Strengthening Greater Manchester's economic base through science, innovation and research and development: Report of panel

Manchester Developmental Panel
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August 2011

This report was prepared by the Manchester Developmental Panel (Chair: Professor Philip Shapira) with support from Richard Baker (Northern Way), Jim Keane (North West Development Agency/Northern Way) and Martin Wain (Commission for the New Economy). The report draws upon the observations and judgments of members of the panel. It is a summary rather than a consensus report, and the overall views and recommendations expressed in the report should not be attributed to any individual panel member.
Executive Summary

Introduction

This report offers the findings and conclusions of the Developmental Panel, which visited Greater Manchester at the invitation of the Commission for the New Economy and the Northern Way. The Panel’s goal was to inform thinking about how Greater Manchester can strengthen its economic base through science, innovation, and research and development in a context of economic and structural change.

The Panel visited Manchester on February 23rd and 24th, 2011, meeting with representatives of public, private, university, community and other organisations engaged in innovation, business, and economic development in Greater Manchester. The Panel is grateful for the time and co-operation of the many people who took part in its programme of meetings and activities and the support of the two organisations in facilitating its work.

In response to the key lines of inquiry set out in the original brief (see Objectives of the Developmental Panel), the Panel highlights a set of strategic principles that Greater Manchester should pursue and identifies a series of detailed recommendations.

Greater Manchester’s Strategic Orientation towards Innovation

The Panel highlights eleven strategic principles for Greater Manchester to strengthen its economic base through science, innovation, and research and development.

- Greater Manchester should aim to be a leading hub in the United Kingdom and in Europe for innovation. Two strategies need to be linked: fostering science-driven innovation (with the universities, Daresbury, and larger R&D companies taking a leading role) and fostering industry-driven innovation (with companies including SMEs, networks, and other groupings engaged in a broad array of innovation activities). One of the core approaches to link these strategies is through the development of applied innovation centres.
- Greater Manchester needs a much enhanced system to support innovation and upgrading among existing SMEs.
- Enhancing the development of innovative, and research and development intensive businesses in Greater Manchester requires better links with the financial sectors and fund managers to enable more holistic and better coordination of provision.
- Greater Manchester needs to extend its efforts to link with innovative companies worldwide and to support local enterprises to enter global markets.
- An important contributor to a dynamic urban innovation environment is the availability of resources to stimulate experiments and support promising early stage projects, networks, and pilot programmes.
Entrepreneurial education and skill development for innovation should be a higher priority for Greater Manchester within the overall agenda of raising skill levels.

Dynamic urban agglomerations typically house requires multiple locations of innovative activity with numerous intra-metropolitan and extra-metropolitan linkages and connections. Greater Manchester needs to further deploy the tools of policymaking and planning in supporting the growth of a variety of diverse locations for innovation across the city-region.

Further opportunities should be explored to develop and connect the supply and demand-sides of innovation.

A more accessible and interlinked innovation ecosystem is required in Greater Manchester. Further innovation ecosystem reconfiguration should reduce barriers to entry and ensure easy navigation.

It is essential to develop and make available strategic intelligence to inform public and private innovation decision makers.

Greater Manchester needs to present as a vibrant and skilled environment for innovative solutions to corporate business needs.

Panel Recommendations

To advance Greater Manchester’s strategic orientation towards innovation and to leverage the metropolitan scientific and research base, the Panel offers these recommendations.

1. Greater Manchester should actively seek to establish applied innovation centres in key technologies, including hosting or being a partner in several UK Technology Innovation Centres (TICs). This should be pursued as a priority of city and economic development leaders, as well as by universities and the business community, as part of a broader strategy to establish Greater Manchester’s innovation hub status in the regional, national and global context.

2. In addition to UK TICs, opportunities to attract international applied R&D centres (such as a Fraunhofer Institute) to Greater Manchester should be explored.

3. Greater Manchester’s academic leaders should ensure that existing and new university technology centres build in applied innovation components where appropriate.

4. Greater Manchester’s universities should enhance their interconnectivity around applied areas of technology and innovation, including through fostering initiatives to encourage open innovation, to advance innovation support structures, and to more actively engage in innovation development with a greater number of area firms (over and beyond start-ups and spinouts).

5. There is an important role and opportunity for an Enterprise Innovation Centre (or Enterprise Innovation Partnership) to work intensively on fostering innovation with a larger number of existing Greater Manchester SMEs than currently assisted. It is important to ensure that SME innovation support is embedded and able to work with companies over the longer-run. The Panel recommends that the Local Enterprise Partnership and the Manchester Innovation Group consider how this proposal might be implemented so as to substantially expand the scope and scale of innovation services delivered to Greater Manchester firms.
6. Within the context of a much improved innovation support system for Greater Manchester, there is a need to enable access to low-cost and easily accessible sources of business advice, technology and innovation assistance, and professional services. Strategies might include expanding awareness of “Slivers of Time” (making trusted services available for an hour or a day) approaches, finding new ways to support Innovation Voucher opportunities, and engaging national agencies in joint coordination and leverage of their services in Greater Manchester.

7. The Universities should ensure that they have easy to navigate entry points into their various departments, centres, and services that support innovation in SMEs.

8. For high-technology and advanced service SMEs, opportunities to expand virtual innovation support systems in Greater Manchester are encouraged. The Science Parks and Incubators could take leadership in expanding virtual innovation provision, so as to serve more firms across the metropolitan area than can be physically housed in existing buildings.

9. Opportunities to link business locations in Greater Manchester’s science parks, technology facilities and incubators with potential private investors should be enhanced.

10. In parallel, opportunities should also be developed to link these structures with networks of innovative companies, for example, through Enterprise Clubs, so that innovative companies throughout Greater Manchester can more readily link with and be brought to the attention of potential investors.

11. More could be done to understand and connect with the innovation intentions of leading global companies. This includes going beyond specific foreign direct investment projects to catalysing strategic relationships between these large companies with Greater Manchester’s universities, small and medium-sized businesses, and innovation networks. MIG, MIDAS and the universities should review what might be the best ways to increase their structured relationships with targeted and other innovative companies worldwide.

12. There are latent opportunities for outward internationalisation, for instance by promoting the internationalisation of “born local” high technology companies. MIG, MIDAS, the Chamber, and the universities should consider how they can more effectively work with a larger number of innovative SMEs in accessing international markets.

13. Further reflection on the experiences and insights from the best of the projects sponsored by the now closed Manchester Innovation Investment Fund (MIIF) should be undertaken, with efforts to work out how the best of the ideas supported by MIFF might be sustained and expanded. New Economy should promptly undertake this review (drawing on available evidence and evaluations, not by commissioning a new study) and develop appropriate action recommendations.

14. There is considerable value in developing a future source of flexible seed funding to support and build early innovation ideas and projects. Conventional public funds are constrained in the immediate term, but other sources of funding and operating modes could be pursued. In any future early innovation fund, the Panel recommends building in a repayment mechanism, providing a source of revolving funds.

15. Greater Manchester universities should explore further opportunities to develop inter-university collaborations focused on innovation in the city region, including observatories, open collaboration spaces, and innovation laboratories. Such initiatives could leverage the assets and
interests of the universities and a variety of business and community stakeholders in understanding and fostering new forms of innovation.

16. There is a strategic issue of how best to expand and embed entrepreneurship education and skill development for innovation in Greater Manchester. Schools, colleges, businesses, community organisations, and others all have roles. Diverse approaches will be needed for pupils, college and university students, those already in the workforce, and those who are currently out of the workforce. The Panel recommends that the key stakeholders (including public and private sector leadership, and schools and universities) hold an education for innovation summit to highlight and learn from existing good practices in Greater Manchester and elsewhere and to consider how such good practices might be more widely deployed. This could include approaches that link schools and colleges directly with businesses and the universities. For example, identifying charismatic business leaders and technology researchers and engaging them in motivating pupils and students, or by incentivising school innovative business competitions. Other good practices and ideas are likely to emerge from the summit.

17. One of the existing good practices in education for innovation in Greater Manchester observed by the Panel was the Manchester Masters, which combines coursework and hands-on paid internships in marketing to attract and retain new master’s students in Greater Manchester. The universities are recommended to catalogue these and other innovative programmes which attract, educate and retain talent in and for Greater Manchester companies and work collectively to explore how to expand the range, supply, and demand for such programmes in Greater Manchester.

18. There are a series of “place-based” innovation-related initiatives across Greater Manchester, with new ones under development. These efforts appear as piecemeal and as yet not integrated into a broader vision of innovative communities and places in Greater Manchester. A step forward would be the creation of a dynamic metropolitan map of innovation in Greater Manchester by institutions, firms, and locations. New Economy could be charged with developing this tool. A metropolitan map of Greater Manchester innovation could then be used as a basis for discussion about how further to develop innovative communities and places in Greater Manchester and how they might be connected and leveraged.

19. To date, much effort in developing innovative places in Manchester been invested in large-scale redevelopment and rebuilding (as in MediaCity). These are vital and key anchor projects. Yet, there are also needs and opportunities to undertake a series of smaller-scale business and social innovation support activities in existing communities, including in the inner cities. This could include ways to combine micro-financing with innovative business ideas. Banks, larger businesses, and professional service companies could be interested to support these ideas. The Manchester Innovation Fab Lab provides another potential model. The Local Enterprise Partnership should open up a dialogue with local communities and businesses to look at new opportunities for multiple smaller-scale innovation activities.

20. High priority should be given to addressing key infrastructure issues that are critical to Greater Manchester’s international economic competitiveness. This includes: intra- and inter-regional transport access, including coordinated and efficient metropolitan transit, the Northern Hub transport project, and high speed rail; infrastructure to support the emergence of innovative business districts (such as around the airport, through the new Enterprise Zone); and access to advanced electronic communication capabilities, which is a critical asset for innovation especially for Greater Manchester’s burgeoning creative sectors. Greater Manchester should
make more use of its digital leadership and university and corporate technological capabilities to ensure it has one of the world’s best innovation communication infrastructures (i.e. to be ranked among the world’s most wired/wireless cities). That the BBC is coming here should catalyse this. Opportunities to extend ultra-fast Internet access to nodes and corridors across Greater Manchester should be pursued and such efforts should be linked with place-based revitalization and innovation development initiatives.

21. There could be exploration of new ways to stimulate and attract innovation to Greater Manchester, for example by offering competitive prizes or access to resources (e.g. initial free start-up space, access to technical assistance) to innovative new companies.

22. Greater Manchester should encourage more of the highly-talented students attracted to its universities to stay and set-up businesses, particularly those completing advanced degrees. Potential strategies include integrating business and innovation training opportunities into science, engineering, medicine, arts and other courses; and encouraging those with emergent business ideas to set up in Greater Manchester (through initial free space, access to finance, mentoring, competitions and other means). Highly-talented international advanced students could be provided additional support (to address visa and access to finance issues) to establish new innovative ventures in Greater Manchester. Attracting successful alumni back to Greater Manchester is a related strategy. The universities should take the lead on these initiatives.

23. Local authorities in Greater Manchester should create service delivery innovation challenges. This would support the development of businesses able to spur innovation and cost-efficiencies in the public sector. These firms may then be able to sell those services into other UK and international markets.

24. The use of procurement to foster innovation should be a higher priority among Local Authorities and other major purchasers (such as Manchester Airport and the universities). A key to success here is for Authorities and larger organisations to identify key innovation needs and to partner with companies through the procurement process to develop fresh solutions.

25. There is a division of responsibilities among multiple agencies and units with responsibilities for business and technological development, internationalisation, and the communication of Greater Manchester’s innovation offer to external audiences. The reorganisation of the Manchester Family of organisations into Centres of Excellence could be a step forward, as long as there are renewed efforts to promote coordination among the Centres and other organisations. To guide outsiders, particularly Greater Manchester businesses, panel members suggest that a clear road map to the system should be developed which inventories key institutions and actors, and presents an easy-to-use overview for businesses, investors and other partners. Greater Manchester’s innovation stakeholders will need to come together to develop this.

