

THE
ECONOMY
AND JOBS
INITIATIVE
TASK AND
FINISH
GROUP

GROUP RECOMMENDATIONS

May 2013

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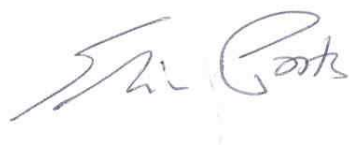
Ministerial Foreword

The Northern Ireland Executive launched its Economy and Jobs Initiative in November 2012. The Initiative included a number of measures to help support economic growth, including a commitment to establish a Task and Finish Group under the remit of the Connected Health and Prosperity Board, chaired jointly by the Department of Health, Social Services and Public Safety and Invest NI, to exploit the economic opportunities from the health and social care (HSC) sector. Whilst the priority for the HSC sector must be improving the health and social well-being of the population and improving the quality of patient and client care, the sector plays a very significant part in the local economy. It is important therefore to examine how it might be able to enhance the contribution to the economy that it already makes.

We appointed the Task and Finish Group to provide an assessment of the potential opportunities for employment and business development from Health and Social Care through greater innovation and export-led growth. We asked the Chair of the European Connected Health Alliance, Brian O'Connor, to lead the Group and appointed members with a wide breadth of international experience and expertise in business, innovation, technology and healthcare.

The Group was given a period of 90 days to complete its task. We are pleased that it has been able to deliver its report in that challenging timescale. The Group has concluded that Health and Social Care should be recognised as having the potential to be a major driver for innovation and economic growth. We agree strongly with that assessment. We also support the direction reflected in the Group's recommendations. The recommendations provide a basis for strengthening the important links between Health and the Economy.

We are very grateful for the time and effort devoted to the task by the Group and the insights that they have provided in their report. We also wish to acknowledge the numerous contributions made to the Group from a wide range of stakeholders. We look forward to developing this important agenda working with our partners in business, academia and Health and Social Care and building on the Task and Finish Group's recommendations.



EDWIN POOTS MLA
Minister of Health, Social Services
and Public Safety



ARLENE FOSTER MLA
Minister of Enterprise,
Trade and Investment

Chair's Foreword

On behalf of the Task and Finish Group I offer our thanks to Minister Arlene Foster MLA, Minister for Enterprise, Trade and Investment and to Minister Edwin Poots MLA, Minister of Health, Social Services and Public Safety for their involvement in and their support for the Health and Prosperity Strategy in general and for the Economy and Jobs Initiative in particular.

Our thanks also to the Co Chairs of the Connected Health and Prosperity Board Dr Andrew McCormick, Permanent Secretary, DHSSPSNI and Alastair Hamilton, Chief Executive, InvestNI and the Board Members.

In particular I want to express my thanks to the members of the Task and Finish Group for their expert advice, time and interest.

Finally, we are all very grateful to those of you who met with the Task and Finish Group, made submissions and attended the gatherings we held.

The Task and Finish Group has, where possible responded to the Terms of Reference, however it became clear that it was necessary to prioritise our responses. The Task and Finish Group has also taken into account the comments of the Connected Health and Prosperity Board and the DHSSPS in arriving at their recommendations.

Our task is now finished and we commend the recommendations to those who will decide the next steps.

A handwritten signature in dark ink, featuring a stylized, cursive 'B' followed by a long, sweeping horizontal line that curves upwards at the end.

Brian O'Connor (Chair)

The Economy and Jobs Initiative Task and Finish Group

Group Members

Brian O'Connor (Chair): Chair of the European Connected Health Alliance and Member of the Connected Health and Prosperity Board.

Bryan Keating: Chair of MATRIX - Northern Ireland Science & Industry Panel

Mark Ennis: Chair of Invest NI and Executive Chair of SSE Ireland

Sinclair Stockman: Executive Director of Digital NI 2020 and Independent Executive and Transformation Adviser (Telecommunications and ICT)

Louise Wood: Deputy Director and Head of Research of the NHS Research Infrastructure and Growth in the Research and Development Directorate of the Department of Health.

Joan Cornet: Director Ticsalut, Executive Director of Mobile World Capital, General Secretary (Department of Health) – Generalitat de Catalunya and Professor of the Catalunya Open University and International Long Learning (University of Barcelona)

David Whitlinger: Executive Director of the New York eHealth Collaborative (NYeC).

George Crooks OBE: Medical Director of NHS 24 and the Scottish Ambulance Service.

The Economy and Jobs Initiative Task and Finish Group have undertaken extensive research and consultation and all comments, insights etc. have been received under the Chatham House Rule

Recommendations Report

Introduction

In March 2012 the Northern Ireland Executive published its Economic Strategy alongside its Programme for Government. The Economic Strategy sets out a clear vision for the Northern Ireland economy as “an economy characterised by a sustainable and growing private sector, where a number of firms compete in global markets, and there is growing employment and prosperity for all.”

