectors) could mean the potential GVA uplift across the West Midlands economy is much greater than we suggest, but we have determinedly avoided being over-optimistic.

2.3 Some businesses will benefit more than others – through segmenting the regional economy in different ways, we can identify those sectors that will benefit most and hence will contribute most to ICT GVA uplift. Those sectors that offer the most potential include:

- Manufacturing - £870m ICT GVA uplift
- Building technologies – £473m
- Transport technologies – £268m
- Screen, image and sound – £204m
- Specialist business services – £141m

- Tourism and leisure - £138m
- Food and drink – £84m

2.4 …raising the question of whether these sectors should be prioritised in regional policy.

2.5 The benefits are achievable across the region, not just in some parts. The extent of uplift depends on the size and industrial structure of each sub-regional economy, but significant benefits are available to all parts of the region, including to the more rural and remote parts.

3. Rationale for a high impact regional ICT strategy

Not all of this will occur without public sector intervention

3.1 Market failure exists – it is unlikely that enough of the region's businesses will fully adopt and exploit advanced ICTs, certainly as quickly as is required and in many cases, at all, without some form of help. We estimate that somewhere between 30-50% of the potential ICT GVA uplift will not be achieved as fast (and a proportion of this at all) without help.

3.2 This figure (30-50% or £1 to 1.5 billion GVA), is the focus for public policy and the potential impact available if intervention is of sufficient scale and is effective. What else is on the region's radar screen that could achieve this scale of uplift in the next five to seven years[1]?

Four barriers, gaps, hurdles to address

3.3 Research from the region, supported by research from other regions, suggests that there are four principal barriers/ gaps/ hurdles that policy needs to address, aggressively and on a large scale, if the prize is to be won:

1. Helping businesses through the adoption and exploitation process.
2. Ensuring that the local ICT supplier/ adviser base is of sufficient capacity and quality, and helping firms access suppliers/ advisers, with confidence.
3. Addressing ICT skills gaps in the region, both user skills and technical skills.
4. Ensuring that all can access competitive broadband at competitive bandwidths, quality and price.

4. Four themes at the centre of the ICT Strategy

4.1 These need to be at the centre of regional ICT policy. Just tackling a couple will not be sufficient. All four need to be addressed, although the immediate priority is business adoption, closely followed by adequacy of the supplier base and ICT skills in the labour market.

4.2 This suggests a regional ICT programme of intervention comprising four priority areas for action:

1. **Helping businesses directly, to adopt and exploit advanced ICT** – particularly small businesses employing 25 or less, and especially those employing 10 or less, because few of these will be have an IT professional on their staff.
2. **Helping improve the capacity, quality, reliability and accessibility of local ICT advisers and suppliers** – although support is increasingly available from manufacturers, over the internet and via call centres, small businesses will also need someone nearby who they can call on –

[1] The region's proposed motorway improvement plan is estimated to generate similar impacts, but over a longer timescale and at greater net cost.

the role of the local ICT supplier/ adviser is crucial, and will become even more so as more small firms are encouraged to adopt advanced ICTs.

3. **Ensuring ICT skills gaps in the labour market are addressed**, both user and professional skills – with a particular focus on training routes, qualification review and ensuring the training delivered is what firms need.

4. **Ensuring the availability of ubiquitous competitive broadband access** – specifically, finding ways to fill the 2nd generation broadband gap and considering putting in place a realistic strategy that will deliver 3rd generation access in line with our competitors.

4.3 The above can be summarised in policy terms as shown in the table below.

ICT Policy Interventions
Intervention Theme 1: ICT Business Support
▪ Raising the awareness of the benefits of ICT businesses … enlightened business mangers
▪ …and helping them take up and integrate ICT into their business models
▪ …providing business tools to help smaller firms understand how technology could benefit their business and support them in taking the necessary action
Intervention Theme 2: Enhance ICT Advisers/Suppliers in the Region
▪ Increasing the quality and capacity of the local supplier base
▪ …helping increase numbers, standards, consistency, reliability and confidence
▪ …and helping businesses identify 'trusted advisers'
Intervention Theme 3: Increase ICT skills in the labour market
▪ Primarily in the labour market……but also in the wider community
▪ …both user skills and ICT professional skills
Intervention Theme 4: Ensuring provision of competitive digital connectivity to all
▪ Finding ways to fill the fast opening 2nd generation access digital divide
▪ Ensuring the region does not fall behind, but keeps up with its close competitor regions, regarding deployment of 3rd generation access – e.g. regions in France, Germany, Belgium, the Netherlands, Switzerland and Scandinavia

ICT business support is probably the immediate priority

4.4 ICT business support needs to be more than just technical support: it needs to combine this with business change support – we might go so far as to say that ICT support is the new business support.

4.5 AWM and sub-regional partners are already engaged in a range of actions. It is likely however that these will need to be significantly scaled-up and additional actions considered if the potential GVA uplift is to be realised. 20 to 30,000 businesses, of various sizes, may need to be reached if the impacts are to be achieved. For example, our review of research in the West Midlands indicates that the very smallest firms (with ten or fewer staff) offer some of the greatest potential in terms of GVA uplift (just under 1 of the £3bn total).