26. The panel noticed that a weakness of the Greater Manchester Strategy was a lack of metrics and measures linked to the aims of the strategy. More broadly, there is a need to develop finer-grained and timelier intelligence on developments related to innovation in Greater Manchester, to better monitor enterprise needs related to innovation, and to assess Greater Manchester’s innovation performance relative to its own goals and in comparison with target international benchmark cities. New Economy is encouraged to step-up its assessments and monitoring of innovation performance in Greater Manchester, to develop further indices and measures, to identify appropriate international benchmark agglomerations and to develop a methodology for on-going evaluation of progress, and to ensure results are broadly communicated.
27. The Greater Manchester city-region should be intentional about marketing its innovation capabilities. Manchester needs to establish a more distinctive and coherent innovation brand equity. People with significant global marketing pedigree must be engaged in this task.
STRENGTHENING GREATER MANCHESTER’S ECONOMIC BASE THROUGH SCIENCE, INNOVATION AND RESEARCH AND DEVELOPMENT

Report of Panel

Background

The Commission for the New Economy and the Northern Way commissioned a Developmental Panel, led by Professor Philip Shapira, to inform its thinking about how Greater Manchester can strengthen its economic base through science, innovation, and research and development in a context of economic and structural change. The two organisations hosted a Developmental Panel visit to Manchester on the 23 and 24th February 2011.

This report has been prepared by the Manchester Developmental Panel and is submitted to the Manchester Innovation Group and the Board of the Local Enterprise Partnership and to One North East, on behalf of the Northern Way.

Objectives of the Developmental Panel

The Developmental Panel model was developed by the Northern Way, working with the city-regions across the North of England. The Panel offers a mechanism through which individual city-regions can access external expertise to reflect upon current and future development strategies.

The Manchester Developmental panel was asked to consider the following key lines of enquiry:

- How can Greater Manchester increase its attractiveness for innovative, and research and development intensive businesses?
- How can Greater Manchester enhance the development of innovative, and research and development intensive businesses?
- How can Greater Manchester encourage existing businesses to be more innovative?
- How can the commercialisation of existing and new research activity in Greater Manchester be maximised.

The Panel were also asked to examine how the current capacity of the city-region could be enhanced, by responding to the following questions:

- What bodies are needed for an implementation plan, including industry, universities, research and innovation funding bodies, central government and its agencies, to enable achievement of these objectives?
- How can Greater Manchester be more effective in bringing together and organising these key innovation partners?
- Is it helpful for Greater Manchester to have a focus on particular sectors or types of businesses in the innovation cycle?
- What role can spatial planning have in supporting growth of innovation clusters and hubs (e.g., Corridor Manchester)

- What external and business factors (e.g., national innovation policy, broader economic context) will affect Greater Manchester in this work and which organisations from outside the Greater Manchester area need to be engaged to maximise impact? How should Greater Manchester relate to them?

- What are the best ways and opportunities for Greater Manchester to attract more research and development investment and activity from public and private sources?

Membership of the panel and activities

The Panel was constructed to combine expertise from public, private and academic backgrounds. A full list of members is attached in Appendix 1.

Members were selected for their potential contribution to the key lines of enquiry. The Panel included members with direct engagement with the innovation system and economic structures within Greater Manchester, and members with experience and background from national and international perspectives.

In advance of the visit, Panel members were issued with a comprehensive briefing on the evidence base about the history and approach to innovation in Greater Manchester. The Commission for the New Economy prepared this documentation.

Over their two days in the city-region, the panel members met with a range of organisational representatives and stakeholders from the private, public and non-profit sectors in an intensive programme of meetings and discussions. The programme is included in Appendix 2.

Approach to the report

The Panel has organised the narrative part of its final report around key themes that emerged during its work. Responses to the key lines of inquiry originally set for the panel are also drawn together in the summary. The report is pitched at a strategic level, reflecting the broad mission given to the panel and the nature of the approach to its work.

Where relevant the report refers to secondary evidence available to it, but the primary source on which the report is based is the qualitative evidence from the two days of discussion during its visit to Greater Manchester. Initial findings were tested in the final session held on the 24th of February with members of the Manchester Innovation Group.
Innovative Cities: what do they look like?

As a starting point, the Panel notes that there is an extensive body of knowledge profiling innovative cities and city-regions, reflecting on core characteristics that appear to underpin innovation-driven growth and setting out the debates and dilemmas.¹

The Panel has intentionally not sought to re-evaluate this literature in preparing this report. However, in examining the current position within Greater Manchester, and assessing the comments of participants about the current innovation system in Greater Manchester, the Panel has recognised and endorsed core observations from the literature. In particular, the Panel highlights that innovative cities:

- Recognise that innovation opportunities look different from the perspective of each internal and external stakeholder, each of which consider an economic environment from the perspective of their activities and with divergent desired outcomes. Strategies need to be enabling and responsive to these perspectives and there is a need to ensure that the innovation support system is understandable and simple to navigate.

- Are able to clearly and consistently present their specific assets, their systemic equity and their wider spatial offer as part of a strong, agreed and value-adding brand, and that this presentation is followed through in the experience of entrepreneurs and investors. To instil confidence, entrepreneurs and investors need to hear this brand articulated consistently and positively by private and public leaders and other stakeholders and advocates.

- Can orchestrate a system-wide focus that adds value, aligns and co-ordinates assets to support innovation and investment. Whilst the institutional interests of individual stakeholders flourish within this collaborative context, the extent to which they add value to the system is also clearly understood, rather than being the primary focus. This requires clear and collaborative leadership from key anchor institutions.

- Embed innovation intermediaries that can link demand with capacity. Whilst an innovation system is, by definition, dynamic, flexible and potentially disruptive, a key part of the orchestration of these attributes is through a facilitative presence that can enable exchange, contacts and networks.

- Are able to provide an efficient and reliable response on infrastructure and planning issues across the city-region. Systems for co-ordination within the city-region and external to it are effective and responsive, with easy access points for investors and partners.

- Facilitate structures to support small and medium-size enterprises to be efficient and interconnected, providing a precursor to evolution through advice, enabling resources and access to finance. Small and medium-size enterprises typically innovate in collaboration with others.

including customers, suppliers, or universities.\(^2\) Pro-active support and the stimulation of knowledge networks in areas such as business strategy management, design, technology, training, marketing, and intellectual property, can deliver growth amongst small and medium-size firms.

- Possess a clear understanding of the value-adding potential of the public sector and local leadership to catalyse and support innovation. This means that city and regional governmental leaders typically do not exclusively “direct” the innovation agenda but rather seek to foster shared vision, the development of capabilities, private-sector initiatives, and the leveraging of public-private collaboration.

- Possess a creative and innovative culture, which is also embedded throughout the educational system, and which flows coherently through schools, and the different tiers of further and higher education, resulting in the emergence of new ideas, innovation skills and an entrepreneurial orientation in individuals

- Are able to attract, nurture and retain talented people at all occupational levels

- Can access and enable sources of finance and opportunities to secure investment

- Possess a wider social culture and atmosphere – celebrating innovation and creativity, and enabling opportunities for networking within sectors and across sectors

- Promote visible and meaningful initiatives, reinforcing place branding, which can leverage interest and provide a focus for innovation, interest and investment

- Are outward looking, with boundary spanning mechanisms which can understand global trends and connections, roles and opportunities in the national economic system and connections within wider regional and territorial space, with the competencies and mechanisms to translate and align city responses to these trends and opportunities

OECD evidence shows how innovation investment activity needs to be seen over an appropriate timetable, with the medium to long term being the most relevant in terms of returns on investment. Innovation investments may need at least five years to begin delivering returns.\(^3\)

**Manchester as an Innovative City: Where is Manchester now?**

In the context of a centralised and otherwise fragmented national system of economic governance, and an extended and difficult economic transition for the North of England and its key cities, the story of Manchester’s recent economic development is impressive.

Much has been done over a 30-year cycle to create a system of city-regional economic governance that can facilitate economic growth and development in the multi-city Greater Manchester agglomeration.

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This has occurred against the background of a series of major changes made by central governments during this period in the balance of national and sub-national powers.

An important component informing Manchester’s strategies has been the ongoing investment made into developing economic evidence and insight for the city-region. Manchester is well endowed with sources of research and evidence about its economy and its economic performance. For example, in 2009, New Economy published the Manchester Independent Economic Review. This constituted of a panel of experts interrogating various elements of Greater Manchester’s social and economic performance, and resulted in seven in-depth thematic reports containing key observations and recommendations to take the city forward. Such studies have sought to underpin strategy formulation and the development of structures and organizations to support innovation and city-region development. The briefing prepared for the Panel demonstrates the wealth of information available. Alongside this, there have been processes developed to draw together this evidence into strategic approaches that seek to boost Manchester’s innovation performance.

Manchester’s efforts have been recognised by successive governments of different hues, for example in designating Manchester as one of only two forerunner city-regions, and in the confirmation of its position as a Combined Authority. In this context, recent economic developments such as the transformation of Salford Quays and the attraction of the BBC to Salford can be said in no small measure to be results of coherent and consistent strategies that have survived shorter-term political and economic disturbances. Manchester has also succeeded in positioning itself to attract and leverage the interest and attention of agencies and partners who perceive the city-region as offering a test-bed for new models of development of potentially broader national relevance.

Yet, despite this history, the notable achievements and the wealth of experience, resources and the evidence base, the decision by the Commission for the New Economy to task this Panel recognises that there is more to do, and that innovation remains an area with developmental needs. This is supported by the comments of many of the respondents who worked with the Panel during its visit, who collectively conveyed a strong message that Manchester had yet to fully implement a comprehensive and strategic approach to support innovation in the city-region. While this may be a result that is disappointing for those in the city-region who have worked hard to develop and implement innovation strategies, it is important that this observation be acknowledged and addressed.

Assessments of Manchester’s economic performance confirm both the city-region’s accomplishments and its ongoing challenges. The Manchester city-region has been recognized within the UK as a leader in innovation and creativity, with a strong academic research base, and a series of key assets including its

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6 See, for example, Georgiou, L., and Davies, J., An Innovation System for the Manchester City-Region, Manchester Science Parks, Manchester, 2010.
9 Manchester: Britain’s greatest university? The Independent, October 9, 2010.
universities, restructured manufacturers, knowledge-based services, a burgeoning media hub, and airport. Yet, on the other hand, on a key measure of economic performance - gross value-added per person, the Manchester city-region increasingly trails London and the UK South East, while by gross domestic product per capita, Manchester falls significantly behind many benchmark international cities. Greater Manchester does have a dynamic business environment, with relatively high rates of business registration and deregistration compared with areas outside of the South East, but performs relatively less well in terms of skills, knowledge-based employment, and patent applications.

Overall, the Panel finds that while there have been good strategy plans and important programme initiatives, implementation has yet to respond to the innovation opportunities and challenges facing the city-region over the short, medium and long time horizons. The design and promotion of a comprehensive innovation support system has yet to be achieved, and there remain needs to frame the role and contribution of the key institutions that will be crucial to such a development.

The rest of this report details the findings of the Panel.

1. Supporting Business and Innovation in Manchester: the Innovation environment

Manchester can currently identify key self-sustaining sector strengths, which generate significant economic benefits, and it has an impressive science, technology and innovation landscape across higher education institutions, private sector innovation assets and a range of research facilities and institutes.

One recent strategy document produced for the city-region is the Greater Manchester Strategy, approved by the Association of Greater Manchester Authorities (AGMA) in 2009. As part of AGMA’s strategic vision through to 2020, the Greater Manchester Strategy aims to maximise the economic and societal contribution of Manchester’s science, technology and innovation assets and to leverage their collective capabilities so that the city-region is recognised as a global centre for innovation. The Strategy seeks to:

- engage innovators in building stronger networks and a culture of innovation
- attract and retain a higher stake in national research activity
- foster ideas and support their translation into successful commercial enterprises
- build a digital infrastructure to underpin innovation across the whole economy.

