

NEWRY, MOURNE AND DOWN DISTRICT COUNCIL

OPTIONS APPRAISAL FOR BRCD INNOVATION HUB



TABLE OF CONTENTS

| | |
|---|-----------|
| INITIAL BRIEF | 10 |
| KEY INTERVIEW FINDINGS | 11 |
| RECOMMENDATIONS | 14 |
| KEY USER GROUPS | 16 |
| ANTICIPATED USE OF SPACE | 19 |
| Options That Have Been Explored | 20 |
| <i>OPTION 1 - OPERATE THE SPACE INDEPENDENTLY</i> | <i>20</i> |
| <i>OPTION 2 - HOST IN NEWRY THEATRE & CONFERENCE CENTRE</i> | <i>23</i> |
| <i>OPTION 3 - HOST IN NEWRY THEATRE & CONFERENCE CENTRE</i> | <i>27</i> |
| OPTIONS SUMMARY | 31 |
| MEMBERSHIP | 32 |
| DESK RENTAL..... | 33 |
| EQUIPMENT RENTAL | 34 |
| FACILITY RENTAL..... | 36 |
| STUDIO / PRODUCTION AREA | 36 |
| RECORDING STUDIO WITH AUDIO PRODUCTION AREA & RECORDING BOOTH..... | 38 |
| MEETING / TRAINING ROOMS | 39 |
| GREEN ROOM / MAKE UP AREA..... | 40 |
| OPERATIONAL STORAGE SPACE WITH SECURE STORAGE AREA | 41 |
| POTENTIAL FUNDING / COST RECOVERY | 42 |
| Facility Rental | 42 |
| Membership Models | 43 |
| OPTIONS - COST RECOVERY | 44 |
| SUMMARY OF FOCUS / SCOPE OF THE PROJECT | 45 |
| Costs and Models | 46 |
| Displacement | 46 |
| Potential Key Stakeholders / Users of the Project | 47 |
| HUB DEVELOPMENT METHODOLOGY | 49 |
| Creative Hubs Model..... | 50 |
| <i>Studio.....</i> | <i>50</i> |

| | |
|--|-----------|
| Network..... | 50 |
| Online Platform..... | 50 |
| Centre..... | 51 |
| Cluster..... | 51 |
| Alternative | 51 |
| HOW TO RESEARCH / BUILD HUB STRUCTURE | 52 |
| Defining the Vision..... | 52 |
| <i>Objective</i> | <i>52</i> |
| <i>Identifying the gaps, needs and demand</i> | <i>52</i> |
| <i>Answering the following questions in as much depth as possible:-</i> | <i>52</i> |
| Selecting the Business Model..... | 53 |
| Connecting the Network | 53 |
| <i>OBJECTIVE : TO BUILD UNDERSTANDING, TRUST AND SUPPORT THROUGH DEVELOPING LASTING COMMUNITY CONNECTIONS.</i> | <i>53</i> |
| Connecting the Community | 53 |
| Building Partnerships | 53 |
| Think Global, Act Local | 54 |
| Designing The Hub..... | 54 |
| <i>OBJECTIVE : TO DEVELOP THE SERVICES THE HUB WILL PROVIDE FOR THE COMMUNITY / INDUSTRY, BASED ON RESOURCES AND CAPACITY.....</i> | <i>54</i> |
| <i>Innovation over duplication</i> | <i>54</i> |
| <i>Join forces if appropriate:-</i> | <i>54</i> |
| Building It To Last..... | 55 |
| <i>OBJECTIVE : FOCUS ON THE FUTURE SUSTAINABILITY OF THE HUB FROM THE OUTSET.....</i> | <i>55</i> |
| Communicating Strengths & Impacts | 55 |
| <i>OBJECTIVE : TO BUILD A SUPPORTIVE COMMUNITY AND COMMUNICATE THE VALUE OF THE HUB.....</i> | <i>55</i> |
| Reviewing & Improving..... | 56 |
| <i>OBJECTIVE : DEMONSTRATE THE VALUE OF THE HUB FOR THE SECTOR AND ECONOMY.....</i> | <i>56</i> |
| Sustaining & Scaling | 56 |
| <i>OBJECTIVE : TO FIND THE BEST MODEL OF SUSTAINABLE GROWTH FOR YOUR HUB.....</i> | <i>56</i> |
| PART 1 - DEFINING THE VISION | 57 |
| Hub Development | 57 |

| | |
|---|-----------|
| <i>Research / Hubs / Professional Facilities</i> | 57 |
| Cultural and Creative Sector - Key Figures..... | 59 |
| Why Are Hubs Growing? | 61 |
| What Do Creative Hubs Do? | 63 |
| MAKERSPACE ACTIVITIES | 65 |
| MAKERSPACE COMMUNITY | 66 |
| MAKERSPACES STRUCTURE & SUSTAINABILITY | 68 |
| UK CITY PROFILES | 69 |
| Belfast | 69 |
| Birmingham | 69 |
| Brighton..... | 69 |
| Cardiff..... | 70 |
| Edinburgh | 70 |
| Glasgow | 70 |
| Leeds..... | 71 |
| Liverpool..... | 71 |
| Manchester | 71 |
| Newcastle..... | 72 |
| Nottingham..... | 73 |
| Sheffield | 73 |
| NI CREATIVE TECH ECONOMIC LANDSCAPE | 74 |
| Creative Technologies | 74 |
| Creative Industries | 74 |
| Creative Economy | 75 |
| Knowledge Economy | 75 |
| KEY ISSUES FOR NI CREATIVE HUBS | 76 |
| Access to Funding | 76 |
| Support for New Products | 76 |
| The Benefits of Clusters..... | 76 |
| The Need for Skills | 76 |
| HUB EXAMPLES / EXISTING KEY PROJECTS | 77 |
| THE HUB NEWRY 2.0 | 77 |
| Farset Labs | 77 |

| | |
|---|-----------|
| BEST PRACTICE | 78 |
| FuseBox | 78 |
| Impact Hub Birmingham | 78 |
| Site Gallery, Sheffield | 78 |
| Birmingham Open Media, Birmingham | 79 |
| The Watershed's Pervasive Media Studio, Bristol | 79 |
| Cardiff Start | 79 |
| PART 2 - CONNECTING THE NETWORK..... | 80 |
| Interviews | 80 |
| <i>KEY INTERVIEW FINDINGS.....</i> | <i>80</i> |
| <i>BRCD - Stephen Wallace - 7th August 2020</i> | <i>83</i> |
| <i>Invest Northern Ireland.....</i> | <i>84</i> |
| Background..... | 84 |
| INI Involvement / Support | 84 |
| Use Cases | 85 |
| Skills and Employment..... | 85 |
| Challenges..... | 86 |
| Potential Partners / Other Stakeholders | 86 |
| Funding | 86 |
| <i>NMDDC - Andy Patterson (Assistant Director Tourism, Culture and Events).....</i> | <i>87</i> |
| Background:..... | 87 |
| Programmes | 87 |
| Need Identified | 87 |
| Funding | 88 |
| <i>Tourism NI</i> | <i>89</i> |
| Background:..... | 89 |
| Needs Identified | 89 |
| Skills Development..... | 89 |
| Funding | 89 |
| Sources of Funding:-..... | 90 |
| <i>Southern Regional College</i> | <i>91</i> |
| Interviewee: Kieran Swail (Expert in Innovation & Technology)..... | 91 |
| Background..... | 91 |
| Potential Users / Use Cases | 91 |
| Funding | 92 |

| | |
|---|------------|
| Other Stakeholders | 92 |
| Location | 92 |
| Cross-Border Collaboration | 92 |
| <i>Interviewee: Brian Doran (Chief Executive)</i> | <i>93</i> |
| Background..... | 93 |
| Challenges..... | 93 |
| SRC Involvement..... | 93 |
| Potential Users / Use Cases | 93 |
| Funding | 94 |
| <i>South Eastern Regional College</i> | <i>95</i> |
| <i>Interviewees: Emma Finney / Elaine Flynn / Ken Webb</i> | <i>95</i> |
| Background..... | 95 |
| SERC Involvement | 95 |
| Funding | 96 |
| Outputs | 97 |
| Other Partners | 97 |
| <i>Ulster University, Future Screens NI, SMIL</i> | <i>98</i> |
| <i>Interviewee: Professor Frank Lyons (Associate Dean (Research and Impact)).....</i> | <i>98</i> |
| Background..... | 98 |
| Screen Media Innovation Lab (SMIL) | 98 |
| Proposed Newry Hub..... | 99 |
| Potential Partners..... | 100 |
| Skills | 100 |
| Funding | 101 |
| Questions | 101 |
| <i>Newry Chamber of Commerce & Trade</i> | <i>102</i> |
| <i>Interviewee: Colm Shannon (Chief Executive Officer).....</i> | <i>102</i> |
| Background..... | 102 |
| Need Identified | 102 |
| Notes | 102 |
| <i>Newry and Mourne Co-Operative and Enterprise Agency.....</i> | <i>103</i> |
| <i>Interviewee: Conor Patterson (Chief Executive)</i> | <i>103</i> |
| Background:..... | 103 |
| Business Use Case Example | 103 |
| Sustainability / Funding..... | 104 |
| Partners | 104 |

| | |
|--|------------|
| Local Challenges..... | 105 |
| Programmes..... | 105 |
| <i>Newry Digital</i> | 106 |
| <i>Interviewee: Jonny McCullagh</i> | 106 |
| Background..... | 106 |
| Proposed Newry Hub..... | 106 |
| Proposed Partners / Stakeholders | 107 |
| Similar Examples..... | 107 |
| Funding / Sustainability..... | 107 |
| Location | 108 |
| SECTORAL ANALYSIS FOR NEWRY, MOURNE & DOWN DISTRICT COUNCIL AREA..... | 109 |
| Companies House..... | 109 |
| Crunchbase | 110 |
| Invest NI | 111 |
| <i>Financial Assistance</i> | 111 |
| <i>Job Creation</i> | 111 |
| <i>Employment</i> | 111 |
| <i>Industry Sectors</i> | 112 |
| <i>Summary Table</i> | 112 |
| Charities | 113 |
| Summary | 114 |
| DIGITAL CREATIVE HUB - FEATURES REMOVED FROM SCOPE..... | 115 |
| STAFFING RESOURCES..... | 116 |
| Hub Manager / Facilitator | 116 |
| Site A/V Technician Set Up | 116 |
| Facilities | 116 |
| Digital Transformation Consultants / Facilitators | 116 |
| Training Provider | 117 |
| STUDIO PRODUCTION RESEARCH..... | 118 |
| PROFESSIONAL CREATIVE LANDSCAPE | 119 |
| Centre Stage Studios - London | 120 |
| <i>A-STAGE</i> | 120 |
| <i>B-STAGE</i> | 121 |

| | |
|---|------------|
| Holborn Studios - London..... | 123 |
| <i>Studio 1</i> | 123 |
| <i>Studio 2</i> | 125 |
| INDUSTRY EXPERT RECOMMENDATION..... | 127 |
| Equipment Hire..... | 127 |
| Use Case Examples:- | 127 |
| Equipment | 128 |
| Training Area..... | 129 |
| AR / VR..... | 129 |
| Live & Recorded Theatre / Streaming Virtual Performances..... | 129 |
| Other Sound Equipment Suppliers:- | 129 |
| Sound Proofing | 129 |
| Funding | 130 |
| Sample of Sound Studios in NI:- | 130 |
| Personnel | 130 |
| NEWRY THEATRE & CONFERENCE CENTRE..... | 131 |
| Outline: | 131 |
| Brief: | 131 |
| Options:..... | 132 |
| <i>Option 1:</i> | 132 |
| <i>Option 2:</i> | 132 |
| <i>Option 3:</i> | 132 |
| <i>Architect Feedback</i> | 132 |
| KEY COSTS | 133 |
| Fibre Internet - £56,000..... | 133 |
| Environment - £23,500 | 133 |
| Operational Logistics - £75,000 | 133 |
| Equipment Storage - £17,000 | 133 |
| Smart Storage - £13,000..... | 133 |
| AV Processing - £25,000 | 134 |
| Sound Engineer - £35,000 | 134 |
| Displays / AV Casting / Virtual Conference Calls (Meeting / Training Area) - £14,000 | 134 |
| Lighting / Lighting Controls - £170,000 | 134 |

| | |
|--|------------|
| Reflectors and Softboxes - £35,000 | 134 |
| Tripods / Stands - £70,000..... | 134 |
| Cameras and Lenses - £235,000 | 134 |
| COSTS | 135 |
| Infrastructure / Operational Costs..... | 135 |
| Other Costs To Consider..... | 136 |
| <i>Rent</i> | 136 |
| <i>Rates</i> | 136 |
| <i>Utilities</i> | 136 |
| <i>Insurance</i> | 136 |
| <i>Booking System</i> | 137 |
| <i>Tech Refresh</i> | 137 |
| <i>Depreciation</i> | 137 |
| <i>Staff - Hub Management</i> | 137 |
| <i>Admin / Finance</i> | 138 |
| <i>Promotion / Marketing</i> | 138 |
| HUB OPERATIONS..... | 139 |
| STORAGE / SECURE AREA | 140 |
| RECORDING STUDIO / RECORDING BOOTH..... | 141 |
| MEETING / TRAINING AREAS | 142 |
| STUDIO - (VISUAL PRODUCTION AREA) | 143 |
| SHARED EQUIPMENT | 146 |
| GLOSSARY | 150 |
| APPENDICES | 151 |
| APPENDIX 1 | 152 |
| APPENDIX 2 | 156 |
| APPENDIX 3 | 158 |
| APPENDIX 4 | 164 |

INITIAL BRIEF

Project Background

Newry, Mourne and Down District Council have appointed Xpand Group to develop a technical options appraisal for an Innovation Hub as part of the Belfast Region City Deal Digital and Innovation Pillar. Specifically:-

- To define what the concepts for the Innovation hub could be (including equipment required, resources required, key users, stakeholders/partners to be involved).
- The identification of feasible projects or approaches (with indicative costs clearly assigned) for the implementation of this regional hub.
- To develop the options to identify a sufficient level of use in the development of the physical Innovation hub.

After discussions with the NMDDC Regional Innovation Hub Team and Adrian Grimshaw regarding the availability of spaces within the proposed new Theatre / Conferencing facility and Civic Centre, there was a level of uncertainty about the availability of dedicated attached space to the theatre, and therefore there is a requirement to consider options where the space would need to be transformable and set up quickly rather than a permanent installation.

This is partly due to a reduction in the overall development budgets within the Theatre and Conference facility, meaning that available space is being reduced and the building development scope reduced with this.

KEY INTERVIEW FINDINGS

Key interview findings from interviews with the main regional stakeholders

- Belfast Region City Deal
- Invest NI
- NI Screen
- NMDDC - Tourism
- Tourism NI
- Newry and Mourne Co-operative and Enterprise Agency (NMCEA) / ThinkLab
- SRC
- SERC
- UU / Future Screens NI

| Finding | Supporting Interviews |
|--|--|
| Space must be a unique proposition, based on what is happening within the BRCD and the local area. | BRCD Team Invest NI |
| Preference is for a dedicated space, especially in light of funding under the BRCD | BRCD Team |
| Should complement other hubs and programmes in the area with a view to developing partnerships | NMCEA / ThinkLab SRC |
| Developing programmes and courses aimed at the community to attract engagement and footfall into hub. | NMCEA / ThinkLab |
| Upskilling to help develop the local area and businesses and digital transformation for community, arts and service industries | Invest NI NMDDC - Tourism Tourism NI NMCEA / ThinkLab SRC SERC UU / Future Screens NI |
| Faster and effective ability to create digital assets including access to facilities and equipment to enable this | NMDDC - Tourism Tourism NI SRC SERC UU / Future Screens NI |
| Access to high end AV equipment | Invest NI NMCEA / ThinkLab |
| Ability to create broadcast quality content for dissemination online | NMDDC - Tourism Tourism NI SRC |

| Finding | Supporting Interviews |
|---|---|
| Encouraging new businesses to develop in NMDDC area | Invest NI NI Screen SERC |
| Giving NI businesses the opportunities to promote outside of NI | Invest NI |
| Promoting culture and tourism both within NI and wider afield | Invest NI NMDDC - Tourism Tourism NI |
| Reducing barrier for experimenting with technology and showcasing technology options within the area | Invest NI NMDDC - Tourism SRC SERC |
| Developing collaborative R&D Projects | Tourism NI |
| Developing future talent within the creative and gaming sectors in possible partnership with SRC and SERC (courses and trainee / apprenticeship programmes) | NI Screen Tourism NI SRC SERC UU / Future Screens NI |
| Developing future talent in partnership with Dundalk Institute of Technology (courses and trainee / apprenticeship programmes) | NI Screen NMCEA / ThinkLab SRC |
| Skills Intervention Programmes - Digital | SERC |
| Ability to incubate companies in the area | NI Screen Tourism NI |
| Option to explore technical expertise provision by SRC and SERC through the connected fund | SRC SERC |
| Linking to the Smart Media Innovation Lab (SMIL) | NI Screen SRC SERC UU / Future Screens NI |
| Working in partnership with SMIL, smaller work packages can be channelled down to the hub | UU / Future Screens NI |
| Working with commercial TV and Film partners to create content and digital assets | UU / Future Screens NI |
| SMIL will develop innovation challenges with SBRI style funding made available which RIN can avail of | UU / Future Screens NI |
| SRC have 2 available spaces where the hub could be hosted; the old Sports Centre and Greenshoots | SRC |
| SERC has The Space - bringing together engineering and performing creative arts which can complement what the Hub will provide | SERC |

| Finding | Supporting Interviews |
|--|---|
| Opportunities to share / combine equipment procurement with SRC existing projects | NMCEA / ThinkLab SRC |
| Opportunity to complement and partner with NMCEA / ThinkLab | NMCEA / ThinkLab |
| Hub could partner with both SRC and SERC to support the hub in multiple areas | SRC SERC |
| SERC referral of companies / clients on to the Hub for equipment / facilities not available at SERC and acting as facilitator identifying gaps | SERC |
| Hub could avail of capital funds | Invest NI NMDDC - Tourism Tourism NI SERC |
| Hub could be fully subsidised (centralised sources e.g. Arts Council, Department for Communities, Department for the Economy, Invest NI / Innovation Vouchers) | NI Screen NMDDC - Tourism Tourism NI SRC SERC UU / Future Screens NI |
| Hub could be fully subsidised (council or other public money from a non-centralised source) | Invest NI SRC UU / Future Screens NI |
| Hub can be partially funded by memberships | Invest NI NMCEA / ThinkLab |
| Hub can be partially funded by private enterprises (indigenous companies and FDIs) | NMDDC - Tourism NMCEA / ThinkLab UU / Future Screens NI |
| Hub can be partially funded by combination of private enterprise, membership models and public funding | Invest NI NMCEA / ThinkLab SRC |

RECOMMENDATIONS

Overview

- Space for businesses within the region to create high quality digital content.
- High quality media production space with high-end equipment and training facility.
- Pre and post production space for audio, photography, VR / AR and video.
- Space for education stakeholders to train / interact with businesses from the region.
- Use educational establishments to up-skill businesses.
- Use existing or proposed facilities to share space, equipment and resources.
- Use of high-end equipment that could facilitate major film production companies, enabling professional productions within the region.

Professional production space, with a similar specifications to those that are being proposed can be hired from between £600 - £1,600 per day.

New 'Hub' should address the needs of the arts / culture, business and tourism.

Key Findings from Regional Data

- Limited dedicated "Deep Tech" digital sector
- Limited dedicated "TV, Film & Production" sector
- Larger Commercial Engineering / Construction sector
- Larger "Arts & Creative" sector within the voluntary / charities / micro
- High level of R&D investment export focus in the region (No focus)
- Significantly larger % companies without a technology focus
- Majority of companies have basic technical skills competency

Due to the limited deep tech and companies within the digital creative sector (TV, Film, Production, Audio) the space needs to address the wider business communities in order to make this viable - due to the market sizes of the businesses within the NMDDC region.

As requested (in the 'Summary of Focus' sent to BRCD July 2020), Xpand has focused on exploring the feasibility of 'The Hub' being incorporated into the proposed Newry Theatre and Conference space; this limited the available functionality options of the space due to lack of guaranteed dedicated area, resources and space available.

The proposed hub should be housed in a **flexible** location with a booking system that will allow **easy booking** of facilities / rooms by users.

Options were explored on two levels:

1. A generic space (that can be located anywhere in the NMDDC region)
2. A specific space(s) within the Newry Theatre and Conference building

Guidelines for ‘emerging hubs’ as proposed by the British Council as part of their funded research with the European Union where followed to create a ‘more holistic and sustainable model.’

From this model and recommendations, a physical creative hub would need the following components:-

STUDIO / PRODUCTION AREA

High specification soundproofed area with green screens and backdrops and an area for film / photography. This would ideally need to be double walled and a floating floor added to dampen any other noise pollution from other facilities within the theatre.

RECORDING STUDIO WITH AUDIO PRODUCTION AREA & RECORDING BOOTH

Soundproofed secure space with audio desks and computer(s) for audio production and software available.

The recording booth would ideally be big enough for a minimum of 5 people / small groups and would be attached to the recording studio. Should ideally be connected to the Studio / Production Area.

MEETING / TRAINING ROOMS

Areas used for training / production / meetings / mentoring / meet ups. Using available high end equipment on trolleys within this space.

Meeting / Training / Production areas can be hired out at £200 a day including access to equipment such as TVs / Projectors / Screens / Production equipment.

GREEN ROOM / MAKE UP AREA

An area needed for talent in larger productions and photoshoots.

OPERATIONAL STORAGE SPACE

Storage trolleys with specialist / expensive equipment such as iMac / Windows computers, mixing desks, other AV equipment.

SMART STORAGE

Secure storage area with access only granted to trained users or people responsible for high end equipment, e.g. high end cameras, computer equipment, AR / VR headsets, etc.

KEY USER GROUPS

Based on user interviews the following user groups for the space have been identified.

Group 1: Export Focused Companies

- Creating product promotional materials to help with sales and promotion
- Creation and design of digital products.
- Innovation in process

As identified by Invest NI and the business chambers, companies within the region at a certain level need digital skill support to create advertisements and promotional material to move their products and services online. Use of a high specification site with available support and training will encourage the production of high quality promotional and digital content.

Skills development was identified as the key requirement that this hub should enable and support

Group 2: Arts / Culture / Musicians / Artisanal Producers

- Artists / Performers
- Exhibitions / Artwork
- Traditional artists / transforming content

Converting existing and new work so that it can be broadcast / monetised from the space to help support arts and culture / attract visitors to the region. Especially required to help transform businesses and performers impacted by COVID-19 where physical in-person performances are reduced or no longer possible.

The need for the creative sector to embrace technology has been highlighted through the interviews carried out with SERC, SRC, Tourism NI.

Skills support for those where digital capability has been deemed the most in need of development, therefore basic digital / business development skill support are required.

Group 3: Tourism and Public Sector

- Utilisation of facilities by council, government, collaborations, academic teams
- Recording outdoor content to promote region
- Making equipment available to record and produce footage
- Faster filming and production of content

Creating innovative promotional content to encourage visitors and investment to NMDDC region. Helping businesses to creating interactive tourism experiences to promote the region. Creating content to support the tourism strategy to promote the region.

Facilitating innovation challenges, use of services and equipment and adoption of high quality content

Tourism groups within the region have highlighted as part of the strategy to promote and as having a higher up skilling requirement to support the promotion of the region.

Providing “In House” content development and production capability to the public sector teams within the region.

Group 4: TV / Film / Digital Production

- High quality TV / Film / Digital production
- Production and broadcast space
- High end equipment and professional setup

Designing the space to a high level specification that it can be used to encourage high quality productions to come into the area to utilise the space for creating content.

Making the space available for creating high end TV / Film / Digital content.
Renting different areas of the space ranging between £200 - £600 per day.

Linking to the wider Screen Media Innovation Lab (SMIL) project in Belfast to support larger projects coming into the region.

Providing the space at a high enough level will encourage the space to be booked for production of high end content.

Group 5: SMEs

- Training, Up-skilling, Workshops
- Creating, Editing and Producing Content
- Creation of new digital products and services

Space for training, up skilling and carrying digital innovation projects. Creating promotional content, create new products to promote the business and enter new markets.

Making use of digital transformation support and services to create new promotional material.

Facilitation of events, workshops, creating networks and connection between SMEs, Academic and Public Sector challenges.

Supporting the creation of new businesses, encouraging the growth and promotion of existing businesses within the region.

Group 6: Business Productivity (Manufacturing / Construction)

- Creation of VR / AR Content
- High End Video / Photography / Digital content to promote products
- Virtual / Broadcast events and promotion of products

Reducing the costs of promoting the products internationally through AR / VR / Digital content where taking the product to trade shows is now no longer an option. Focusing on providing the facilities for virtual conferences / creating new ways for potential customers to interact with businesses and their products.

Encouraging digital innovation within the processes of high value / high cost operating businesses, providing better experiences for sales and existing customers.

Reducing operating costs and efforts through the use and implementation of digital innovation.

Anticipated Use Of Space

How the space will be potentially used based on research and interviews:-

Low Frequency

- Broadcasting (Music, Conferences, Talks, Lectures)
- AR / VR
- High End Productions
- Filming Outdoor Content
- Creating AR / VR Content
- Collaborative Projects
- Rendering Video / VR

Average Frequency

- Green Screen / Backdrops
- Audio Recording / Podcasts
- Video / Audio Editing
- Equipment and Space Hire
- Performance Space
- Music Production
- Innovation Projects / Challenges
- Producing Tourism Content

High Frequency

- Product Photography
- Producing Promotional Material
- Filming Video
- Pre-Production
- Post-Production
- Training / Workshops (Funded and commercial)
- Showcasing technology (Events and Training)

OPTIONS THAT HAVE BEEN EXPLORED

OPTION 1 - OPERATE THE SPACE INDEPENDENTLY

This is a space that is not shared with any other users beyond members/space users - wholly operated and access controlled by the Manager/Staff of the space. Ideally should be built from scratch or incorporated into a location that has yet to be constructed. It can be located within a building owned and operated by a Partner, e.g. SRC as long as NMDDC has full control of the space and is not shared with other users of the building.

Making the assumption that the space would go into an existing build project somewhere within the Newry area where rent / facilities would be paid to maintain the space.

From interviews with stakeholders, Southern Regional College was identified as the ideal partner within the region due to their ability to provide up-skilling through funded support, which was determined as the primary activity that the space should be able to enable.

After speaking to Brian Doran (Chief Executive of SRC), there are two spaces available for consideration - however significant further discussions would be required to confirm the feasibility to include the hub within these spaces and their anticipated capital and operating costs.

- **Green Shoots Campus** - Available immediately. This space has previously hosted hot-desking and workshops for local businesses including “Introduction to Podcasting” and “Connecting Art, Tech and Tourism”.
- **Sports Centre** - Available from 2023 - Development is at the initial planning stages for a digital innovation centre to be built on the site of the current sports centre being provided to Southern Regional College, meaning that requirements for the hub can be incorporated into the new build proposal. The newly proposed innovation centre proposed for this site is being built as an education focused Digital Innovation space - however there would be capacity to modify the proposed designs to also include a business focused space within the development.

Sound Proofing / Dampening

The space should be sound proofed / dampened as much as possible to eliminate or reduce to a minimum the level of noise pollution from outside. The most effective way to do this is by building double walls during the construction of the building and installing a floating floor and ceiling with sound dampening qualities e.g. baffles and specialist sound dampening ceiling tiles. Soft wall coverings should also be considered.