Due to the ongoing global downturn and the sharp impact on the Northern Ireland economy the Executive has taken further actions to widen the Economic Strategy. A number of these specific actions have been directed at the Health and Social Care sector. In September 2012, the Ministers for Health and the Economy published a Connected Health and Prosperity Strategic Action Plan as a follow up to the joint Memorandum of Understanding between the two Ministers. The Action Plan identifies specific areas for greater collaboration between the health and social care sector, business and academia which should help support economic growth.

Also in September 2012 the Northern Ireland Connected Health Ecosystem was established with the aim of fostering a positive attitude to innovation and the possible benefits to the delivery of health and social care services; sharing HSC innovation in practice; considering ways of addressing key priorities arising from Transforming Your Care through implementation of CH solutions; improving communication across HSC, academia and business on health priorities; and identifying opportunities where sectors can engage to develop connected health solutions.

It now meets every quarter and is creating a joined up community which is enabling relationships to be built, specific tasks to be addressed and solutions being found faster on this collaborative basis.

It is providing access for local and international industry to the health and social care sector and already proving to be an economic attractor.

Key to driving this action plan has been the formation, for a specialist Task and Finish Group, for a period of ninety days to focus on identifying specific key recommendations to aid the exploitation of opportunities for the Northern Ireland Economy within the Health and Life Sciences sector.

The purpose of this Task and Finish Group report is to compile a list of practical and effective recommendations and underlying rationale for each. These recommendations may have associated legislative, financial and/or governance implications which it has not been possible for the Group to examine in the ninety day timescale. It will be important that these are fully considered in the next stage of this initiative.

Current Environment – Northern Ireland Health and Social Care Sector

Key Group Finding

Currently the HSC budget is not viewed as an annual investment in the Northern Ireland economy. It is critical that the HSC should be acknowledged as an economic contributor in the same way as many of our other economic sectors (i.e. advanced materials, aerospace etc.) If the DHSSPS and HSC are to become a major driver for both innovation and economic growth it is essential that this potential be harnessed urgently to exploit opportunities and develop a supply chain at a local, national and international level.

Background Facts

The Northern Ireland Health and Social Care sector has the potential to be a global player driving innovation and development of key services and products in key health sectors. Due to this untapped potential and size it has been described as **“small enough to be agile but big enough to matter.”**

This potential within the Northern Ireland Health and Social Care sector can be clearly evidenced by highlighting some key statistics and facts:

- Health and Social Care Sector annual spend - £4.5 Billion.
- Annual Capital expenditure - £200 Million.
- Health and Social Care Sector employs 66,000 staff across Northern Ireland. This equates to over 9% of all employee jobs in Northern Ireland.
- Health and Social Care sector creates approximately 10% of the total economic output of Northern Ireland.
- £2.8 Billion recycled back into the Northern Ireland economy.
- Annual purchase spend totals £1.5 Billion within the Northern Ireland Health and Social Care Sector.

Task and Finish Group Findings

Over the duration of the ninety days that the Task and Finish Group has been reviewing the current structures and processes in the Northern Ireland Health and Social Care sector several key issues were identified:

- There is a desire to have more effective and sustained engagement with the private sector for mutual benefit;
- Large levels of Intellectual Assets contained within the HSC;
- Wide range of expertise contained within the Northern Ireland Health and Social Care Sector – Potential to make a major contribution to the Northern Ireland economy;

- In general, key personnel, especially clinicians who are necessary to successfully implement innovative change, develop products and services are **'time poor'**;
- In addition, there appears to be some confusion over the levels of 'permission' required so that staff can undertake innovative projects; and
- The HSC operates within low risk tolerances, having a direct and sometimes negative impact on innovation.

Key Task and Finish Group Recommendations

1. **DHSSPS and DETI to create a new overarching Health and Life Sciences Strategy for Northern Ireland which will complement existing strategies and to be a future proofed catalyst to:**
 - **Increase levels of innovation and commercialisation of intellectual assets;**
 - **Increase collaboration with Health and Life sciences Private Sector, Academia and Trusts;**
 - **Identify new ICT trends and incorporate into new strategy.**
 - **Provide strategic direction for Invest NI and key delivery partners.**
 - **Acknowledge and act as a complementary strategy to other existing strategies.¹**

Rationale for Recommendation:

Given the size and number of players in the Health and Social Care sector and given the enormous pressure experienced by many to continue to deliver quality care with a tightening budget, there is a need to have a central body to carve out time to focus and build a strategy and manage implementation.

Innovation is widely accepted as one of the primary enablers of economic growth and efficiencies. Much of the funds invested in the HSC (£4.5 Billion) are in services and service innovation and in all its forms can transform the quality and dramatically decrease the cost of services to patients.