Such objectives are reasonable – and, indeed, are similar to those pursued by other city-regions in the UK and elsewhere. However, for Manchester, the Panel identified several key issues related to delivery
and implementation. First, while public and university leaders emphasise that existing assets are impressive and provide a strong focus for science and research based innovation, the Panel also heard significant commentary from private businesses, both large and small, about their perception of the innovation environment within the city-region. These private sector perceptions did not always endorse the public-sector view (see next paragraph). Second, the broad statements of intent outlined in the Greater Manchester Strategy have yet to be fully implemented through coordinated and specific actions. Third, no measurement mechanisms have been established to track progress.

We heard strong and consistent evidence from private sector businesses and organisations about challenges and problems affecting their capacity to innovate and grow in the Manchester city-region:

- From small businesses and organisations representing, there was commentary about poorly developed networking approaches, with the support structures for innovative ideas being either missing or very fragmented. The Panel observed that the support structure in Manchester is complex – probably too complex, with disconnects between strategy and delivery. While the Panel accepts that other UK cities have accumulated multiple and not always well-connected innovation support structures, there is an opportunity for Manchester to gain an edge through not just simplifying but also thickening the quality of support offered by a reorganised innovation infrastructure.

- The Panel received commentary that small and other businesses looking to move to or diversify in the city struggle to access innovation support within the institutions of the city-region. One commentator cited a number of failed attempts to identify appropriate university contacts to help with the development of a medium-sized business. The Panel acknowledges that within a large city-region environment, there will inevitably be some missed opportunities even as other public-private or university-enterprise linkages work well. Presumably, innovative and dynamic city-regions miss relatively fewer opportunities to connect aspiring businesses with support resources (public or private), and then find ways to identify the most strategic opportunities. It is not clear that such connection and selection mechanisms work as well in Manchester as perhaps they might. The Panel observes that there is a need to ensure that Manchester’s innovation resources are visible, open, and accessible to firms currently located within, or considering locating to, the city-region, and that mechanisms are in place to ensure that firms seeking innovation support do not “fall between the cracks” of the innovation support infrastructure.

- More broadly, we heard comments about the wider business environment in the city with suggestions that:
  - Mechanisms for supporting and incentivising innovative company growth are weak. This includes the development of pro-active support such as networking and the development of cutting edge infrastructure for small and medium-size enterprises.
  - Given its innovation assets, Manchester needs to strengthen the understanding of companies of the rationale to stay and invest, and to enable them to penetrate and engage with the innovation eco-system of the city-region. The Panel notes that there should be opportunities in the recently announced enterprise zone area to ensure that businesses in or attracted to the zone are strongly linked in to innovation assets across the city-region.
However, for Manchester to succeed as an innovative city-region, the new approaches that such an enterprise zone might pioneer need to be deployed throughout the city-region.

- Innovation behaviour needs to be created/inculcated with stronger support to business seeking to develop innovative solutions, and quicker response to business comments on the local environment and in particular a quicker planning environment, which is coherent across the urban system.

- Innovation needs to be seen as a cross-cutting systemic set of activities which cuts across all aspects of Manchester’s economic and social approach, enabling it to address the multiple opportunities and challenges it faces, affecting local community development approaches, public service delivery and planning of infrastructure, rather than predominantly linked to science, research and technology and the institutions which inculcate them.

Panel members also identified two areas where they had not had sufficient information on which to base a judgement, but where they believed that further enquiry would be of value. First, the issue of finance for start-ups and firms growth was not well probed during the Panel sessions, although external evidence would suggest that there is an investment issue for the City-region. The Panel felt that it is unlikely that this is not an issue in the Greater Manchester region. Second, panel members recognized that there were other key partners who were not involved in the Panel’s discussions. In particular, colleges of further education were not represented in the Panel’s meetings. There are likely to be important opportunities, especially given the structural changes now underway in England in the funding and operation of both further and higher education, for improved linkages between universities and further education colleges, for example in the design of new curricula, transferability between institutions, outreach to underserved communities in the city-region, and enterprise services and training. There are also important roles for further education colleges to be engaged at strategic levels in public-private planning for innovation in the city-region. Such collaboration and engagement is essential if Manchester is to achieve goals to nurture talented and innovative people at all occupational levels. The Panel also did not identify strong engagement in the discussions at its meetings with representatives of small business organisations or with professional and service-sector organisations (beyond digital content and media-related businesses). Finally, the Panel raises the importance of the Daresbury Science and Innovation Campus. While this regional innovation asset is located beyond the official boundaries of the city-region, Daresbury is part of the broader regional innovation system, linked to Manchester as well as to Liverpool and Cheshire. The Manchester city-region needs to continue to find ways to draw upon, as well as enhance, the innovation resources and capabilities available at Daresbury.

2. The Manchester Innovation Brand

As was set out in the prospectus for the Panel, the Greater Manchester Strategy is clear in its aspiration to deliver a further step change not only in the reality but also in the awareness of Manchester’s innovation performance. The strategy wants Manchester to be “synonymous with creativity and the commercial exploitation of a world class knowledge base.”

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The Panel recognised that Greater Manchester has been highly successful in its branding within policy circles and has developed a reputation as the forerunner amongst the Northern cities, widely perceived as a potential second growth hub for the UK and a leading policy innovator at sub-national level. However, the Panel heard many comments that there was much more that could and should be done to articulate the Greater Manchester offer to other key audiences, to translate the overarching features of the Greater Manchester brand internally within the City-region, and externally to businesses, investors and international partners.

In this context, the Panel failed to detect a clear and consistent articulation of Manchester’s innovation offer to other key audiences. It believes that this is a vital point both to address a major gap in understanding internally and externally, and to bind Manchester’s range of institutions into a shared vision and strategy. Raising Manchester’s innovation brand equity requires both (1) positive real improvements in the totality of the city-region’s innovation assets less its liabilities; and (2) more dynamic communication and reinforcement. The Panel believes that more needs to be done on the following:

- Intentional global marketing of Manchester’s innovation assets, capabilities, and potential. This involves agreeing what is on offer within and through Manchester and narrating this coherently and consistently through all the channels available, including from the formal institutions of the city-region, through to key sectoral leaders, and other stakeholders and advocates such as representatives of key anchor institutions.

- Building stronger relationships between the institutions of the city-region and innovation partners including:
  - Academic institution-to-city relations within the city-region, covering all cities in Greater Manchester.
  - City-to-company relations within the city-region.
  - City-to-city relationships between the various local authorities within Greater Manchester.
  - City-to-city relationships, within the wider territorial system, recognising the interdependency between Greater Manchester, surrounding territories such as Lancashire, Leeds, Liverpool and places in the Midlands and national level contacts.

- The communication alignment of Manchester’s innovation brand equity and its innovation capabilities with global players, including in open innovation strategy development. Projects have been undertaken, or are at proposal stage, to foster such international linkages. The Panel was made aware of one example of a proposal under development for the European Union’s regional development (INTERREG) programme which would build up innovation capabilities as part of a network of Northwest European cities including Manchester. Such projects are worthwhile and deserving of support on their merits. However, it is vitally important to go beyond publicly-sponsored projects to directly engage, at the highest levels, with leading private global companies (including in North America and Asia, as well as Europe) to encourage them to consider the innovation and creative opportunities presented by Manchester.

Underlying these comments, the Panel detected three specific issues that could and should be addressed more effectively:

- Intentional global marketing of Manchester’s innovation assets, capabilities, and potential.
- Building stronger relationships between the institutions of the city-region and innovation partners including:
  - Academic institution-to-city relations within the city-region, covering all cities in Greater Manchester.
  - City-to-company relations within the city-region.
  - City-to-city relationships between the various local authorities within Greater Manchester.
  - City-to-city relationships, within the wider territorial system, recognising the interdependency between Greater Manchester, surrounding territories such as Lancashire, Leeds, Liverpool and places in the Midlands and national level contacts.
- The communication alignment of Manchester’s innovation brand equity and its innovation capabilities with global players, including in open innovation strategy development. Projects have been undertaken, or are at proposal stage, to foster such international linkages. The Panel was made aware of one example of a proposal under development for the European Union’s regional development (INTERREG) programme which would build up innovation capabilities as part of a network of Northwest European cities including Manchester. Such projects are worthwhile and deserving of support on their merits. However, it is vitally important to go beyond publicly-sponsored projects to directly engage, at the highest levels, with leading private global companies (including in North America and Asia, as well as Europe) to encourage them to consider the innovation and creative opportunities presented by Manchester.
The risk of myopia – there has understandably been a focus on the conurbation within the boundaries of the AGMA authorities, the assets of the core city economy and the functioning of the economy within it, rather than on the wider regional assets which can and should contribute to both the economy and the wider offer. With demise of the North West Development Agency and the Northern Way and the re-centralisation of resources to national agencies, Greater Manchester needs to sponsor its own its pan-regional relationships and forge effective relationships with national policy and delivery organisations, to realise the potential for growth and innovation in areas like high tech manufacturing and the development of innovative supply chains, for example, in energy generation (Liverpool, Lancashire/Cumbria/North), financial and legal services clustering (with Leeds), advanced manufacturing (with the North West and the Midlands), and pharmaceuticals (Cheshire).

The issue of globally marketing Manchester’s innovation “selling points” came up several times. The story of Manchester’s industrial legacy is repeated, and there is worldwide awareness of Manchester’s sporting prowess, but it does not seem that Manchester is transmitting a coherent message about its innovation strengths and future orientation. There is an opportunity to rethink the Manchester brand from an innovation assets perspective, rather than simply an inward investment perspective to determine how the city’s assets can be represented and communicated to impart a stronger innovation focus.

The issue of global competition and its implications for Manchester was a theme that emerged strongly. There are key challenges in the global economic environment and their impact needs to be clearly thought through, to identify and manage risks and to identify and exploit advantages and opportunities. It was not clear to the Panel how these were being analysed and who was leading foresight efforts. The Panel believes that a specific action is required to model specific scenarios and possible responses.

3. Innovation governance, co-ordination and networks: the role of key institutions

Greater Manchester has spent more than three decades in building strong and sustainable institutions through and around AGMA, seeking to address the issues emerging across a large metropolitan area as a result of fragmented and changing systems of governance including in the domain of economic development and innovation. Within England, Greater Manchester has been uniquely successful in building a strategic alliance of local authorities, with a collaborative logic that has survived changes in national policy direction and local political control. The pace of this change has speeded up over the last decade as the focus on the functioning of the economy has moved up the policy agenda, in the face of global economic change and the evolution of policy thinking nationally and internationally. Other institutions have recognised the benefit of this increasing collaboration and have spoken and acted strongly in support. In particular, the city-region’s major universities have sought to play an increasingly important role in building innovation capacity in the city.

England is now undergoing another round of restructuring of development agencies and local governance. However, as a result of its long-established collaboration mechanisms, Manchester is well positioned to take advantage of recent sub-national developments such as the creation of forerunner city-regions and Local Enterprise Partnerships, and to build a strong measure of continuity into local strategy and policy. This focus has required the continuing renewal and development of local strategy to align with external pressures. This has been supported through on-going efforts in Manchester to build
the local evidence base and review sub-national economic development approaches. In turn, this has led to an emphasis on agglomeration economies and on raising attention to the importance of skills and infrastructure in innovation.

Yet, while Manchester has developed a strategic framework, the Panel observed that there remain important challenges in working within this environment, particularly given the cross-cutting nature of innovation – which requires the collaboration of multiple public and private partners engaged in a range of roles. It became clear to the Panel that the infrastructure governing innovation had yet to achieve a level of collaboration to translate strategic goals into effective implementation in the innovation arena. Concerns which emerged in evidence presented to the Panel were:

- A fragmented approach with divisions innovation thinking and innovation action, which had led to a lack of scale and differential understandings of what Manchester is doing and offering.

- Some evidence of unnecessary competition and a lack of alignment of the approach of organisations.

- Difficulties in sustaining longer-run citywide approaches to developing innovation capabilities, both at the level of the city-region as a whole, and also within individual local authorities.