4.6 There is a growing body of experience of how best to support businesses, both experience from within the region and from other UK regions, and indeed wider Europe. There are some clever and effective pilots. The issue is probably now one of rapidly increasing funding for ICT business support, so that 20-30,000 businesses can be reached, and quickly.

Timing - now

4.7 We do not use the term 'quickly' lightly. Timing is important – these gains are available now. Moreover, the technologies and services that are available are evolving fast and firms not only need to adopt what is on offer now, but engage in continual adoption if they are to exploit fast evolving technologies and services. Competitor regions across the world are adopting fast. Taking sufficient action is not something that can be contemplated over a couple of years or so. A step change in action is required now, if the potential is to be realised. Alternatively the region's GDP gap will widen further, as other UK regions take immediate action.

4.8 Our work focuses on the potential impact of ICTs on business productivity. ICTs have much broader impacts than this, however:

- ICTs stimulate transition of economies by enabling increased start-ups, increased enterprise, innovation and collaboration, new forms of products and services, new ways of working and indeed, radically new business models.
- ICTs enable parts of the region to trade globally, quickly, in a way that was previously impossible.
- ICTs also impact more than just the economy – they have a role to play in many other aspects of life – education, health, social inclusion, regeneration, congestion, carbon footprint etc (helping to achieve multiple RES goals).

4.9 ICTs are possibly the single most important factor at play in the region today, offering it an unparalleled opportunity, but one that needs tackling quickly, now.

4.10 Quoting from a speech given by Viviane Reding, Member of the European Commission responsible for Information Society and Media, in Brussels on 14 May 2007…

"Ladies and Gentlemen…"

The economy runs on broadband.

- Leaving regions out of the digital economy is not an option. ICT is the key for competitiveness and economic growth. Indeed. ICT drives 50% of Europe's productivity gains. Broadband means better access to business services, faster and cheaper ways of doing business, overcoming the disadvantage of distance, attracting inward investment and retaining jobs. A study from the MIT last year showed that broadband stimulates growth in employment and in the number of businesses if available on a large scale. Let's go for it..
- Think of the extra growth we could see in Europe if the remote and rural regions could take part in the information revolution. Obviously disadvantaged regions need to facilitate technology diffusion and adopt an active ICT policy. Regions cannot talk competitiveness without talking ICT. But this is a potential gain for overall European competitiveness. It should also be a national, just as it is a regional and a European-level, priority.

5. The programme in more detail

West Midlands high impact ICT Strategy – Programme Objectives and Rationale		
4 Themes	**Programmes within each Theme**	**Rationale and Objectives**
ICT Business Support	Awareness raising	▪ Despite on-going advertising and marketing of global ICT industry, message not getting through to managers of many small firms. ▪ Require a targeted multi message mutli media programme.
	0.5 day diagnostic	▪ Sceptical, resistant small firms unlikely to pay for diagnostics. ▪ Requires free half day diagnostic delivered by registered consultant, combining IT with business process and change skills, to 20% of region's SMEs in next 2 to 3 years.
	3 days consultancy support	▪ Sceptical, resistant small firms unlikely to pay for 3 days time of an IT/ business change expert. More likely not to go ahead with project or do it themselves with free vendor advice. ▪ Given mission critical nature of high impact ICT projects, it is vital they are able to call on independent in-house resource. ▪ Requires 3 days time of registered IT/ business change consultant to act as temporary in-house IT expert to help procure and implement high impact ICT project identified during the diagnostic]. ▪ Suggest provided to 30% of firms receiving diagnostic.
Local ICT adviser/ supplier base	Trade association	▪ Volume, quality, reliability, accessibility of local ICT advisers/ suppliers needs improving, especially because the strategy is seeking to encourage a high proportion of the region's small businesses to adopt and exploit advance ICTs (which will be mission critical). Hence, it follows that considerably more local ICT advisers/ suppliers will be required. ▪ Difficult to influence this sector because of its nature as a fast evolving, entrepreneurial but unregulated sector. ▪ Utilising the ICT clusters website, to strengthen existing trade association function is a good starting point.. ▪ The association, enabled by the site can then become a focal point for small ICT advisers/ suppliers to register; self accredit, quote references (and possibly for customer feed back).
	Graduate/ post graduate placement programme	▪ Small IT firms cite problem of graduates not being work or client ready. ▪ Set up a graduate placement scheme, via the trade association site.
	Conferences and events	▪ Facilitate range of trade association/ cluster building activities focusing on the needs of small ICT firms, through conferences, forums, events etc.
ICT skills in labour market	Qualification regime simplification	▪ AWM to work with, lobby and influence the regional skills partnership, ensuring it is aware of the potential ICT impact at stake; and to encourage re-allocation of existing funds towards appropriate ICT training..