MINIMUM SIZE OF SPACES

| | | |
|---------------------------|---|-------------------|
| Total Size | - | 160m ² |
| Meeting Room | - | 20m ² |
| Audio Production Space | - | 50m ² |
| Studio Production Space | - | 80m ² |
| Storage Space | - | 27m ² |
| Smart Storage | - | 1.5m ² |
| Green Room / WC / Make Up | - | 2m ² |

From the research conducted, ideally the space should be around 250m² in order for it to be of most effective and be able to provide facilities that makes it an attractive space for users to visit.

Potential Income Models

- Membership
- Desk Rental
- Space Rental
- Equipment Rental
- Public Funding
- Training / Events
- Partnerships

Strengths

All facilities would be close beside each other and area can be specifically designed as a digital creative space.

Can be used at any time (not competing against classes or community use, etc)
Dedicated space.

Membership fees can be introduced for Desk / Equipment rental (as this is a dedicated space).

Ease of access for users including car parking, public transport access and use of

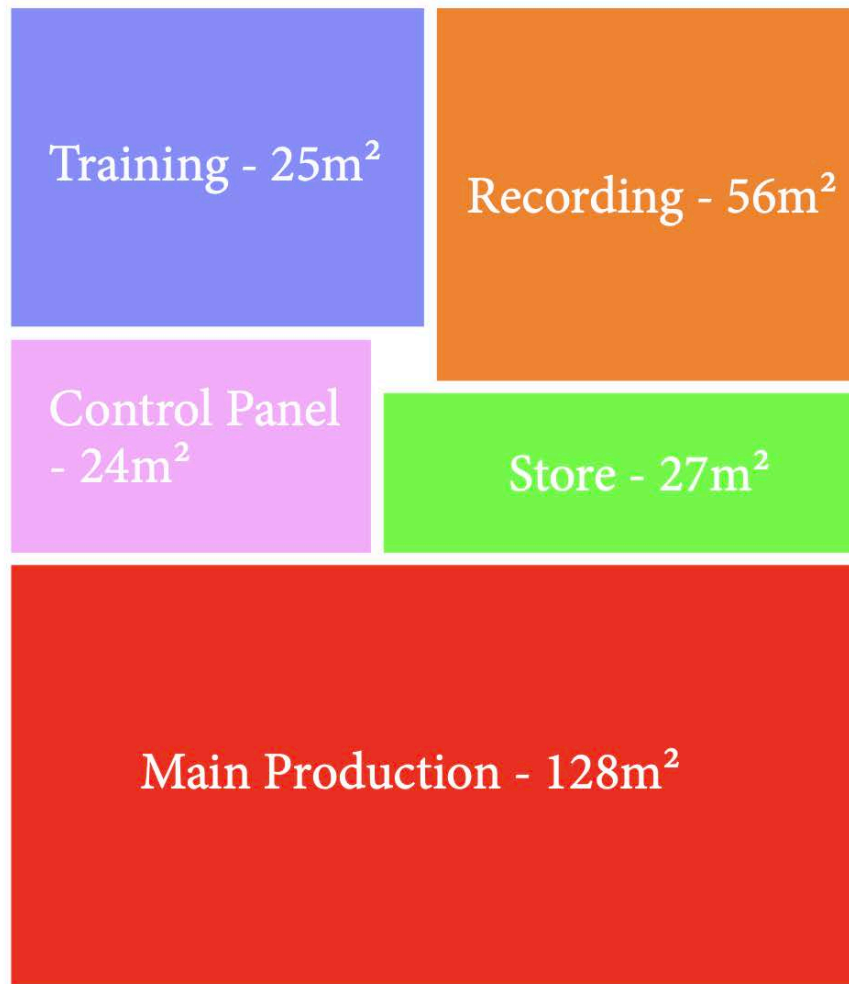
Could be connected to SRC developments enabling an integrated training / business up skilling.

Weaknesses

All equipment / facilities has to be built / purchased for dedicated space.

No sharing of facilities or utilisation of existing larger scale investment, such as make-up rooms, green rooms, staff, theatre space, etc.

Example layout for use of space:



Key



Store



Training / Meeting



Recording



Main Production Space



Control Panel

Size Requirements

Store - 27m²

Training - 25m²

Recording - 56m²

Main Production - 128m²

Control Panel - 24m²

OPTION 2 - HOST IN NEWRY THEATRE & CONFERENCE CENTRE ***(Utilises Current Design Proposal With Minimal Changes To Building Plans)***

This space is currently planned to be shared by arts and community groups. Therefore the availability and utilisation of the space would need to be arranged through a booking system between the different building users and raised with the theatre development planners.

The facilities for the proposed hub would be able to enhance the theatre, performance and group spaces within the building, offering the ability to record, broadcast, create interactive / digitally enhanced innovative performances through access to the available technology within the proposed innovation hub provided within the smart storage.

After speaking to the architects surrounding the current theatre and conference centre design proposals, it has been identified that the recommended features for a digital content production / innovation hub could be hosted within the theatre.

3 feasible options for further exploration have been provided by the architect.

Option 2 would involve fewer changes to the current designs and layout of the building.

However, there would be smaller production spaces for the hub.

The hub features would fit within the layout of the theatre, however would leave some of the components spread around the theatre complex providing a slightly disjointed experience for users and a higher burden surrounding the setup and change of purpose for the space requiring increased involvement from the facility management teams for setup and transportation of the equipment in and out of the hub spaces.

This design has the meeting room / training room positioned adjacent to existing green room.

Smart store and general store to be located in small space adjacent to recording studio and main production space.

Recording studio and main production space to be facilitated within the Studio Space

MINIMUM SIZE OF SPACES

| | | |
|---------------------------|---|---------------------------|
| Total Size | - | 189m ² |
| Meeting Room | - | 26m ² |
| Audio Production Space | - | 50m ² |
| Studio Production Space | - | 116m ² |
| Store | - | 26m ² |
| Smart Storage | - | 1.5m ² |
| Green Room / WC / Make Up | - | Can use existing facility |

Potential Income Models

- Space Rental
- Equipment Rental
- Public Funding
- Training / Events
- Partnerships

Strengths

Fewer changes required to existing theatre designs - the cheaper option.

Ability to make use of the theatre's spaces, features and facilities.

Weaknesses

Requires use of additional facilities resources (from the Theatre and Conference Centre) to set up and support the space due to its disjointed nature.

The split nature of the hub with its facilities spread throughout the Theatre and Conference Centre will give users a disjointed experience.

Smaller production area.

Storage away from the main space / less storage space available.

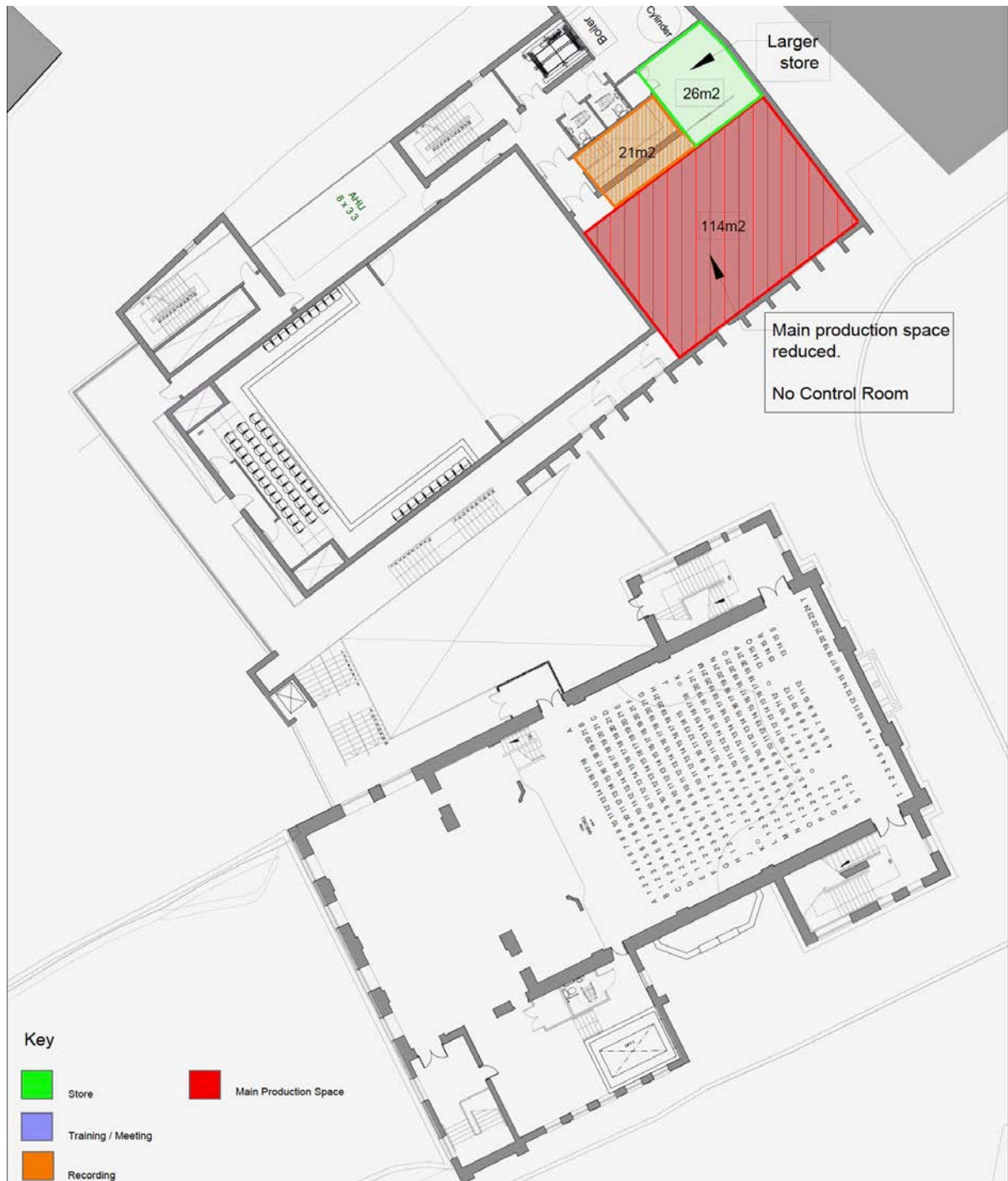
No hotdesking / desk rental income guaranteed / likely within the space.

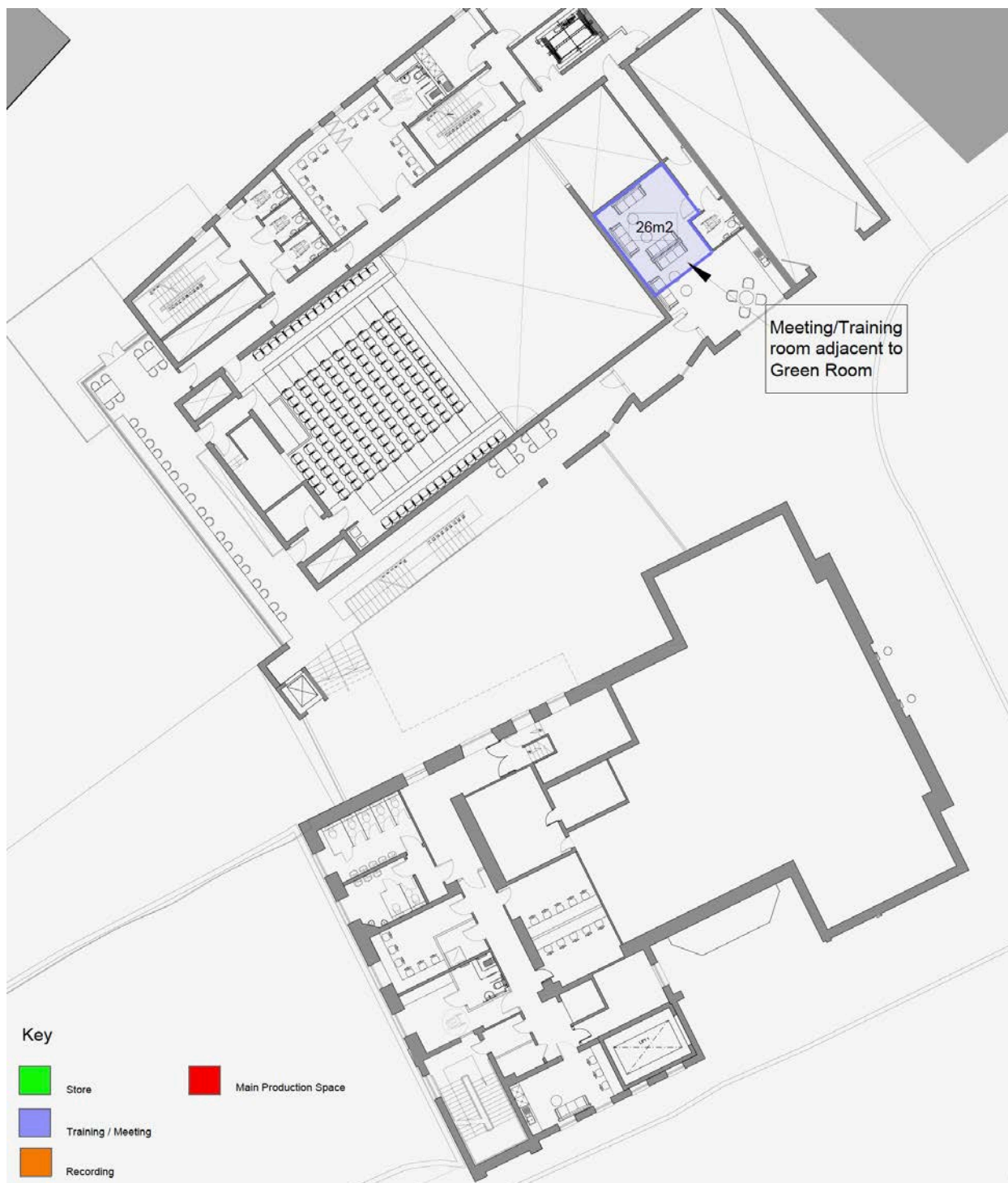
No separate control room / area for the space.

Sharing the space with other theatre and conference centre users.

No guaranteed access outside of Theatre hours / set hours.

EXAMPLE LAYOUT BASED ON ARCHITECT INPUT





OPTION 3 - HOST IN NEWRY THEATRE & CONFERENCE CENTRE ***(Requires Significant Modification to Current Design Proposal - Hub Integrated into Centre at a Singular Location)***

After speaking with the architect for the Theatre and Conference Centre, options were identified to amend the current designs to better accommodate a Digital Innovation Hub within the theatre complex to the highlighted.

This can be achieved by restructuring and moving the Centre's Plant Room to create a more joined / integrated space.

Recommendations for the preferred option must take account of the cost of and viability of the Newry Theatre and Conference Centre. This includes the impact of relocating the Plant Room to accommodate the larger main production space and recording studio and the provision of Accessible WCs at this level.

As all the facilities would be connected this would be a more manageable solution and provide larger connected workspaces meaning less management and intervention with the building facilities teams as the equipment would be located next to the working spaces.

MINIMUM SIZE OF SPACES

| | | |
|---------------------------|---|-------------------|
| Total Size | - | 221m ² |
| Meeting Room | - | 50m ² |
| Audio Production Space | - | 50m ² |
| Studio Production Space | - | 120m ² |
| Operational Storage | - | 27m ² |
| Smart Storage | - | 1.5m ² |
| Green Room / WC / Make Up | - | 2m ² |

Potential Income Models

- Space Rental
- Equipment Rental
- Public Funding
- Training / Events
- Partnerships

Strengths

This can be a dedicated space due to the centralised clustering of the hub's space in one location rather than spread throughout the building.

The entirety of the innovation hub is located in a singular space / centralised instead of the required spaces being spread out across the proposed Centre. Ensures better surveillance, less moving between rooms, etc, creating a better connected user experience.

Larger production area providing a better dedicated production space.

Dedicated larger recording studio.

Larger recording booth.

Meeting room / training room incorporated into main production space.

Separate control room elevated above the production space.

Larger general storage space next to the space which will incorporate smart storage.

Weaknesses

Additional Gross Internal Area required to accommodate the relocation of the plant.

Relocation of plant room will incur additional cost to Newry Theatre and Conference Centre Project and overall larger investment into the construction.

Potential impact on location of WCs required at this level.

Access to control room via proposed lift.

Plant space to Newry Theatre and Conference Centre relocated.

Potential scheduling conflicts with space being primarily by Innovation Hub and not as community, arts space, etc.




Options Summary

| | Option 1 Dedicated Space | Option 2 Theatre (No Development) | Option 3 Theatre (Development) |
|---------------------------------|-----------------------------|--|--------------------------------------|
| Total Size | 160m ² | 189m ² | 221m ² |
| Membership Option | Yes | No | No |
| Hot Desking | Yes | No | No |
| Desk Rental | Yes | No | No |
| Use of Low Value Equipment | Yes | Yes | Yes |
| Use of High Value Equipment | Yes | Yes | Yes |
| Meeting / Training Area | 20m ² | 26m ² | 20m ² - 50m ² |
| Production Studio Space | 80m ² | 116m ² | 120m ² |
| Audio Production Space | 50m ² | 21m ² | 50m ² |
| Make Up Area Green Room | 10m ² | 26m ² | 26m ² |
| TV / Film / Digital Productions | Yes | Yes | Yes |
| Funded R&D | Yes | Yes | Yes |
| Funded Expertise | Yes | Yes | Yes |
| Event and Exhibition Use | Yes | Yes | Yes |
| Dedicated Facilities Required | Yes | Yes | No |
| Control Room | Recording Studio Connected | Using the Recording Booth / Recording Studio | Overlooking independent control room |
| Access Control | Yes | No | No |

| | Option 1 Dedicated Space | Option 2 Theatre (No Development) | Option 3 Theatre (Development) |
|------------------------------------|-----------------------------|---|--------------------------------------|
| Structural Design Changes | No | Yes | Yes |
| Extra Floor / Lift / Accessibility | No | No | Yes |
| Plant room relocation | No | No | Yes |

Membership

| Option 1 | Option 2 | Option 3 |
|---|----------|----------|
|  | No | No |

Membership models usually are heavily subsidised within hubs and makerspaces with tiered models including student and discounted pricing. Included within the use of the space is access and use of all standard equipment. Training is also made available.

Successful spaces offer membership ranging from £15 - £200 per month depending on the level of facilities that the businesses have access to.

Edinburgh Hacklab

£25 per month x 100 members (£2,500) income per month

£10 day pass

Farset Labs

£35 per month x 50 members (£1,750) income per month

Farset Labs has heavily discounted rental and a user base of 50 paying members

£16 day pass

Therefore a realistic estimate of potential monthly membership income could be anticipated to be roughly £2,000 per month with effective marketing.


Monthly (£2,000)

12 Months (£24,000)

10 years (£240,000)

Membership model can only be considered in a dedicated space where there is guaranteed access for the members / users.

Desk Rental

| Option 1 | Option 2 | Option 3 |
|---|----------|----------|
|  | No | No |

Desk rental is typically charged at £200 - £400 per month. This service is also provided locally by a number of co-working areas; and would displace **The Hub 2.0 Newry / Granite Exchange**.

The Hub 2.0 Newry / Granite Exchange Objection:

The Hub Newry / Granite Exchange's feedback indicated that they already provide significant support in the co-working sector and expressed concern and alarm at the proposed hub indicating there is potential to compete with and damage these two co-working businesses already in existence.

Greenshoots Hub

The Greenshoots Hub was another innovation hub that was created and ultimately became a co-working space rather than an innovation hub. This was not a sustainable model for Greenshoots which has now been discontinued.

OPTION 1 - Hosting the space within an area outside of the theatre there would be options to include a dedicated area for co-working which could be rented out for membership / exclusive desk rental.




20 desks @ £200 per month - £4,000

12 Months - £48,000

10 Years - £480,000

OPTION 2 & 3 - Within the current plans for the theatre, it would not be possible with the current plans to provide dedicated desk rental.

Equipment Rental

| Option 1 | Option 2 | Option 3 |
|---|---|---|
|  |  |  |

Options to charge a membership fee to use the equipment available within the space. The equipment could be used within the space or hired for outside use.

However, the rental value of the equipment would range from equipment to equipment and would have no guarantee or stability of income.

The biggest challenges with this as a income model are:-

- Risk too high (damage to equipment due to recklessness or lack of knowledge, theft)
- Depreciation of the value of the equipment being higher than the value earned on the equipment
- Insurance and maintenance costs
- Rental / Finance / Legal / Insurance administration involved in solely hiring the equipment

Lower Value Equipment

Making lower value equipment available as part of the room / space rental or a membership fee will make the space more attractive to those wishing to use the space. The cost and maintenance involved in renting the equipment or charging for the use of the specific equipment would make this unsustainable as a sustainability mechanism.

Higher Value Equipment

Requesting a charge to cover the booking, insurance and maintenance of the equipment would be reasonable for some of the higher value items of equipment. There are training and insurance cost associated for the use of such equipment.

Training to use the high value equipment should / could be subsidised through business innovation support programmes by Department for the Economy.

Renting vs Buying Equipment

Rather than spending a significant amount of capital cost in buying some of the specialised or higher end equipment that may not be regularly used beyond once or twice a month, consideration should be given to arranging hire agreements with equipment hire companies such whether in Britain or Ireland. There are some studios in Northern Ireland who can hire limited amounts of equipment out and can be used where there is a necessity for a singular or small number of pieces of equipment to be hired quickly and locally for a project.

Partnerships

There is potential for the hub to partner with SRC and/or SERC, or one of the other Regional Innovation Hubs being proposed, bringing in equipment as a joint purchase and sharing the use of it between the hubs/partners with one hub nominated as the 'storage hub'. There is a cost efficiency that can be explored with this approach.

Facility Rental

STUDIO / PRODUCTION AREA

High specification soundproofed area set up for production of visual media including broadcasting, videography, photography and AR / VR digital assets.

Would have high specification equipment cameras and associated equipment including green screens and back drops.

For soundproofing this should ideally be planned and put into place during the construction of the building. It should consist of double walls, false floating floor, acoustic dampening ceiling tiles / baffles and soft walls to dampen noise pollution from other facilities within the theatre.

Used for:

- Broadcasting (Music, Conferences, Talks, Lectures)
- AR / VR content & assets
- High End Productions
- Performances and Rehearsals
- Innovation Projects / Challenges
- Producing Tourism Content
- Product Photography
- Producing Promotional Material
- General Videography and Photography
- Training / Workshops (Funded and Commercial)
- Showcasing technology (Events and Training)

Higher / Notable Costs:-

- Lighting and Lighting Controls
- Reflectors and Softboxes (light shaping tools)
- Tripods / Stands
- Cameras and Lenses
- Technician

There should be a focus on higher end equipment and equipment that is industry standard within this sphere as these have been proven to be reliable and robust.

Contains:

| <u>Category</u> | <u>Description</u> | <u>Estimated Cost</u> |
|--|--|------------------------------|
| Green Screens / Backdrops and associated equipment | Can be used in a wide variety of circumstances including Film, TV, Photography, AR / VR assets | £1,000 |
| Production Setup | Media Server Software e.g. Plex iMacs for content review during production Relevant Software | £5,000 |

| | | |
|--------------------------------|--|-----------------|
| Ceiling Tracks | For lighting rigs and other equipment that can be suspended | £5,000 |
| Lighting and Lighting Controls | Studio lights and controls - high end specification (Nanlight, Profoto, etc) | £170,000 |
| Tripods | Tripods and gimbals for cameras - high end specification | £20,000 |
| Stands | For lights, light shaping tools, cameras, etc | £50,000 |
| Curtains | Specialist sound dampening stage / room divider - can be used to split the area into two to enable multiple productions at same time | £12,000 |
| Reflectors and Softboxes | Light shaping equipment - high end specification | £35,000 |
| Cameras and Lenses | Mix of mid-level equipment and high end specification that can be used for videography, photography, AR / VR assets with good range of lenses suitable for both. | £235,000 |
| Accessories and Ancillaries | Miscellaneous items including power cables, clamps, wind machines, data cables, weights, etc | £7,000 |
| AR / VR kit | Microsoft HoloLens 2 Smart Glasses and associated hardware for rendering content including Microsoft OS machines with relevant Dev Kits installed | £18,000 |
| Gaming Consoles | For testing AR / VR content | £5,000 |
| Technician | One technician who can manage and maintain the equipment - one year. | £35,000 |
| TOTAL | | £598,000 |

Can be rented out for: £600 per day (space only)

Equipment can be rented ad hoc and as per request at relevant commercial levels - the higher specification / value of equipment, the higher the rental rate.

Core Costs (Required in all 3 Options)

All of the above will be required for a Studio / Production Area with the exception of gaming consoles. The quantities of some of the equipment can be scaled back to accommodate a smaller space or reduced storage area (e.g. fewer light stands / tripods, smaller number of lights and lighting accessories).

Optional Costs

- Curtains - a smaller space will be less conducive to being divided
- Gaming Consoles - can be run off using a Windows OS emulator instead

Scalable Costs

The costs listed above are scalable to the size of the space. What has been detailed above is based on a full sized dedicated space. For a smaller or shared space this can be pared down to match the space and available storage.

RECORDING STUDIO WITH AUDIO PRODUCTION AREA & RECORDING BOOTH

Soundproofed secure space with audio desks and computer(s) for audio production together with industry-standard software available.

The recording booth would ideally be big enough for a minimum of 5 people / small groups and be attached to the recording studio. Ideally, this should be connected to the Studio / Production Area.

Used for:

- Broadcasting (Music, Talks, Lectures)
- High End Productions
- Creating AR / VR Sound Content
- Collaborative Projects
- Audio Recording / Podcasts
- Video / Audio Editing
- Equipment and Space Hire
- Performance Space
- Music Production
- Innovation Projects / Challenges
- Producing Tourism Content
- Producing Promotional Material
- Pre-Production
- Post-Production
- Training (Funded and commercial)
- Showcasing technology (Events and Training)

Contains:

| <u>Category</u> | <u>Description</u> | <u>Estimated Cost</u> |
|------------------|---|-----------------------|
| Audio Processing | This includes the processing power / hardware needed to stream, process and record audio. | £25,000 |
| Speakers | For sound playback | £6,000 |
| Headphones | For sound playback | £775 |
| Microphones | For sound capture - includes a range of low to high end microphones and VR specialist microphones | £6,500 |
| Sound Engineer | For one year | £35,000 |
| TOTAL | | £598,000 |

Can be rented out for: £350 per day

MEETING / TRAINING ROOMS

Areas used for training / production / meetings / mentoring / meet ups.

Using available high end equipment on trolleys within this space.

Meeting / Training / Production areas can be hired out at £200 a day including access to equipment such as TV's / Projectors / Screens / Access to Production equipment.

Contains:

| <u>Category</u> | <u>Description</u> | <u>Estimated Cost</u> |
|--|--|-----------------------|
| Displays / AV Casting / Meeting Microphone | AV hardware required to run a meeting / training session including a video / conference call function with video on display and mic in ceiling of the room to pick up all speakers within the room | £14,000 |
| Projectors | Projectors and Screens | £5,000 |
| Desks / Chairs | Robust stackable chairs and folding tables | £1,500 |
| TOTAL | | £20,500 |

Used for:

- Meetings
- Training
- Mentoring
- Meetups
- AR / VR testing
- Collaborative Projects
- Equipment and Space Hire
- Innovation Projects / Challenges
- Pre-Production
- Post-Production
- Training / Workshops (Funded and Commercial)
- Showcasing Technology (Events and Training)

Can be rented out for: £200 per day

GREEN ROOM / MAKE UP AREA

An area needed for those working on production for larger productions and photoshoots.