- Complexity within the system making it difficult to understand and navigate

There was agreement in the discussions among Panel members that there was more to do to not only to refine Greater Manchester’s innovation strategy, but also to position it as a cross-cutting metropolitan-wide theme and to identify clearly how institutions or parts of the territorial system could maximise the impact of their contribution. For example, Panel members could not clearly identify an overarching support structure (independent or cross-organisationally) to identify and pull out good practice or successes to scale and build upon (for example, from some of the Manchester Innovation Investment Fund projects where efforts to leverage promising pilot projects currently fall on a few individuals).

Panel members recognised that it was working at a time when there is significant institutional churn, with the termination or diminution of prior regional and economic development structures and funding streams, and the development of new structures under conditions of significantly reduced public funding. This inevitably seems to be taking a toll on the energy and capacity of stakeholders, from both public and private sectors. Some of the end-users of innovation policy, particularly in the private sector, appear to be disillusioned by yet another round of restructuring. At the same time, the Panel believes – in a view also shared by some private sector representatives – that Manchester is presented with a cathartic opportunity to think afresh about structures and priorities given these challenges. In a challenging resource environment, it is now an opportune time for key institutions, including local government, universities, and private sector organisations, to consider not only how best to respond and to coordinate with one another, but also to build a higher level of robustness and resilience into the support structures for innovation in Manchester such that they can be sustained and made more effective over the longer run.

One aim should be to design accessibility and clarity into the Manchester innovation eco-system as far as possible, although recognising that a degree of complexity is inevitable in a dynamic and ever-evolving network environment. As an early step, Panel members suggested that a clear road map to the
system should be developed which inventories key institutions and actors, and ensures that there is complementarity between roles and objectives, and presents an easy to use overview for businesses, investors and other partners. This Manchester “Innovation Map” would be valuable for a range of users, including individuals, small organisations and firms, large companies, communities within the city-region, among others. It would facilitate knowing who to go to for specific services and needs, and help to cross-link different networks and organizations across the city-region. Importantly, such a map would need to be updated regularly and presented in well-designed, visually-attractive digital forms.

More fundamentally, however, there is also a need to go beyond describing what exists in a static manner to ensuring that Manchester’s innovation systems and support structures operate and integrate dynamically. A vibrant metropolitan system needs effective innovation champions who energise opportunities, potential linkages and projects. Such champions should possess an overview of the system, facilitate access and flow across the system horizontally and vertically, and fuse and promote innovative ideas. Until recently, Manchester Knowledge Capital was one of the organisations in Manchester which sought to perform this role. Manchester Knowledge Capital was a partnership between Manchester’s local authorities, four universities, the strategic health authority, and other public agencies and businesses. As an organisation, it sought to catalyse and connect innovation activities in Manchester through a series of projects and exchange activities. Manchester Knowledge Capital was wound down early in 2011, following budget cuts, and merged into the Manchester Innovation Group whose members are drawn from universities and other public and private sector organizations. In turn, the Manchester Innovation Group has become a subgroup of the new Local Enterprise Partnership for Manchester.¹⁶

Rapid organisational turnover is wasteful of resources, eroding capabilities and private sector trust. Changes in strategy may, of course, require organisational change. To a large extent, the current turnover is driven by new central government policies and reduced funding. It now falls to Manchester to work out how best to negotiate centrally-mandated changes and to emerge with organisational competencies that can promote innovation not just through high-level policies and strategies but also through on-the-ground capabilities to stimulate and motivate. Going forward, the Panel suggests that further consideration should be given to the formal – and as important – informal ways through which innovation champions can be developed in the city-region. Should such champions be embedded at the city-region level (for example, in the Local Enterprise Partnership), at the sectoral, or city level? Is there a need for formal organisation or might there be an opportunity to develop a decentralised cadre of public or private sector innovation champions or ambassadors? What roles should be played by Manchester New Economy (which is positioned primarily as a high-level public-private partnership) and by the Manchester Innovation Group in stimulating innovation activities on the ground? And, what opportunities might social networking technologies play in facilitating access to, and collaboration among, innovation champions? As the Local Enterprise Partnership embeds itself (mid 2011), the Panel suggests that such questions might usefully be opened up (later in 2011), with further discussion and exploration about the configuration of organisations for innovation in Greater Manchester and the identification and support of hands-on innovation champions.

Universities

It was evident that Greater Manchester’s various universities are key anchor contributors to the metropolitan economy. Their involvement has been key to recent economic development and regeneration. However, there was also a concern that university perspectives and interests seem to dominate the innovation scene, with their own institutional development being translated as a proxy for the city-region’s innovation performance.

There are many vitally positive aspects to the growth of universities in Greater Manchester. These include major investments into the science and research base, the generation of large numbers of skilled students, the regeneration of parts of the city’s physical fabric, and the fostering of reputation. At the same time, while there has been important leveraging of university resources to generate and support technology-oriented companies, the scale of impact has been less than might be hoped. As a senior university representative commented to the panel, in giving a specific example of collaboration with a technology-based company, “this doesn’t happen enough.” Moreover, while there are university initiatives to reach out to businesses and communities across the city-region, there is a tendency to narrow down the university role to that of spinning-off companies from research and linking with a few big companies rather than working more broadly with many varieties of companies and stakeholders in fostering innovative economic development.

The Panel anticipated that there would be more evidence of positive practice of university engagement within Greater Manchester from its discussions with senior representatives, and was surprised that they needed to work to extract it within sessions. The Panel would have liked to have been presented with more evidence about specific interactions with industry from across the various institutions. Insights from the contributions from Bolton University, Manchester Metropolitan University, and Salford University needed to be more prominent, in addition to those from the University of Manchester.

There is clearly an opportunity for the universities to work together to explore their complementarities, and to consider how they could more strategically contribute to innovation across Greater Manchester. The Panel believes that there are a number of areas for focus which would add value to both the city-region and individual institutions if they could be better co-ordinated in the context of both the innovation market and their wider contribution to regeneration:

- The development of stronger and deeper links with local businesses, including through greater provision of mentoring support, advice and assistance to local SME’s, and more partnerships with mid-size and large businesses
- The promotion of stronger business and innovation foci and linkages into curricula and extra-curricular activities, through more interdisciplinary business learning and engagement opportunities across the sciences and arts
- Further promotion of internships and placements, student projects, and student ventures, and other mechanisms to retain talented graduates and postgraduates in the city region and to link businesses with talent.
- Contacts with alumni to draw their interest to the city-region. (The Panel is informed that a Greater Manchester Strategy talent working group has been formed, and encourages this and additional actions to reach out to successful graduates of Manchester’s schools and universities.)

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17 University institutions in the Greater Manchester (with approximate number of students in the city-region) comprise the University of Manchester (35,000), Manchester Metropolitan University (32,000), Salford University (15,000), the University of Bolton (9,000) and the University Centre Oldham (1,000).
Use of physical and virtual assets to support networking and interaction with businesses, business organisations, and communities across the city-region

The Panel also met with a group of academic staff from different universities who were researching economic development issues within Greater Manchester. It was evident that the contribution of these staff was influential within the city-region, and that there were strong inter-personal relationships between them. It was also clear that this contact was somewhat informal and interpersonal, rather than structured within a wider institutional framework. The Panel believes that there is more that the universities could do to promote academic collaboration around key local and regional issues – an observation that could extend beyond the field of local economic development to wider processes and issues within the city-region. One model is the Oxfordshire Economic Observatory\(^\text{18}\) which is constructed as a joint venture between two universities in that city, and presents a viable model of research/intelligence collaboration. But opportunities for collaboration go beyond economic and social research into downstream innovation arenas. Here, the Panel saw merit in the concept of a “Laboratory Manchester” which was presented in one of the sessions. This would be a space or network where new products or services could be piloted. Already in operation is Manchester Beacon (including the University of Manchester, Manchester Metropolitan University, the University of Salford, and the Museum of Science and Industry), which seeks to bridge divides between universities, students, business, and communities. The Panel recommends that Manchester’s universities explore further opportunities to develop inter-university collaborations focused on the city region, including observatories, open collaboration spaces, and innovation laboratories, which could leverage the assets and interests of the universities and a variety of business and community stakeholders in understanding and fostering new forms of innovation.

Wider Educational System

If Manchester seeks to be a leading global location for innovation, it will need a world class educational system which is effective at all levels – from pre-school and primary education through to secondary, further, higher, workplace, and continuing education. It was not within the mission of the Panel to examine the city-region’s educational system. However, confirming the vital links of education and human capital development with innovation, specific education-innovation interface issues were raised during the Panel’s meetings.

One of these interface issues was that of entrepreneurial education, including access to opportunities for gaining training and experience. In addition to other issues related to business support, concerns about the adequacy and scale of entrepreneurial education were raised in the Panel’s discussions. While Manchester has many positive examples of entrepreneurship, overall the evidence indicates that entrepreneurial culture and performance is weak across the city-region. New enterprise growth in Manchester is below the national average, and Manchester businesses which do start are less likely to survive compared with the nation.\(^\text{19}\) While an overall agenda of raising skill levels across Greater Manchester was appropriately raised by the Manchester Independent Economic Review and other

\(^{18}\) The Oxford Economic Observatory, http://oeo.geog.ox.ac.uk.

bodies as “the key issue on which the city region must focus,” there are particular issues and opportunities related to the development of entrepreneurial skills. While there are multiple factors, including access to capital, markets and other external resources, which influence enterprise start-up and success, also crucial are entrepreneurial skills in business planning, strategy development, leadership and people management, financial literacy, and communication. The Panel suggests that entrepreneurial education and skill development should be a higher priority for the city-region, within the overall agenda of raising skill levels. Customized and focused initiatives (rather than generic programmes) are likely to be necessary, for example, to address low levels of women entrepreneurs, to reach out to potential younger entrepreneurs in creative industries and the arts, or to foster more scientific entrepreneurship. The Panel judges that there is expertise to develop entrepreneurial education within the city-region, and there are already initiatives and project experiences at school, university, and community levels. The challenges lie in scaling up the best of these efforts, pioneering new ones, and ensuring long-run implementation so that the impacts of entrepreneurship education and skill development can be felt at the metropolitan dimension.

As an example, the Panel learned about the model provided by the Manchester Masters – which engaged businesses and universities (led by Manchester Metropolitan University) in a programme that supported training and a series of sponsored placements in Manchester companies. This model could be expanded though city-region university-business partnerships, offering placements for more students. Other Manchester universities each have their own entrepreneurship educational initiatives. The universities could continue to operate along these separate paths. Strategically, however, this would represent a missed opportunity. To embed a larger-scale system for education on entrepreneurship and innovation in Manchester, the business schools of the universities in the city-region could and should take larger leadership roles, working collaboratively and with other educational and civic institutions. The Panel recommends that university, public and private-sector leadership within the city-region (through the Local Enterprise Partnership and/or the Manchester Innovation Group) take up the strategic issue of expanding and embedding entrepreneurship education in Greater Manchester.

Organisation for Innovation

Innovation is delivered to markets and to users by private enterprises and by public and non-profit agencies. Additionally, there are a range of intermediary and support organisations engaged in developing the frameworks, resources, capacities, and networks which enable and facilitate innovation. While national (and in some cases supranational) organisations play vital roles, leading sub-national innovation systems are characterized by their development of effective city and regional organisational structures. In Greater Manchester, a series of organisations are involved in fostering innovation and innovative economic development, including:

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• broad units of governance including the ten local authorities and their development agencies, the Association of Greater Manchester Authorities, and the Combined Authority;
• mission-focused bodies, such as the Local Enterprise Partnership, the Manchester Innovation Group (now under the Local Enterprise Partnership), Manchester New Economy, and MIDAS (Manchester Investment Development Agency Service). Visit Manchester has responsibilities for marketing and communication.
• research and educational institutions -- Greater Manchester’s universities and their various units engaged in incubation, technology transfer, commercialisation, and other innovation support, and (just outside the boundaries of Greater Manchester), the Daresbury Science and Innovation Campus
• organisations with specific spatial and sectoral interests, including the Manchester Science Park, Manchester Corridor, Media City:UK, the new Manchester Enterprise Zone, the Manufacturing Institute, the Manchester Digital Development Agency, Manchester Airport, Transport for Manchester, and TrustTECH (NHS Innovations North West)
• private-sector organisations including the Greater Manchester Chamber of Commerce, Manchester Solutions (including Skills Solutions and Business Support Solutions), pro.Manchester, and the Federation of Small Business (Manchester and N. Cheshire branch);
• real and virtual networks which combine private, non-profit and public sector actors engaged in various forms of innovation, such as Manchester Digital, and MIMIT (led by the University of Manchester and Greater Manchester NHS organizations to foster innovative medical-industry collaborations), and the Manchester Science Park’s Wired City Reconnected network.