Findings confirm that such innovation in services and non services is currently happening across the Department and Trusts, but there is equally a clear need for much more co-ordination, prioritisation and collaboration both internally and externally.

One of the key findings by the Task and Finish Group was that compared to the HSC which employs 66,000 staff and has an annual budget of £4.5 Billion and our indigenous Health and Life Sciences Sector with approximately 5-6000 staff employed and combined annual turnover of approximately £1 Billion, there is a pressing need to co-ordinate, promote and scale the activities of the Health and Life Sciences private sector and through this new strategy for the HSC to identify the economic benefits that can flow from them to the Northern Ireland economy.

As well as driving key economic benefits for Northern Ireland other evidence gathered by the Task and Finish Group suggests that this new overarching strategy needs to:

- Link with HSC R&D strategy in development to identify actions needed to best market opportunities to attract multi-national clinical research studies into Northern Ireland, stratified by industry sector – biopharma, diagnostics, medical devices and Contract Research Organisations.

The life sciences industry internationally has identified ethical access to suitably anonymised longitudinal patient level electronic health records and other "real world data" as one of the major assets which would enable them to deliver their business more effectively. This ranges from better clinical study feasibility and modelling, more efficient recruitment of participants through to post-authorisation vigilance studies and health outcomes research. The Life Science

¹ Northern Ireland Innovation Strategy (July 2013), DHSSPS R&D Strategy, Strategy for UK Life Sciences (Dept. For Business Innovation and Skills: 2012), and MATRIX Life and Health Sciences Horizon Panel Report (Refresh 2013).

industry is actively seeking nations who can deliver this as research and innovation partners. As health service payers internationally place greater emphasis on assessing cost-benefits across the patient pathway rather than the cost of the intervention (device or drug) itself, such data are becoming increasingly important. Northern Ireland's imminent ability to link at person level health and social care data would provide a compelling offer to industry and differentiate Northern Ireland globally.

Attracting more trials will create jobs in Northern Ireland and provide financial savings for Trusts on their drugs bill. Furthermore, data indicates that research active organisations deliver better health outcomes (in general, not just for people involved in trials). In time, this should feed through to a healthier workforce and less time lost to the workplace by carers.

- Drive greater collaboration between Universities and HSC Trusts to speed up translation of basic science into products for patients, including working in collaboration with the life sciences industries.
- The HSC has also built up under its bailiwick tremendous Intellectual Assets (IA). These include the knowledge (soft intellectual property) of its clinicians, staff and administrators, processes, data and finally hard Intellectual Property in the form of products and devices and the fact social services and health services are under one roof. The people working in this sphere are cognisant of the above but for many reasons find it difficult to scale the release of these assets for the kind of economic advantage they can make to the Northern Ireland economy.
- Develop a clear ICT strategy that can maximise new opportunities across the Health and Life Sciences sector (i.e. Data Analytics etc). By supporting the unique structure of the HSC which combines both health and social care services, appropriate ICT will offer indigenous and international Pharmaceutical and Medical Device companies a unique platform to trial their products in a relatively small but significant patient base.
- Transforming Your Care presents a new model of care which has focused on ensuring that more services are provided in the community, closer to people's homes where possible. It is about prevention, earlier interventions, promoting health and well-being and having more personalised care that is planned and delivered around the needs of the individual, and tailored as far as possible to suit them. This has the potential to create significant employment in Northern Ireland both for local needs and also in the export market. There are a few great examples of this already but there is significant additional potential here. With respect to the process transformation in general, we should be aiming to do this primarily with resource from Northern Ireland and not outsource this overseas, which will deny us the opportunity to develop an expertise in connected health process transformation which will be one of the biggest growth areas in the sector in the next decade.

2. **Establish a HILS Hub (Health Innovation Life Sciences Hub) to co-ordinate and drive individual projects and programmes coming out of the overall agreed strategy. In addition the HILS Hub will be digitally connected and will act as a central Hub for sustainable and effective interaction between the various Spokes (Research and Innovation Centres) in the HSC, Health and Life Sciences, the private sector, academia and the various economic development agencies.**

Rationale for Recommendation:

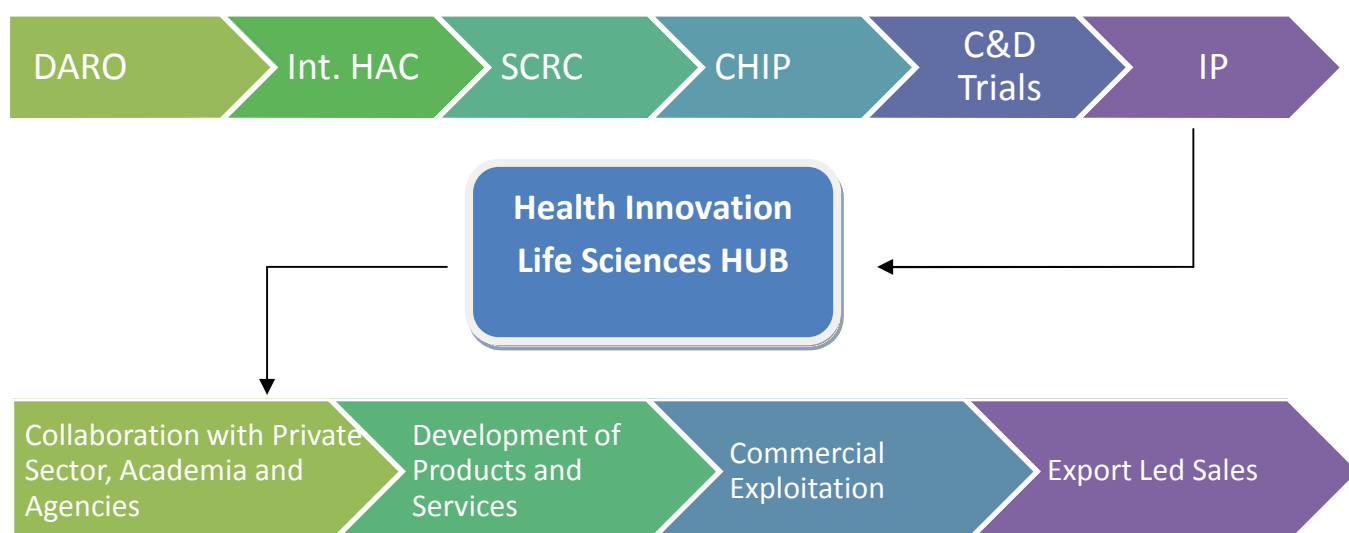
Currently the HSC is viewed in terms of cost to serve. We need to recognise the contribution it makes to the Northern Ireland economy in its own right with a capital spend of £200M and a purchase spend of £1.5 Billion annually. This offers significant opportunities to develop a supply chain for local business. We need to also recognise its unique structure that combines both health and social care services.

There is a clear need to identify and coordinate the broad and diverse range of private sector Northern Ireland businesses that operate in this space (i.e. Pharma and diagnostics at Randox, ICT at Kainos and Medical Devices at HeartSine). However most of these companies are working on an individual basis with no real collective impact or collaboration between organisations.

Northern Ireland has no umbrella organisation to bring these organisations together to create synergies and accelerate growth, and innovation. The HILS Hub should be the new umbrella organisation increasing collaboration and become a solutions centre for Northern Ireland. Having established a HILS Hub and identified key partners there will be a need to pull together a representative body to drive forward these new initiatives.

As highlighted above in the first recommendation the HSC in Northern Ireland has also built up under its bailiwick tremendous Intellectual Assets (IA) and the people working in this sphere are cognisant of the above but for many reasons find it difficult to scale the release of these assets for the kind of economic advantage they can make to the Northern Ireland economy. The establishment of the HILS Hub will help to aid the pipeline of ongoing Intellectual Assets.

Figure 1: HILS Hub and Health Innovation Infrastructure (Key Economic Attractors)



- 3. Establishment of new Health Innovation Infrastructure of the following six key economic attractors in Northern Ireland for indigenous and FDI companies to complement new HILS Hub:**

- **Dynamic Action Register Online (DARO):** This register will be a secure Cloud Based platform which will communicate and connect the many actions and initiatives in Northern Ireland. In so doing it will establish a clear inventory of what activities which are underway or under consideration. This will both act as an economic attractor by clearly highlighting the opportunities which exist within the Northern Ireland Health and Social Care Service, and also encourage, where appropriate collaboration in the development and delivery of these initiatives. DARO will consist of HSC, Academia and related industry initiatives, and also initiatives from Northern Ireland industry which are not directly driven by the HSC but are nonetheless addressing market need outside Northern Ireland.
- **International Health Analytics Centre (Int. HAC):** Northern Ireland should establish an International Health Analytics Centre, with a physical campus and also a matrix of connections to the HSC and health analytics centres of activity across Northern Ireland. This would involve Industry, DHSSPS, HSC, Academia, DETI and Invest NI. Data analytics applied to the field of health and wellness is recognised as one of the areas of Big Data with the most potential to deliver meaningful results and significant growth in the short to medium term.
- **Smart Connected Residential Community (SCRC):** The creation of a real community at scale where its residents could have the use of the latest technologies in Health and Social Care. By allowing residents to use this new technology residents would grant access to research organisations and companies which would accelerate the opportunities for citizens and Health and Social Care to communicate more effectively. It would be a magnet for International collaboration and an Economic Attractor.
- **Connected Health Integration Platform (CHIP):** A Connected Health Integration Platform will be defined, resourced and created to optimise the delivery of our Connected Health platform (as proposed, by the Transforming Your Care Strategy), our Innovation Strategy and as an Economic Attractor for Northern Ireland
- **Clinical and Device Trials** driven by the size and nature of the Northern Ireland population (C&D Trials). There is a need to examine and strengthen current capabilities and procedures.
- **Continued development and exploitation of hard IP such as new drugs and medical devices:** The vast majority of IP that emanates from clinical trials in the HSC belongs legally to the trial sponsors. Where the IP belongs to HSC Trusts, this is managed via HSC Innovations. There is a need to develop a substantial investment fund and further experienced capability in order to take this IP to market. Presently HSC Trusts are in dialog with the NHS Confederation in relation to the possibility of Northern Ireland joining a new fund they are establishing. This is very much in the embryonic stages and this approach is to be encouraged as a viable option as it has the potential to provide an avenue to secure additional funding.