Contains:

1 x Table
2-4 x Chairs
1-2 x Makeup Mirrors

Cost:

Cost of kitting this space out is nominal (approximately £200 or less) and tables / chairs costed from other areas can be used in this space instead.

Used for preparing for:

- Broadcasting (Music, Conferences, Talks, Lectures)
- High End Productions
- Filming Outdoor Content
- Creating AR / VR Content
- Collaborative Projects
- Rendering Video / VR
- Audio Recording / Podcasts
- Performing
- Music Production
- Innovation Projects / Challenges
- Producing Tourism Content
- Product Photography
- Producing Promotional Material
- Filming Video
- Pre Production
- Training / Workshops (Funded and commercial)

Can be rented out: As part of a wider rental of the space

OPERATIONAL STORAGE SPACE WITH SECURE STORAGE AREA

An operational storage space with internal secure storage area with access granted only to trained users or people responsible for high end equipment e.g. cameras, lenses, computer equipment, AR/VR headsets, etc. This will consist of a locked room with shelving and a secure equipment cage within it for the higher end / more expensive equipment.

Used for Equipment to be used in:

- Broadcasting (Music, Conferences, Talks, Lectures)
- High End Productions
- Filming Outdoor Content
- Creating AR / VR Content
- Collaborative Projects
- Rendering Video / VR
- Green Screen / Backdrops
- Audio Recording / Podcasts
- Video / Audio Editing
- Equipment and Space Hire
- Music Production
- Innovation Projects / Challenges
- Producing Tourism Content
- Product Photography
- Producing Promotional Material
- Filming Video
- Pre-Production
- Post-Production
- Training / Workshops (Funded and Commercial)
- Showcasing technology (Events and Training)

Contains:

| <u>Category</u> | <u>Description</u> | <u>Estimated Cost</u> |
|------------------------|--|------------------------------|
| Operational Storage | Shelving, boxes, cases (including peli-cases) | £4,000 |
| Equipment Storage | Specialist AV carts | £17,000 |
| Smart Storage | Smart storage solution - can be unlocked by key card or mobile phone | £13,000 |
| Secure Access Control | Locks from traditional key locks to smart locks that can be unlocked by card, PIN or phone | £1,000 |
| TOTAL | | £35,000 |

Rental: A charge can be made for higher value equipment to cover the insurance, maintenance and administrative use of the equipment. (See Above)

POTENTIAL FUNDING / COST RECOVERY

Assuming that the space is open during the week, operating 9 - 5 / Monday - Friday. With 10 public holiday closures this would mean that each space would be available to be booked for 250 days a year.

52 weeks x 5 days a week = 260 days
10 public holidays = 250 days

Assuming that the following areas are able to be booked at the following rates based on comparable local alternatives.

Facility Rental

| | Rate | 25% Utilisation | 50% Utilisation | 75% Capacity | 100% Utilisation |
|-------------------------|------|-----------------|-----------------|--------------|------------------|
| Meeting / Training Room | £200 | £12,500 | £25,000 | £37,500 | £50,000 |
| Audio Production Area | £350 | £21,875 | £43,750 | £65,625 | £87,500 |
| Studio Production Area | £600 | £37,500 | £75,000 | £112,500 | £150,000 |
| Per Month | | £5,990 | £11,979 | £17,969 | £23,958 |
| Per Year | | £71,875 | £143,750 | £215,625 | £287,500 |

Renting the space at an estimated utilisation of between 25% - 50% could provide an income of between:-

£5,990 - £11,979 per month
£71,875 - £143,750 per year
£718,750 - £1,437,500 over 10 years

Total booking of the space could be made available at £1,150.50

Membership Models

| | Rate | 25% Utilisation | 50% Utilisation | 75% Capacity | 100% Utilisation |
|---------------------------------------|----------------|-----------------|-----------------|--------------|------------------|
| Co-working Area 60 Members | £35 per member | £525 | £1,050 | £1,575 | £2,100 |
| Desk Rental 10 Desks | £200 per desk | £500 | £1,000 | £1,500 | £2,000 |
| Per Month | | £1,025 | £2,050 | £3,075 | £4,100 |
| Per Year | | £12,300 | £24,600 | £36,900 | £49,200 |

A membership model can only be considered if the space is able to offer guaranteed:-

- Access to the space
- Access to equipment
- Ability to book space / equipment

A membership model is not feasible for a hub that is located in a shared space and where there is potential for scheduling conflict with other users of the building / space (i.e. Options 2 and 3).

If a membership model is to be an essential component of the hub then it must be for a dedicated space where access is strictly controlled by the staff running the hub and any partners who are utilising the space e.g. SRC / SERC.

Hub options which can accommodate membership / desk rental options could be able to make the following income based on:-

(30 - 60 members)
 £1,050 - £2,000 per month
 £12,300 - £24,600 per year
 £123,000 - £246,000 over 10 years

OPTIONS - COST RECOVERY

| | OPTION 1 | OPTION 2 | OPTION 3 |
|-------------------------------------|------------|------------|------------|
| Facility Rental 25% Utilisation | £71,875 | £71,875 | £71,875 |
| Facility Rental 50% Utilisation | £143,750 | £143,750 | £143,750 |
| Membership Model 25% Utilisation | £12,300 | | |
| Membership Model 50% Utilisation | £24,600 | | |
| TOTAL 25% Utilisation | £84,175 | £71,875 | £71,875 |
| TOTAL 50% Utilisation | £168,350 | £143,750 | £143,750 |
| 10 Year 25% Utilisation | £841,750 | £718,750 | £718,750 |
| 10 Year 50% Utilisation | £1,683,500 | £1,437,500 | £1,437,500 |

Summary of Focus / Scope of the Project

The Newry Mourne and Down District Council Regional hub and network will incorporate a high quality, digitally advanced co-making space to provide a platform for education and skills training, particularly for new economy skills and digitally enabled design.

It will offer technologists, local businesses and local communities the space and equipment to pursue innovation projects at small and medium scale roll out in conjunction with the testbeds programme. The Regional Innovators Network will provide a front door for local businesses to access the investments in innovation, digital capability and skills that will be delivered through the BRCD.

Under the Digital pillar, Newry, Mourne and Down District Council are proposing the development of a state of art within Newry City Centre. It is envisaged that this project will develop a future-proofed way of stimulating innovation and developing greater awareness and uptake of new and emerging digital skills for students, entrepreneurs and local businesses.

A 80m2 space has been identified as an option for this facility within the proposed Theatre and Conferencing centre which is being developed at the site of Newry Town Hall and Sean Hollywood Arts Centre. NMDDC is also exploring other options which may make use of existing resources or compliment an existing service whether that is provided by Councils or through one of our partners.



Figure 1 Possible location within new planned theatre complex

The aim of the hub is to complement the entrepreneurial activity currently on-going within the region while also breeding innovation and diversification within the creative and performing arts sectors and other core industries.

The hub will provide a physical gathering space for like-minded people, incorporating state of the art resources and technology dedicated towards innovation and entrepreneurial outcomes.

The hub will also act as an enabler for connectivity for different individuals, local businesses, start-ups, incubators, local colleges and universities, researchers, and

other stakeholders, to improve innovation processes, internally within local businesses in the Newry, Mourne and Down area as well as across the Belfast Region City Deal geographical region.

The hub is proposed to stimulate an increase in private sector investment, creation of jobs and encourage industry collaboration across the Belfast City Deal region.

The project will serve as a vehicle for transformation on a regional basis and therefore, play a key part in a more inclusive vision of the smart district / smart city proposed by the City Deal Proposition.

A key aim of this hub is to explore, engage and highlight new emerging technologies to the widest possible audiences, and to extend into the region enhanced economic and critical skill building opportunities.

As well as a physical space, the hub will also provide a foundation for the following:

- Developing networks and connections
- Improving Digital technologies and competences
- Testing and experimentation at low risk for small businesses and entrepreneurs
- Technical and business talent acquisitions
- Mentoring of digital skills and business skill transfer
- Assisting businesses and start-ups with Pathways to financing, investment and customer revenue
- And become a “hub” for Community of like-minded individuals at different stages in their journey e.g. Newry Digital Meetup group for example.

Costs and Models

The start up costs (including development) and operations costs of the Innovation hub will depend heavily on location, the hub’s size, orientation, and equipment; and the partnership, operations, and ownership structure. NMDDC are currently working with our consultants to identify capital build costs and running costs (capital and revenue).

Displacement

It is important that the hub attracts the correct level of private, public and academic investors.

NMDDC are keen to make sure that any proposed innovation centre is complementary of existing hubs and aligns with the local colleges, universities and private sectors. We have currently appointed consultants to assist with research in this area.

The Council is currently surveying existing local innovation spaces, innovation hubs, shared workspace to identify the services that they provide and an estimate of their capacity, capabilities, membership and typical attendance.

This Project will align with, and complement the aims and objectives outlined in each of the following Strategies (not an exhaustive list)

- Draft Programme for Government
- UK Industrial Strategy
- NI Industrial Strategy
- Belfast Region Industrial Framework
- Newry, Mourne and Down District Council Corporate Plan
- Community Plans (City Deal Councils)
- Newry, Mourne and Down Economic, Investment & Regeneration Strategy
- Newry, Mourne and Down (Emerging) Arts, Culture and Heritage Strategy
- DCMS Creative Industry Economic Estimate 2016 / FTIR

Potential Key Stakeholders / Users of the Project

It is intended that a diverse range of stakeholders will make use of the proposed hub. There will be strong alignment with local education (SRC & SERC), key suppliers, central government departments and other key influencers like public bodies and local councillors.

This engagement is vital to establish true partnership, embedding the ethos within their organisations and taking ownership in the longer term. The Council is currently engaging with further stakeholders (entrepreneurs, businesses, private and public sector) to determine the level of interest in working collaboratively through a regional hub in Newry. A list of potential stakeholders is included below.

Digital NMD – was an innovative and collaborative pilot programme between Southern Regional College, South Eastern Regional College and led by Newry, Mourne and Down District Council focusing on emerging technologies for small business. The project launched in March 2018 and its objectives were to provide expert mentoring, workshops/seminars and digital diagnostics for our small businesses.

The pilot highlighted the importance to continue to develop collaborative working relationships with other business support agencies and partners/councils economic development departments.

Digital NMD was heavily focused on collaboration by design and it was recognised that it is extremely important to encourage businesses to collaborate with each other to stimulate innovation and act as sounding boards whilst local Councils provide the necessary mentoring expertise and capacity to supplement and implement their learning in their business operations.

In 2019, NMDDC had also conducted a series of interviews with First Derivatives, MJM Group, Warrenpoint Harbour. All of these businesses saw value in the development of the hub and the potential collaboration between businesses and public sector.

Consideration of Commercial Operating Models

Newry, Mourne and Down have currently procured consultancy support to assist with identification of costs. At the current time we do not have high level costs but

are reviewing models. It is hoped that we can develop a model that will provide incubator programs for additional revenue. These may be incorporated into a membership structure or the hub may provide access to grants for businesses and/or entrepreneurs for participation.

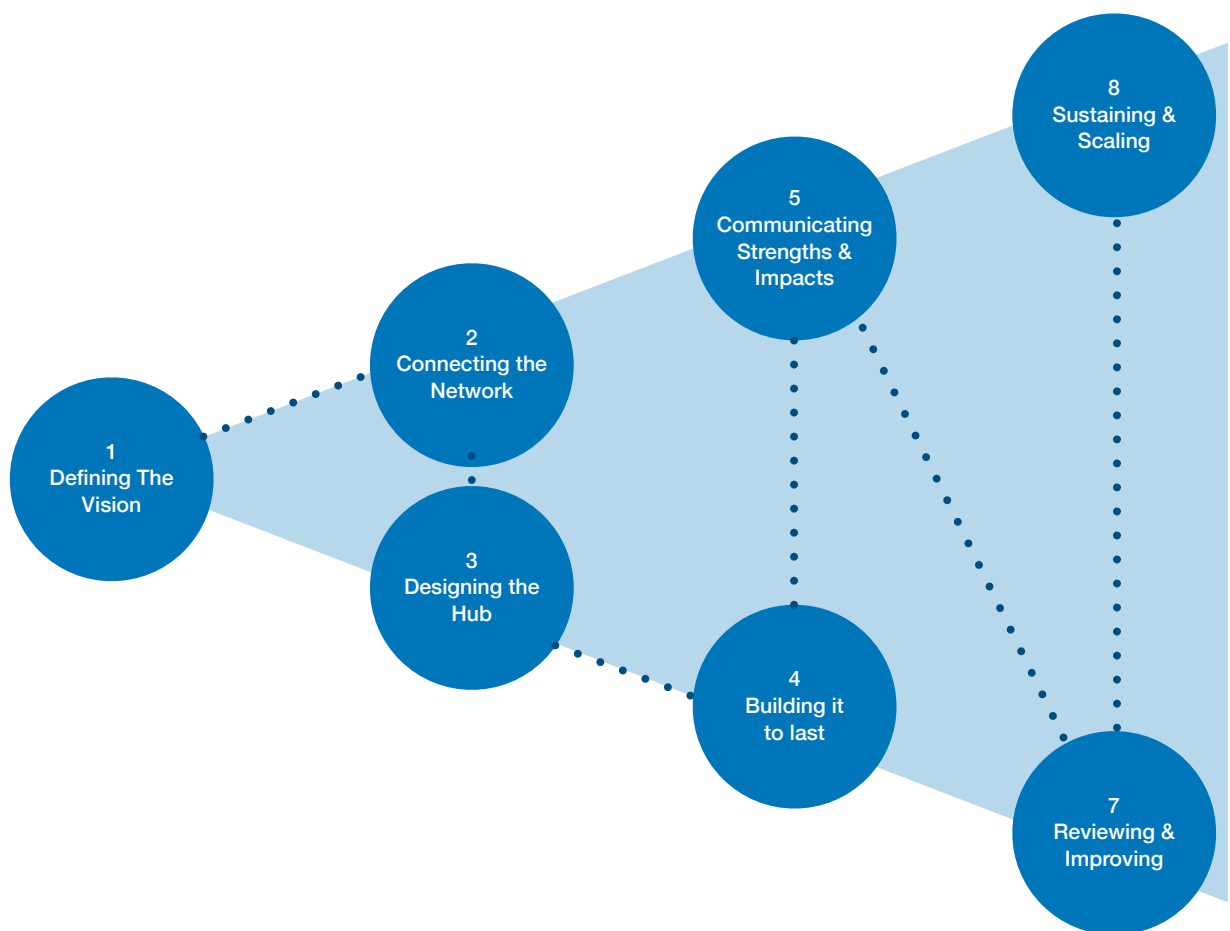
The Innovation Hub proposed by Newry, Mourne and Down through the Digital pillar aligns with the Newry, Mourne and Down Regeneration project for the Newry Civic Centre submitted through the Infrastructure project. The hub will support the development of this project and stimulate an increase in private sector investment, creation of jobs and encourage industry collaboration across the Belfast City Deal region.

The Newry City Centre Master Plan highlights a clear need for regeneration across the City, and highlights the substantial development opportunities which exist. There is a need to focus on regeneration of the City Region, rather than individual isolated schemes. The Strategy supports the need for a Coherent delivery strategy, such as this proposal which focuses on investment in Arts and Culture, private sector investment, supporting tourism and the evening economy.

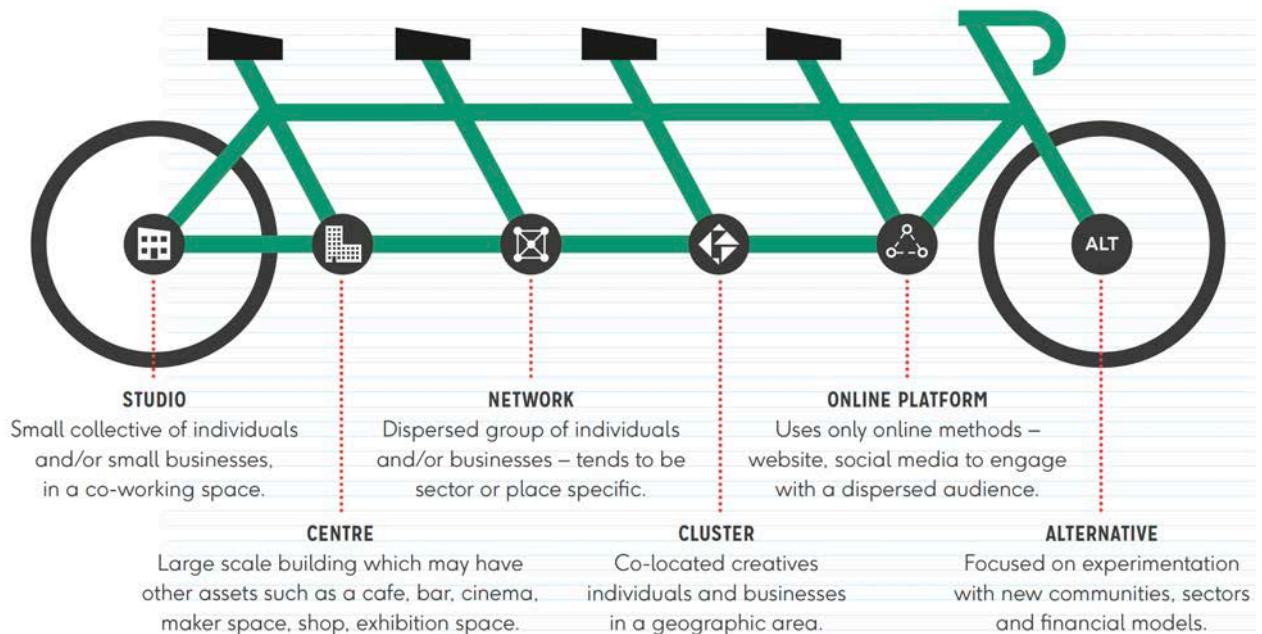
It is hoped that the hub will serve as a vehicle for transformation on a regional basis and therefore, play a key part in a more inclusive vision of the smart district / smart city proposed by the City Deal Proposition.

Hub Development Methodology

Following British council and EU best practice, the options for the Newry - Regional Innovation Network hub have been developed using the following process.



Creative Hubs Model



For the hub to be successful it should share as many of the common features described in the image above. Specifically:-

Studio

To achieve the highest value out of the hub it should be focused on startups/early stage businesses and individuals starting out with their businesses with the view of building a community. Easiest way of doing this is by creating a co-working space, giving these businesses an opportunity to mix, converse and collaborate.

Network

Through stakeholder conversations it has been determined that the hub should be focus on providing access to equipment and facilities that will allow for digital content creation, specifically a studio space with high specification AV equipment for photography, videography, sound design, creating AR / VR digital assets.

The ideal network for this hub would consist of involved in and around the digital creative sector, 'traditional' creatives and other businesses wishing to upskill and undergo digital transformation, as well as the engagement of community-based groups such as Newry Digital. Main focus would be within the Newry, Mourne and Down District Council area but with the ability to attract others from further afield within the region.

Online Platform

Consideration should be made to engage online via a website and social media (Twitter, Instagram, Facebook). Using online avenues to showcase the hub, its facilities and equipment as well as providing online tools and learning e.g. webinars, podcasts, etc.

Whilst this online presence can be implemented it will not be the focus of the BRCD funds, however alternative funding from EU sources is available to develop this further.

Centre

The hub should be housed in a building with dedicated access. This will provide the highest value to the hub and allows for easier management of the workspace, facilities, studio and equipment.

Other partners can be invited to collaborate and run programmes within the space such as SRC, SERC, Digital Catapult, Future Screens NI, NI Screen/Pixel Mill.

Cluster

There is an opportunity for the hub to partner and collaborate with a number of other organisations in Northern Ireland including SRC, SERC, Invest NI, Collaboration Networks, UU/QUB, private sector organisations.

This is particularly important with the development of the proposed Smart Media Innovation Lab which will create a number of opportunities for the hub.

Alternative

Offering up-skilling and digital transformation programmes with access to high specification equipment will allow low digital skilled individuals and businesses to experiment and develop new avenues for collaboration and innovation.

There are opportunities to bring into the hub established and qualified professionals from the creative sector including musicians, sound technicians, those working in film and TV, games designers, AR / VR content and asset creators, teachers, mentors (including business mentors).

How To Research / Build Hub Structure

Defining the vision

Objective

TO CREATE A SOLID FOUNDATION AND STRUCTURE FOR HOW THE CREATIVE HUB WILL OPERATE.

There may already have a clear idea of the reasons why there is a need to develop a creative hub; perhaps it is to unite the creative community and entice new collaborations, to build new support mechanisms, or curate events and resources which could support a community of like-minded creatives.

Or it might be a mixture of all of these factors. In order to articulate the challenges and opportunities to others and encourage their support, it is important that you clarify a strong vision; check there is sufficient demand for the hub and understand the hub's unique potential attributes.

Identifying the gaps, needs and demand

Before embarking on establishing a hub, it is important that you ask and potential creative hub members/stakeholders a number of questions to assess the gaps, needs and demand for a new hub provision.

Answering the following questions in as much depth as possible:-

Building the hub will also have to develop a culture of collaboration, so involving others in developing responses.

Running a facilitated workshop, or informal forum event will give the opportunity to speak directly to potential future hub members / stakeholders. Covid issues - Interviews and electronic questions will be replacement.

- *What challenges currently face creatives / industries locally?*
- *How would a physical/virtual hub support the community?*
- *Do certain creative sectors need improved or different types of support?*
- *Will it be beneficial to support only one sector, or would they benefit from engaging with broader creatives and/or other industries?*
- *Is there an established creative community already who will benefit from a new hub, or will the community have to be developed from scratch?*
- *Are there any other organisations providing similar hub provisions, and if so how will this hub add value?*
- *Are there opportunities to work in partnership to develop shared provision?*

Selecting the business model

The business model and funding structure will depend on the purpose and objectives, the hub could be a for-profit company, a charity, a social venture, a community interest company, a co-operative or a combination of models.

To select the most appropriate business model, you should consider what types of stakeholders might be interested in supporting the hub financially and what types of ways you will make revenue – such as studio rental, training services, membership fees, event delivery.

Connecting The Network

OBJECTIVE : TO BUILD UNDERSTANDING, TRUST AND SUPPORT THROUGH DEVELOPING LASTING COMMUNITY CONNECTIONS.

To shape and strengthen the hub, so that it is nurtured and owned by the network, it is essential to build trust and connections with different types of influencers and supporters. These relationships are key to all stages of the hub's development; they will keep you on track, inspire new ideas and create opportunities for the network.

Meeting the community and starting the conversation is key – do this face to face and digitally. Remember that conversations are two-way exchanges; gather and share information and insights to strengthen the hub to build trust, reputation and confidence.

Connecting the Community

Forming a hub steering group can be a powerful way to provide advocacy and support to the network and the hub. The group should include committed individuals who have a variety of different skill sets and backgrounds. They will act as a sounding board to focus on placing the needs of the network at the hub's core.

These champions and advocates for the sector can also bring and embed opportunities, sponsorship and resources back into the hub and enhance the energy that flows through a hub from start-up to growth. They can be the building blocks between industry and policy, so keep them close and informed.

Building Partnerships

Partnerships are hugely important and by working in collaboration with organisations, funders, local government and academia you will extend reach, avoid duplication of support and will pool shared resources. Partnerships enable shared risks and rewards, and the ability to engage with new audiences and garner support from other industries.

Think Global, Act Local

In the interconnected world we now all live in, learning from and connecting with other hubs is vital to the success and impact of the hub. Developing links and collaborations will help to plug the network into a wider market of opportunities both in national and international settings. The benefits to the hub include knowledge exchange, peer support, talent development and access to finance.

There are many ways to develop useful connections such as: hub visits, digital interactions (i.e. group video chats, social media groups/forums), residencies and exchanges, case studies, industry events.

Designing The Hub

OBJECTIVE : *TO DEVELOP THE SERVICES THE HUB WILL PROVIDE FOR THE COMMUNITY / INDUSTRY, BASED ON RESOURCES AND CAPACITY.*

Designing the activities, services, products and experiences, that the hub will offer, will further assist to clarify and articulate exactly what the hub does. Activities should be clearly aligned to the vision – therefore every opportunity should be designed in close collaboration with the network in order to fulfil the needs of the community.

Innovation over duplication

Although being radical in approach is to be encouraged, try not to duplicate existing services already offered by other organisations, as this could create unnecessary strains in local relationships.

Join forces if appropriate:-

- To signpost, share resources and even help each other learn, innovate or re-design activities, to create mutual benefits for everyone.
- To help you think through and map out the resources you have; and identify what benefits the hub will create.
- What is needed to make the hub a reality? e.g. types of resources, finance, equipment, staff.
- What skills and capabilities do you already have? e.g. business skills, event management.
- What activities / services / products will the hub provide? e.g. studio rental, events, business support.
- What benefits will the hub create for those involved? e.g. for tenants, collaborators, suppliers.
- What broader impacts could the hub potentially generate? e.g. for city, stakeholders, creative/cultural economy.

Building It To Last



OBJECTIVE : *FOCUS ON THE FUTURE SUSTAINABILITY OF THE HUB FROM THE OUTSET.*

One of the most challenging things to do when setting up a hub is to work out the costs involved; this can be made more complex if you are establishing a new type of hub model.

To ensure the hub is sustainable in the long term, it is crucial to consider these factors as early as possible.

- Planning the finances
- Costing the services
- Securing External Support

Communicating Strengths & Impacts

OBJECTIVE : *TO BUILD A SUPPORTIVE COMMUNITY AND COMMUNICATE THE VALUE OF THE HUB.*

To grow a genuine network who care about the hub, it is essential to develop the hub's vision, values and voice, through authentic, consistent and open communication, across multiple channels.

Things to consider:

- What are the core values?
- What do you stand for?
- What do you care about?
- What is the vision?

- What is the hub's guiding insight?
- What is the mission?
- How does the hub act on its insight?
- What is the tone of voice?
- How do you speak to the network, partners and funders?

Reviewing & Improving

OBJECTIVE : *DEMONSTRATE THE VALUE OF THE HUB FOR THE SECTOR AND ECONOMY.*

Capturing information about how the hub is doing and sharing it is crucial to show the community, stakeholders and potential funders what the hub has achieved. Think beyond statistical data, rich stories bring colour to the achievements and can be even more powerful than numbers alone. Aim to collect and share both quantitative and qualitative data with the community and be ready to provide this whenever needed by funders, partners or champions.

- Tracking the benefits
- Feedback
- Broader Impacts and Pivoting

Sustaining & Scaling

OBJECTIVE : *TO FIND THE BEST MODEL OF SUSTAINABLE GROWTH FOR YOUR HUB.*

If you have successfully developed a hub which has been capable of meeting the needs of its community and have sufficient demand for new space and/or services, then the chances are you will be considering growth.

- Growing the Hub
- Policy Landscape Fit
- Sustained Leadership
- Financial Models

PART 1 - DEFINING THE VISION

Hub Development

Research / Hubs / Professional Facilities

Communities of entrepreneurs are creating positive impacts on local economies. When they establish new businesses and innovate across industries, they bring about economic growth and employment. Entrepreneurs are generally drawn to cities because of their available resources and networks, specifically access to knowledge and sector-specific needs, and the exchange of information that occurs when an entrepreneurial community is brought together.

Central to these ecosystems are creative community spaces, a range of physical spaces that enable innovation by creating a convening point for a community of established businesses, entrepreneurs and start-ups. Creative community spaces serve to anchor entrepreneurial communities and influence the urban economic and physical landscape.