This is not a comprehensive list, although it does include the major organisational players. The list indicates the range and diversity of organisational actors involved in framing, supporting, and communicating aspects of Manchester’s innovation landscape. The elimination of the North West Regional Development Agency, central government public spending reductions and other policy changes have resulted in significant institutional churn, as noted earlier in the Panel’s report. Manchester Knowledge Capital has closed, and other agencies have reduced their staffing and activities. The Manchester Innovation Group will now be a sub-group of the Local Enterprise Partnership.

Some further organizational actions have been taken. In April 2011, the Association of Greater Manchester Authorities agreed to a restructuring of the “Manchester Family” of organisations, including: New Economy, MIDAS, Marketing Manchester, and components of Manchester Solutions. A “Centres of Excellence” approach is now being pursued, with three key centres: (1) research, strategy and evaluation including employment and skills (incorporating Manchester New Economy); (2) business growth, trade and inward investment, involving MIDAS (inward investment), Business Support Solutions (international trade), and Skills Solutions (business growth); and (3) marketing, communications, and tourism (including Marketing Manchester). The performance of these centres and organisations will be assessed against five high-level measures contained within the 2009 Greater Manchester Strategy: total output, total employment, productivity, carbon efficiency, and resident employment.  

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The Panel has several observations related to the structure and operation of Manchester’s organisations for innovation.

At this stage, the Greater Manchester Local Enterprise Partnership is still new entity. The relationships of the Local Enterprise Partnership with the Combined Authority (for Great Manchester) and other organisations are still evolving. The Panel is clear that if Manchester is to have a stronger focus on innovation, then ensuring that the Local Enterprise Partnership board members, in their role as private sector leaders, can bring a private sector perspective to bear on a wider integrated strategy will be crucial in broadening the innovation strategy, promoting new and innovative indigenous businesses and responding to new growth opportunities from existing businesses.

In this context, as noted by the Panel, many organisations, including universities, sector-focused bodies, place-focused organisations, and networks, are engaged in activities to support innovation in Greater Manchester. The Local Enterprise Partnership needs to establish effective relationships with the publicly-chartered units of the new Centres of Excellence (previously known as the Manchester Family), but it will also need to develop linkages with the other public, non-profit, and private organisations active in the city-region. Manchester New Economy has provided a strong context for developing an understanding of the wider economy of the city-region, bringing forward an evidence base on the key opportunities and long standing challenges, and providing a strong economic rationale for the Combined Authority and now the Local Enterprise Partnership, with a focus on a more strongly integrated economic strategy. However, this kind of strategy development has been targeted to, or at least most useful to, public decision-makers. Efforts to more broadly foster exchange, shared vision, and collaboration among a wider organisational set will be vital. Initiatives such as an Annual Manchester Innovation Forum or Summit, where organisations, companies, communities and other stakeholders can meet to exchange, learn, and showcase, are likely to be helpful in fostering shared vision and alignment.

The Panel notes that further adjustments in the organisational arrangements for innovation in Manchester may be desirable. Recent organisational restructuring was prompted by central government action and financial stringency. Going forward, the Panel recommends exploration of further opportunities to optimise organisational arrangements around Manchester’s strategic innovation needs and assets. For example, while MIDAS reports that it has exceeded its targets for job creation, the Panel judges that there is more to do to ensure that the internationalisation of innovation and enterprise is fully anchored within Greater Manchester. The Panel felt that opportunities to align Manchester with major national and international companies are yet to be fully exploited. The Panel felt that more could be done to understand and connect with the innovation intentions of leading global companies. This includes going beyond specific foreign direct investment projects to catalysing strategic relationships between these large companies with Manchester’s universities, small and medium-sized businesses, and innovation networks. Additionally, there are important roles in outward internationalisation, for instance by promoting the internationalisation of “born local” high-technology companies. A recent study recommends the development of a Centre for Enterprise Innovation in Greater Manchester, to directly provide customised innovation services to private sector enterprises and to coordinate and broker enterprise linkages with other innovation and business support

23 The first formal meeting of the Greater Manchester Local Enterprise Partnership board occurred on May 19, 2011. The 13-member board is made up of 8 private sector members, 1 university official, and four local authority representatives.

The Panel recommends that the Local Enterprise Partnership consider whether and how this proposal might be implemented so as to substantially expand the scope and scale of innovation services delivered to Greater Manchester firms.

Additionally, as the national, European and international policy and investment climate evolves, there will be continuing opportunities for ongoing work to secure influence on and gain investment from new and re-positioned opportunities for resources – for example working with the Technology Strategy Board, government agencies (including the Department for Business, Innovation and Skills), and the National Endowment for Science, Technology and the Arts in the national context, and from European Union agencies and programmes. Success in such efforts will require clear leadership from the city-region (involving the Local Enterprise Partnership and the Combined Authority) working with private companies, universities, and other public agencies within the city-region.

Currently, there is a division of responsibilities among multiple agencies and units with responsibilities for business and technological internationalisation as well as the communication of Manchester’s innovation offer to external audiences. The Panel recommends additional review of these arrangements. Such a review might best occur in the context of asking broader questions about the functional divide of responsibilities related to innovation (e.g. business growth, trade, skills) among multiple agencies and whether a more integrated enterprise-focused approach might be more effective. The delineation of a Centre of Excellence for Business Growth, Trade and Inward Investment seems to be a step forward, although based on the information available to the Panel it is not clear to what extent this is a reorganization of reporting responsibilities rather than a substantive integration and reorientation of services towards enterprise needs.

Finally, the Panel notes that innovation is not explicitly emphasised in the high-level Greater Manchester Strategy measures towards which Manchester’s publicly-chartered development organisations are expected to contribute. Some related and relevant indicators are included under the rubric of attracting talent (such as percentage of knowledge employment or number of fast-growing companies). However, if innovation is to be raised as a higher strategic priority, additional innovation-focused evaluative measures would be useful. There is, of course, much debate about appropriate measures of innovation performance and the availability of information at the sub-national level. Recently, the National Endowment for Science, Technology and the Arts has undertaken work on developing a comprehensive and balanced UK innovation index. The Panel recommends that a review of this and related work be initiated with a view to developing a compatible set of innovation measures for the Greater Manchester city-region. This could be viewed as a supplement to the economic development measures already outlined in the Greater Manchester Strategy. Manchester New Economy would be well-positioned to undertake (or commission) this review and to propose a city-region innovation index that could be endorsed by the Local Economy Partnership and the Combined Authority.

Local Authorities


In addition to their role in facilitating the Local Enterprise Partnership, the role of Greater Manchester’s local authorities in supporting innovation was raised to the Panel.

A particular focus for comment came from the business sector about the importance of the local authority role in creating the conditions within which business can invest with confidence. Businesses aspire for a situation whereby their role as wealth creators and employers is complemented by a local authority approach which inspires confidence and facilitates development and where local government is an active leader and partner. There were a number of issues expressed during discussions with the Panel:

- At the top of the agenda was the role of planning in supporting or constraining development. Businesses and other investors sought certainty and consistency in the planning system, with accurate and early dialogue about the prospects for proposals.
- For those organisations seeking to operate at scale, a consistent approach between adjoining local authorities was highlighted
- Emphasis was also placed on the importance of high quality urban infrastructure – including transport infrastructure, the provision of reliable power sources, and the ongoing upgrading and accessibility of digital infrastructure – to anchor businesses and institutions to the city-region

The Panel recognised that local authorities operate within systems (such as the planning system) where there are prescribed regulations and procedures, as well as other legitimate stakeholders, or in conjunction with privatised service providers (for electricity or telecommunications) where decision-making is typically external. Nonetheless, the Panel recommends that local authorities needed to do more to understand and enable innovation, and to be more willing to calculate acceptable risk and to flex bureaucratic systems to promote innovation.

Business Organisations and Innovation

For many businesses, particularly small and medium-size enterprises, representative organisations such as the Chambers or Commerce and the Federation of Small Businesses are crucial contacts and sources of information. Yet, in the course of discussion, the Panel came to the view that the role of business organisations in promoting innovation and in collaborating to support individual or groups if members had not been fully exploited. As well as acting as a representative voice for business, and a provider of member services, business organisations are potential intermediaries and advisors within the wider innovation system. The Panel believed that these organisations could:

- Reflect on how they could come together to support business innovation
- Use their membership base to research and promote the capacity and experience of their members
- Play a stronger role in the facilitation of networking and the promotion of the city-regions assets and services

Fostering Cumulative Advantage and Capability-Building for Innovation
Manchester has successfully delivered a number of eye-catching projects, such as the Commonwealth Games, the development of Manchester Airport, and the redevelopment of the Arndale centre, and initiated major economic initiatives such as the transformation of Salford Quays. These projects have promote innovation within the civic culture, generated international exposure, and demonstrated that Manchester has the civic will to undertake major projects.

However, while some innovation-oriented projects may involve physical infrastructure and buildings (such as science parks or incubators), most innovation development activities involve the development of knowledge, skills, capabilities, and linkages and are often smaller in scale. Manchester has seen a series of innovation-related projects initiated within the city-region in recent years. While these projects may be successful in their own terms (for example, in research activities funded or businesses assisted), a broader challenge is to ensure that such efforts have longer-run and cumulative impacts on the city-region’s capacity to innovate. This is particularly important in the current era of fiscal restraint, where any new projects will need careful justification if they are to draw upon public resources, with pressure to ensure economic sustainability and private sector engagement.

As a case study to develop further insights about Manchester’s ability to foster cumulative advantage and capacity building from innovation project activities, the Panel focused on one example: the Manchester Innovation Investment Fund. During the Panel’s meetings, opportunities were made available for Panel members to hear from the Fund’s sponsors and evaluators and also to meet with a number of Fund recipients.

The Manchester Innovation Investment Fund was developed through a partnership between the Northwest Regional Development Agency, the National Endowment for Science, Technology and the Arts, and Manchester City Council. The Fund was originally managed by Manchester Knowledge Capital and subsequently by Manchester New Economy. The Fund was launched in 2007 and operated through to March 2011. Support was provided to about thirty projects, with a total public investment of £6.85 million. The projects sponsored by the fund were diverse, including feasibility and pilot studies (for example, Carbon Coop Urbanisms Environmental Design or FabLabs by the Manufacturing Institute), economic research and strategy (Manchester Independent Economic Review), networking activities (Innovation Board Room - Manchester Knowledge Capital), enterprise mentoring (Technology Working for You by Melandra Innovation Consultants), innovation vouchers (Creative Credits), and training and placement (Manchester Masters - Manchester Metropolitan University).27

The Panel found that there were contrasting views on the effectiveness of the Manchester Innovation Investment Fund.28 In the opening session, which included participation from members of the Manchester Innovation Group, concerns were expressed about the programme and the return from a significant investment of public money. Yet, the Panel later had an opportunity to hear directly from a number of the sponsored projects, and indeed from some of the unsuccessful applicants. This provided a different account of the programme and the initiatives that had been delivered. Participants believed that the projects had generated many exciting developments, with significant additionality and opportunities and a legacy for Manchester that needed to be built on. This highlighted an interesting

27 For more detail on these and other funded projects, see http://neweconomymanchester.com/stories/1174-manchester_innovation_investment_fund.
gap between the management tier and practitioners, with differing perspectives as to a successful innovation project. More formal evaluations of the Fund also exhibit mixed views. One study finds that the Fund has catalysed new thinking about innovation in Manchester, including the introduction of new approaches such as FabLab (a community inventors’ workshop) and Creative Credits (linking local manufacturers with Manchester’s creative sector). This study also raises issues about the strategic impact of the Fund and the sustainability of its sponsored projects.\footnote{Driving innovation in cities: Learning from Greater Manchester, National Endowment for Science, Technology and the Arts, London, July 2010.} A second report finds that the Fund’s investments demonstrate the value of developing evidence-based analysis to underpin innovation strategies, the importance of city-wide public-private leadership, and the role of cities in stimulating innovative ideas.\footnote{See also May, T., Berry, B., Edler, J., and Randles, S., The MIIF and Manchester’s Innovation Journey: Lessons and Ways Forward. Salford Centre for Sustainable Urban and Regional Futures with Manchester Institute of Innovation Research, May 2010; Driving innovation in cities: Learning from Greater Manchester, National Endowment for Science, Technology and the Arts, London, July 2010.}

The Panel noted that many of the project leaders who had been sponsored by the Fund offered perspectives, and were part of networks, that added variety to more conventional approaches to innovation. This offered the Panel a broader standpoint on the extent of the Manchester innovation eco-system and reinforced the importance of developing new cadres of private and public entrepreneurs willing to pursue innovative ideas within the Manchester city-region.