Rationale for Recommendation:

- **Rationale for Dynamic Action Register Online:** In meetings with key players across the Northern Ireland Health and Life Sciences sector, both in the HSC and also in industry, there was clear feedback that visibility of what potential requirements or opportunities for investment was lacking. Local companies found it difficult to interact with the innovation needs of the HSC as a whole, and companies from outside Northern Ireland also found it difficult to engage effectively.

There are clearly counter examples to this, where the HSC has successfully procured delivery of innovative technology and services to meet its business need, but even here lack of early visibility tended to lead to protracted and expensive engagement of industry, and for small companies the cost of engagement is often prohibitive.

- **Rationale for International Health Analytics Centre:** With increased digitisation and penetration of data standards across the health sector, both locally and globally, the opportunity to exploit this rapidly growing pool of data to increase understanding, identify trends, inform and improve quality of care and effective utilisation of resources is becoming a reality in the health sector. Previously valuable data was locked in either paper records, or in data bases which were extremely difficult to penetrate due to lack of data standards across different regions, specialisms and application deployment. This is now changing both in Northern Ireland, and across the world, and will lead to a very large field of opportunities over the coming years. Northern Ireland is well positioned to exploit this opportunity because of its structure covering both health and social services as an integrated entity, the current deployment of the Electronic Health Record across all the Northern Ireland regions, which gives a standard master key to data access, the depth of our skill in Software Engineering and ICT, and the quality and reach of our digital platform, making it easy to extract and consolidate data from Northern Ireland and across the world. This sector is still at a relatively early stage, and there is real potential for regions which engage early to develop a leadership role, and build a strong economic base (similar to that developed in the area of trading software development). By establishing a recognised centre of excellence in this field in Northern Ireland, we will also have the foundation for local companies, and inward investment companies, to exploit the result of the analytics to become more effective and competitive in developing new applications and products.
- **Rationale for Smart Connected Residential Community:** By creating a Smart Connected Residential Community this would provide Northern Ireland with the ideal prototype to enable technologies and services to be tested in a Living Lab environment and create significant and useful data for the DHSSPS, HSC, Academia and private sector companies. This Smart Connected Residential Community would represent the population in terms of demographics and would support the Transforming your Care objective of the “Home is the Hub”
- **Rationale for Connected Health Integration Platform:** Historically large scale transformations, which were underpinned by ICT, in business sectors as well as health, have delivered suboptimal benefits (some have delivered no benefits at all), as a result of failing to create not only a technical architecture, but more importantly the business process and data architecture, which act as the foundations for the planned delivery of the transformation. These have been further hindered by legacy system deployments which have addressed only a part of the health service process, and do not interact with the many other silo systems which are in use. The challenge is made even more acute by the fact that the operation of the existing health service (or business sector), is highly dependent on these legacy systems, despite their lack of connectedness. The CHIP aims to provide a framework, based upon an understanding of the existing and target business and system structures. This will define the data standards for the new target platform and enable the Health Service programme to web service wrap legacy systems so that they expose an interface in line with these target standards, thus enabling interactivity across process stovepipes, whilst at the same time allowing the existing systems to interact with new elements of the health platform as these are deployed across the region.

To maximise the potential for economic growth, the aim should be to work with other regions to establish a set of common standards, facilitate deployment of industry solutions thereby speeding up the realisation of benefits to the HSC.

By establishing Northern Ireland as a lead centre for the development and deployment of the CHIP platform, it has the potential to act as an incubation centre for health industry companies, which will lead to more inward investment and job creation.

The goal will be not to start from scratch, but to work with partners who have already deployed elements of the CHIP, and to build on their expertise and experience to accelerate deployment in Northern Ireland.