General services offered across Creative Common Spaces
(from *Creative Community Spaces* - World Bank Group - 2019)

- Mentorship
- Event Space
- Acceleration
- Connections to Funding
- Training
- Access to Tools

Interactive Environments
(from *Creative Community Spaces* - World Bank Group - 2019)

- Co-working Space
- Maker Space
- Incubator
- Accelerator
- Community Space
- Fab Lab
- Hacker Space

“THESE SPACES ARE BUILDING STRONGER BRIDGES BETWEEN INDUSTRIES AND START-UPS AND ARE CONTRIBUTING TO LOCAL ECONOMIES BY OFFERING PLATFORMS FOR NEW IDEAS TO BE TESTED, LEADING TO INNOVATION WITHIN LONG-STANDING SECTORS OF THE ECONOMY AND GRADUAL JOB GENERATION.”

In many instances, these spaces bring together grassroots innovative communities, entrepreneurs, and established companies in the same building, creating mixing spaces that result in natural collisions and an exchange of ideas that boosts innovation.

Through closer analysis of the different characteristics of each of the spaces—impact, funding model, interactive spaces, and services (revenue model)—relevant and informative trends become apparent:

- (a) Subsidies are the most frequently used form of funding, followed by private owner-ship;
- (b) Spaces that contribute to entrepreneurial communities building are partly or completely privately owned, while the spaces that have an impact on business acceleration are often subsidised;
- (c) The pure subscription model is the most common model among **dedicated spaces**, while hybrid models are more common among **general spaces**.

These trends just some of the ones highlighted in this report, insights into how these spaces operate and help decipher ways they can grow local economies through business generation, job generation and urban revitalisation.

In fact, creativity, knowledge and innovation have become the main driving forces of territorial economic, social and cultural development. “In the contemporary world, a new development paradigm is emerging, which links the economy and culture, embracing economic, cultural, technological and social aspects of development at both the macro and micro level. Central to the new paradigm is the fact that creativity, knowledge and access to information are increasingly recognised as powerful engines driving economic growth and promoting development in a globalising world” (UNCTAD, 2008).

Economy – Creative Industries: companies and organisations of the cultural and creative sector as economic, social and cultural engines;

Place – Creative Spaces: places as spaces of cultural and creative production and consumption that attract resources, people and capital;

People – Creative Talent: people with artistic skills and personal abilities that nurture creativity, with an entrepreneurial spirit enhancing the creation of innovative businesses.

Such interaction depends largely on the specific governance systems and institutional arrangements of the territories – **Governance**, and that of their position in the spatial system and urban hierarchies, and their level of access to information and communication technologies and the digital economy - **Connectivity**.

| | | |
|---|--|---|
| Traditional Cultural Expressions and Heritage | Crafts, antiques and art restoration | Jewelry, textiles, ceramics and wood craftworks, antiques, art restoration, etc. |
| | Traditional gastronomy | Gastronomic activities, endogenous product, etc. |
| | Historical-cultural and natural heritage | Museums, archives, libraries, archeological sites, monuments, natural parks, etc. |
| Arts | Visual arts | Painting, sculpture, photography, literature, etc. |
| | Performing arts | Theatre, dance, opera, circus, puppetry, etc. |
| Cultural Industries | Audiovisuals | Film, television, radio, video, and other broadcasting |
| | Music | Recorded music market, live music performances |
| | Publishing | Books, press, magazines, and other publications |
| Creative Activities | Design | Fashion design, graphic design, interior design, etc. |
| | Creative services | Architecture, advertising, etc. |
| | New media | Software, video games, digital contents, etc. |
| Creative and Cultural Tourism | | |

Source: Adapted from INTELI (2010)

Cultural and Creative Sector - Key Figures

- Turnover of more than € 654 billion and contribution to EU-25 GDP of 2.6% (2003)
- Growth of the sector in the period 1999-2003 12,3% higher than the growth of the global economy
- Employment of the sector represents 3.1% of total EU-25 employment (5.8 million people) (2004)
- Growth in the global market for traded goods and services of the creative industries of 8.7% (2000-2005)
- World exports of creative industry goods and services of 3.4% of world trade KEA (2006); UNCTAD (2008, 2010)

The notion of creative city goes well with strategies of culture-led urban regeneration, which have been a feature of post-industrial cities in Europe. In fact, one of the motivations behind creative-based development is the redevelopment of derelict industrial sites that served old crafts production (e.g. textiles, ceramics, jewellery/metal crafts) towards the creation of “cultural quarters”, “cultural/creative districts”, “creative hubs” or “innovation hubs”.

These are mainly fusion spaces, where a mixture of cultural and creative functions prevail, as well as activities from production to consumption and exhibition, from the visual and performing arts to music and digital media, also including leisure and entertainment elements, residential complexes and retail spaces. Although some of these spaces can emerge spontaneously, the majority are induced by public policies with the aims of strengthening the identity, attraction power and market position of places; stimulating a more entrepreneurial approach to the arts and culture; enhancing innovation and creativity; finding new uses for old buildings and derelict sites; and stimulating cultural diversity and cultural democracy.

Arabianranta in Helsinki (Finland), ***The Digital Hub in Dublin*** (Ireland), ***22@bcn in Barcelona*** (Spain), ***Museum Quarter in Vienna*** (Austria) and the ***Cultural Industries Quarter in Sheffield*** (UK) are acknowledged examples of these projects.

At a micro-scale, the creation of creative-based facilities contributes to attracting and retaining creative people and artists, generating favourable conditions for the development of their creative work. Performing arts spaces, creative industries incubators, live-work houses and studio buildings, artistic residencies, convergence centres, and ‘third places’, are some of the infrastructures that are sought by the creative class.

Moreover, the *Green Paper on Unlocking the Potential of Cultural and Creative Industries* (EC, 2010a) advocates the need for new spaces of experimentation, innovation and entrepreneurship in the cultural and creative sector, such as meeting places and ‘laboratories’ for user-centred and open innovation, where various disciplines work together – arts, science, technology, and business.

In this context, concepts such as ‘living labs’ or ‘fab labs’ are emerging due to the increasing role of the user in the creation process, in an era where frontiers between creators, producers and consumers are blurred. As a result of the role of education, technologies and social networks play a key role.

Why Are Hubs Growing?

The UK has played a pioneering role in creative hub development. This is not due to any superiority of Britain; it is more closely linked to the particular circumstances of economic growth and decline. The industrial decline and restructuring of the last quarter of the 20th century hit traditional industrial centres of cities badly. Key industries and employment were lost, and the economic, and then social base, of cities was damaged.

Many of the innovative urban regeneration programmes sought to respond to these challenges. It was notable that some innovative city authorities, mindful of youth unemployment and the needs to radically restructure economies and support communities, turned to consider the possibilities of the creative economy (or cultural industries as they were then termed).

This period was one of considerable political tension in the UK between national economic policy and urban policy. The legacy was that creative industries and the cultural sector had its champions and its experimental policy labs at the city level, and was framed by urban regeneration. The Site Gallery case study below shows how this legacy of post-industrial urban redevelopment in a city like Sheffield has created a rich context for growth of the creative hub.

In the 2000s, New Labour's Creative Industries initiatives led to the growth of workspaces for culture and creative industries business. With public support, many old vacant factory buildings were redeveloped as studio spaces for creative professionals and businesses¹³. In the last decade there has been continual flowering of 'art factories' and 'cultural factories'. (Moreton, S. (2013). *The promise of the affordable artist's studio: governing creative spaces in London*. *Environment and Planning A*, 45(2), 421- 437)

First, shifts in labour markets led to a rising number of businesses in sole proprietorship with no employees. In 2015, there were around 3.3 million businesses in sole proprietorships. (UK GOVERNMENT (2015). *Business population estimate for the UK and regions: 2015 statistical release*).

The majority of business population growth has been among non-employing businesses (of all types). They accounted for 90 per cent of total growth since 2000.

A second factor is the persistent growth of culture and creative industries as well as in creative employment outside of culture and creative industries. (UK GOVERNMENT (2016). *Creative Industries Economic Estimates*)

In 2015, there were 1.8 million jobs in the creative industries, an increase of 5.5 per cent between 2013 and 2014. Total employment in the creative economy across the UK increased by five per cent between 2013 and 2014 (now at 2.8 million jobs), compared with a 2.1 per cent increase in the wider UK economy. The gross value added (GVA) for the creative industries was £84.1 billion in 2014 and accounted for 5.2 per cent of the UK economy. Creative industries GVA increased by 8.9 per cent between 2013 and 2014 (and were only outperformed by construction with 10.2 per cent), compared to 4.6 per cent for the whole of the UK.

(British Council, *The Creative Hubs Report: 2016*)



1.8 million jobs

in the creative industries in 2015

↑ 5.5 % increase
from 2013 — 14

£84.1 billion

Gross value added (GVA)

↑ 8.9% increase
between 2013 — 14

5.5%



Total employment
increased **3.4% more in
the creative economy**
vs the wider UK economy

2013 — 2014



27 tech clusters

across the UK

↑ 32 % Increase
from 2010 — 14



80%
of these jobs
outside of London

1.56 million

people employed in the digital sector



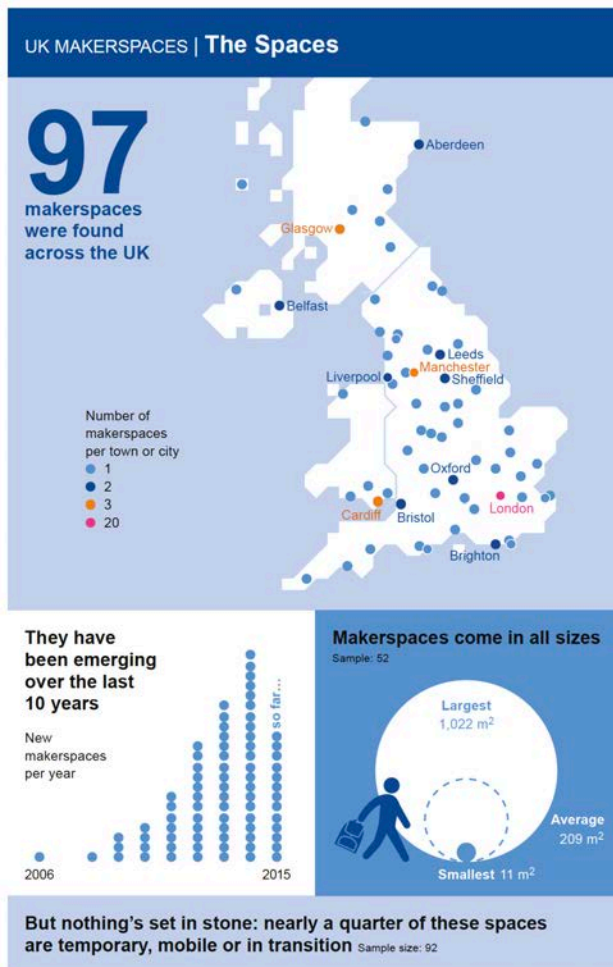
£118.3 billion

GVA of the digital sector in 2014

↑ 7.2 % increase
compared with 2013

British Council, The Creative Hubs Report: 2016

What do creative hubs do?



Recently, scholars have focused more on these activities and processes rather than the physical infrastructural make up of creative hubs¹⁸. For instance, work on knowledge hubs and knowledge clusters suggests that it is the hub's capabilities in the exchange, transfer and facilitation of knowledge that is the primary focus. (Virani, T. E.; Malem, W. (2015). *Re-articulating the creative hub concept as a model for business support in the local creative economy: the case of Mare Street in Hackney*. Creativeworks London Working Paper Series Number 12)

This work states that knowledge hubs fulfil three major functions: 'to generate knowledge, to transfer knowledge to sites of application, and to transmit knowledge to other people through education and training'.

They define knowledge hubs as 'local innovation systems, [that are also] nodes in networks of knowledge production and sharing'. They are predominantly characterised by high internal and external networking and

knowledge sharing capabilities where they also act as meeting points of

communities. (Evers, H. D.; Nordin, R.; Nienkemper, P. (2010). *Knowledge cluster formation in Peninsular Malaysia: The emergence of an epistemic landscape*. Social Science Research Network)

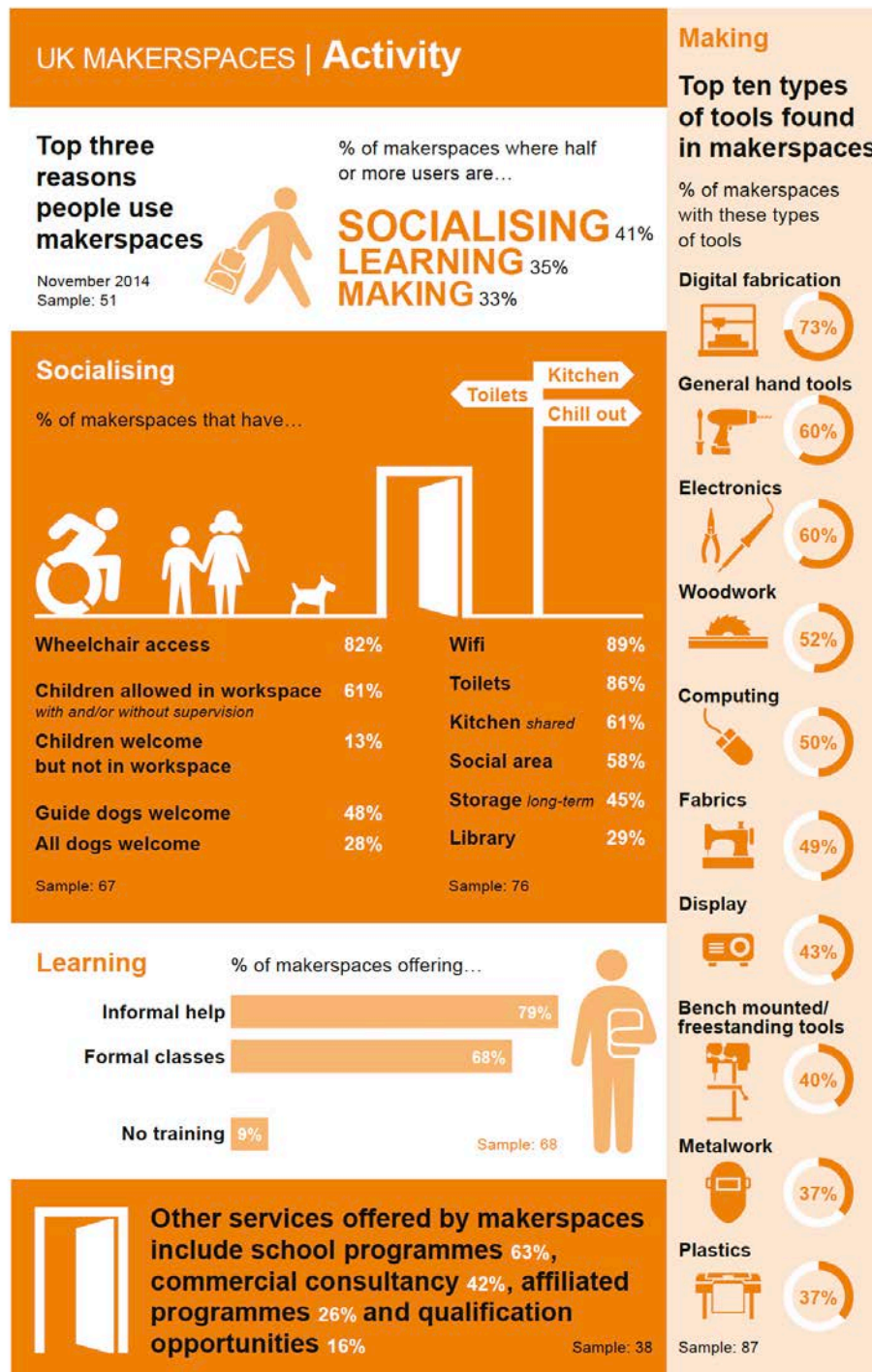
Geographic Spread

Makerspaces can be found in every region of the UK, with most of the UK's cities having at least one makerspace. However, the density and number of makerspaces differs by region. London, the North West, the South East and Scotland each have more than ten makerspaces. Meanwhile, the East Midlands, Northern Ireland and the North East are respectively home to less than five. London, Scotland and Wales have the most makerspaces per capita, while North East, East of England, and East and West Midlands have the fewest.

While most makerspaces are in long-term or permanent locations, nearly a quarter are temporary or mobile makerspaces, or in the midst of transitioning to another location. Unsurprisingly, non-permanent makerspaces tended to be smaller.

UK makerspaces also come in a variety of shapes and sizes. Nationally, the average makerspace is 209m², but makerspaces range from 12 to 1,022m². London has both the smallest and largest reported makerspaces: the Goodlife Centre in Southwark and Building BloQs in Enfield, respectively. Where there is a lower number of makerspaces (such as the East Midlands or North East), the region tends to have a larger proportion of smaller makerspaces with one or two large makerspaces dominating the area.

Makerspace Activities



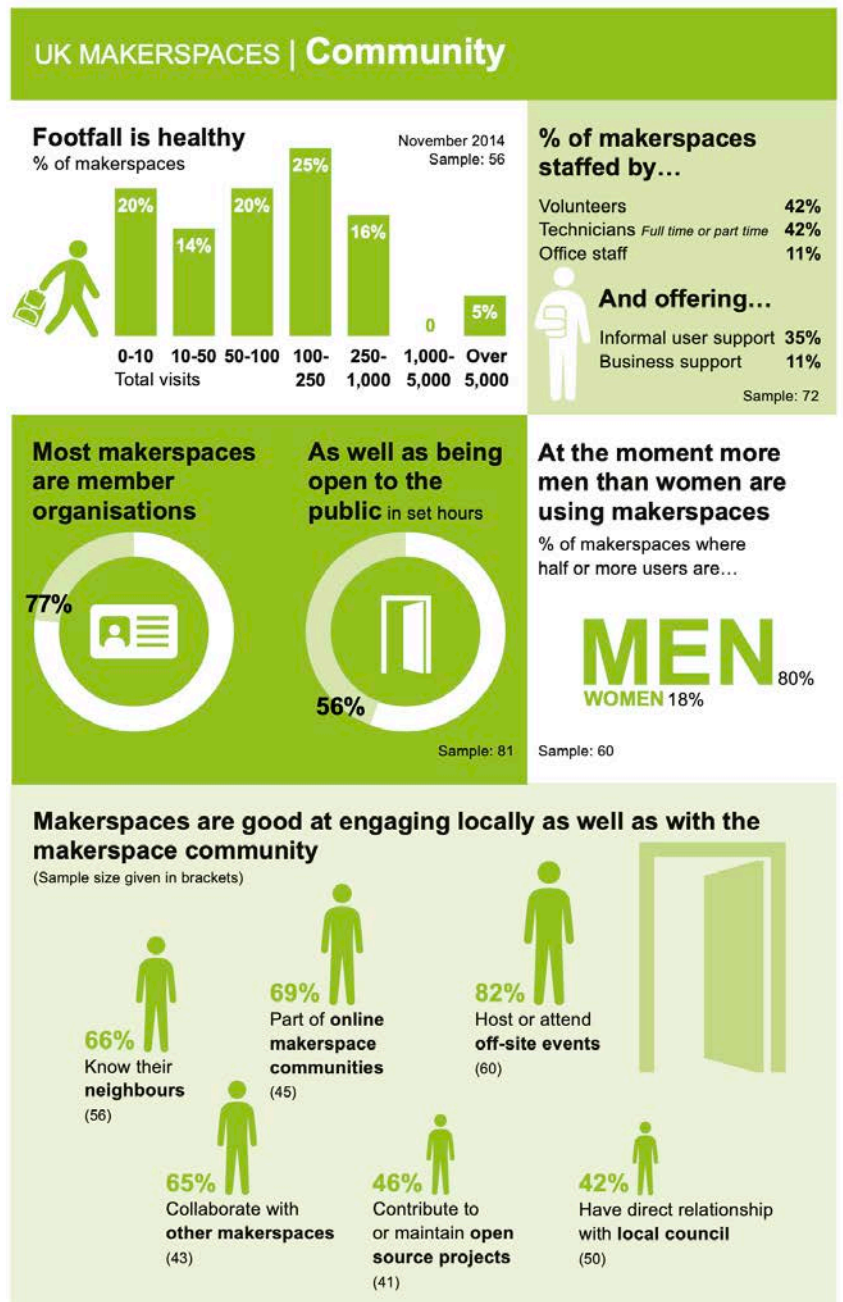
Makerspace Community

Most UK makerspaces have small member communities, with 60 per cent having 50 members or less. Five per cent have over 1,000 members, indicating a handful of larger spaces across the country: Manchester Fab Lab reported the largest membership rates, followed by MadLab (Manchester), and London Hackspace. Men tend to dominate membership: membership is predominantly male in 80 per cent of makerspaces, compared to 18 per cent of spaces which have 50 per cent or more female members.

Membership rates can give a sense of who's visiting a makerspace, but it doesn't necessarily represent the total user base. One-quarter of makerspaces are not member organisations. Equally, over half of makerspaces are open to public in set hours. Unique visits help to account for people who visit makerspaces which don't have membership schemes or drop in during public hours. Three-quarters of makerspaces received up to 250 unique visits in November 2014. Approximately 5 per cent reported over 5,000 visits during this month.

Visitors' reasons for accessing the makerspace were predominantly social – 'making' was the third most common reason people visited makerspaces, after 'socialising' and 'learning'. This is particularly interesting as it challenges assumptions about makerspaces being solely spaces for making things – although that is undoubtedly a fundamental feature.

Makerspaces also cultivate relationships and networks, and provide a setting where people can learn, experiment and explore. Makerspaces rely on a combination of informal and paid roles to operate. Voluntary staff and informal user support are important features of many makerspaces. However, over 40 per cent also employ



technicians on a full or part-time basis. Beyond technical staff, a minority of makerspaces also employ office staff (11 per cent).

External Connections

Many makerspaces are active within wider maker communities. Approximately two-thirds regularly collaborate with other makerspaces or take part in online makerspace forums, mailing lists or communities, while 46 per cent contribute to open hardware or open source projects.

A considerable minority are also well connected to their local communities: over 40 per cent have relationships with their local council while 65 per cent know their neighbours. Over 80 per cent also host or have a presence at off-site events.

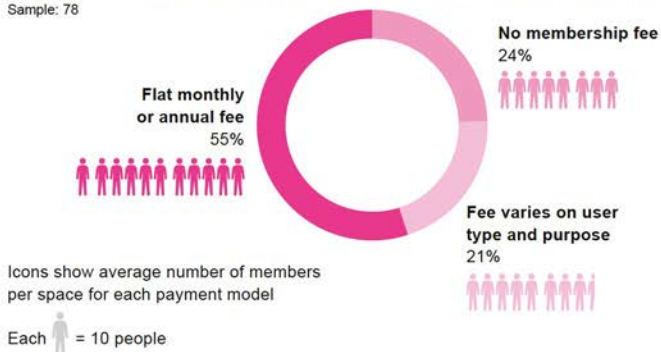
(Nesta, Open DataSet Of UK Makerspaces, April 2015)

Makerspaces Structure & Sustainability

UK MAKERSPACES | Business

The most common payment model is a regular membership fee

Sample: 78



Annual turnovers* vary hugely Sample: 21

Smallest

Largest

£0

£350,000

* Income sources include corporate income, membership, training and courses, space or desk hire, shops, cafes, grants, public funds, donations, and sponsorship. Costs include premises and utilities, insurance, staff, equipment, marketing, events, and business rates.

How makerspaces are structured

By their founders

Sample: 68



Legally

Sample: 67



Membership models also vary:

55 per cent of makerspaces reported having flat monthly or annual payment models compared to 21 per cent who have varied fee models – where prices differ according to the frequency someone uses the space and the services they access.

These modes also appear to have different membership rates.

Makerspaces with varied payment models have 83 members on average, while makerspaces charging flat fees have 108 members on average. Conversely, 24 per cent of makerspaces have no membership fees, and an average of 81 members.

Looking at legal structure and founders, makerspaces are primarily split between informal collaborations and business initiatives. Nearly half of makerspaces were founded by informal groups, while approximately one-third emerged from existing companies or organisations.

Founders with backgrounds in design, digital and technology/IT, or engineering are particularly common. Legal structures are also split, but more often formalised. One-fifth of makerspaces operate as either informal collaborations or unincorporated organisations, compared to 55 per cent which have registered as some form of company. Public sector involvement in makerspaces is low – less than 5 per cent of makerspaces were founded or operated by government or public institutions. For instance, Devon County Council was the only council to have founded a makerspace (Fab Lab Devon), while Blackhorse Workshop received initial support from the Borough of Waltham Forest and the Greater London Authority. It is worth noting, however, that a number of spaces are hosted by higher education institutions.

(Nesta, Open DataSet Of UK Makerspaces, April 2015)

UK City Profiles

Belfast

Key agencies thus far have been the City Council and Blick Studios. Clearly the history of both the dock decline and the troubles has left a distinctive mark on the city.

Nevertheless, there is a growing digital economy with more than 7,900 jobs in the sector (NESTA 2016) as well as culture and creative industries, especially the film sector. As with other cities, the City Council have played a critical role in funding initial projects.

Birmingham

Digital tech firms make up almost one fifth of Birmingham's economy and 25 per cent of the UK's gaming workforce is based in Birmingham (NESTA 2016: 59).

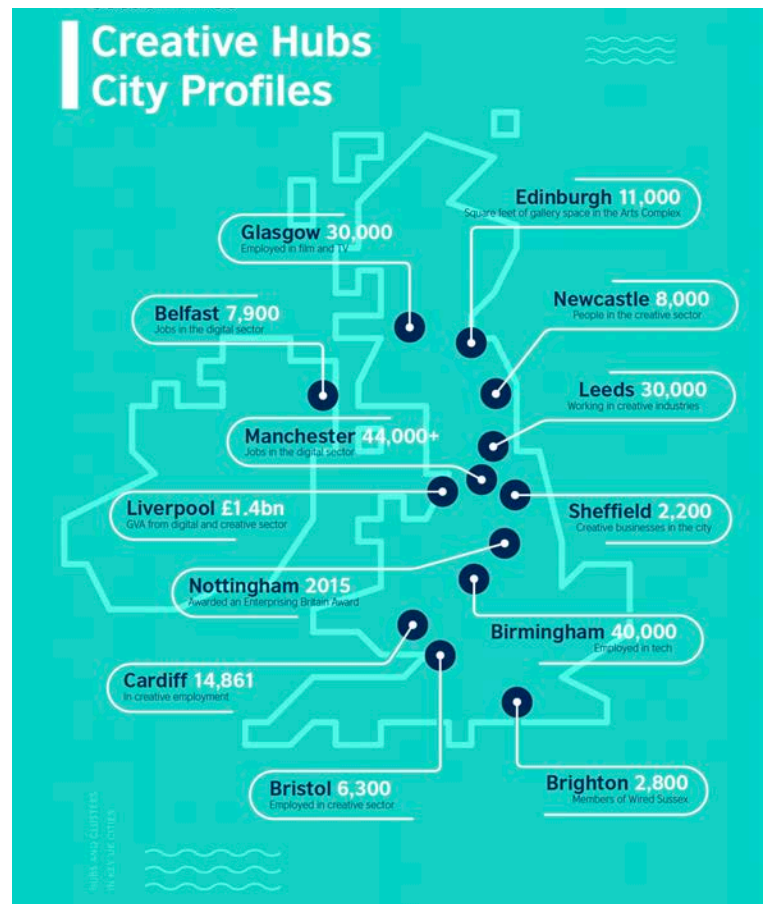
A great variety of creative hubs has developed in Birmingham from initiatives such as the Innovation Birmingham Campus, Impact Hub Birmingham, The Custard Factory, Fazeley Studios, Entrepreneurs for the Future (e4f) and Oxygen Accelerator with a strong concentration in Digbeth – now labelled as the 'Digital Quarter' – and the Jewellery Quarter, a designated conservation area with over 200 listed buildings and still more than 500 jewellery businesses. The Jewellery Quarter has long been a hub of manufacturing regeneration.