The Manchester Innovation Investment Fund initiative has come to an end of its funding. The view of the Panel is that it is important to build on the experience of the best of the Manchester Innovation Investment Fund projects (and also learn from those that were less successful). During the forthcoming period, it will be useful to bring as many of the best elements of these projects as possible back into the innovation agenda. Consideration should be given to how to support innovative new projects over the longer term and how to scale-up the best of them. Seeking additional project funding from external sources is one way to do this, including private and foundation sources as well as currently scarce public funds. Most strategically, there is a need to work out how to embed the lessons, experiences, and practices of such projects into existing public and private organisations in the city-region. The Panel suggests that it could be worthwhile to pursue opportunities to reflect on the experiences and insights from the best of the projects sponsored by the Fund and to consider how they might be sustained and embedded. This might occur through a workshop or even a showcase event where projects can pitch their ideas for further development. The projects that appear especially promising are those which offer new yet real opportunities for people and companies to come together to develop capabilities and to stimulate innovation. An example is the Manchester Masters programme – which seeks to retain talent by offering Greater Manchester graduates the chance to gain intensive placements with local creative sector companies and work towards a masters’ degree. This programme continue to operates but at a small scale (10 students). Possibly this programme could be expanded – with the idea transferred to other sectors (for instance, in the life sciences, as well as selected other industry sectors). Particular attention should be given to exploring private-sector initiatives to ensuring the sustainability of funding for these schemes, for example by building company-led industry-university advanced training consortia.

In addition to identifying potential follow through opportunities, the Panel felt that there was considerable value in developing future initiatives to build Manchester’s innovation seed funds.
Conventional public funds are constrained in the immediate term, but other sources of funding and operating modes could be pursued. In any future funds, the Panel recommends building in a repayment mechanism, providing a self-sustaining innovation fund in the future. The Panel notes that aspects of a refundable model are being explored in a new pilot project in Greater Manchester (FranchisingWorks, part of the social business Shaftesbury Partnership). Additionally, there could be exploration of new ways to stimulate and attract innovation to Manchester, for example by offering competitive prizes to innovative new companies.31

4. Panel Recommendations

Manchester is rightly known as a 19th Century hub of industrial revolution and has an enviable reputation for achievements in science, technology, sport, and the arts in the 20th Century. Today, Greater Manchester has both the opportunity and the challenge of developing itself as a 21st Century Innovative Metropolis – a dynamic yet sustainable city-region driven by enterprising firms, active research organisations, and a talented and creative population enabled and nurtured by effective innovation support organisations and mechanisms. While there are already examples of such firms, organisations, and people in the conurbation, the scale, scope and embeddedness of innovation needs to be much enhanced in Greater Manchester to fully realise this vision.

In this concluding section, the Panel identifies action steps that can be taken by public and private sector organizations to more effectively stimulate and support innovation in Greater Manchester over the coming period. In making these recommendations, the Panel draws on its assessment of the evidence presented to it, its analysis of Greater Manchester’s current situation and prospects, and the judgement and expertise of its members. The Panel emphasises that the specific actions it proposes to addresses its terms of reference depend and build upon the positive development of underlying factor conditions across the Greater Manchester conurbation, including in education, training, transportation, and infrastructure.

The Panel’s recommendations address the key lines of inquiry and supplementary questions, as initially provided. Each topic of questioning is designated by a short-hand reference terms (see Appendix Table 1). A number of our recommendations cut across and tackle multiple questions. We thus not only present our recommendations but also indicate, in a matrix format, how specific recommendations address multiple reference terms (see Appendix Table 2).

The Panel’s recommendations are as follows.

<table>
<thead>
<tr>
<th>Strategic Orientation</th>
<th>Recommendation</th>
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</thead>
<tbody>
<tr>
<td>Greater Manchester should aim to be a leading hub in the United Kingdom and in Europe for innovation. Two strategies need to be linked: fostering science-driven innovation (with the universities, Daresbury, and larger R&amp;D companies taking a leading role) and</td>
<td>Greater Manchester should actively seek to establish applied innovation centres in key technologies, including hosting or being a partner in several UK Technology Innovation Centres (TICs). This should be pursued as a priority of city and economic development leaders, as well as by</td>
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<table>
<thead>
<tr>
<th>Strategic Orientation</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>fostering industry-driven innovation (with companies including SMEs, networks, and</td>
<td>universities and the business community, as part of a broader strategy to establish Greater Manchester’s innovation hub status in the regional, national and global context.</td>
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<td>other groupings engaged in a broad array of innovation activities). One of the core</td>
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<td>approaches to link these strategies is through the development of applied innovation</td>
<td>2 In addition to UK TICs, opportunities to attract international applied R&amp;D centres (such as a Fraunhofer Institute) to Greater Manchester should be explored.</td>
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<td>centres.</td>
<td>3 Greater Manchester’s academic leaders should ensure that existing and new university technology centres build in applied innovation components where appropriate.</td>
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<tr>
<td>4 Greater Manchester’s universities should enhance their interconnectivity around</td>
<td>5 There is an important role and opportunity for an Enterprise Innovation Centre (or Enterprise Innovation Partnership) to work intensively on fostering innovation with a larger number of existing Greater Manchester SMEs than currently assisted. It is important to ensure that SME innovation support is embedded and able to work with companies over the longer-run. The Panel recommends that the Local Enterprise Partnership and the Manchester Innovation Group consider how this proposal might be implemented so as to substantially expand the scope and scale of innovation services delivered to Greater Manchester firms.</td>
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<tr>
<td>applied areas of technology and innovation, including through fostering initiatives to</td>
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<tr>
<td>encourage open innovation, to advance innovation support structures, and to more</td>
<td>6 Within the context of a much improved innovation support system for Greater Manchester, there is a need to enable access to low-cost and easily accessible sources of business advice, technology and innovation assistance, and professional services. Strategies might include expanding awareness of “Slivers of Time” (making trusted services available for an hour or a day) approaches, finding new ways to support Innovation Voucher opportunities, and engaging national agencies in joint coordination and leverage of their services in Greater Manchester.</td>
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<td>actively engage in innovation development with a greater number of area firms (over and</td>
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<td>beyond start-ups and spinouts).</td>
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<td>Strategic Orientation</td>
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<tr>
<td>7 The Universities should ensure that they have easy to navigate entry points into their various departments, centres, and services that support innovation in SMEs.</td>
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<tr>
<td>8 For high-technology and advanced service SMEs, opportunities to expand virtual innovation support systems in Greater Manchester are encouraged. The Science Parks and Incubators could take leadership in expanding virtual innovation provision, so as to serve more firms across the metropolitan area than can be physically housed in existing buildings.</td>
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<tr>
<td>Enhancing the development of innovative, and research and development intensive businesses in Greater Manchester requires better links with the financial sectors and fund managers to enable more holistic and better coordination of provision.</td>
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<tr>
<td>9 Opportunities to link business locations in Greater Manchester’s science parks, technology facilities and incubators with potential private investors should be enhanced.</td>
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<tr>
<td>10 In parallel, opportunities should also be developed to link these structures with networks of innovative companies, for example, through Enterprise Clubs, so that innovative companies throughout Greater Manchester can more readily link with and be brought to the attention of potential investors.</td>
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<tr>
<td>Greater Manchester needs to extend its efforts to link with innovative companies worldwide and to support local enterprises to enter global markets.</td>
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<tr>
<td>11 More could be done to understand and connect with the innovation intentions of leading global companies. This includes going beyond specific foreign direct investment projects to catalysing strategic relationships between these large companies with Greater Manchester’s universities, small and medium-sized businesses, and innovation networks. MIG, MIDAS and the universities should review what might be the best ways to increase their structured relationships with targeted and other innovative companies worldwide.</td>
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<tr>
<td>12 There are latent opportunities for outward internationalisation, for instance by promoting the internationalisation of “born local” high technology companies. MIG, MIDAS, the Chamber, and the universities should consider how they can more effectively work with a larger number of innovative SMEs in accessing international markets.</td>
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<tr>
<td>An important contributor to a dynamic urban innovation environment is the availability of resources to stimulate experiments and</td>
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<td>13 Further reflection on the experiences and insights from the best of the projects sponsored by the now closed Manchester Innovation Investment</td>
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<td>support promising early stage projects, networks, and pilot programmes.</td>
<td>Fund (MIIF) should be undertaken, with efforts to work out how the best of the ideas supported by MIIF might be sustained and expanded. New Economy should promptly undertake this review (drawing on available evidence and evaluations, not by commissioning a new study) and develop appropriate action recommendations.</td>
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<tr>
<td>14 There is considerable value in developing a future source of flexible seed funding to support and build early innovation ideas and projects. Conventional public funds are constrained in the immediate term, but other sources of funding and operating modes could be pursued. In any future early innovation fund, the Panel recommends building in a repayment mechanism, providing a source of revolving funds.</td>
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<tr>
<td>15 Greater Manchester universities should explore further opportunities to develop inter-university collaborations focused on innovation in the city region, including observatories, open collaboration spaces, and innovation laboratories. Such initiatives could leverage the assets and interests of the universities and a variety of business and community stakeholders in understanding and fostering new forms of innovation.</td>
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<tr>
<td>Entrepreneurial education and skill development for innovation should be a higher priority for Greater Manchester within the overall agenda of raising skill levels.</td>
<td>16 There is a strategic issue of how best to expand and embed entrepreneurship education and skill development for innovation in Greater Manchester. Schools, colleges, businesses, community organisations, and others all have roles. Diverse approaches will be needed for pupils, college and university students, those already in the workforce, and those who are currently out of the workforce. The Panel recommends that the key stakeholders (including public and private sector leadership, and schools and universities) hold an education for innovation summit to highlight and learn from existing good practices in Greater Manchester and elsewhere and to consider how such good practices might be more widely deployed. This could include approaches that link schools and colleges directly with businesses and the universities. For example, identifying charismatic business leaders and technology researchers and engaging them in</td>
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<td>motivating pupils and students, or by incentivising school innovative business competitions. Other good practices and ideas are likely to emerge from the summit.</td>
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<td>17 One of the existing good practices in education for innovation in Greater Manchester observed by the Panel was the Manchester Masters, which combines coursework and hands-on paid internships in marketing to attract and retain new master’s students in Greater Manchester. The universities are recommended to catalogue these and other innovative programmes which attract, educate and retain talent in and for Greater Manchester companies and work collectively to explore how to expand the range, supply, and demand for such programmes in Greater Manchester.</td>
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<tr>
<td>Dynamic urban agglomerations typically house requires multiple locations of innovative activity with numerous intra-metropolitan and extra-metropolitan linkages and connections. Greater Manchester needs to further deploy the tools of policymaking and planning in supporting the growth of a variety of diverse locations for innovation across the city-region.</td>
<td>18 There are a series of “place-based” innovation-related initiatives across Greater Manchester, with new ones under development. These efforts appear as piecemeal and as yet not integrated into a broader vision of innovative communities and places in Greater Manchester. A step forward would be the creation of a dynamic metropolitan map of innovation in Greater Manchester by institutions, firms, and locations. New Economy could be charged with developing this tool. A metropolitan map of Greater Manchester innovation could then be used as a basis for discussion about how further to develop innovative communities and places in Greater Manchester and how they might be connected and leveraged.</td>
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<tr>
<td>To date, much effort in developing innovative places in Manchester been invested in large-scale redevelopment and rebuilding (as in MediaCity). These are vital and key anchor projects. Yet, there are also needs and opportunities to undertake a series of smaller-scale business and social innovation support activities in existing communities, including in the inner cities. This could include ways to combine micro-financing with innovative business ideas. Banks, larger businesses, and professional service companies could be interested to support these ideas. The</td>
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<tr>
<td>Manchester Innovation Fab Lab provides another potential model. The Local Enterprise Partnership should open up a dialogue with local communities and businesses to look at new opportunities for multiple smaller-scale innovation activities.</td>
<td>20 High priority should be given to addressing key infrastructure issues that are critical to Greater Manchester’s international economic competitiveness. This includes: intra- and inter-regional transport access, including coordinated and efficient metropolitan transit, the Northern Hub transport project, and high speed rail; infrastructure to support the emergence of innovative business districts (such as around the airport, through the new Enterprise Zone); and access to advanced electronic communication capabilities, which is a critical asset for innovation especially for Greater Manchester’s burgeoning creative sectors. Greater Manchester should make more use of its digital leadership and university and corporate technological capabilities to ensure it has one of the world’s best innovation communication infrastructures (i.e. to be ranked among the world’s most wired/wireless cities). That the BBC is coming here should catalyse this. Opportunities to extend ultra-fast Internet access to nodes and corridors across Greater Manchester should be pursued and such efforts should be linked with place-based revitalization and innovation development initiatives.</td>
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<tr>
<td>Further opportunities should be explored to develop and connect the supply and demand-sides of innovation.</td>
<td>21 There could be exploration of new ways to stimulate and attract innovation to Greater Manchester, for example by offering competitive prizes or access to resources (e.g. initial free start-up space, access to technical assistance) to innovative new companies.</td>
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<td></td>
<td>22 Greater Manchester should encourage more of the highly-talented students attracted to its universities to stay and set-up businesses, particularly those completing advanced degrees. Potential strategies include integrating business and innovation training opportunities into science, engineering, medicine, arts and other courses; and encouraging those with emergent business ideas to set up in Greater Manchester (through initial free space, access to finance, mentoring,</td>
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<td>competitions and other means). Highly-talented international advanced students could be provided additional support (to address visa and access to finance issues) to establish new innovative ventures in Greater Manchester. Attracting successful alumni back to Greater Manchester is a related strategy. The universities should take the lead on these initiatives.</td>
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<td></td>
<td>23 Local authorities in Greater Manchester should create service delivery innovation challenges. This would support the development of businesses able to spur innovation and cost-efficiencies in the public sector. These firms may then be able to sell those services into other UK and international markets.</td>
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<td></td>
<td>24 The use of procurement to foster innovation should be a higher priority among Local Authorities and other major purchasers (such as Manchester Airport and the universities). A key to success here is for Authorities and larger organisations to identify key innovation needs and to partner with companies through the procurement process to develop fresh solutions.</td>
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<td></td>
<td>25 There is a division of responsibilities among multiple agencies and units with responsibilities for business and technological development, internationalisation, and the communication of Greater Manchester’s innovation offer to external audiences. The reorganisation of the Manchester Family of organisations into Centres of Excellence could be a step forward, as long as there are renewed efforts to promote coordination among the Centres and other organisations. To guide outsiders, particularly Greater Manchester businesses, panel members suggest that a clear road map to the system should be developed which inventories key institutions and actors, and presents an easy-to-use overview for businesses, investors and other partners. Greater Manchester’s innovation stakeholders will need to come together to develop this.</td>
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<td></td>
<td>26 It is essential to develop and make available strategic intelligence to inform public and private innovation decision makers The panel noticed that a weakness of the Greater Manchester Strategy was a lack of metrics and measures linked to the aims of the strategy. More broadly, there is a need to develop finer-grained and timelier intelligence on developments related</td>
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<td>to innovation in Greater Manchester, to better monitor enterprise needs related to innovation, and to assess Greater Manchester’s innovation performance relative to its own goals and in comparison with target international benchmark cities. New Economy is encouraged to step-up its assessments and monitoring of innovation performance in Greater Manchester, to develop further indices and measures, to identify appropriate international benchmark agglomerations and to develop a methodology for on-going evaluation of progress, and to ensure results are broadly communicated.</td>
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<tr>
<td>Greater Manchester needs to present as a vibrant and skilled environment for innovative solutions to corporate business needs.</td>
<td>27 The Greater Manchester city-region should be intentional about marketing its innovation capabilities. Manchester needs to establish a more distinctive and coherent innovation brand equity. People with significant global marketing pedigree must be engaged in this task.</td>
</tr>
</tbody>
</table>
### Table 1. Manchester Developmental Panel: Reference Terms