In summary the development and deployment of a CHIP will:

- i. Reduce the cost of integration of new and legacy systems;
 - ii. Allow a coherent migration plan from a legacy base to an integrated connected architecture to take place;
 - iii. Enable Northern Ireland companies to develop applications targeted on the CHIP which can be deployed overseas as well;
 - iv. Allow non Northern Ireland health industry to use Northern Ireland as an incubator for Connected Health Solutions thereby creating significant economic opportunity for Northern Ireland;
 - v. Accelerate the deployment of the Transforming Your Care programme and the delivery of a connected health service.
- **Rationale for Clinical and Device Trials:** While there is an existing HSC R&D clinical trial infrastructure, there is currently no clear route for companies or academics to provide or source the funding for such trials. In addition there is a demand for a clear route which would enable industry and the HSC to engage with each other and carry out device and software trials.
- 4. Review of existing NI Executive Procurement Policy and changes to be applied to Public Sector Procurement process to support new innovative solutions and key initiatives and the proposed HILS Hub and Health Innovation Infrastructure.**

Rationale for Recommendation:

From extensive consultation with industry providers of products and services and within the HSC concerns have been expressed over the current process of procurement from start to finish including issues with development of business cases and lengthy timescales. There is clear evidence that the NI Executive need to make a policy decision on a variety of procurement issues (i.e. “value for money” does not mean cheapest price) and should take into account social impact. If we are to drive employment we need to promote social enterprises. Therefore grouping together contracts such as estate management to obtain the cheapest price will likely push the contract out of Northern Ireland and disadvantage local businesses. Once these decisions have been made at the NI Executive level then there is a need to review the current Public Sector procurement process to identify ways to streamline the process and help to drive the new proposed initiatives contained in this report.

There are now new innovative procurement processes been used such as the Small Business Research Initiative (SBRI) and Forward Commitment Procurement (FCP). These new innovative methods of procurement have enabled the Public Sector to become more flexible, efficient and address some of the issues around the culture of low risk within the Public Sector. By focussing on

new innovative procurement processes this will increase business opportunities for the social economy sector and raise measurable levels of social impact in Northern Ireland.

Also by identifying new innovative ways to streamline the current procurement process it is anticipated that this will also reduce procurement lead-times and the levels of bureaucracy currently involved between the HSC and Health and Life Sciences companies.

These new processes need to be applied to the Health and Social Care sector to support the implementation of the new Health and Life Sciences strategy and provide opportunities for indigenous and international companies.

5. Establish a resource dedicated to International Collaboration. Its primary function will be to build key relationships and also to identify new funding streams through the EU and alternative Public and Private Investment Funding.

Rationale for Recommendation:

Findings by the Task and Finish Group show that by establishing a dedicated resource for international collaboration that new opportunities can be identified quickly and achieve positive outputs for the Northern Ireland Health and Social Care Sector. The Task and Finish Group have benchmarked current models and have identified several that could be replicated in Northern Ireland. One such example benchmarked is the collaborative structure that the Scottish NHS utilises, whereby a professional has been employed to identify new EU funding streams, build key relationships, identify alternative private investment funding and also make their own position sustainable in the long term by achieving set targets and outputs. It is encouraging to note that DETI has invested in a number of individuals located in the two universities who are focused on Horizon 2020 and they are required to engage with the HSC.

6. DHSSPS and HSC to create strategic partnerships with the Department for Employment and Learning to align future skill-sets of the Health and Social Care sector and the current provision through Universities and Further Education Colleges in Northern Ireland.

Rationale for Recommendation:

The Group recognises that the DHSSPS continues to invest in education and training. However there needs to be greater collaboration between Universities, Further Education Colleges, DHSSPS/HSC and private sector health and life sciences companies. Existing partnerships with the Department for Employment and Learning need to be enhanced and new resources dedicated to new initiatives created by the new Health and Life Sciences Strategy.

7. Establishment of a more flexible approach in the HSC to managing the increased risk associated with innovation and exploration of novel approaches to risk management.

Rationale for Recommendation:

Innovation is necessary to drive the changes required to both deliver high levels of quality care within budget constraints and to scale up the economic impact of the Health and Social Care service on the local economy.

Innovation by its very nature produces more risk. The secret is to understand these new levels and to mitigate their impact over the short term without stifling the positive impact they will have over the medium to long term.

The DHSSPS and HSC should carry out an audit of existing risk management arrangements, paying particular attention to appetite for risk, and put in place whatever additional measures are deemed appropriate to foster innovation while at the same time effectively manage any associated risks drawing as appropriate on good practice approaches to risk management and innovation adopted elsewhere.

Call for Action – Next Steps

The Task and Finish Group has proposed a set of core recommendations to drive forward a revitalised Health and Social Care Sector, however some other key actions have been identified by the Group as follows:

1. Creation of expert representative group to implement the recommendations contained within this report.
2. Expert representative group to monitor and drive forward effective change and identify key future outputs (i.e. levels of increased employment, productivity and foreign direct investment) and to identify named individuals and Departments to ensure that timelines are assigned to each of the recommendations.
3. Implement scoping studies exercise for proposed Health Innovation Infrastructure.
4. Integration of Task and Finish Group recommendations into new Northern Ireland Innovation Strategy (July 2013).
5. Review innovative risk management strategies in other, comparative organisations and adopt these as appropriate.