The Space is a notable new development based on multiple and short term use of space for independent designers.

Brighton

There is a strong specialisation in the fields of advertising and marketing, software and games development, and publishing (Mateos-Garcia et al. 2014; NESTA 2016: 36).

The city is known for its well-established arts and culture scene, for instance hosting several festivals such as Artists Open Houses, CineCity, the Great Escape, Brighton Digital Festival and Brighton Festival, the second largest arts festival in the UK.



This arts and cultural vibrancy is also reflected in the entrepreneurial scene. For example, almost half of Brighton's entrepreneurs have a background in arts, design, and humanities (Brighton Fuse 2013).

Cardiff

Cardiff has the highest share of creative industries employment in Wales with roughly a third of all creative employment (14,861) in the city.

It is the UK's largest media centre outside of London with BBC Wales, S4C and ITV Wales all based there. There is also a strong independent TV production industry with over 600 firms contributing £350 million to the local economy. Cardiff developed a lively and dynamic creative hub scene with mostly self-organised bottom-up co-working spaces (there is no accelerator yet) in the last five years. So far, there are no initiatives to network those hubs nor is there a coordinated initiative or policy by Cardiff City Council to support these creative hubs.

Edinburgh

Edinburgh has a well-established cultural and arts heritage infrastructure underpinned by its capital city status and seat of government position.

It is also UNESCO City of Literature and home to the International Festival. Edinburgh has a plethora of museum and art institutions that provide a robust foundation for its activities. Edinburgh has developed a number of new initiatives. Creative Exchange Leith is a notable case. Based in the former Corn Exchange building since 2013, it has 80 workspaces that benefit from shared support services. A development with a longer history, since 2008, is the Arts Complex. Located next to Meadowbank Stadium, it offers affordable studio space and is able to accommodate over 200 artists, and boasts 11,000 square feet of gallery space.

Edinburgh is also home to the UK's largest tech hub, CodeBase. CodeBase has over 80 companies, with over 500 people working between them.

Glasgow

Glasgow's creative and cultural sectors, while traditionally strong, have enjoyed continuous momentum partly due to the city being named European Capital of Culture in 1990 (BBC, 2011).

It has also been UNESCO City of Music since 2009 and host to the MOBO Awards in 2011, 2013 and 2015 (Glasgow City Council, 2016). Glasgow is particularly strong in film and television where productions brought approximately £20 million to Glasgow's economy in 2013 (Ibid). The Glasgow Film Office received 343 location enquiries, resulting in 231 productions being shot during 2013. It is precisely due to facts and figures such as these that Glasgow City Council is implementing aggressive strategies for integrating creative industries into their overall economic plan – this and the fact that the sector employs close to 30,000 people in the city (Glasgow City Council, 2016).

Regarding large creative interventions, in 2011 the city launched 'Creative Clyde' – a centre for media, technology and creativity-oriented business ventures (Glasgow City Council, 2016). It has been realised through a partnership between large and influential cultural institutions, namely Scottish Enterprise, Glasgow City Council, Creative Scotland, BBC Scotland, STV, the University of Glasgow and the Scottish Exhibition and Conference Centre.

Leeds

Data from 2011 shows that there are nearly 3,400 creative businesses in Leeds, with up to 30,000 people working in creative industries across the city.

70 per cent of creative businesses are 'micro' and a further 21 per cent are 'small'. NESTA's Tech Nation Report (2016: 118) details 44,951 people in the digital sector in Leeds. Roughly half of the city's working population is employed in knowledge-intensive sectors. The city region has seen significant growth in software, computer games and electronic publishing and, more recently, in FinTech (financial innovation), big data related companies and health related startups. Leeds also has an active radio and TV sector, with clusters of TV and film production companies near ITV and the BBC's Yorkshire headquarters in Leeds. According to the Centre of Cities Outlook 2015, Leeds is among the ten cities in the UK experiencing the fastest private sector jobs growth (Centre for Cities, 2015).

Liverpool

Liverpool has suffered from massive decline in its port activities and manufacturing industries. It has suffered from social unrest and a lack of investment.

In the last 25 years, the rise and rise of Manchester has left Liverpool in the shadows, and to an extent, struggling. However, the role of organisations such as FACT have provided strong roots, and the redevelopment of the docklands area, the arrival of Tate Modern, and the regeneration triggered by the European Capital of Culture has begun to develop momentum. The role of Invest Liverpool has been critical in mobilising the range of initiatives and networks. Clearly the history of Liverpool, associated with music, then the Garden Festival, and the European Capital of Culture, is one of continued efforts to position arts and culture at the core of urban regeneration. The branch of Tate Modern signals this clearly, as well as the established cultural infrastructure Liverpool has.

Liverpool has over 7,000 creative and digital firms, employing over 48,000 people and making up £1.4 billion GVA to the local economy. There is a big tech community and Liverpool is one of Europe's focal points for the games industry. Note though that the games industry is primarily self-contained and located outside the city. It could be seen to constitute a community in itself.

Manchester

From 61,000 jobs identified by Manchester City Council (2012: 9) to NESTA's Tech Nation which reports over 50,000 jobs in the digital sector (NESTA 2016: 73) and The Sharp, details 44,000 people across Greater Manchester employed in the creative and digital sector. This is equivalent to almost four per cent of all employment (Ekosgen 2016, p.4).

Manchester's creative industries and digital sector continue to grow and the city recently became home to Tech North, a new initiative for facilitating business support for the digital sector in northern England. Established in 2015, Tech North is delivered through Tech City UK, a publicly funded program from the UK Government's Department for Culture, Media & Sport. Tech City UK was initially set up for London's digital cluster in Shoreditch but has now started to deliver business support to other UK cities. The specific goal of Tech North is to accelerate the development of the North's digital economy through the promotion and support of digital entrepreneurship.

Manchester's development is supported through the city's comprehensive Digital Strategy that contains, among other elements, infrastructure provision. The strategy proposes a total of £60 million in investment for support of workspace infrastructure for Innovation Centres such as Manchester Living Lab,

Mad Lab and Fab Lab, which are about digital technologies supporting products and services for the community. The two biggest publicly funded and supported developments are MediaCity in Salford and The Sharp Project in which the City Council took leadership in developing a rundown office building into a creative hub. The Sharp Project 'is Manchester City Council's flagship initiative to support the development of the city's digital sector. The building was completed in June 2011, having received £6.8 million of public funding between 2009 and 2011.

Newcastle

According to a report published by EKOS (2012: 10) 8,000 people work in the creative sector in Newcastle and Gateshead and the sector comprises 1,775 businesses with an annual turnover (in 2009) of over £800 million. As well as IT support and software development, games development has become a large sub-sector evidenced by the number of large game development companies in Newcastle such as Ubisoft, Reflections, Epic Games UK and CCP Games (Bolton, 2015). Consequently, Newcastle has a range of tech and creative hubs to support startups and creative SMEs. According to Newcastle City Council (2016), the city operates a number of Enterprise Centres that provide services to creative enterprises. They are located in various parts of the city, namely Byker, Quayside, Charlotte Square (City Centre) and Lynnwood (Newcastle City Council, 2016).

These centres offer a range of services such as flexible rates and rental arrangements, free parking and business support packages (marketing support packages, for instance). The two main centres are the Toffee Factory and The Core. The Toffee Factory is located in Ouseburn, which has seen large investment transform the area. Ouseburn is the cultural and creative quarter of the city (Ouseburn Trust, 2016).

The Toffee Factory offers flexible working space, including shared offices for start-ups and large individual offices ideal for bigger companies (Bolton, 2016). The Core building, located on Science Central is designed with new and growing knowledge-based businesses in mind. It has strong links with local universities.

Nottingham

The City Council has sought to coordinate the nascent creative economy. The historic core and the organic roots of the creative businesses lie in the Lace Market area, adjacent to the city centre. This location contains the Broadway arts centre and a range of (mainly niche retail) creative businesses. As the name suggests, this historic area was vacated by the lace industry. In the late 1990s the abandonment of hosiery mills adjacent to this site opened up new spaces for creative businesses. However, there was pressure to redevelop these prime sites for the service sector that Nottingham was also very keen to attract.

Creative businesses struggled to expand beyond this initial area and to stand out from retail and textile foundations (although businesses such as Paul Smith represent a traditional strength). However, a new wave of creative businesses in Nottingham has been developed hand in hand with extensive publicsector- led urban regeneration. The refurbished museum and the theatres provide a (renewed) traditional foundation for the arts, and the Broadway Cinema hosts 'NearNow' a technology and creative programme. New developments have been taking place in three new locations bordering the city core: Hockley, Sneinton Market and Canning Circus. The City Council has sought to place culture at the centre of its urban regeneration strategy.

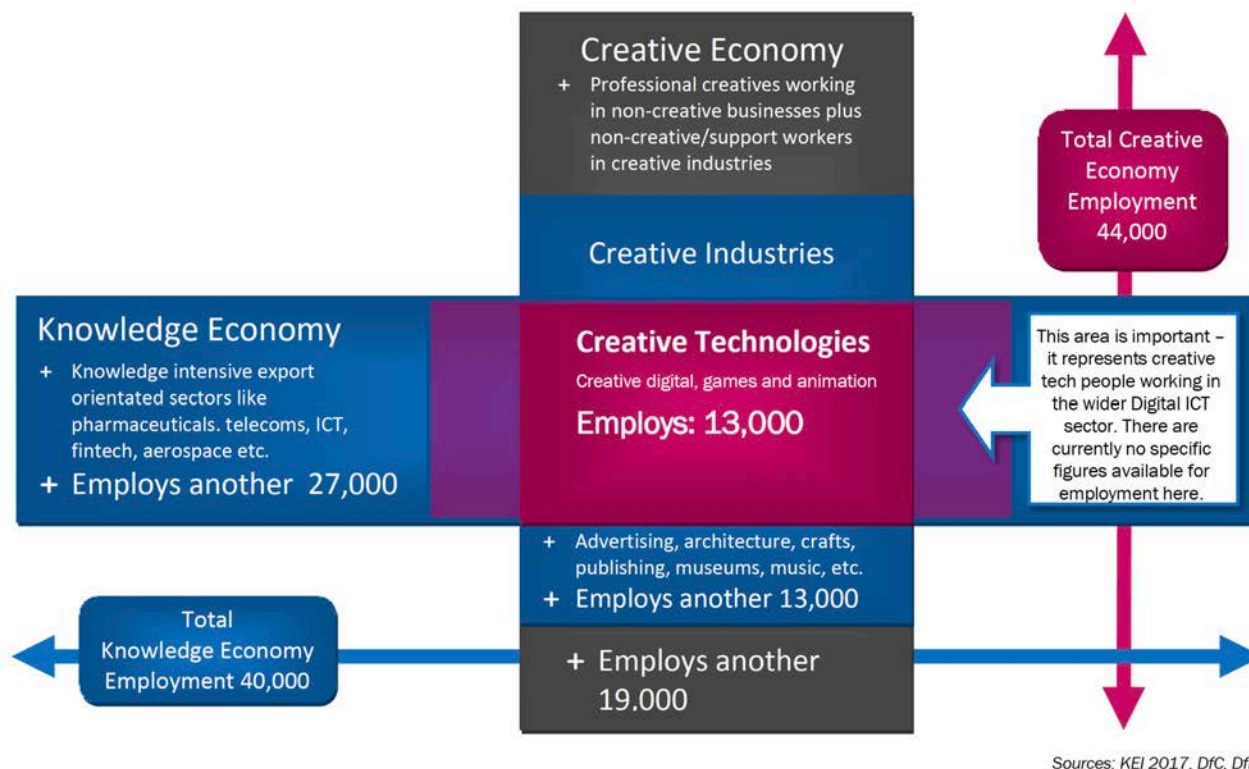
Sheffield

Sheffield's Cultural Industries Quarter (CIQ) is a 30 hectare area on the edge of the city centre, zoned in 1988 for businesses in cultural production. At the core is the Showroom and Workstation, but also includes organisations such as the Leadmill night club and Red Tape Central music studios among others. Regeneration efforts in the CIQ since then have achieved over £150 million of public and private sector investment.

It comprises 250,000 square feet of managed workspace, all with waiting lists. 1,200 new jobs in 120 cultural businesses, 1,000 new student bed spaces, and 1,500 media training places per year have been created. The site is also home to the four-screen Showroom cinema, the National Centre for Popular Music (now a music venue), Site Digital Imaging Gallery, four night-clubs and a host of practitioner-based specialist business services. Its extensive events calendar includes the Sheffield International Documentary Film Festival and Lovebytes Digital Arts Festival. In 2001 the CIQ conservation area was created in recognition of the distinct style of urban landscape and buildings, such as the Little Mesters, in the area. In recent years there has been debate over the refurbishment and knocking down some of these older buildings.

NI Creative Tech Economic Landscape

There are a number of terms commonly used when describing the creative technologies and it is important to make the necessary distinctions between each term to avoid confusion.



Creative Technologies

A sub-sector of the Creative Industries, used to describe businesses using digital technologies in a creative way. Immersive technologies, user experience, games and animation fall within this definition and form the scope of this study. Invest NI's "TV, Film & Digital Media" subsector.

This subsector defined by InvestNI includes mobile, digital & interactive, digital media technology, e-learning and film & TV production. This last sector covers film & TV, games, animation and post-production and identifies the businesses which have their funding delivered by NI Screen. The other businesses have their funding delivered by Invest NI. Funding ultimately comes from DfE.

Creative Industries

The term "Creative Industries" refers to a range of economic activities which are concerned with the generation or exploitation of knowledge and information. The UK Government Department for Digital, Culture, Media & Sport (DCMS) defines it as "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property".

Creative Economy

The DCMS measures creative economic activity by publishing data not just on creative businesses but also on creative professionals working in non creative businesses, i.e. in-house web developers or graphic designers. These employees, when added to the creative industries data, form the creative economy.

Knowledge Economy

Defining the business types that come under the umbrella phrase 'Knowledge Economy' is much-debated. Catalyst Inc., who produce the Northern Ireland Knowledge Economy Index each year, use the sectors identified by the CONNECT organisation in San Diego with some customisation for the Northern Ireland context to identify the businesses with the greatest potential to sell high value goods and services across the globe, generating additional income for the companies and employees in NI.

Key Issues for NI Creative hubs

Access to funding

The way government currently provides funding needs to be repackaged in a way that better supports the project driven nature of the sector – NI Screen is currently providing funding which is structured to meet those needs very well and has developed the respect of the sector, so there may be scope to widen their remit to include all creative tech funding.

There is a need to examine how best to fund the Creative Technologies sector more effectively. It is clear that the NI Screen model (project based, able to take risks and having sectoral expertise in house) works very well, so it would be worth investigating whether NI Screen could be sufficiently resourced to take over all government funding for creative technologies or whether the NI Screen funding model could be used by a new Creative Technologies body.

Support for new products

The loss of the Creative Industries Innovation Fund (which was stopped in 2015) is very keenly felt and again, the reintroduction of this simple intervention could greatly help new product development. Many highly successful products (including Sixteen South's Lily's Driftwood Bay) were initially funded through the CIIF.

The reintroduction of the CIIF for creative technology companies only, through a new or existing organisation, should be considered.

The Benefits of Clusters

The need for cluster development which fully supports the specific needs of the sector, which is mainly comprised of specialised microbusinesses needing good connectivity, business support services and networking opportunities.

The development of a city centre hub focussing on creative technology microbusinesses, with access to Ultrafast broadband, business support services and networking events would help encourage collaboration.

There is a real opportunity for BBCNI to further develop collaborations through the Rewind project, particularly if it was physically hosted in Belfast again. Easy access to these archives for local creative technology companies would allow them to create innovative new ways to experience Belfast's history and could form an important part of the View Belfast Project.

The Need for Skills

HE & FE skills providers need to acknowledge the fast paced nature of the sector, where new hardware and software is being developed every year, and develop their offering accordingly. In primary schools, there is a real concern that Digiskills NI is not being supported and developed properly to ensure that primary school teachers are confident in developing children's digital literacy skills and that children have the right resources to learn.

(Matrix Creative Technology Report 2018)

Hub Examples / Existing Key Projects

THE HUB NEWRY 2.0

The Hub Newry is an award winning network of co-working hubs spread across 3 locations in our city located on the main A1 / M1 route between Belfast and Dublin. We offer desk-hire, hot-desks and private office spaces, virtual office facilities such as a registered office address, mailbox and mail forwarding services, as well as meeting rooms and event spaces.

It is understood that Newry, Mourne and Down District Council has previously contributed some funding towards The Hub Newry 2.0 co-working space.

Day rates are £16, with monthly membership ranging from £70 - £210

| Hub type: | Structure: | Finance: | Staff: |
|------------------|---|------------------------|-------------|
| Co-working Space | Private Ltd Company (CIC) | Earned income, private | 1 Full Time |
| Link: | https://www.thehubnewry.com | | |

Space Features :

- Workspace
- Rented Desks
- Meeting Rooms

FARSET LABS

Based in Belfast, Farset Labs is a community funded and volunteer operated charity, opened in 2012 as a place for creativity and technological tinkering. Membership modelled workspace in central Belfast.

Day rates are £5, with membership ranging from £15 - £35 per month

| Hub type: | Structure: | Finance: | Staff: |
|------------------|--|--|-----------------------|
| Co-working Space | Limited Company Member Managed Charity | Earned income, membership Subsidised rent by landlord | 4 Volunteer Directors |
| Link: | www.farsetlabs.org | | |

Space Features

- Workspace
- Meeting Rooms
- Event Space
- CNC Machines
- Tools / Workbench
- Rented Desks

Best Practice

FuseBox

This is a studio and collaboration space in central Brighton, which provides space and assistance to start-ups from the creative, digital and tech sector. The venue has also hosted a range of events from workshops to hackathons.

| Hub type: | Structure: | Finance: | Staff: |
|-----------|---|--|---|
| Studio | The Fusebox is powered by Wired Sussex, Ltd Company by Guarantee. | A mix of public funding, private investment and earned income. | 1 hub coordinator (with up to 10 staff or freelancers project dependent). |
| Link: | fuseboxbtn.tumblr.com | | |

Impact Hub Birmingham

This Hub belongs to the global network of Impact Hubs; part innovation lab, part business incubator and part community centre, they offer members a unique ecosystem of resources, inspiration, and collaboration opportunities to grow impact. The team galvanised a community and crowdfunded the hub into existence.

| Hub type: | Structure: | Finance: | Staff: |
|-------------|---|--|---|
| Alternative | Community Interest Company | Crowd funded, team investment and crowdfunder matched. | 3 full time staff members and 40 volunteers |
| Link: | birmingham.impacthub.net | | |

Site Gallery, Sheffield

A modestly sized contemporary art gallery in Sheffield's well established Cultural Industries Quarter. It runs on a core staff of four and has a turnover of £450,000 a year. In 2014/15, just short of 30,000 people visited Site for gallery exhibitions, residencies and touring activity.

| Hub type: | Structure: | Finance: | Staff: |
|-------------|--|---|--|
| Alternative | Site Gallery exhibits and commissions moving image, new media, and performance based contemporary art. | Volunteers are also a key part of the Site programme, supporting front of house and other activities. | It runs on a core staff of four and has a turnover of £450,000 a year. |
| Link: | https://www.sitegallery.org | | |

Birmingham Open Media, Birmingham

A modestly sized contemporary art gallery in Sheffield's well established Cultural Industries Quarter. It runs on a core staff of four and has a turnover of £450,000 a year. In 2014/15, just short of 30,000 people visited Site for gallery exhibitions, residencies and touring activity.

| Hub type: | Structure: | Finance: | Staff: |
|---------------------------|---|--|--------|
| Art & Technology Combined | A new model of practice at the intersection of art, technology and science with measurable social impact. BOM consists of a central gallery space, a communal area, co-working desks, a darkroom and smaller meeting rooms. | Between BOM's activities and turnover of a highly successful restaurant, the economic output of the building is £800,000 a year. | N/A |
| Link: | https://www.bom.org.uk | | |

The Watershed's Pervasive Media Studio, Bristol

Hosts a community of artists, creative companies, technologists and academics exploring experience design and creative technology.

| Hub type: | Structure: | Finance: | Staff: |
|-----------|--|---|---|
| Centre | Watershed Arts Trust: Charity, iShed Community Interest Company (CIC), Watershed Trading: Ltd Company by Shares (wholly owned by Watershed Arts Trust). | Public funding, private investment and earned income. | They currently employ 136 people across Watershed, which includes full and part time staff. |
| Link: | watershed.co.uk/pmstudio | | |

Cardiff Start

A group of entrepreneurs, startup founders, creatives, students, and investors who believe that Cardiff is a brilliant place to work and live. They are passionate about sharing knowledge, advice and help.

| Hub type: | Structure: | Finance: | Staff: |
|-----------|--|---|--|
| Network | Limited company, registered as a Community Interest Company (CIC). | A mix of higher education, public funding and private investment. | All voluntary – 1 part time hub manager, 5 on the Board. |
| Link: | cardiffstart.com | | |

PART 2 - CONNECTING THE NETWORK

Interviews

KEY INTERVIEW FINDINGS

Key interview findings from interviews with the main regional stakeholders

- Belfast Region City Deal
- Invest NI
- NI Screen
- NMDDC - Tourism
- Tourism NI
- Newry and Mourne Co-operative and Enterprise Agency (NMCEA) / ThinkLab
- SRC
- SERC
- UU / Future Screens NI

| Finding | Supporting Interviews |
|--|--|
| Space must be a unique proposition, based on what is happening within the BRCD and the local area. | BRCD Team Invest NI |
| Preference is for a dedicated space, especially in light of funding under the BRCD | BRCD Team |
| Should complement other hubs and programmes in the area with a view to developing partnerships | NMCEA / ThinkLab SRC |
| Developing programmes and courses aimed at the community to attract engagement and footfall into hub. | NMCEA / ThinkLab |
| Upskilling to help develop the local area and businesses and digital transformation for community, arts and service industries | Invest NI NMDDC - Tourism Tourism NI NMCEA / ThinkLab SRC SERC UU / Future Screens NI |
| Faster and effective ability to create digital assets including access to facilities and equipment to enable this | NMDDC - Tourism Tourism NI SRC SERC UU / Future Screens NI |
| Access to high end AV equipment | Invest NI NMCEA / ThinkLab |
| Ability to create broadcast quality content for dissemination online | NMDDC - Tourism Tourism NI SRC |

| Finding | Supporting Interviews |
|---|---|
| Encouraging new businesses to develop in NMDDC area | Invest NI NI Screen SERC |
| Giving NI businesses the opportunities to promote outside of NI | Invest NI |
| Promoting culture and tourism both within NI and wider afield | Invest NI NMDDC - Tourism Tourism NI |
| Reducing barrier for experimenting with technology and showcasing technology options within the area | Invest NI NMDDC - Tourism SRC SERC |
| Developing collaborative R&D Projects | Tourism NI |
| Developing future talent within the creative and gaming sectors in possible partnership with SRC and SERC (courses and trainee / apprenticeship programmes) | NI Screen Tourism NI SRC SERC UU / Future Screens NI |
| Developing future talent in partnership with Dundalk Institute of Technology (courses and trainee / apprenticeship programmes) | NI Screen NMCEA / ThinkLab SRC |
| Skills Intervention Programmes - Digital | SERC |
| Ability to incubate companies in the area | NI Screen Tourism NI |
| Option to explore technical expertise provision by SRC and SERC through the connected fund | SRC SERC |
| Linking to the Smart Media Innovation Lab (SMIL) | NI Screen SRC SERC UU / Future Screens NI |
| Working in partnership with SMIL, smaller work packages can be channelled down to the hub | UU / Future Screens NI |
| Working with commercial TV and Film partners to create content and digital assets | UU / Future Screens NI |
| SMIL will develop innovation challenges with SBRI style funding made available which RIN can avail of | UU / Future Screens NI |
| SRC have 2 available spaces where the hub could be hosted; the old Sports Centre and Greenshoots | SRC |
| SERC has The Space - bringing together engineering and performing creative arts which can complement what the Hub will provide | SERC |
| Opportunities to share / combine equipment procurement with SRC existing projects | NMCEA / ThinkLab SRC |
| Opportunity to complement and partner with NMCEA / ThinkLab | NMCEA / ThinkLab |

| Finding | Supporting Interviews |
|--|--|
| Hub could partner with both SRC and SERC to support the hub in multiple areas | SRC SERC |
| SERC referral of companies / clients on to the Hub for equipment / facilities not available at SERC and acting as facilitator identifying gaps | SERC |
| Hub could avail of capital funds | Invest NI NMDDC - Tourism Tourism NI SERC |
| Hub could be fully subsidised (centralised sources e.g. Arts Council, Department for Communities, Department for the Economy, Invest NI / Innovation Vouchers) | NI Screen NMDDC - Tourism Tourism NI SRC SERC UU / Future Screens NI |
| Hub could be fully subsidised (council or other public money from a non-centralised source) | Invest NI SRC UU / Future Screens NI |
| Hub can be partially funded by memberships | Invest NI NMCEA / ThinkLab |
| Hub can be partially funded by private enterprises (indigenous companies and FDIs) | NMDDC - Tourism NMCEA / ThinkLab UU / Future Screens NI |
| Hub can be partially funded by combination of private enterprise, membership models and public funding | Invest NI NMCEA / ThinkLab SRC |

- Project must ensure uniqueness of the space
- Ideally a dedicated space
- Project OBC Submissions for individual projects will be from January 2021
- Consider Capital Costs / Resourcing Costs
- Level of project expenditure identified should be outside the scope Infrastructure Enabling Fund in order to be eligible

Discussion with Stephen Wallace (City Deal Programme Manager, Belfast City Council) and Michael Forster (NMDDC).

Some discussion took place around where the hub could be placed with a query as to whether it could be in an SRC building.

Stephen confirmed most likely January 2021 at earliest for project OBC.

- Space must be unique proposition for people to travel to
- Funding similar hub projects at 100% level
- Must develop the NMDDC ecosystem
- Support to target GB market
- Creating international promotional materials
- Supporting SMEs to produce marketing content
- Upskilling as main focus of the hub
- Supporting the businesses to export successfully
- Growing the deep tech sector ideal, however, more realistic to partner with hubs already working on this strategy
- Conference materials
- Region attractiveness for FDS (Promotion of the region for tourism / business)
- Promoting the cultural value within the area
- Reducing the barrier for people experimenting with the technology
- Showcasing technology options within the area

Interviewees: Gary Campbell (Digital Sector Lead) and Gary McCausland (Client Executive, Newry)

Background

Overall, the area is strong in respect of artisan goods, arts and culture as well as manufacturing and engineering.

Invest NI's role in Newry is to work with the Council and other stakeholders in a strategic advisory capacity in two main ways:-

- Help startups and established businesses grow in the region
- How to make the region attractive for Foreign Direct Investment (FDI)

This feeds into community plans, community economic development plans and cultural plans. Whilst the Council's role is helping build up infrastructure, the value proposition, and the capacity within the region, Invest NI helps companies export out of the region and is focused on regional and sub-regional strategy.

INI Involvement / Support

In NI the startup ecosystem is very centralised, particularly in Belfast, however there is a longer term view in encouraging talent retention and to address skills shortages in the area, e.g. building a sociocultural / business ecosystem model.