| Reference Term       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|----------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| KL1 Attracting innovation | ● | ● | ● | ● |   |   |   |   |   | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| KL2 Growing innovation   | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| KL3 Existing business    | ● | ● | ● | ● | ● | ● |   |   |   | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| KL3 Commercialisation   | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| SQ1 Implementation      | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| SQ2 Partnerships        | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| SQ3 Targeting           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SQ4 Places              | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| SQ5 External factors    | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| SQ6 R&D investment      | ● | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

KL = Key Line of Inquiry; SQ = Supplementary Question
● = Recommendation addresses reference key line of inquiry or supplementary question.
Appendix 1. Manchester Developmental Panel 2011

Panel Members:

- Professor Philip Shapira, Professor of Innovation Management and Policy, Manchester Institute for Innovation Research, Manchester Business School, and Professor of Public Policy, Georgia Institute of Technology - Panel Chair
- David Crowther, Chief Executive, Melandra Innovation
- Andrew Davies, Senior Counsellor, OECD Regional Development Policy Division
- Will Hutton, Executive Vice Chairman, Work Foundation
- Professor Helen Lawton Smith, Professor of Entrepreneurship, Department of Management, Birkbeck College, University of London
- Neil Lee, Senior Economic and Programme Lead (Ideopolis Programme), Work Foundation
- Erinma Ochu, Director of the Manchester Beacon for Public Engagement
- Allyson Reed, Director of Strategy and Communications, Technology Strategy Board
- Professor Roy Sandbach, Research Fellow, Procter & Gamble

Secretariat:

- Richard Baker, Policy and Research Manager, Northern Way
- Jim Keane, Head of Innovation and Knowledge Transfer, North West Development Agency
- Martin Wain, Delivery Manager, Commission for the New Economy
### Appendix 2. Programme for Manchester Development Panel visit, 23 and 24 February 2011