Conclusion

As highlighted earlier in this report the Task and Finish Group was initiated over a defined 90 day period with the core purpose to bring forward proposals which could potentially have a material impact on direct employment and the potential for business development through innovation and export-led growth driven through Health and Social Care and Economic Policy.

The group has proposed a suite of recommendations based on observation, discussion with key industry experts, analysis and from the groups own experience. From these recommendations and additional supporting tasks a way forward can be developed by the DHSSPS, DETI and key partners to drive health and life sciences innovation in Northern Ireland to:

- Provide better citizen care in Northern Ireland.
- Reduce costs across the Health and Social Care sector.
- Drive innovation which in turn will create jobs and economic activity by enhancing opportunities locally and also through FDI.
- Increased commercialisation of Intellectual Assets and increased export of products and knowledge.

Finally as identified earlier through the findings of the group it is clear that Northern Ireland is **“small enough to be agile, but big enough to matter.”**

Appendix 1 – Economy and Jobs Initiative Task and Finish Group Terms of Reference

The Task and Finish Group has been established over a ninety day lifespan to bring forward proposals which could potentially have a material impact on direct employment and the potential for business development through innovation and export-led growth driven through Health and Social Care and Economic Policy.

The Terms of Reference for the Group were to:

- Review the work already underway for the Strategic Action Plan and the Northern Ireland Connected Health Ecosystem in the context of the Memorandum of Understanding between the DHSSPS and DETI, and identify opportunities for economic growth potential and job creation so that a specific focus might be brought to these actions;
- Examine how the implementation of Transforming Your Care including a shift from secondary into primary and community care; the development of Integrated Care Partnerships; and the focus on personalisation of care could be supported through innovations across the public, private and third sectors to provide more cost-effective solutions to meeting health and social care needs, and accelerate the changes required, whilst supporting employment opportunities;
- Scope the potential for greater economic activity through the use of research and technology development and implementation in the delivery of HSC, drawing on good practice and experiences elsewhere, including the EU and US;
- Consider how the Health and Social Care sector could enhance its role as an economic attractor and collaborator to attract and embed new functions/technologies/trials from overseas markets;
- Consider the potential to lever in additional funds from external sources to support health and social care delivery including from the EU and private sector; and
- Identify the additional skills required and their acquisition to support both the health and economic objectives.

Appendix 2 – Economy and Jobs Initiative Task and Finish Group Bio's

Brian O'Connor (Chair):

Brian O'Connor was born in Belfast, Northern Ireland and has developed his career as a consultant, manager and investor in both private and public companies.

Brian has worked in the UK, the US and lived in Hong Kong for eleven years. He has gained vast experience as a company director in a variety of industries and professions.

Through his long established consultancy company, Corporate Direction Ltd, he is currently providing strategic advice to Governments, International organisations and companies on the challenges facing healthcare in general and specifically on the Connected Health opportunity.

Brian has been one of the driving forces behind the creation of the Connected Health initiative in Northern Ireland which has created the European Connected Health Alliance organisation and the Health and Prosperity Board.

This work has given him an insight into the opportunities for better patient care at a lower cost through the use of technologies and processes and the potential for economic activity.

Mark Ennis:

Mark Ennis is currently the Chair of Invest NI and Executive Chair of SSE Ireland, which operates four businesses across the Republic of Ireland and Northern Ireland including Airtricity, Ireland's fastest growing energy supply utility; Airtricity Utility Solutions, Ireland's leading street lighting contractor; SSE Renewables, the largest renewable energy developer in Ireland; and SSE Wind Generation, the largest renewable energy generator in Ireland.

He was appointed CEO of Airtricity NI Ltd in 2003 in addition to heading up the company's Retail Business in Ireland until 2007. An Economic Honours Graduate of Queens University of Belfast, with an Open University MBA, Mark has specific responsibility for SSE's Public and Regulatory Affairs in Ireland.

Joan Cornet:

Joan is a Technical Engineer in Metallurgy, and a graduate in Psychology. After working as a clinical psychologist in a general hospital in 1979, he was elected Mayor of Manresa. In 1988 he became a civil servant in the European Commission in Brussels and was later appointed General Secretary of the Department of Health of the Government of the Generalitat de Catalunya. In September 2005 the government entrusted him to start up the "Bioregio of Catalonia" (Biotechnology) and since 2007 he has been Executive Chairman of the Ticsalut Foundation. He is also a Professor of the UOC (Catalunya Open University) and IL3 (International Long-Learning- University of Barcelona).