Invest NI has previously been involved with programme investments in a number of incubation spaces including Innovation Factory as well as large-scale EU funded investments including the Industrial Inspiration and Innovation Campus (i4C) with Ballymena Council as part of the BRCD which will link into the larger-scale innovation pillar of the Advanced Manufacturing Innovation Centre (AMIC) identifying organisations specialising in areas and then deeper on the sub-regional level what sort of services will be provided.

INI envisages a similar involvement with the Regional Innovation Hubs (RIN) e.g. the Screen Media Innovation Lab (SMIL) being the region-wide centre of excellence

managing large projects and more focused / complementary work is funnelled down into the RIN.

The question of how those from outside the area can access the Newry RIN should be considered.

Overall, it feeds into the broad ambition of the goals of the BRCD including creating 20,000 new jobs and increasing GVA to £470-£480 million per annum through:-

- Productivity improvements
- Increasing exports
- Creating better, higher value jobs

Use Cases

As a result of COVID-19 many businesses have now been pushed online even those for whom attendances at trade shows were their main source of sales such as MJM Marine and other engineering firms.

One innovative use of technology for these companies has been in using AR/VR sets in showcasing large machinery that is unwieldy and expensive to bring to trade shows. The enquirer at the trade stand is handed an AR / VR set such as a HoloLens and they are able to view the machinery they are enquiring about.

Wrightbus has shown keen interest in this concept to show the:-

- lay out of their buses with different configurations and settings
- where seats could be arranged
- where USB ports can be added
- how windows could be structured
- where the advertising boards can be placed

Not only has interaction with customers changed but also with suppliers and distributors. Ability to provide visual content can support companies in the sales / marketing endeavours and remote maintenance, upgrades, and upkeep - all reducing cost and driving up productivity.

Tourism NI Innovation Project: giving tourists the ability to access content at a tourism site, using a 4G or 5G connection which will project a story and information within a multilingual facility - an immersive experience with in-depth analysis.

There are opportunities within the Newry area to:-

1. Transition “traditional” industries online and give them the opportunity to upskill / put in place a digital transformation plan.
2. Cultural industries that tie into the tourism sector to create content for online and on sites.

The above should be developed with a focus on a global reach, to bring more opportunities into Newry beyond not just within Northern Ireland, but also from over the border in the Republic of Ireland, Britain, and also overseas.

Skills and Employment

Due to resource constraints many companies, particularly SMEs, are choosing to up-skill over bringing in new talent as often the work pipeline is not there to justify bringing on board a new employee.

Also, COVID has seen an increase in uptake of online distance learning platforms - are companies content to allow employees to be released for a certain amount of time each week? How can people up-skill while retaining current employment and ensuring it is to the benefit of the business?

Challenges

- Tangible cost benefit - difficult in some instances to quantify the benefits that digital / immersive content / digital transformation can provide re: efficiency, cost savings, etc.
- Skills - lack of skills or an understanding of a reasonable level of digital transformation that is suitable for their business including the variety of choice that they have.
- Equipment - some business will not have the necessary equipment in-house nor do they have budget or need for high performance computational power, green screen capability, pre- and post-production studio suites.
- Mindset - changing mindsets where businesses not only look over the border into Ireland but also across the water to England, Wales and Scotland as well as globally.
- Messaging - many businesses are unaware of the opportunities in digital transformation and the opportunities that exist. There needs to be a larger piece in messaging and engagement with the companies in making sure they are aware of these opportunities.

Businesses should consider the following:-

- Is this a skill set you actually want to develop in-house?
- Do you see this as core and central to your business?
- Or would a subcontract consultancy model suit better?

Potential Partners / Other Stakeholders

- Southern Regional College
- South Eastern Regional College
- Screen Media Innovation Lab
- Digital Catapult - Immersive Labs
- NI Screen (including Pixel Labs)
- Tourism NI
- BBC
- Department for the Economy

Funding

- Council Funding
- BRCD
- Membership Models
- Capital Investment
- Other funding that allows for creation of funding competitions within area

NMDDC - Andy Patterson (Assistant Director Tourism, Culture and Events)

- Business support required for basic digital skills for low digital skills / community arts and service industry who do not have experience producing Digital Content
- Access to equipment / skills is barrier for producing content / transforming existing content
- Arts groups have content that needs to be transformed, skills, capability and equipment gap to help transform the content
- Attracting tourism into the NMDDC region as a goal
- Currently taking significant effort for council to create digital assets required as part of national tourism strategy
 - Funding and budgets currently coming from council itself rather than external agencies
- Do not currently have access to facilities to rapidly produce new content / attractions
- COVID : St Patricks Day festival now online
 - Potential Projects : Museum interactive exploration / exhibitions

Background:

- Tourism/Culture Events
- Tourism Marketing
- Destination Development
- 4 - 5 Arts Centres across district
- 2 Museums

Programmes

Focus on programmes with a good crossover between tourism, culture, arts and heritage with a predominant drive in providing content to grow the value of tourism within the district.

- Annual and quarterly arts programme
- Performances within art centres
- Museum exhibitions
- New Arts, Culture and Heritage Strategy looking at outreach to community focusing on how to make best use of what the area has to offer as a destination (e.g. historical monuments and buildings)

Need Identified

- Film/photo production facilities
- Post-production facilities
- Stage
- Editing Suite
- Sound Suite
- Trained Personnel
- Technical Training

Background: 2020 St Patrick's Day parade was cancelled due to COVID-19. This would have involved over 40 musicians and artists from Ireland and England. Instead, content was recorded over the summer, which is presently in post-production with the final content being pushed out as two or three broadcasts. This main focus is to drive content to audiences and make them think about the NMDDC area as a destination.

There were difficulties due to availability of both the individuals to be filmed as well as the crew carrying out the filming and post production. Having a hub available with in-house facilities within the council's remit would expedite and increase production of online content as well as provide training for the local creative community in using digital creative technology.

Opportunity that a digital content hub can provide include:-

- Feeding demand within culture, arts and heritage sector for ability to create online digital content, especially in post-COVID times, e.g. museum exhibitions online, theatre shows, etc.
- Developing content for better engagement and promotion of the region with a focus on increasing visitor numbers.
- Providing an opportunity for community arts groups to film/photograph their projects/products so they can create or increase their online visibility.
- Skills Training Programmes and Mentoring Support within community arts groups which traditionally has a low uptake in respect of digital content creation.

Funding

Many community arts groups and organisations within region are primarily funded by council which may not be sustainable in the long-term. Very little comes from Arts Council. DCMS tend to favour large city/national scale arts and culture programmes.

There is potential for local home-grown and FDI private sector businesses such as First Derivatives and STATSports to fund/sponsor the creative sector.

Community groups should be encouraged to apply for funding from centralised sources such as Arts Council, Department for Communities and others. To date there has been little appetite for it.

Tourism NI

- Producing high quality fast content to promote the region
- Strategy to support the arts / crafts / creative sectors to digitise content
- Broadcasting performances
- Supporting the events sector
- Smart sensors / immersive tech funding - using IoT devices to track and understand movement in area
- Space for collaborative R&D projects
- Providing equipment for filming the area / region / promoting the area
- Significant business funding opportunities in near term (Supporting COVID recovery)
- Discover NI Content
- Destination Marketing / Management

Background:

- Responsible for delivering organisation change
- Strategic digital leadership to tourism industry

Tourism NI run Discover Northern Ireland website which has been active about 3 years. They are piloting with Newry and Derry/Strabane councils access to their own portal for a "destination site" where they can showcase their area. They will share the same customer journeys, backend, CRM and promotional activity as the main Discover NI site. This is run off an off-the-shelf SaaS platform.

Other projects involving NMDDC include using IoT devices to track citizen movements within popular public spaces like the Mourne routes and car parks surrounding Newcastle.

Needs Identified

- Ability to create content for online, digital devices in visitor centres and locations
- Space to incubate companies focusing on local region rather than national
- Grassroots tourism industry training on digital skills
- Skills development for undergraduate/further education students (e.g. students mentoring and assisting local business owners seeking help with their digital skills and students will develop "soft/people skills")
- Content from local creatives (film, animation, illustrations)

Tourism NI have expressed an interest in being a user of the space to carry out training or outreach programmes.

Skills Development

Tourism NI initiated the Tourism Enterprise Development Programme with a framework rolled out throughout Northern Ireland via different providers but same content. Currently on second year of five. Participants are taken through a full journey including Content Creation through to developing propositions.

Funding

Tourism NI provide multi million pound capital funding for programmes such as web development programmes where recipients can receive £40,000 to have a website designed and set up for them.

Tourism NI are about to finalise a post-COVID tourism recovery plan surrounding:-

- Consumer confidence
- Consumer demand
- Business survival
- Safeguarding connectivity
- Capability of businesses
- Competitiveness of region
- Creating policy environment

It will also look at:-

- What do visitors want?
- How will Tourism NI develop to wants?
- Changing operating and business plans.
- How to respond to a new world post-COVID
- Funding / Capital Funds to allow for changes in systems including innovation funds and competitiveness.

Gap for skills training for tourism and hospitality workers as they tend to be lowest skilled within the workforce.

Sources of Funding:-

- Department for Economy
- Invest NI

Previous SBRIs have seen Tourism NI support companies who then go on to subsequently fund next round via Kickstarter.

Anticipates funding will diminish in light of recent health crisis, there are possibilities here for regional strategy teams to plug the gaps in skills and funding.

- Can discuss providing support resource and training to help run the space
- Can explore co-ordinated equipment purchasing alongside Sports Centre project
- Exploring equipment management solutions as part of existing £14m Sports Centre redevelopment project
- Has available spaces including (Sports Centre / Greenshoots)
- Sports Centre - At development stage
- Greenshoots - Space available in short term
- Providing business support services
- Developing Education focused Digital Content Production spaces
- Able to provide support / interested in discussing partnership / joint proposal options

Interviewee: Kieran Swail (Expert in Innovation & Technology)

Background

SRC has a number of hubs including:-

- The Hub (West Campus) - runs gaming courses, small meetings and facilitations. Has a computer suite used for teaching gaming software and a video editing room.
- Banbridge Campus - game design course and a digital hub specialising in digital technologies.
- Armagh Campus - new state of the art site with high end recording equipment.

Curriculum includes courses in Game Design, IT, multimedia, computing.

Potential Users / Use Cases

- Businesses - upskilling, particularly with the help of funds such as Innovation Vouchers allowing them to develop and undertake digital transformation.
- Tourism Sector - creation of content driving traffic and footfall into area
- Arts and Culture Sector - digitising live and pre-recorded performances
- Developing and sharing useful business-focused content for business development teams. For example, SRC and Belfast Met ran webinars on AR, VR, podcasting, cybersecurity, lean implementation, engineering and CAD software.

There is potential in providing high end equipment which can be hired out at a lower than commercial rate to individuals or businesses who have achieved the correct level of accreditation or training to use this equipment. This will be supported by up-skilling courses that provides them with the requisite training to be a competent user of this equipment.

Apprenticeships (including higher level) could be considered e.g. digital marketing, especially in light of Northern Ireland's rising status as a focal point for large-scale

TV and film productions. There needs to be the ability to foster new talent to add to the resource pipeline.

It is considered that unless businesses using the hub are contributing an amount to the courses/use of the space that it would not be valued.

Funding

- Innovation Vouchers - this feeds into up-skilling and helping develop products
- InnovateUs Scheme
- InterTrade Ireland
- Department for the Economy (Skills Focus Programme)
- EU Regional Development Fund

Similar hubs run on a subsidised model - it would not be unusual that a similar model could be adopted for this proposed hub.

Other Stakeholders

- Jonny McCullagh - Newry Digital
 - ➔ Voluntary facilitation, upskilling and community, advocate of open source technologies
- Neil Bradley - Newry2020
- Cathal McDonnell - Business Mentor, Artist and Technologist (VR / AR)
- Community contact e.g. Catriona Regan
- Newry Arts and other Community Art Organisations

Location

Presently there is a building by SRC's East Campus at the site of the old sports centre that is presently empty and this area would be of benefit to a hub such as the one proposed by Newry. It has good access to a number of facilities (including car parking) as being next door to an SRC campus.

Greenshoots campus is also similarly well placed in the perspective of good access to facilities and car parking.

Consideration should be given with regards access to services such as a fast fibre internet as at present anything beyond a certain distance outside of Newry will suffer from a poor internet connection which will not be conducive to the work being attempted at the proposed hub.

Cross-Border Collaboration

Due to its placement, Newry is in a good position for cross-border collaborations and particularly with the Dundalk Institute of Technology. See SRC's CoCoon Programme - a €40k programme funded by InterTrade Ireland taking a small group of students through the steps of innovation and ideation and three would pitch for a spot on a 6 week innovation support programme where they can take their idea forward.

Interviewee: Brian Doran (Chief Executive)

Background

SRC has a strong presence in the innovation spaces and has developed a number of hubs including:-

- The Hub, Newry
- Greenshoots
- Banbridge - heavier focus on creative industries
- Armagh - new state of the art site
- Craigavon - new innovation hub currently being built

Overall, some £15m has been invested in the new innovation centres.

SRC are also in the process of acquiring the old Sports Centre in Newry and turning it into an innovation hub. There is a drive towards a project-based curriculum with a focus on innovation and supporting student entrepreneurs/innovators. It is hoped that demolition would start March 2021 with the building finally opening in 2023.

SRC also supports local businesses and provides facilities and services including upskilling pieces.

Creative sectors are also well supported by SRC who have multiple sites with theatre space, green screen technology, VR/AR equipment, video cameras, etc.

Challenges

There needs to be oversight to ensure that the new proposed hub in Newry is not in direct competition or duplicating a site that is already in existence. Instead it should focus on complementing other hubs and centres.

SRC Involvement

There is scope for the proposed hub to be based within one of SRC's centres such as Greenshoots or even the new building replacing the old sports centre. It would benefit from easier access with ample car parking and interior space.

There is a beneficial relationship that can be established between the council, SRC and SERC where each partner brings a unique focus to the table.

There is also potential to bring on board programmes for local innovators, the tourism sector and arts and culture, as well as apprenticeship schemes that benefits the local economy.

Potential Users / Use Cases

- Businesses - upskilling, particularly with the help of funds such as Innovation Vouchers allowing them to develop and undertake digital transformation.
- Tourism Sector - creation of content driving traffic and footfall into area
- Arts and Culture Sector - digitising live and pre-recorded performances

There is potential in providing high end equipment which can be hired out at a lower than commercial rate to individuals or businesses who have achieved the correct level of accreditation or training to use this equipment. This will be supported by upskilling courses that provides them with the requisite training to be a competent user of this equipment.

It is considered that unless businesses using the hub are contributing an amount to the courses/use of the space that it would not be valued.

There is less of a focus on the community sector for the proposed hub as other hubs have already covered this aspect and duplication of efforts should be avoided.

Funding

- Innovation Vouchers
- InnovateUs Scheme
- Department of Economy (Skills Focus Programme)

If the council partners with SRC and/or SERC cross-purchasing of equipment should be considered that will cut costs and allow equipment to be shared. Training costs and resources can also be shared giving the opportunity to provide upskilling at a lower cost.

Interviewees: Emma Finney / Elaine Flynn / Ken Webb

- Providing Upskilling within the region to 150 companies per year
- 5 x Digital Transformation Consultants
- Could explore providing support for equipment alongside SRC using the Connected Fund
- Also developing a signposting service / hub in Lisburn
- Business Mentoring / Workshops
- Innovation Vouchers
- Carrying out Digital Skills Training
- Have developed the SPACE centre in Bangor, and have existing reports and best practice available surrounding the use of the space
- Willing to work with SRC in partnership to support the space

Background

SERC has been involved in the InnovateUs programme and are involved in about 150 per year. With an increased funding allocation SERC can increase this, despite this however, SERC has the highest allocation in the sector compared to other FE Colleges. After businesses have gone through this programme then SERC will refer them on to other relevant programmes that will allow them to be taken to the next level because many SMEs do not have the collateral to invest in training and upskilling.

SERC also has digital transformation consultants who become involved in delivering suitable programmes for business as well as engagement with businesses around E-SERC.

No geographical restriction is imposed on businesses who wish to avail of funding and assistance via SERC.

Support is given to companies under a number of schemes including business mentoring, prototyping, training, etc.

SERC Involvement

If a client requires specific equipment that SERC or SRC do not have but the proposed hub does then they can refer the client on.

SERC also sits on the focus group of the Digital Task and Finish Group, chaired by Ruth Ray. This group is part of the Belfast Region City Deal with Belfast Met taking the lead. This Group has undertaken work to understand what businesses are lacking within the digital sphere and how this can be addressed.

Skills Intervention Programme - SERC presently has a number of proposals entered for the latest call for this programme managed by the Department for Economy. This Programme sits within four themes:-

- Life and Health Sciences
- Health and Care
- Digital
- Green Tech

All 6 FE colleges submitted two collaborative proposals for graduate development programmes in the areas of leadership and management, and digital. If successful, it is envisaged that each of the colleges will run their own Graduate Academy under the Skills Intervention Programme.

Collaborating on AR / VR projects - they run The Space hub which brings together engineering and performing creative arts. Funding is from the Department for Economy's capital fund. The Space contains:-

- Theatre Space
- Lighting
- Sound Studio
- Theatrical Make Up Space
- AR / VR capabilities including sensors which track movement

SERC saw particular success in a welding academy in 2019 with an Assured Skills Academy which was oversubscribed. A similar academy could be developed which makes use of the equipment in the proposed Newry hub.

The college has supported student companies as well nurtured by the Enterprise and Entrepreneurship Department and taking those companies on that journey, giving them the support and access to facilities that they would not necessarily have access to.

Further, SERC can act as facilitator, identifying gaps and demands from businesses and matching these with other businesses who can plug this gap.

Funding

Where SERC is working with a company that has not secured funding for their involvement the college would charge a commercial fee of £70 per hour for their services.

Larger pots of funding can be sought with collaborative projects working with other hubs and colleges.

- Connected Funding - potential for collaborative project between SRC and SERC using the hub, creating an innovation showcase
- InnovateUs Programme
- Innovation Vouchers - Invest NI
- Innovation Vouchers - Enterprise Ireland
- Skills Intervention Programme
- Steps to Success - replaced by Employability NI

- Apprenticeships - businesses now have an incentive of £3,700 for employers who retain or take on an apprentice

Outputs

- Number of companies using the hub
- Job Creation
- Job Retention
- New companies developed
- Reduction of unemployment

Other Partners

- Southern Regional College / Other FE Colleges
- Other BRCD stakeholders - Ruth Ray

Interviewee: Professor Frank Lyons (Associate Dean (Research and Impact))

- SMIL (Screen Media Innovation Lab) - High end broadcast / recording, 360 LED Screens used for latest high end productions (Disney - Mandalorian)
- Project has matched funding from private investment / commercial partner contributions.
- Creative Hubs within the region could work in partnership with the SMIL hub, larger projects sent to SMIL, smaller production projects sent to relevant hubs
- Regional Innovation Challenges - SBRI style funding will be made available to answer innovation challenges from the main SMIL hub
- Large projects will be created through the hub, where content creators will be needed from the other areas to feed into these projects / work packages. Working with FE sector and industry. (CGI Assets / Digital Content production)
- Working with commercial partners including (Netflix / Disney)

Background

Is leading on the £40 million Screen Media Innovation Lab [SMIL] project within the digital pillar of the BRCD. He is Co-Director of Future Screens NI, a £13 million industrial strategy fund project involving the two universities and run with industry partners. Key areas of focus are: animation, games, immersive, film and TV.

SMIL is building on the Future Screens platform brought together under the new concept of virtual production which brings the animators and game engine developers into the space. This technology is widely used in film and even more so in the live broadcast space.

Screen Media Innovation Lab (SMIL)

This has been developed over three years and is now focused around virtual production as the key core activity. The proposal is for a 5.5 square mile integrated facility that will house a virtual production stage, IP broadcast stage, motion-capture, photogrammetry, 3D scanning and high level scanning capabilities. A bespoke R&D facility will also be part of the overall offering.

Current specification surrounds a 13,000 square foot soundstage together with a state of the art LED screen array similar to the same LED screen array used to create the scenery and backdrops that the Mandalorian was shot in.

Current equipment cost estimates are around £14 million. The LED screen itself could be as much as £7 or £8 million.

The equipment considered is of a very wide high end range including:

- Screens
- Camera tracking
- Lighting
- Motion capture (suits and cameras)
- Broadcast space (lighting rigs, camera rigs)
- High end cameras
- Software platform, e.g. Unity and Unreal.

Virtual production is mostly focused on the use of Unreal Engine to develop the virtual worlds. Unity is very strong in the game development piece. SMIL is in partnership with EPIC who developed Unreal Engine.

Partners include both universities plus a range of large-scale, well-known, industry partners (Netflix, Disney, BBC, EPIC - Unreal Engine, etc).

A partnership has been struck with Belfast Harbour and planning permission has been granted for 6 new stages to be built on the North foreshore on the outskirts of Belfast. This will feed into the regional TV and Film ecosystem.

SMIL relies heavily on commercial throughput in order to be sustainable. High end film and TV productions drive the problems and the universities bring on board their expertise in providing R&D solutions to these problems.

A highly specified production space can charge significant fees and this contributes to the sustainability of the project.

It has been identified that a combined commercial and R&D approach would work best.

In terms of steering the direction of SMIL, it has benefitted from an ecosystem that has already been in place and Future Screens Northern Ireland provided the initial skeleton on which to build upon.

4 or 5 large scale engagement events were created to bring stakeholders and other interested parties together. Overall, when run in a systematic way clear pictures can be gleaned of priorities for local companies. Once it scaled up and discussions with global players started, relationships were forged and an understanding of key industry input into the facilities needed and specifications became clearer.

Governance is highly complex due to the involvement of both universities, Northern Ireland Screen, and representation from local industry players, the tech community, and the creative community. The project board has about 15 people who meet every six weeks or so to look through developments and advise. It's a huge area of potential risk for both Universities as representation includes estates, financing, etc. The innovation pillar board has 2 University Vice Chancellors, Belfast City Council, Belfast Harbour.

Proposed Newry Hub

Frank has met with the Newry team a number of times to date surrounding a project under the Belfast Region City Deal.

There can be a strong relationship and alignment brought to bear between SMIL and the proposed Newry hub with innovator networks in the creative technology space feeding into SMIL, particularly around skills development.

Regional colleges have an element of creative technologies provision in their courses and it is imperative that an increase in the resource pipeline is developed to fulfil future jobs that will be created as a result of SMIL and the regional innovators network.

There are similar hubs being considered in other Council areas including North Down and Ards, however Frank is of the belief that as long as the hubs feed into the larger SMIL which will also feed back out creating an ecosystem that this is sustainable in terms of work and talent pipeline.

Future Screens NI regularly have an open call funding for projects and receive submissions regularly from individual creators, micro enterprises and SMEs applying for £20K seed fund pots to fund R&D.

One example usage of this seed funding is the ability for a company to use a motion-capture studio hired out at £15k or £10K a day.

It is expected that parts of the SMIL facility will be available for hire with possible special rates for local companies.

SMIL can feed back into the ecosystem and into the regional hubs, particularly in respect of the expertise of the universities and industry who are working in the facility who can feed back in a variety of ways whether that be providing input into skills development courses, providing pathways onto Masters courses or PhD courses, potentially going out and doing workshops.

Potential Partners

- Universities
- EPIC
- BBC
- Digital Catapult

Skills

Virtual production will be the core focus in that space and it is also the nexus of animation, games, immersive, film and TV. Those are areas where key strengths are in the universities in the course provision but also in the region in terms of the industry.

Ben Grossman, an Oscar winning VFX specialist who is one of SMIL's advisors believes that teaching people to use skills to allow them to capture footage from locations around Northern Ireland and then actually bring them into a studio space with photogrammetry techniques creating an environment produced in Unreal Engine, projected onto the LED screens and it can be used as an environmental backdrop.

Key industry players have identified that these skills are absolutely critical.

There needs to be consideration that the talent pipeline is of high quality and quadrupling the numbers of people going through FE and HE courses. The region could have the best equipment in the world but it would be for very little gain if the talent pipeline could not produce high quality content.

Both universities also have strong links with the FE colleges developing a pathway onto the degree course - there are alignment pathways already developed. However, with new technologies like virtual production there needs to be inclusion

of virtual production specific content into the degree programmes. Ultimately it's about making sure that trickles down to FE colleges. Belfast Met already cover this aspect in some of their courses and other FE colleges are seeking to align theirs.

Funding

- Engagement of commercial partners - SMIL has Dell, BT, Halon, the Third Floor, EPIC partnering.
- Department for the Economy
- Northern Ireland Screen
- Future Screens NI
- Digital Catapult

Larger scale projects typically require privately matched funding.

Questions

- What equipment - will be purchased, leased or both?
- Is it hardware or software or both?
- How would the hub line up with the main focus of the SMIL?
- Will training be provided?
- If training is to be provided, which specific areas should be focused on?
- How will the hub feed into the increasing need for digital content and virtual productions?
- How will the hub be sustainable taking into consideration a refresh cycle of 3-4 years for equipment.

Interviewee: Colm Shannon (Chief Executive Officer)

- Support the business sector specifically
- Basic Digital Skills Development provision
- Community support is covered through other spaces
- Digital skill development is now considered highest priority
- Support upskilling with higher end equipment
- Faster processing
- Broadcast quality
- Complimenting the existing hubs within the regions
- Out of hours access is a demand
- Cross border project considerations / partners (DIT)

Background

Currently has around 200 members encompassing a broad range of businesses from High Street shops to manufacturing.

Need Identified

- Content Creation: ability for businesses to create blogs and sales videos
- Digital upskilling / training

Notes

- Dr Conor Patterson of Newry and Mourne Enterprise Agency has set up an innovation hub with a community focus. This opened around March 2020. Rather than compete the NMDDC hub should complement by focusing on the needs of businesses rather than community groups.
- Partnerships and other organisations that should be involved include SRC and schools. There is a gap here that the hub at NMEA does not cover that the Council's hub can.
- Newry Chamber of Commerce has previously used hotels and the arts centre to hold events (including smaller events such as training) and would be very interested in a space where there is room for 30-40 people and priced competitively.

Interviewee: Conor Patterson (Chief Executive)

Background:

The Newry and Mourne Co-operative and Enterprise Agency (NMEA) developed ThinkLab, a hub facility with:-

- Meeting space
- Cameras
- Lighting
- Green screen
- Editing suite

All to broadcast quality.

This hub focuses its services upon community groups, NGOs and social enterprises with a strong ecosystem comprising businesses like SlackPress Studios and Learn Spark to collaboratively work via the hub on a number of projects. A gap was identified where community groups and social enterprises would not have access to equipment and facilities that normally businesses would have easier access to such as those offered at the Science Park in Belfast or the Dundalk Institute of Technology.

Funding has been sought since 2016 for this ThinkLab with backing from the Department of Communities.

One of the key drivers for community groups to use this space is an understanding that visualisation is the key to push forward an issue. It provides context and provides impetus for those in a leadership position to consider solutions. For example, using it to raise an issue with local politicians. Having a visual / video testimonial from those affected will focus minds, especially with the knowledge that this is also pushed out onto social media to highlight the issue that requires addressing.

Business Use Case Example

NMEA had plans to take 21 businesses from the local area out to the Sial Food Fair in Paris as part of the Innovate Accelerate Europe programme, the concept of which ran last year where a number of businesses were taken out to Berlin in December 2019 where they met German entrepreneurs. Siad Food Fair is one of the biggest food fairs in the world and would have allowed businesses who did not have previous export experience to understand the benefits and challenges they face.