<table>
<thead>
<tr>
<th>Session</th>
<th>Activities</th>
<th>Those involved</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day 1</strong></td>
<td><strong>Mint Hotel, Manchester</strong></td>
<td>Panel members and Secretariat</td>
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<tr>
<td><strong>10.00 – 11.00:</strong></td>
<td><strong>Closed meeting of the Panel</strong></td>
<td>Panel members and Secretariat</td>
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<tr>
<td>Scone Room</td>
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<tr>
<td></td>
<td>Purpose of session:</td>
<td>Panel members and Secretariat with Manchester Core Team</td>
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<tr>
<td></td>
<td>• Introductions</td>
<td>Panel plus: Alex Cole, New Economy Hannah Brighton, new Economy Anne Dornan, Manchester: Knowledge Capital Madeline Smith, Ekos Ltd</td>
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<td></td>
<td>• Questions on briefing pack?</td>
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<tr>
<td><strong>11.00 – 12.00</strong></td>
<td><strong>Introductory briefing and scene-setting sessions with Greater Manchester Internal Team and Northern Way team. Question &amp; Answer session linked to evidence file</strong></td>
<td>Panel members and Secretariat with Manchester Core Team</td>
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<tr>
<td>Scone Room</td>
<td>Purpose of session:</td>
<td>Panel plus: Alex Cole, New Economy Hannah Brighton, new Economy Anne Dornan, Manchester: Knowledge Capital Madeline Smith, Ekos Ltd</td>
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<tr>
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<td>• Alex Cole: Provide more quality information on the MIER and its findings &amp; Manchester’s position/performance (10 mins)</td>
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<td>• Hannah Brighton: See how the MIER has been translated into GMS and what the GMS has meant (10 mins)</td>
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<td>• Anne Dornan: Explore Manchester’s innovation activities and the role of M:KC (15 minutes)</td>
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<td>• Madeline Smith: Headline findings from Ekos review of innovation and Innovation Investment Fund (15 mins)</td>
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<td></td>
<td>• Q&amp;A (10 mins)</td>
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<tr>
<td><strong>12.00 – 14.00</strong></td>
<td><strong>Workshop with Panel members, including buffet lunch</strong></td>
<td>Panel members and Secretariat with Manchester Innovation Group and others</td>
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<tr>
<td>Linlithgow Room</td>
<td>Purpose of session:</td>
<td>Panel plus: Jane Davies, Manchester Science Parks Ltd Clive Memmott, Manchester Chamber of Commerce Barbara Spicer, Salford City Council Baron Frankal, New Economy Keith Barnes, University of Salford</td>
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<td></td>
<td>• Fill in MIG members and partners on purpose of visit</td>
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<td>• Find out MIG views on Manchester’s innovation</td>
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<td>• Drill down into MIG aspirations – the goals of the Foresight report?</td>
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<td>• Preliminary views of the panel – early reflections</td>
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<td>• Scoping exercise and potential areas of focus from the MIG – anything they’d particularly like to see?</td>
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<td>• Outline timescales and expectations, starting with ‘headlines and next steps session’ on 24th</td>
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<tr>
<td>Session</td>
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<td>Those involved</td>
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<tr>
<td>14.00 - 15.30</td>
<td><strong>Small group discussion on new research-intensive and high-creativity small businesses</strong>&lt;br&gt;Purpose of session:&lt;br&gt;• What made you establish your business in Manchester?&lt;br&gt;• How has your company grown?&lt;br&gt;• What support has your company had, if any?&lt;br&gt;• What support would allow you to grow further?&lt;br&gt;• How do you view the role of intermediaries in innovation?&lt;br&gt;• What barriers have you found in Manchester and how could these be removed?&lt;br&gt;• How can Greater Manchester better connect/leverage/support/grow its strong assets and its science and R&amp;D base – particularly forming closer connections with best performers Daresbury, AstraZeneca and other significant centres around its borders?&lt;br&gt;• How can Greater Manchester better lobby for more non-HEI R&amp;D investment?&lt;br&gt;• What are your relationships with universities?&lt;br&gt;<strong>Small group discussion focused on Manchester-based manufacturing and service businesses</strong>&lt;br&gt;Purpose of session:&lt;br&gt;• What made you establish your business in Manchester?&lt;br&gt;• How has your company grown?&lt;br&gt;• What support has your company had, if any?</td>
<td>Panel members, split into groups meeting with respondents&lt;br&gt;Subgroup of the Panel plus:&lt;br&gt;Geoffrey Brown, Euclid/Culture.info&lt;br&gt;Julie Madigan, The Manufacturing Institute&lt;br&gt;Keith Chantler, TrusTECH&lt;br&gt;Gordon Barker, Conformetrix&lt;br&gt;Sarah Charlton, Mickey and Mallory&lt;br&gt;Elias Soares, University of Bolton&lt;br&gt;Dan Aris, Liberalto Holdings Ltd&lt;br&gt;Chris Byrne, Ravensoft Inc&lt;br&gt;Danny Walker, IT Farm&lt;br&gt;Subgroup of the Panel plus:&lt;br&gt;Brian Sloan, Greater Manchester Chamber of Commerce&lt;br&gt;Paul Meredith, NXP&lt;br&gt;Chris Marsland, ENER-G</td>
</tr>
<tr>
<td>Session</td>
<td>Activities</td>
<td>Those involved</td>
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|           | • What support would allow you to grow further?  
• How do you view the role of intermediaries in innovation?  
• What barriers have you found in Manchester and how could these be removed?  
• How can Greater Manchester better connect/leverage/support/grow its strong assets and its science and R&D base – particularly forming closer connections with best performers Daresbury, AstraZeneca and other significant centres around its borders?  
• How can Greater Manchester better lobby for more non-HEI R&D investment?  
• What are your relationships with universities?                                                                                                                                                                                                 | Panel members, split into groups Subgroup of the Panel plus: Colin Whitehouse, Daresbury Dave Carter, MDDA David Hytch, GMPTE Jon Corner, FIRM project (Salford University and MediaCity:UK) Jackie Potter, The Corridor Drew Hemment, FutureEverything Alex Roy, New Economy Subgroup of the Panel plus: Elena Vasilieva, University of Salford Professor Ghassan Aouad, University of Salford Laura Etchells, University of Manchester Incubation COMpany Dr Sally Randlies, Manchester Business School Professor Elias Siores, University of Bolton Dr Stephen Bainbridge, Manchester Metropolitan University David Briggs, CONTACT Partnership Dr Kieron Flanagan, University of Manchester |
| 16.00 - 17.30 | **Small group discussion on infrastructure, corridor and spatial initiatives**  
| Atholl Room | Purpose of session:  
• Some of Manchester’s strongest and most significant assets are concentrated (the Corridor, Airport) and others are without the conurbation (Daresbury, AstraZeneca). How can we better connect  
• How important is infrastructure (both hard – such as transport and broadband infrastructure – and soft, such as open data) to innovation?  
• What are the main requirements of infrastructure – what improvements are required? Would this help to better attract more assets, as well as better connecting the ones we have? |                                                                                                              |
| Linlithgow Room | **Small group discussion on University/Industry and Skills/Learning/Human Capital Interfaces**  
| Purpose of session:  
• Does Manchester’s skillbase mitigate any opportunities (such as MediaCity)?  
• How can we best develop Manchester’s skillbase? Do we need to look as far back as the school curriculum, or colleges?  
• How can we better bring skills and innovation together?  
• How can we better engage with all levels of education? The Foresight report details a desire to provide a more fit for purpose’ curriculum – how can we deliver on this?  
• Can we encourage better linkages between industry and universities? How?  
• Foresight report states academics should be free to move between industry and university – would this work? |                                                                                                              |
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<td>Scone Room</td>
<td><strong>Small group discussion with Manchester ‘family’ bodies supporting innovation</strong>&lt;br&gt;Purpose of session:&lt;br&gt;• How has the Manchester Family supported innovation?&lt;br&gt;• What are the main points of learning – particularly for bodies involved in the MIIF?&lt;br&gt;• How does the Manchester Family intend to continue supporting innovation?&lt;br&gt;• What are the big challenges? Can the public sector change its processes to better facilitate and even demand innovation?</td>
<td>Peter Fell, University of Manchester&lt;br&gt;Subgroup of the Panel plus:&lt;br&gt;Anne Dornan, Manchester: Knowledge Capital&lt;br&gt;Baron Frankal, New Economy&lt;br&gt;Angie Robinson, MIDAS&lt;br&gt;Louise Hale, Manchester Solutions&lt;br&gt;Jane McKelvey, Manchester City Council&lt;br&gt;Lynn Shephard, Manchester Business School&lt;br&gt;Chris Taylor, University of Manchester&lt;br&gt;Carmel Dickinson, University of Manchester&lt;br&gt;Christine Westcott, New Economy</td>
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<td>19.30 – 22.00</td>
<td><strong>How can Manchester’s leaders work together to foster innovation?</strong>&lt;br&gt;Purpose of session:&lt;br&gt;• Reflect on the goals of the ‘An Innovation System for the Manchester City Region’ report – establish whether these are still absolutely current&lt;br&gt;• Greater Manchester has a well-acknowledged ‘USP’ of successful, cross-boundary working and partnership. How can Greater Manchester leverage these strengths to continue and build on its success to date, avoiding any mitigating factors emerging in the context of economic and structural change?&lt;br&gt;• How can Greater Manchester better connect/leverage/support/grow its science and R&amp;D base – particularly forming closer connections with Daresbury, AstraZeneca and other significant centres around its borders?&lt;br&gt;• How can Greater Manchester better lobby for more non-HEI R&amp;D investment?&lt;br&gt;• How will Greater Manchester foster innovation and create the right conditions for it to flourish? What could Greater Manchester’s leaders do to develop these conditions and remove any barriers to innovation?&lt;br&gt;• How can Greater Manchester support its innovative businesses to encourage growth, attract, retain and nurture the best talent, leverage its innovation and research assets while growing its economic base?</td>
<td>Lord Peter Smith, Leader AGMA and Wigan MBC&lt;br&gt;Panel members and Secretariat with other guests&lt;br&gt;Lord Peter Smith, AGMA &amp; Wigan MBC - Host&lt;br&gt;Jacquie O’Neill, Manchester City Council&lt;br&gt;Cllr John Merry, Salford City Council&lt;br&gt;Steven Pleasant, Tameside MBC&lt;br&gt;Jane Davies, Manchester Science Parks Ltd&lt;br&gt;Baron Frankal, New Economy&lt;br&gt;Clive Memmott, Greater Manchester Chamber of Commerce&lt;br&gt;Dr Roger Platt, North West Science Council&lt;br&gt;Professor John Brooks, Manchester Metropolitan University&lt;br&gt;Keith Barnes, University of Salford</td>
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Where should future policy focus?
How should Greater Manchester’s public sector position itself as intermediaries?
How can Greater Manchester’s leaders better connect its ‘well-springs’ of innovation (Universities, Science Park, high-growth businesses, the Corridor)
How can leaders ensure a clear and focussed-yet-comprehensive vision of innovation?
How can leaders ensure such a vision is delivered by all parties – local authorities, the wider public sector, Universities, private sector parties?
How can Greater Manchester address some prominent evaluation findings – how to move better from strategy to delivery?
How much role has public sector innovation got and what should Greater Manchester’s leaders explore?
Post Manchester Family review, how can New Economy take forward innovation? It isn’t sensible to try and replicate M:KC’s work and role, so how can it build on this and evolve the role?
What could Greater Manchester and its leaders realistically put in place to reach the goals of the Foresight report by 2015?
What are the first tangible steps – what can be done in the immediate future – to reach these longer-term goals?:
1) Manchester is a place to invest in innovation and innovative companies
2) Manchester is a place to grow an innovative business
3) Manchester is a place to be trained in leading edge ideas & how to exploit them
4) Manchester is a place where innovative people want to live and work
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<td><strong>09.30 - 11.00</strong></td>
<td><strong>Small group discussion with the NWDA Innovation Team and Northern Way Innovation in Industry Steering Group</strong></td>
<td>Panel members, split into groups</td>
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| Atholl Room | Purpose of session:  
- How can Manchester harmonise its objectives with those of the region and beyond, achieving a broader reach?  
- How can Manchester better reach out and make linkages with assets in and around its borders, and beyond (Daresbury, AstraZeneca, and other northern cities)?  
- How can those outside of Manchester better take advantage of what's happening in the core?  
- How does Manchester reach and source best practice from across the north and its comparators, and take advantage of opportunities?  | Subgroup of the Panel plus:  
Jim Keane, NWDA  
Dr Roger Platt, North West Science Council  
Sarah Jackson, N8 Research Partnership |
| **Scone Room** | **Small group discussion with academics and researchers who have studied Manchester and its performance** | Subgroup of the Panel plus:  
Professor Tim May, University of Salford  
Dr Sally Randles, Manchester Business School  
Professor Ghassan Aouad, University of Salford  
Professor Alan Harding, University of Salford |
| | Purpose of session:  
- What are Manchester’s main strengths and weaknesses?  
- How has it performed in addressing these?  
- What are its opportunities and threats?  
- What action could it take to maximise and mitigate these?  
- What is your main recommendation to Manchester to take forward a successful innovation agenda? | |
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<td>Linlithgow Room</td>
<td><strong>Small group discussion with rising innovators</strong>&lt;br&gt;- What should be its areas of focus?</td>
<td>Manchester&lt;br&gt;Subgroup of the Panel plus:&lt;br&gt;Manoj Ranaweera, Techcelerate&lt;br&gt;Colin Sinclair, Bruntwood</td>
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<td><strong>11.00 – 12.30</strong></td>
<td><strong>Meeting with Central Government departments and key Executive Agencies</strong>&lt;br&gt;- Explore Manchester’s relationship with London&lt;br&gt;- What more could Manchester do to engage better?&lt;br&gt;- How can Manchester have a better dialogue with central government to ensure more alignment of national/regional/local policies (such as investment in R&amp;D)?&lt;br&gt;- Is Manchester heading in a sensible direction from Government’s point of view? Any other views/opinions?</td>
<td>Panel members and Secretariat&lt;br&gt;Panel plus:&lt;br&gt;Damien Walne, The Department of Communities and Local Government&lt;br&gt;Allyson Reed, Technology Strategy Board&lt;br&gt;Benedict Arora, NESTA&lt;br&gt;Paul Driver, The Department of Business Innovation and Skills</td>
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<td><strong>12.30 – 13.30</strong></td>
<td>Panel lunch</td>
<td>Panel members and Secretariat</td>
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<td><strong>13.30 – 15.00</strong></td>
<td><strong>Seminar with Innovation Fund applicants to discuss experience of the Fund</strong>&lt;br&gt;- What did each project seek to achieve?&lt;br&gt;- What did success look like &amp; how has this helped develop the ecosystem?&lt;br&gt;- Has there been any cascade benefits?</td>
<td>Panel members and Secretariat&lt;br&gt;Panel plus:&lt;br&gt;Benedict Arora, iDiscover&lt;br&gt;David Crowther, Innovate with Confidence</td>
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<td>15.00 – 16.00</td>
<td><strong>Presentation and discussion of initial findings of the panel</strong>&lt;br&gt;&lt;br&gt;Purpose of session:&lt;br&gt;• Headline findings of the panel/first thoughts&lt;br&gt;• Agree/disagree discussion with MIG &amp; partners&lt;br&gt;• Agree next steps and timescales</td>
<td>Panel members and Secretariat with Manchester Innovation Group&lt;br&gt;Panel plus:&lt;br&gt;Jane Davies, Manchester Science Parks Ltd&lt;br&gt;Baron Frankal, New Economy&lt;br&gt;Keith Barnes, University of Salford&lt;br&gt;Steve Mycio, Manchester City Council&lt;br&gt;Shaun Fensom, Manchester Digital Development Agency&lt;br&gt;David Hytch, GMPTE&lt;br&gt;Keith Chantler, TrustTECH&lt;br&gt;Sue Woodward, Sharp Project</td>
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<td>15.00 – 16.00</td>
<td>Linlithgow Room</td>
<td>Keith Chantler, Smart Solutions for Healthcare&lt;br&gt;Veronica Strain, Corridor Connections&lt;br&gt;Dr Jennifer Cleary, Cultural &amp; Creative Innovators (Manchester International Festival)&lt;br&gt;Dr Steven Moxey, Manchester SmartCity&lt;br&gt;Professor Peter Kawalek, Manchester SmartCity&lt;br&gt;Dr Eddie Kirkby, Manchester FabLab&lt;br&gt;Kate Pickering, Innovation Boardroom&lt;br&gt;Dr Steve Bainbridge, Manchester Masters&lt;br&gt;Dr Roz Kelly, MIMIT&lt;br&gt;Julian Tait, Open Data Cities and DataGM&lt;br&gt;Dave Coleman, Smart Energy Network</td>
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For more information about the work of the Panel

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