West Midlands high impact ICT Strategy – Programme Objectives and Rationale		
4 Themes	**Programmes within each Theme**	**Rationale and Objectives**
		▪ AWM to work with regional skills partnership to help simplify/ unify the qualification/ accreditation regime; to ensure the curriculum/ training content is directly meets firms' needs and is delivered in ways that are most accessible to firms.
	Short, sharp high impact employee training	▪ (As part of ICT business support) deliver very specific training to selected members of staff of companies to help implement a specific high impact ICT project.
Digital connectivity	1st generation broadband (0.5-2 Mbps)	▪ 1st generation broadband is available to 100% of businesses and households in region – priority is to encourage take up. This is being driven by on-line gaming, social computing, music and video downloads, for households; and will be driven by the ICT business support theme in this strategy = Deprived and excluded communities will be left behind however and they can benefit economically and socially from access to basic IT kit and broadband within the home. Therefore implement a suite of locally focused IT inclusion projects focusing on homes and schools.
	2nd and 3rd generation broadband (NGA)	▪ 2nd generation broadband gap emerging as we write. 40-50% of households and businesses will not be able to access the higher bandwidths because they are located more than 2.5km line length from their local exchange. This significant new digital divide opening up and will apply to urban areas as much as rural areas. ▪ In parallel the 3rd generation debate is unfolding apace – issues being discussed are = Does the UK need this yet given there is limited evidence of demand, or will we only see demand when its is available = Is it not better to let other countries forge the way, so that the UK can learn from their mistakes, or is there a danger of the UK being left dangerously behind = When the time is right to deploy NGA across the UK, (Ofcom make it clear it's a case of when not if), then who should be responsible and how is it best deployed and run. ▪ The technology and network solutions for both 2nd generation gaps and 3rd generation deployment are more or less fully interwoven. Solve one and you've solved the other. We suggest three alternative approaches to the issue: = Wait, monitor, watch and add to the debate = Fund a series of strategic NGA projects that target areas suffering the worst market failure, flagship regeneration areas, flagship development areas and flagship quarters in the key cities. Some of these will be bottom-up, locally driven, community-based schemes. The Community Broadband Association provides many examples and advice. Others will be more strategic in nature and may need to be initiated by a local authority or AWM = Plan and seek to implement a regionally-led, regionally-initiated, region-wide procurement, drawing on the approach being pioneered by Yorkshire Forward. ▪ We recommend the second or third and have budgeted for the second but provide headline costs for the third.

West Midlands high impact ICT Strategy – Programme Objectives and Rationale		
4 Themes	**Programmes within each Theme**	**Rationale and Objectives**
	Digital flagships	▪ All science parks, technology parks, strategic business parks, technology clusters, quarters and corridors, along with nodes in the main office centre need to offer what we term 'world class digital connectivity'. ▪ This in effect represents 'data-centre' levels of connectivity applied across a whole site or quarter. ▪ The level of connectivity available will be the maximum it is possible to achieve. ▪ This will help put these sites and locations on the international map, will help attract inward investors, will help attract and grow those specialist activities that required the very highest levels of connectivity and will help support the science base and science commercialisation. ▪ AWM, through the RES and RSS will need to set the policy framework; local planning authorities will need to include appropriate specifications in planning briefs; and AWM will need to advise developers (and major occupiers) and help ensure deployment of the connectivity required.

6. Headline costs of a high impact ICT strategy programme

6.1 The following table sets out initial estimates of the broad scale of costs of a high impact programme of action, over a 3-year period.

West Midlands high impact ICT Strategy – headline costs		
4 Themes	**GBPm over 3 yrs**	
ICT Business Support	27.75	51%
Local ICT adviser/ supplier base	1.5	3%
ICT skills in labour market	0.5	1%
Digital connectivity	24.5	45%
Total	**54.25**	**100%**

6.2 The following table provides a breakdown

West Midlands high impact ICT Strategy – Breakdown of Costs		
4 Themes	**Programmes within each Theme**	**GBP m**
Theme 1: ICT Business Support	Awareness raising – various	3
	Half day diagnostic	8.25
	Intensive business support - 3 days	16.5
Theme 2: Local ICT adviser/ supplier base	Trade association	0.5
	Conferences, networking, events	0.5
	Under graduate/ post graduate placements	0.5
Theme 3: ICT skills in labour market	Qualification regime simplification	0.25
	Short, sharp high impact employee training	0.25

West Midlands high impact ICT Strategy – Breakdown of Costs		
4 Themes	**Programmes within each Theme**	**GBP m**
Theme 4: Digital connectivity	1st generation broadband (0.5-2 Mbps)	3
	2nd and 3rd generation broadband (NGA)	16
	Digital flagships	5.5
Total		**54.25**

Variation to theme 4

6.3 The figures in the above table are for a series of flagship pilot projects, designed to address connectivity in areas of acute market failure and to kick start the market.

6.4 If however an alternative, region-wide fibre to the premises NGA procurement is chosen, this will require considerable additional gap funding. We would suggest that if a region-wide NGA deployment is adopted as the priority, the other actions in theme 4 are dropped and the budget used to fund NGA deployment.

6.5 We estimate that AWM's contribution for 75% penetration would be circa 136m. This would require an additional 110m over and above the 24.5m allocated to theme 4 in the above table.

6.6 It should be noted though that claw back arrangements would be put in place regarding public sector investment in NGA.