This is now no longer proceeding due to COVID and the budget has been repurposed and instead of travel and accommodation to the event, businesses will get a video made professionally for them which will be uploaded with the help of a social media professional and a mentor.

Sustainability / Funding

With reference to other similar hubs like Greenshoots (now closed), human resources and the ability to fund the cost will be key.

The following needs to be considered:-

- who trains staff
- who insures the space and staff
- who runs it - from high level strategic oversight to daily operations (Council or SRC or someone from private sector?)
- who populates it
- what facilities and equipment do users want
- when do they want it
- what staff is going to look after users, manage the equipment and booking system
- what is the refresh / obsolescence cycle on the equipment
- what times can users access the space (ThinkLab has seen demand for access at weekends and evenings)

Membership fee could be considered - daily, weekly, annually. Keeping the fee modest can keep it competitive and provide value for money.

It is expected and understood that a level of subsidy will be involved to complement any membership fees and mutually beneficial partnerships with FE colleges and other stakeholders.

There is interest in access to high quality equipment such as a full bespoke green screen video rendering system with a cost of between £60k to £80k for broadcast quality, live rendering of green screen visuals as is seen on national networks such as BBC and Channel 4.

Partners

Focus on building a collaborative and beneficial ecosystem e.g. bringing on board new SMEs to provide services for another group who will benefit from the output and the SMEs a revenue stream.

- SRC / SERC - collaborating on programmes, courses and bringing in students at the start of their career who can be given opportunities to develop in a role within the hub or to upskill. Can work with the space to develop a working relationship where SRC / SERC can use the space to mutual benefit.
- ThinkLab - to complement each others facilities
- Private sector
- Newry Chamber of Commerce
- Local SMEs - as users and as part of the ecosystem
- Large Companies (i.e. First Derivatives, STATSports, Norbrook, MJM Marine)

Local Challenges

- Brexit - Newry is a border town that sees foot traffic from across the border and interactions with Dundalk regularly. Brexit will impact upon this.
- COVID-19 - this has particularly impacted the local retail economy on which Newry has been reliant on.
- At present Newry has a 2% unemployment rate, below the NI average. How will this be protected? Suggestion: focusing on a multi-sectoral transformation - highlight the assets in the area both for businesses, residents and tourists and seek an international audience. Content creation shared online would be highly beneficial for this.

Programmes

50% of the urban area of the Newry is a neighbourhood renewal area therefore close to the city centre are housing estates with high levels of benefit dependency and income deprivation.

Retail covered some of the job market potential for young people but with COVID it is experiencing significant issues so those people are the first to suffer.

Department for Communities have funded neighbourhood renewal schemes and engaged with the community in the area and this has contributed to a reduction in crime and dissident activity.

Programmes should be developed that will engage with the community and bring a benefit to the disadvantaged.

Interviewee: Jonny McCullagh

- Could identify the need for a well equipped pre / post production space which could be booked / used
- Able to use the equipment within the space
- Would need to be public funded as the cost is the barrier to the Digital Skills development
- Able to host Digital Support events within the space
- Working with schools / FE within the region to encourage the adoption of the space
- Continuous engagement with the business community interested in the space is vital to the adoption down the line
- Cross Border Projects

Background

Has a strong community presence within Newry, is involved in running Coder Dojos as well as a vibrant tech/business meetup group.

He has a keen interest in improving economic development in Newry as someone who is from the area and lives in it with his children are also likely to stay in Newry. As with any parent, he wants a better future for his children.

Although his children, unlike him, are unlikely to end up working in the tech industry, he believes there is still a benefit to be gained by his children from an increasing number of tech companies in the area due to the knock on effects of the ever increasing reach of technology.

Therefore, another goal is to attract tech businesses to Newry. This approach takes many forms from grassroots (Coder Dojos), Newry Digital Meetup, Tech Conferences, etc.

Proposed Newry Hub

- Can see the appeal of having a space where individuals and businesses could upskill.
- Would be keen on a space where a community-minded person can offload their own photography and VR equipment to allow people to make use of it. Jonny would like a space where he can store the Coder Dojo machines without having to bring them in/out of his own home each time.
- Concerned that if it is council-run that it would be subject to opening hours which do not reflect the demand of its user base, e.g. office hours instead of evening/weekends and booking to use the space can be a negative experience.
- Booking time / room within the hub must be made as frictionless as possible for users. Example: booking a room in the arts centre for a meetup and

needing to provide public liability insurance which is not sustainable for a meetup group that does not have funding.

- In terms of staffing, it would be ideal to have staff who are entrenched in the community, who are the community and they make it what it is - people who can engage, excite and enthuse users.
- Service must be designed around the users and not the staff.
- Community is key - if the community is not engaged then the hub will not succeed.
- A hackerspace similar to Farset Labs in Belfast could be a magnet for new and emerging tech startups. This feeds into building a better argument for global companies or even indigenous companies to consider basing an office in Newry.

Proposed Partners / Stakeholders

- The local community - without the engagement of the community and active encouragement to use the space, even if it is more focused towards business needs, then the space will not be as likely to succeed.
- Schools and FE Colleges - partnering with the FE Colleges, running courses, giving training and apprenticeship opportunities. Area has a number of good schools who can be engaged.

Similar Examples

- Fab Lab, Belfast - felt like a community space and the staff were helpful and a goldmine of information.
- Reimagine Remake Replay at Newry Museum - Jonny had attended an event by RRR at Newry Museum and had brought his son along. The day itself was engaging and he felt this was a good example of getting the right people to connect with the audience or users.

Funding / Sustainability

Could have local large companies become involved however many do not actively engage in the community. If there is a manner in which to have these companies engage on a community level would be a bonus to the area.

Very often the success of a location can hinge on word of mouth - hosting a diverse range of events can bring more footfall through the door.

This type of space should remain subsidised, treated as an educational piece with an understanding that it may never become commercially viable. The programmes and courses that are run will pay back later on in a similar manner to education. Education does not require commercial backing, therefore these types of innovation hubs should not either as they are teaching valuable additional skills.

Location

There may be resistance to having this hub based in somewhere like the Civic Centre due to a perceived lack of support for the centre but the Council proceeding to build it regardless.

There is an opportunity to pair with Dundalk, especially in light of the frequent traffic between both areas. Spreading the field of vision wider will give rise to diversity in the range of companies and technologies.

Sectoral Analysis for Newry, Mourne & Down District Council Area

An analysis of businesses and organisations within the Newry, Mourne and Down District Council area was conducted using data from the following sources:-

- Companies House
- Investment Data: Crunchbase
- Invest Northern Ireland
- The Charity Commission for Northern Ireland

We have specifically focused on four main industries:-

- Manufacturing
- Construction
- Creative (including dance, theatre, illustrators, painters, digital creators, etc)
- Tourism

Companies House

8,868 Companies listed within the NMDDC area. The breakdown is as follows:-

- Manufacturing - 529 Companies

Main clusters around Newry and major towns but showing fewer centralised nodes than tourism and creative industries.

An even mix of companies of various ages from startups of less than 2 years to established companies, the oldest of which was incorporated 72 years ago in October 1948.

- Construction - 1,345 Companies

As with manufacturing, main clusters around Newry and major towns but showing fewer centralised nodes than tourism and creative industries.

An even mix of companies of various ages from startups of less than 2 years to established companies, the oldest of which was incorporated 76 years ago in September 1944.

- Creative - 174 Companies

Main cluster in and around Newry - otherwise spread out across the council area.

As with other industries an even mix of companies of various ages with oldest incorporated 112 years ago and 10 incorporated within the last 6 months.

- Tourism - 20 Companies

Mainly clustered around Newry, Downpatrick, Castlewellan and Ballynahinch.

Most are younger companies (under 2 years) with oldest incorporated 38 years ago in May 2020.

Crunchbase

From available investment data there are 58 companies listed within the area. Of these 58 there are 9 who have received funding/investment:-

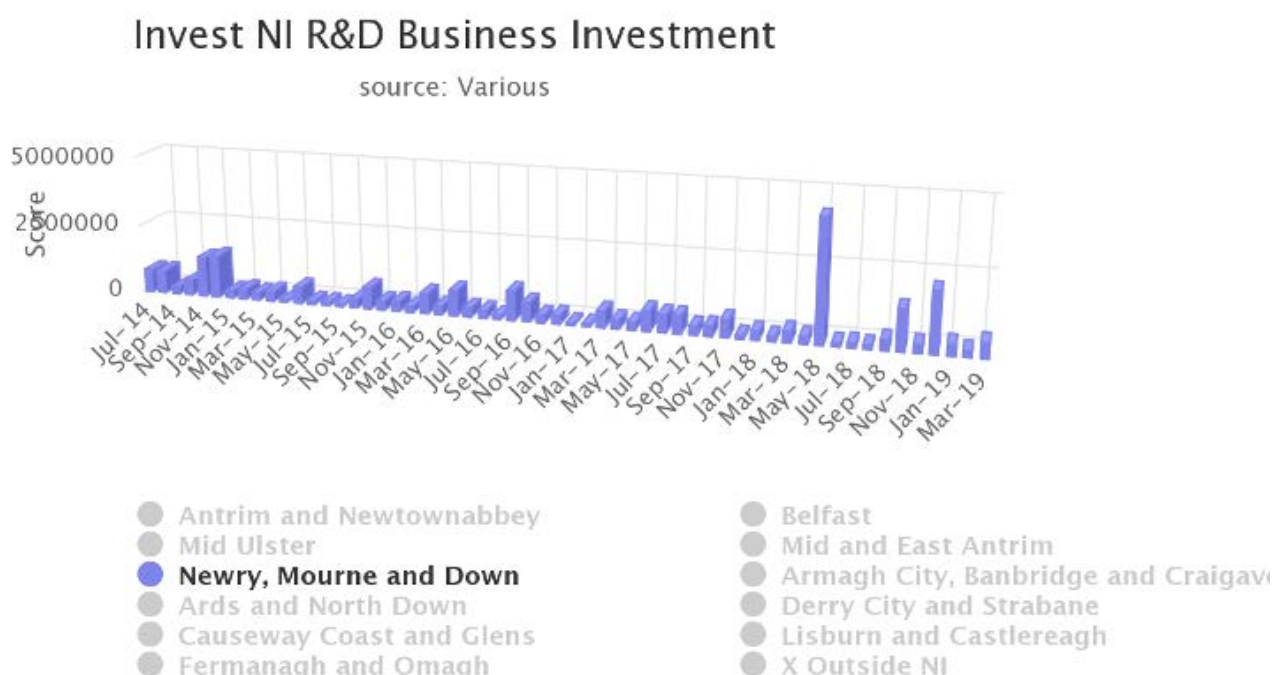
| Organisation Name | Last Funding Date | Last Funding Amount | Last Funding Type | Investors |
|------------------------|-------------------|---------------------|--------------------------|--------------------------------------|
| Around Noon Sandwiches | 12/09/2017 | £750,000 | Debt Financing | WhiteRock Capital Partners |
| First Derivatives | 17/02/2010 | £355,000 | Venture - Series Unknown | Invest Northern Ireland |
| JK Fabrications LTD | 01/06/2016 | £1,693,171 | Grant | EASME - EU Executive Agency for SMEs |
| Gapogroup | 01/12/2015 | | Venture - Series Unknown | Low Carbon Innovation Fund |
| Future Healthcare NI | 01/11/2015 | | Grant | MassChallenge |
| Right Revenue | 01/01/2016 | | Seed | Techstart Ventures |
| Gig Grafter | 01/01/2017 | £250,000 | Seed | Techstart Ventures |
| Pearlai | 09/09/2016 | £120,000 | Seed | Seedrs, Collider |
| Clicks Help | 02/05/2017 | £50,000 | Seed | Collider |

Full company list can be found in Appendix 1.

Invest NI

Financial Assistance

(list of top 50 contained in Appendix 2)



Between 2014 and 2019, 291 companies have benefited from Invest NI funds with a total of £34,988,029 of assistance having been offered. Nearly 50% of assistance has been to the benefit of 5 companies:-

- First Derivatives Public Limited Company - Financial & Insurance Activities
- STATSports Group Limited - Professional, Scientific & Technical Activities
- Finnebrogue Artisan - Manufacturing
- Norbrook Laboratories Limited - Manufacturing
- Around Noon Foods Limited - Manufacturing

Job Creation

(full list of jobs created by each company contained in Appendix 3)

1,923 jobs created with Assistance from Invest NI. 46% of these jobs were to the benefit of 5 companies:-

- First Derivatives Public Limited Company
- STATSports Group Limited
- Finnebrogue Artisan
- Killeavy Castle Ltd
- Autoline Insurance Group

Employment

Invest NI data shows the majority of employment is within the Advanced Engineering & Manufacturing sector with Financial, Professional & Business Services second, and Agri-Food third. Construction and Life & Health Sciences are joint fourth.

Industry Sectors

Manufacturing dominates - making up 46% of the 291 companies who are receiving assistance from Invest NI.

Table with number of companies within each industry is contained within Appendix 4.

Summary Table

| Industry | No. of Companies | Invest NI Assistance Offered | Jobs Created |
|---|------------------|------------------------------|--------------|
| Accommodation & Food Service Activities | 11 | £1,120,904 | 84 |
| Admin & Support Service Activities | 18 | £1,831,530 | 63 |
| Agriculture, Forestry & Fishing | 3 | £46,993 | 0 |
| Arts, Entertainment & Recreation | 8 | £179,449 | 6 |
| Construction | 20 | £1,058,147 | 79 |
| Education | 2 | £36,681 | 3 |
| Financial & Insurance Activities | 3 | £5,225,987 | 428 |
| Human & Social Work Activities | 3 | £48,500 | 4 |
| Information & Communication | 35 | £2,317,733 | 97 |
| Manufacturing | 134 | £15,637,354 | 761 |
| Mining & Quarrying | 1 | £1,120 | 0 |
| Other Service Activities | 9 | £152,940 | 3 |
| Professional, Scientific & Technical Activities | 22 | £6,386,060 | 328 |
| Transportation & Storage | 1 | £50,000 | 0 |
| Water Supply, Sewerage, Waste Management & Remediation Activities | 3 | £142,348 | 10 |
| Wholesale & Retail Trade & Repair of Vehicles | 17 | £737,283 | 57 |
| Unknown | 1 | £15,000 | 0 |
| TOTAL | 291 | £34,988,029 | 1,923 |

Charities

There are 480 charities in the Council Region with many having multiple charitable aims. Clusters are centred in Newry, Downpatrick and Newcastle with the rest distributed in towns throughout the region.

The most common 5 charitable aims are:-

- The advancement of education
- The advancement of citizenship or community development
- The relief of those in need by reason of youth, age, ill-health, disability, financial hardship or other disadvantage
- The advancement of religion
- The advancement of the arts, culture, heritage or science

The range of individuals/groups assisted by these charities is varied with 32 distinct groups identified with the top 5 being:-

- General public
- Children (5-13 year olds)
- Youth (14-25 year olds)
- Older people
- Volunteers

| Charitable Aim | Count |
|--|-------|
| The advancement of education | 237 |
| The advancement of citizenship or community development | 157 |
| The relief of those in need by reason of youth, age, ill-health, disability, financial hardship or other disadvantage | 131 |
| The advancement of religion | 114 |
| The advancement of the arts, culture, heritage or science | 86 |
| The advancement of health or the saving of lives | 85 |
| The prevention or relief of poverty | 51 |
| Other charitable purposes | 34 |
| The advancement of human rights, conflict resolution or reconciliation or the promotion of religious or racial harmony or equality and diversity | 25 |
| The advancement of amateur sport | 21 |
| The advancement of environmental protection or improvement | 18 |
| The advancement of animal welfare | 2 |

Summary

- Limited dedicated “Deep Tech” digital sector
- Limited dedicated “TV, Film & Production” sector
- Larger Manufacturing / Construction sector
- Larger “Arts & Creative” sector within the voluntary / charities sector than registered companies
- High level of R&D investment export focus in the region (No focus)
- Significantly larger percentage of companies without a technology focus (Basic Technical Skills)

Digital Creative Hub - Features Removed From Scope

Hot Desking - Not enough room / Not enough access for exclusive hire and no dedicated secure access

Desk Hire - Not enough room / Guaranteed access

Heavy Duty Engineering Equipment - Requires additional power / space which is not compatible with Digital Creative Space

Education Focus - Being addressed by SRC through existing projects

Community Focus - Being addressed by Business Networks

Software / Games Development Lab - Not enough demand within the region

Animation - Not enough demand within the region

Design Studio - Focused on providing production space / digital content creation

Hack Lab - Dedicated extended hour access required, must be developed and driven by the community

Staffing Resources

Hub Manager / Facilitator

With **all options** it is recommended that there is an innovation lead / hub manager whose role would be to co-ordinate and encourage the use of the space.

This Manager / Facilitator should be an enthusiastic individual with the drive and focus to engage the community, local businesses and stakeholders. They should be an experienced individual and be able to act as a mentor for users within the space.

Hub Administration: Booking, promoting and organising the use of the space. Arranging events, workshops and promoting available funding through regional partners. Ensuring that the space is set up correctly for each user / use.

Innovation Brokerage: Connecting projects and regional partners between public sector, education and private sector.

Funded by : BRCD Funding TBC

Site A/V Technician Set Up

Supporting hub users to set up and use of equipment for their projects. Would be able to help record, create and edit content. Must be trained / experienced in using the equipment through prior role / training.

Setting up highly technical equipment with a background in AV / Technology / Audio / Sound Technician.

Funded by : BRCD Funding / Option for placement at Masters / Graduate level

Facilities

Cleaning and sanitation, Room Set Up, Room Booking, Site Access and Security. This could be linked to the buildings existing facility management team, however this team / service will be essential for ensuring that the space is available and ready for each booking.

Funded by : Existing building services / staff

Digital Transformation Consultants / Facilitators

Trained mentors / industry professionals who are able to provide expertise / training / upskilling to the relevant hub users to make use of the hub facilities and equipment. These consultants would not be permanently based at the hub but would make use of the space through existing programmes funded by National and Local government funded initiatives and projects.

To develop and foster collaboration / innovation between different parties within the region.

Option : Explore collaborative CONNECTED funding with SRC / SERC / UU

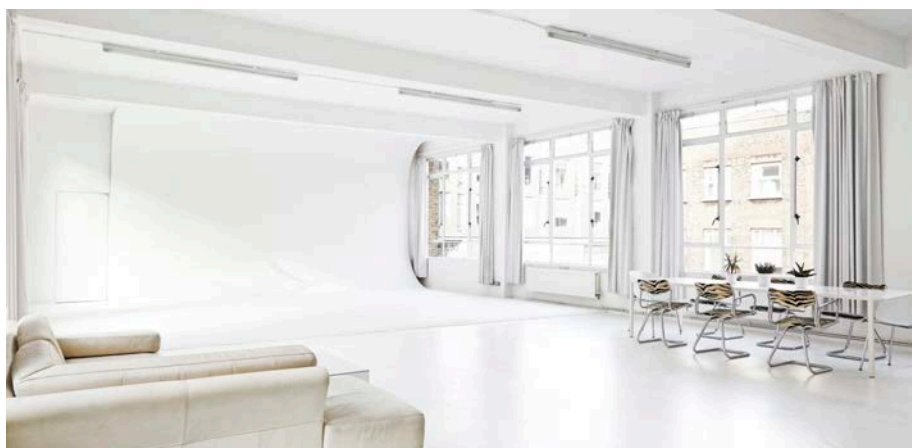
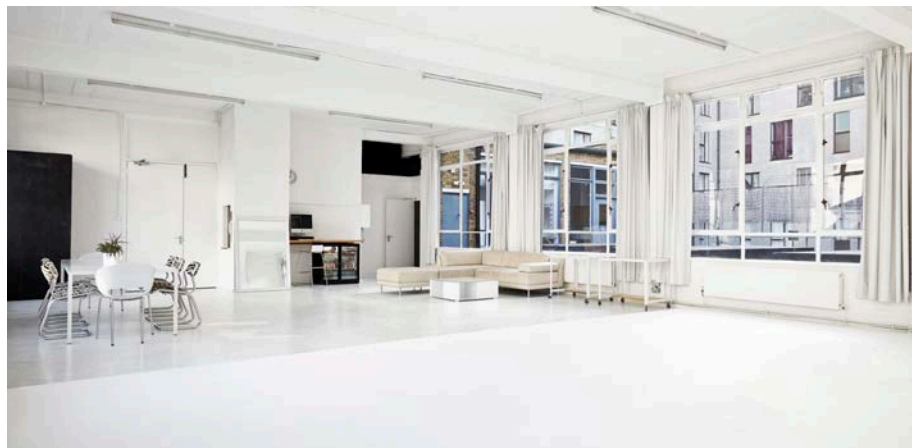
Funded by : Business Support Programmes / Collaborative Funding

Training Provider

In order for businesses to be given access to high end equipment, there should be a requirement that they should have some basic skills / training to be able to use the space / equipment.

Funded by : Business Support / Training Initiatives

Studio Production Research

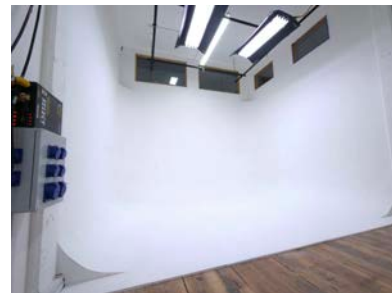


Professional Creative Landscape

Pre-Production - is the process of planning some of the elements involved in a film, play, or other performance. There are three parts in a production: pre-production, production, and post-production. Pre-production ends when the planning ends and the content starts being produced.

Production - the film is created and shot. In this phase it is key to keep planning ahead of the daily shoot. The primary aim is to stick to the budget and schedule, this requires constant vigilance. More crew will be recruited at this stage, such as the property master, script supervisor, assistant directors, stills photographer, picture editor, and sound editors. These are just the most common roles in filmmaking; the production office will be free to create any unique blend of roles to suit the various responsibilities possible during the production of a film. Communication is key between the location, set, office, production company, distributors and all other parties involved.

Post Production - is part of the process of filmmaking, video production, and photography. Post-production includes all stages of production occurring after shooting or recording individual program segments.



Centre Stage Studios - London

A-STAGE

The stage is soundproofed. It has a white U-shaped cyclorama which we have pre-lit with pre-rigged Arri RP60 Skypanels and Cyclights.

Both stages have production offices with phones and internet, make-up and wardrobe facilities, scaffold grids, sinks, drive-in access, loading areas, decent on-site parking and plenty of electricity.

Dimensions - 50' X 50' 2500 SQ FT (15M X 15M 225 SQ M)

Rate card

DAILY RATES: £10hrs commencing at call time (eg.08.00-18.00)


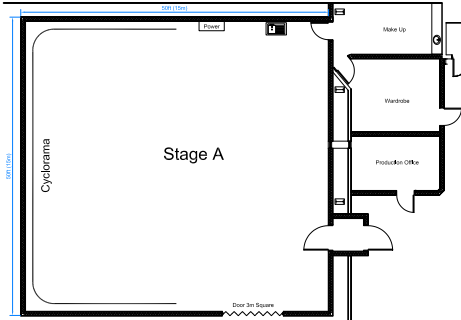
WEEKDAY RATE: £1300

WEEKEND RATES: + £375 PER DAY

Studio Overtime: £130 per hour after 10hrs/£200 after midnight

Stage Manager: £40 per hour outside 08.00-18.00/£80ph midnight-7am and Sundays

| Facilities | Hire Equipment |
|---|---|
| <ul style="list-style-type: none">Free Wi-Fi (20mbps)Soundproofed 38dbScaffold gridsSink & Hose outletProduction OfficeHair and Make-up roomWardrobe roomTelephone and internetMirrors & clothes railsIron & ironing boardLeanback sinkDrive-in accessLoading areasOn-site parking | IN GRID (A-STAGE) 8 X ARRI RP60 SKYPANEL & 14 X 1250W IRIS 1 CYCLIGHT IN GRID (B-STAGE) 4 X ARRI RP60 SKYPANEL & 12 X 1250W IRIS 1 CYCLIGHT TUNGSTEN FRESNELS MOST VARIETIES – 12KW, 10KW, 5KW, 2KW, 1KW, 650W, 300W KINOFLO MOST VARIETIES OF 4' & 2' – FLATHEAD 80s DOWN TO SINGLES PROFILE SPOTS 750W SOURCE 4s & 2.5KW SILHOUETTES 1KW 5' OCTADOMES (3200K) 150W DEDOKITS & 650W DEDOLIGHTS 1KW RIFA LIGHTS 2KW SPRINGBALLS (30") 2.5KW ZAPS, 2KW BLONDES, 800W REDHEADS LED BI-COLOUR LIGHT PANELS DIMMING & DESKS STANDS, CABLE, DISTRIBUTION... |
| Link: | http://www.centrestagestudios.co.uk |

| Facilities | Hire Equipment |
|---|--|
|  |  |

B-STAGE

The stage is soundproofed. It has a chromakey green U-shaped cyclorama which we have pre-lit with pre-rigged Arri RP60 Skypanels and Cyclights.

Both stages have production offices with phones and internet, make-up and wardrobe facilities, scaffold grids, sinks, drive-in access, loading areas, decent on-site parking and plenty of electricity.

Dimensions - 50' X 30' – 1500 SQ FT (15M X 9M – 135 SQ M)

Rate Card

DAILY RATES: 10hrs commencing at call time (eg.08.00-18.00)


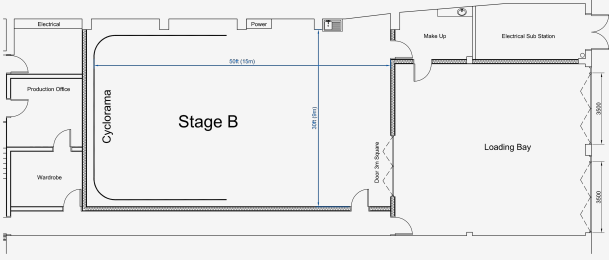
WEEKDAY RATE: £950

WEEKEND RATES: + £375 PER DAY

Studio Overtime: £100 per hour after 10hrs from call time / £150 per hour after midnight

Stage Manager: £40 per hour outside 08.00-18.00/£80ph midnight-7am and Sundays

| Facilities | Hire Equipment |
|--|---|
| <ul style="list-style-type: none"> Free Wi-Fi (20mbps) Soundproofed 38db Scaffold grids Sink & Hose outlet Production Office Hair and Make-up room Wardrobe room Telephone and internet Mirrors & clothes rails Iron & ironing board Leanback sink Drive-in access Loading areas On-site parking | <p>IN GRID (A-STAGE) 8 X ARRI RP60 SKYPANEL & 14 X 1250W IRIS 1 CYCLIGHT</p> <p>IN GRID (B-STAGE) 4 X ARRI RP60 SKYPANEL & 12 X 1250W IRIS 1 CYCLIGHT</p> <p>TUNGSTEN FRESNELS MOST VARIETIES – 12KW, 10KW, 5KW, 2KW, 1KW, 650W, 300W</p> <p>KINOFLO MOST VARIETIES OF 4' & 2' – FLATHEAD 80s DOWN TO SINGLES</p> <p>PROFILE SPOTS 750W SOURCE 4s & 2.5KW SILHOUETTES</p> <p>1KW 5' OCTADOMES (3200K) 150W DEDOKITS & 650W DEDOLIGHTS</p> <p>1KW RIFA LIGHTS 2KW SPRINGBALLS (30")</p> <p>2.5KW ZAPS, 2KW BLONDES, 800W REDHEADS LED BI-COLOUR LIGHT PANELS</p> <p>DIMMING & DESKS STANDS, CABLE, DISTRIBUTION...</p> |

| Facilities | Hire Equipment |
|---|---|
|  |  |
| Link: | http://www.centrestagestudios.co.uk |

Holborn Studios - London

Studio 1

Rate Card

DAILY RATES – 10hrs commencing at call time (eg.08.00-18.00)

WEEKDAY RATE: £650

Studio 1 is the ideal studio for small to medium sized fashion shoots and filming. The high ceilings (15ft) and a roof grid make the studio perfect for rigging lights from the ceiling, leaving the cove clear.