Dave Whitlinger:

Dave is currently the Executive Director of the New York eHealth Collaborative (NYeC). Prior to serving as Executive Director of NYeC, Dave served as the Director of Healthcare Device Standards and Interoperability for the Intel Corporation in its Digital Health Group.

Dave was responsible for Intel's healthcare device interoperability strategies and the standards development to support those strategies. He has also led a large, cross-industry consortium, the Continua Health Alliance, focused on the establishment of an ecosystem of interoperable, personal telehealth systems.

Dave was with Intel from 1993 to 2009. Prior to establishing the Healthcare Device Standards Group, he worked on a wide variety of wireless standards. As a result he and his team have held leadership roles in many standards organisations throughout the world, including: Health Level Seven (HL7); integrating the Healthcare Enterprise (IHE); IEEE 1073; Bluetooth SIG.

Sinclair Stockman:

Sinclair Stockman has an extensive career in telecommunications and software engineering and has played a leading role in a number of ground breaking initiatives throughout the years. His early career encompassed early work on digital communications platforms, such as the world beating Keyboard Business trading platform., development of very early web based applications and the development of software engineering management and quality processes and tools which led to the development of the first ISO certified environment for software development worldwide.

He has been responsible for the creation of highly successful research programmes at BT's research laboratories, and moved on to create two world leading software engineering centres in Ipswich and Glasgow, which were responsible for the early work on intelligent networks and distributed object orientated systems platforms. He then took on the responsibility for BT's major systems programmes, including the Customer Services System, for which he was awarded the Martlesham Medal, in recognition of his contribution to significant technology progress to telecommunications.

Currently Sinclair works as an independent executive and transformation advisor, working with a number of innovative web service based companies, providing executive advice, is an Executive Director Digital Northern Ireland 2020, visiting Professor University of Ulster and also working on a number of innovative projects with global NGO's in developing countries.

Professor George Crooks OBE:

George joined NHS 24 in September 2006 and is now the Medical Director of both NHS 24 and the Scottish Ambulance Service.

George's role with NHS 24 encompasses supporting the governance, quality and safety of all clinical services; developing new services in partnership with other NHS organisations; management oversight of the Scottish Centre for Telehealth and the National Telecare Development programme; and leading information governance, business continuity and emergency planning.

George was a General Practitioner in Aberdeen for 22 years. He subsequently became Director of Primary Care or NHS Grampian, with responsibility for all community-based independent contractor

services. George has a particular interest in the field of unscheduled care, including the development of common assessment and triage processes across the NHS and the use of technology to support the delivery of high quality patient care to the population of Scotland.

Bryan Keating:

Bryan Keating has been a director of and an investor in a number of NI based hi-tech businesses over the last 30+ years: the companies include Omiino, CEM computers and CEM Systems, Andor plc, Amphion, Axis Three, PACE, Amacis and Mail Distiller. These companies have been engaged in the design and selling of silicon chips, Access Control Systems, scientific cameras, software products and services. Currently, he is on the Board of James Leckey Design Ltd, a leader in the design and manufacture of innovative and engaging posturally supportive products.

In the public sector Bryan chairs Matrix- the Northern Ireland Science and Industry Panel. He has served for many years on the Boards of InvestNI, QUBIS, the University Liaison Committee of NISP, the University Challenge Fund, Investment Belfast, Halo the Northern Ireland Business Angel Network, Momentum and NICENT, the Northern Ireland Centre for Entrepreneurship. He is a shadow director of CHIC.

Dr. Keating is a visiting professor at the University of Ulster and a Fellow of the Royal Society of Arts

Dr Louise Wood:

Dr Louise Wood is Deputy Director/Head of NHS Research Infrastructure and Growth in the Research and Development Directorate of the Department of Health in England and a member of the Directorate's Senior Management Team. She has oversight responsibility for the NIHR-funded Biomedical Research Centres, Biomedical Research Units, Clinical Research Facilities, the NIHR Clinical Research Network, NIHR Collaborations for Leadership in Applied Health Research and Care, and the NIHR Office for Clinical Research Infrastructure (NOCRI).

Louise is the prime point of contact in R&D for life sciences companies and trade associations. She co-chairs the Ministerial Industry Strategy Group (MISG) Clinical Research Working Group and is involved in all the major Government /Industry/NHS initiatives established to improve the research partnership between the NHS, its university partners and the life sciences industries, including the Office for Life Sciences. She co-ordinates the NIHR NHS and Biopharmaceutical Industry R&D Leadership Forum.

Appendix 3 – Definitions

DHSSPS: The Department of Health, Social Services and Public Safety is the Government Department with business responsibility for Health and Social Care.

HSC: Health and Social Care (Northern Ireland) is responsible for the delivery of health and social care services, and includes the HSC Board, the Public Health Agency, the six HSC Trusts and a number of arm's length bodies.