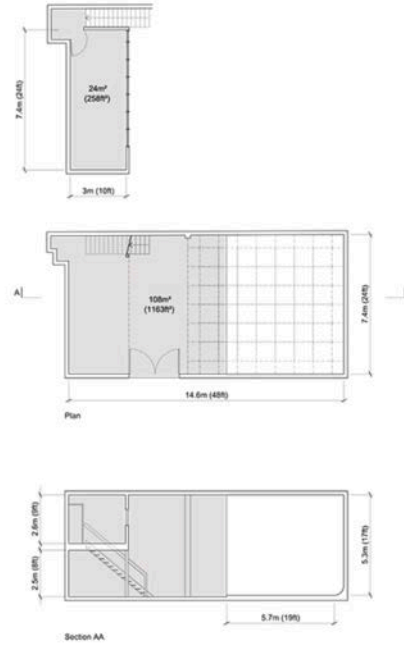
Dimensions - 48' X 24' 1163 SQ FT (14.6M X 7.4M 108 SQ M)

| Facilities | Hire Equipment |
|--|--|
| Studio Facilities: <ul style="list-style-type: none">• Apple Computer w/ 26" Screen• Bose Sound System• Lighting Grid• Mezzanine Area• Phone Line• Plex Media Server• Polyboards With Stands• Sofa• Table & Chairs• White Cove• Wooden Floor Dressing Room Facilities: <ul style="list-style-type: none">• Air Conditioning• Clothes Rail & Hangers• Full length Mirror• Iron & Ironing Board• Makeup Table Downstairs• Makeup Mirror Upstairs• Makeup Stools• Upstairs Dressing Room• Windows with Blinds | Lighting / Flash Heads / Incandescent / LED Lighting Power Packs Lighting Accessories Stands Tripods Reflectors Backgrounds Accessories Ancillaries AV Equipment Softboxes Cameras Lenses Consumables |

Facilities



Hire Equipment



STUDIO 1

Link:

<https://www.holbornstudios.com>


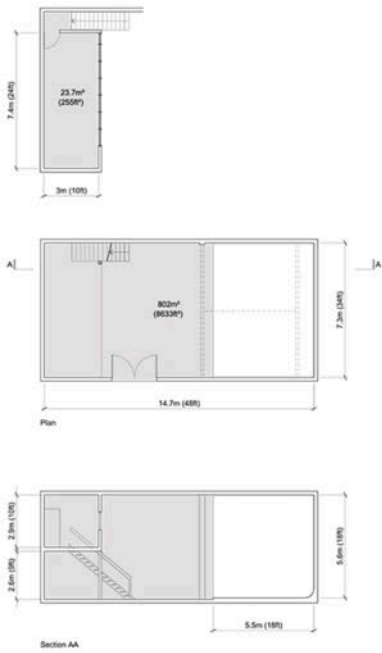
Studio 2

Rate Card

WEEKDAY RATE: £960

If you are planning a small to medium sized fashion shoot or film, *Studio 2* is perfect for you. Its fifteen foot high ceilings, there is a plenty clearance, as well as lots of space for crew and clients.

Dimensions - 48' X 24' (14.7M X 7.3M)

| Facilities | Hire Equipment |
|--|---|
| <p>Studio Facilities:</p> <ul style="list-style-type: none"> • Apple Computer w/ 26" Screen • Bose Sound System • Lighting Grid • Mezzanine Area • Phone Line • Plex Media Server • Polyboards With Stands • Sofa • Table & Chairs • White Cove • Wooden Floor <p>Dressing Room Facilities:</p> <ul style="list-style-type: none"> • Air Conditioning • Clothes Rail & Hangers • Full length Mirror • Iron & Ironing Board • Makeup Table Downstairs • Makeup Mirror Upstairs • Makeup Stools • Upstairs Dressing Room • Windows with Blinds | <p>Lighting / Flash Heads / Incandescent / LED Lighting Power Packs Lighting Accessories Stands Tripods Reflectors Backgrounds Accessories Ancillaries AV Equipment Softboxes Cameras Lenses Consumables</p> |
|  |  <p>STUDIO 2</p> |

| Facilities | Hire Equipment |
|------------|---|
| Link: | https://www.holbornstudios.com |

Industry Expert Recommendation

Equipment Hire

Average to high end AV equipment is expensive to buy outright and if it is only required for a relatively small amount of days a year (e.g. 20 days) it is recommended that initial capital costs can be mitigated by hiring equipment from specialist AV hire houses or direct from manufacturers such as ARRI.

<https://www.4rfv.co.uk/> - an example website listing a number of industry leaders in this area both in sales and hire.

Hire companies who can send equipment to Northern Ireland include:-

- 24-7 Drama Camera Equipment Hire (UK and Ireland Branches)
- Maniac Films Ltd

These companies can provide advice surrounding suitable equipment required and how the hiring of this equipment can be planned out against a variety of training / classes schedules.

If buying equipment and hiring same out an uplift of the hire fee should be included to take into account the cost of the equipment e.g. additional 10%-15% and this will allow the equipment to be paid for over a period of time.

Use Case Examples:-

- Working with a charity or social enterprise to create AV Content (videos for social media, podcasts, etc)
- Training filmmakers from a variety of ages and backgrounds including young people and those wishing to upskill
- Workshops for kids or those from specific groups (women/girls, refugees, young people from deprived areas, etc) in learning to sing, make music, play an instrument or use sound studio equipment.
- Bringing on board a local DJ to carry out some teaching in using studio equipment.
- Hiring out the studio for people to create sound content (music, podcasts, incidental sounds for theatre productions)
- Either hiring out studio or providing complimentary access to sound studio in exchange for a credit for new creatives starting out within the industry such as anyone submitting a short film for a British Film Institute competition.
- Vocal Coaching / Vocal Lessons

- Media Training for local companies
- Teaching programming in Python, creating apps or back-end services that can be used in broadcast or immersive technologies.
- Sound, Cognition, and Memory / Health / Mental Health workshops
- Podcast recording
- If using a space with a connected cafe consideration should be taken to supplying the cafe with a good sound system setup in a DJ Booth running themed nights when members of the public can come in and play their records. This can be an attractive proposition for visitors and increase footfall.

Equipment

Ideal setup would be a sound studio room split into a Control Room and Vocal Booth large enough for 5 singers around a microphone.

- High specification iMac Pro
- AVID S1 mixing desk
- Microphones: Neumann TLM103 and TLM102
- Microphones: Sennheiser Shure SM58 and Shure SM7B with Cloudlifter
- Software: AVID Pro Tools (<https://www.avid.com/pro-tools>)
- Software: Ableton Live (<https://www.ableton.com/en/>)
- Software: FL Studio (<https://www.image-line.com/>)
- 7.1 surround sound or small Dolby Atmos audio monitoring setup
- Multi-Channel sound controller compatible with 7.1 or Dolby Atmos
- Speakers: ADAM or Genelec are well regarded

Example layout: <https://www.pro-tools-expert.com/home-page/2019/11/27/mixing-is-always-better-with-faders-world-exclusive-review-of-the-avid-s1-controller-and-avid-control-app>

AVID products can be bought directly from AVID themselves or they can refer on to a registered seller within Northern Ireland, if one exists.

Additional incidental equipment that is not regularly required can be hired from a local audio hire service such as Acorn TV, Belfast (<https://www.acorn.tv/product-category/audio-hire-belfast-northern-ireland/>).

Training Area

- 4 iMac Pros
- High Volume NAS for backup during post-production and sharing (Example: QNAP)

AR / VR

The above layout and equipment will be the base for AR / VR Sound Design. Additional equipment recommended would be:

- Sennheiser AMBEO microphones
- Sound Devices multi-channel sound recorder
- Pro Tools plug in for AR / VR Sound (<https://www.avid.com/pro-tools/plugins>)

Live & Recorded Theatre / Streaming Virtual Performances

Tie lines can be run into the theatre space from the sound studio and the performers on the stage can be recorded with one system playing the sound out to the audience and the other system that is recording.

For a live set up AVID have specialist software called AVID Venue; similar to Pro Tools but developed for live sound.

Other Sound Equipment Suppliers:-

- HHB - <https://hhb.co.uk/>
- Jigsaw 24 - <https://www.jigsaw24.com/solutions/audio>
- Big Bear Sound - <https://www.bigbearsound.com>

Sound Proofing

Consider what the space will be used for: listening or recording?

Three features to consider when it comes to sound proofing:-

- Sound Reflection: echo, reverb
Sound deflectors and baffles made of cardboard or wood is used to redirect or reduce this feature.
- Sound Absorption: sound absorbed into the walls or the spaces
Can be mitigated by using softer materials on the walls and in the space (e.g. carpet on floor, felt on walls)
- Sound Refraction: when sound hits a material or goes through a material and is divided, just like in light, into its different components.

Ensuring sound does not leave a room and leak into the rest of the space will require a double wall. This should be considered during the construction phase.

Funding

- British Film Institute - runs and backs competitions and provides funding for filming initiatives and fostering new talent with good in-roads to regional areas such as Northern Ireland. It is possible to partner with the BFI and other similar organisations to run programmes such as a Pro Tools 101 course or an introduction to sound design course.
- Arts Council - can facilitate funding for specific programmes, e.g. for mental health programmes
- Classes / courses - running a course in how to use tools such as Ableton Live and Pro Tools will generate interest and a revenue stream. Fixing a fee to a regular course will also assist in discouraging drop-offs.
- Renting sound studio out - potential for £70 per hour depending on equipment and facilities and including a sound engineer.
- Renting out for creating Pod Casts - up to £50 per hour depending on equipment and facilities. Does not include a sound engineer.
- Selfie Studio Rental - small corner of the space can be hired out an hour at a time for £50 with access to props and costumes if associated with a Theatre space.
- Talks and courses with associated fee from well known names with a local connection, e.g. Liam Neeson, Kenneth Branagh, Jamie Dornan, Michelle Fairley, Terri Hooley, The Undertones, Ash, Snow Patrol, The Divine Comedy, and many others.

Sample of Sound Studios in NI:-

- Whitenoise Sound Studios: <https://www.whitenoisesoundstudios.com/>
- Start Together Studio: <https://www.starttogetherstudio.com/>
- Redbox Recording: <http://www.redboxrecording.com/>

Personnel

Technical support position does not require an expert with significant experience, it can be a good opportunity for a student who is just embarking on the start of their career where they have the confidence to use the equipment and train others.

Newry Theatre & Conference Centre

Conversations / Interviews with the project team / architects

Outline:

The report outlines options for integrating the proposals for the space and equipment requirements for the BRCB Innovation Hub.

The proposals are based on the current Stage 2 drawings of the Newry Theatre and Conference Centre. A Value Engineering exercise is still to be approved for the Newry Theatre and Conference Centre which may affect these proposals.

Brief:

Following a meeting with Xpand Group on Monday 28th September, the following space requirements were discussed:

- Meeting/ Training room for approx. 10-15 people
- Storage for general furniture for space flexibility
- Secure storage for digital equipment
- Recording studio
- Control room area
- Main production room
- Green room and Make-up area
- The meeting room/ training room should be close to general storage area and secure storage area to ensure the room is flexible.
- The control panel will be used for both recording studio and the main production space
- Storage space should be close to the main production space.
- The green room and dressing rooms within the proposed Newry Theatre and Conference Centre can be used by the Innovation Hub

Options:

Option 1:

Workshop space on the ground floor of the Town Hall used as meeting/ training room (ground floor)

Smart store to be located within Stage Store area (ground floor)

General store to be used within furniture store (ground floor)

Recording studio and main production space to be facilitated within the Studio Space

Limited storage close to recording studio and main production space

Pros: Minimum impact on current Stage 2 proposals Cons: Stores located away from training/ meeting room

Limited storage close to main production space and recording studio

Option 2:

Meeting room/ training room positioned adjacent to existing green room

Smart store and to be general store to be located in small store adjacent to recording studio and main production space.

Recording studio and main production space to be facilitated within the Studio Space

Pros: Meeting/ training room located closer to main production space

Cons: Some impact on the use of the main production space as a Studio Space for Newry

Theatre and Conference Centre Storage limited

Option 3:

Meeting room/ training room incorporated into Main production space

Control room elevated above new general storage which will incorporate smart store

Access to control room via proposed lift

Dedicated large recording studio

Plant space to Newry Theatre and Conference Centre relocated

Pros: All innovation hub spaces located in close proximity; better surveillance, less moving between rooms etc.

Cons: Potential for space to be used primarily by Innovation Hub and not as community arts space

Additional GIA required to accommodation plant room moving (additional cost to Newry Theatre and Conference Centre Project)

Potential impact on location of WCs required at this level.

Architect Feedback

The preferred option must take account of the cost to and viability of the Newry Theatre and Conference Centre. This includes the impact of relocating a plant room to accommodate the larger main production space and recording studio and the provision of Accessible WCs spaces at this level.

KEY COSTS

There are a number of significant costs associated with the development and equipping of the hub to ensure it is fully operational and attractive to users.

This includes fibre connected internet access and high end audio visual equipment with a view to future proofing as much as possible in order to increase the length of the refresh cycle. The AV equipment specified is of industry standard and is what is often expected within professional productions.

Staffing resources have also been identified and costed.

Specific Details:-

Fibre Internet - £56,000

This is the cost of installation and one year of service for a minimum 1Gb line. There is scope to reduce this cost if the hub is placed within a shared location such as the Theatre & Conference Centre or in a SRC campus and if the location already has a fast fibre network in place then the hub can plug into it and share the cost.

Environment - £23,500

Majority of this cost will be split between the sound proofing / dampening required, smart lights system and installing a modern video / audio conferencing system into the meeting room / training area.

Some of the cost of the sound proofing / dampening can be offset during the construction of the building of ensuring that double walls and a floating floor are installed at that time.

Operational Logistics - £75,000

Most of this will be for two personnel:

- a Hub Manager to manage the space and are responsible to the community, funders, stakeholders and, where applicable, board members and steering group.
- Digital Transformation Consultant to liaise with and develop training / upskilling programmes

It is estimated at current job market value these roles will each cost approximately £35,000 per annum.

Equipment Storage - £17,000

These costs relate to 3 types of specialist carts used within the AV production industry that can be converted into workstations and wheeled into spaces with equipment loaded in. They are designed to be robust, long-lasting and flexible in use.

Smart Storage - £13,000

Designed to fit the space requirements and unlocked in a variety of ways including PIN and mobile phone as well as integrated with a booking system such as

Nexodus via API. These have been designed to be robust and long-lasting with a service contract in place should any issues arise regarding maintenance.

AV Processing - £25,000

Industry standard hardware and software including iMac Pros and a high specification NAS machine for processing of AV work packages. Designed to be fast and reliable allowing users to quickly and easily spin up projects, process, temporarily store/backup during processing and transfer off into their own media.

Sound Engineer - £35,000

A sound engineer is required to maintain the equipment as well as assist any users who may require assistance as well as design and carry out training / upskilling programmes.

Displays / AV Casting / Virtual Conference Calls (Meeting / Training Area) - £14,000

A high end system was specified that is reliable and allows for the space to be used in a flexible manner incorporating wall mounted displays, mobile smart displays that meeting attendees can access via their devices, ceiling mounted mic system that allows all attendees to be heard and a meeting presentation system including an Apple TV box to allow for casting of media and presentations. Designed to be long-lasting it should not require an equipment refresh for up to 5 years.

Lighting / Lighting Controls - £170,000

High quality, professional level lighting and controls as used within professional studios are designed to be durable and reliable. Many systems from brands such as Profoto tend not to work well with other systems so it is not unusual for studios to carry one specific brand to ensure reliability.

Reflectors and Softboxes - £35,000

As with other AV equipment, the light shaping equipment of reflectors and softboxes are industry tested and designed to be robust and reliable. The different varieties means that there is something for almost every situation that is being captured whether it be on a stills or video camera.

Tripods / Stands - £70,000

As with Lighting and Lighting Controls these stands and tripods are designed to be durable and reliable, especially considering that it very often holds expensive equipment and to have a tripod or stand fail could mean an expensive accident. Well regarded and industry tested equipment is provided in this list.

Cameras and Lenses - £235,000

The cameras, lenses and drones specified are, again, of industry standard and tested widely from the medium range Canons to the high end Phase One and Blackmagic equipment. The equipment here is designed to be long-lasting. The lenses should be agnostic and can easily fit on a number of stills / film camera bodies with the necessary adaptors. The bodies may require a refresh every 3-5 years but the cost of the stills / video bodies will be relatively low compared to the cost of the lenses which, if looked after with care, can last decades.

COSTS

Infrastructure / Operational Costs

- Assumption that fibre network will be available to the building, the cost will be on bringing it into the space.
- Booking System (off the shelf, easily integrated with an iPad).
- Access control - digital option: RFID, NFC, Bluetooth, keycard - can be triggered by integrated booking system. If key card used this can be given out by reception or kept in a key safe.
- Access control - classic option: key stored in a key safe.
- iPad Room Control System - for smart lights, unlocking smart storage, controlling speakers, and controlling other IoT devices.
- Entire space should be sound-proofed / dampened as much as possible.

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|------------------------------|--|--|-----------------|
| NETWORK | Fibre network connectivity - including availability for Wired and WiFi network. Cost includes installation and one year of service. | Router Hub Switch Patch Panel Networking Cables Wi-Fi Access Points | £56,000 |
| ENVIRONMENT | Items required to provide environment and ambience including non-production related AV, lighting, etc. | Electrical Installation Sound Dampening / Proofing - ceilings tiles, flooring, walls Smart Lights Smart Lights and assorted items including Pole Key Switch Control, Backboxes, installation, etc Meeting Room Microphone System | £23,500 |
| DISPLAYS | Wall mounted or free standing - including casting hardware | Wall Displays Mount for Wall Displays Apple TV | £2,500 |
| OPERATIONAL LOGISTICS | Equipment required to run the space including booking system and staffing. Staffing costs are salaries for one year. | iPad Wall mount and cabling for Tablet Nexodus - Booking System Hub Manager / Digital Transformation Consultant | £75,000 |
| ADMIN AREA | Equipment and furniture | Table Chairs Laptop Printer Filing Cabinet | £3,000 |
| | | TOTAL | £160,000 |

Other Costs To Consider

Rent

If located within another Council property (e.g. Theatre & Conference Centre or Civic Centre) then rent may not need to be considered.

If the Council are to partner with SRC and use one of their spaces discussions should identify a reasonable rental rate or some other suitable agreement.

For a dedicated space within a commercial unit e.g. within Newry centre, rental rates vary between £66 and £107 per m2 dependent on location and quality of the building.

Examples:-

80 Hill Street, Newry - 180m2 - £22,500 / year + fees (<https://www.propertypal.com/80-hill-street-newry/582413>)

28 Cornmarket, Newry - 93.6m2 - £10,000 / year + fees. (<https://www.propertypal.com/28-cornmarket-newry/570834>)

25 Mill Street, Newry - 108m2 - £7,000 / year + fees (<https://www.propertypal.com/25-mill-street-newry/533814>)

Rates

This should be taken into consideration if going for a dedicated space within a commercial unit.

Utilities

Includes water, electricity, lighting and heating. Rates will vary depending on

- Whether the hub will be located within a council controlled location or a third party building
- Size of the hub
- Usage level of the hub

Current water rates for 2020/21 can be found: <https://www.niwater.com/non-domestic-charges.aspx>

To quote for Electricity Tariffs from Power NI: <https://powerni.co.uk/business/plans-prices/business-tariffs/>

These should be considered during the planning stages.

Insurance

Insurance to be considered should be:

- Buildings and content (particularly if considering a stand alone commercial building to host the hub)
- Public liability
- Employers liability
- Specialist insurance (for the high specification cameras and equipment)

Level of insurance varies depending on location, level of contents, access choices and times and level of staffing during opening hours.

Booking System

Within the Hub Operations costing we have identified Nexodus (<https://www.nexodus.com/>) as a suitable booking system that can be used with an assumption of 100 active members per year at an annual cost of £162 (£135+VAT). This was chosen due to its flexibility and varied number of integrations from access control, accounts, Wi-Fi management, room booking, etc.

Further research should be carried out to confirm whether Nexodus is indeed a suitable system once clarity is gained regarding the location of the hub, whether it will be a shared or dedicated space, the business model (fully subsidised vs partially funded via memberships and space hire), and users / use cases.

Other booking systems available that could be considered include:-

- Booking Live (<https://www.bookinglive.com/>)
- Skedda (<https://www.skedda.com/>)
- Essential (<https://www.essential.co.uk/business-automation/meeting-room-desk-booking-system/>)
- Joan (<https://getjoan.com/>)
- School Cloud (<https://www.roombookingsystem.co.uk/>)

Tech Refresh

With the fast pace of change in technology it is critical that equipment should be refreshed after reasonable periods. Higher specification equipment can be refreshed at 3 to 5 year cycles with higher use / lower quality equipment replaced within 1-3 years.

Depreciation

A fixed line level of depreciation over 3-5 years would be suitable for most equipment.

Staff - Hub Management

The level of staffing required for the hub will depend on a number of variables:-

- Size of Hub
- Facilities / Services being offered
- Location of Hub
- The ability to share resources with other partners (e.g. SRC, SERC)

Staff identified that would be needed in a fully functional, dedicated hub include Hub Manager / Administrator, Sound Engineer, Technician, Facilitator, Digital Transformation Consultant.

A Hub Manager / Administrator is required regardless of where the Hub is located and whether it is a dedicated space or shared location.

A small, shared space based within a location such as the Theatre & Conference Centre will not require as many staff or can share staffing resources with the Centre.

A larger, dedicated space may require the full compliment of staff. If a partnership is struck with SRC, SERC or both there is an opportunity to share staffing resources.

Admin / Finance

As with Staff - Hub Management above, consideration of whether a separate administrator / finance officer is needed should be taken into account. This is most likely required for an independent /dedicated space rather than one that is shared.

Promotion / Marketing

Consideration should be given as to the level of promotion / marketing that should be carried out for the hub. This includes branding and design of promotional material, social media and level of engagement, as well as online and physical marketing (leaflet drops, posters, newspaper advertisements).

A nominal cost of approximately £10,000 should be budgeted for initial branding design / development and design of marketing materials as well as development of marketing strategy.

HUB OPERATIONS

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|------------------------------|--|---|---------|
| NETWORK | 1Gb (or higher) Ultrafast Fibre network connectivity required - including availability for Wired and WiFi. Cost includes installation and one year's service. | Router Hub Switch Patch Panel Networking Cables Wi-Fi Access Points | £56,000 |
| ENVIRONMENT | Items required to provide environment and ambience including non-production related AV, lighting, etc. | Electrical Installation Sound Dampening / Proofing - ceilings tiles, flooring, walls Smart Lights Pole Key Switch Control for Smart Lights Backboxes for the Smart Lights Speakers Meeting Room Microphone System | £23,500 |
| DISPLAYS | Wall mounted or free standing - including casting hardware | Wall Displays Mount for Wall Displays Apple TV | £2,500 |
| OPERATIONAL LOGISTICS | Equipment required to run the space including booking system and staffing. Staffing costs are salaries for one year. | iPad Cabling for Tablet Wall mount for Tablet Nexodus - Booking System Hub Manager / Digital Transformation Consultant | £75,000 |
| ADMIN AREA | Equipment and furniture | Table Chairs Laptop Printer Filing Cabinet | £3,000 |

STORAGE / SECURE AREA

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|------------------------------|--|---|---------|
| OPERATIONAL STORAGE | Shelving, boxes, cases | Eco-Rax - 14 x 24 Litre Storemaster Kit Eco-Rax - 21 x 24 Litre Storemaster Kit Pelicases Robust Plastic Storage Boxes Trolleys | £4,000 |
| EQUIPMENT STORAGE | Specialist AV carts | Inovative Deploy Gen IV - rack-mountable vertical workstation Inovativ Echo 36 Cart Magliner Junior Vertical Cart 8in | £17,000 |
| SMART STORAGE | Smart storage solution - can be unlocked by key card or mobile phone | SMART STORAGE LOCKERS CONTROL PANEL POWER SUPPLY RETURNS MAINTENANCE | £13,000 |
| SECURE ACCESS CONTROL | Locks from traditional key locks to smart locks that can be unlocked by card, PIN or phone | Mechanical - Codelocks Heavy Duty Push Button Lock Electronic - Codelocks CL4510 Smart Lock (Stainless Steel) Security Cage - STAK-450 - MAXIBOX 1 Security Cage - Shelf Unit x2 - SSW54/s | £1,000 |

RECORDING STUDIO / RECORDING BOOTH

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|-------------------------|---|---|---------|
| Audio Processing | This includes the processing power and hardware needed to stream, process and record audio. | iMac Pro AppleCare+ for iMac QNAP NAS - Time Machine Backup & NAS Adobe Creative Cloud - All Apps AVID S1 AVID Pro Tools - one year subscription Ableton Live - Full Suite FL Studio + ALL Plugins Bundle | £25,000 |
| Speakers | For sound playback | Yamaha MMP1 - studio speaker management system Adam A7X M-Control Bundle Adam Sub 8 | £6,000 |
| Headphones | For sound playback | Sennheiser HD-300 Pro | £775 |
| Microphones | For sound capture - includes a range of low to high end microphones and VR specialist Mic | Sennheiser Ambeo VR Mic Neumann TLM103 Neumann TLM102 Sennheiser Shure SM58 Sennheiser Shure SM7B Cloud Microphones Cloudlifter CL-1 Mic Activator (to be used in conjunction with Sennheiser Shure SM7B) Sennheiser XSW-D Portable Lavalier Set Beyerdynamic Microphone Stand | £6,500 |
| Sound Engineer | For one year | Technician to support the space | £35,000 |

MEETING / TRAINING AREAS

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|--|---|--|---------|
| DISPLAYS / AV CASTING / MEETING MIC | AV hardware required to run a meeting including a video call / conference call function | Apple TV Wall Display Mount for Wall Displays Samsung Interactive Display WMR Series 65" Barco ClickShare CSE-200 INSTALLATION Sennheiser TeamConnect Ceiling 2 Sennheiser TeamConnect Ceiling 2 | £14,000 |
| PROJECTOR | Projector and Screen | Duronic Floor Projector Screen Panasonic PT-VMW50EJ | £5,000 |
| DESKS / CHAIRS | Robust stackable chairs and folding tables | Bolero ABS Rectangular Folding Table Grey 5ft EN1 One-Piece Stacking Chair | £1,500 |

STUDIO - (VISUAL PRODUCTION AREA)

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|--------------------------------|--|--|----------|
| GREEN SCREENS / BACKDROPS | Green Screen and Backdrops that can be used for visual media recording | Colorama 1.35x11m - ChromaGreen Manfrotto MN032B Autopole - Black Manfrotto 272B 3-Section Background Support - Black Manfrotto 044 Triple Background Hook Set with Clamps Manfrotto 046MCB Expan with Black Metal Chain | £1,000 |
| PRODUCTION SETUP | Media Server Software | Plex Media Server - Lifetime Pass | £100 |
| CEILING TRACKS | Tracks to be used for lighting rigs | Manfrotto Top System 32 Manfrotto Top System 54 | £5,000 |
| LIGHTING AND LIGHTING CONTROLS | Studio Lights and Controls | Profoto D1 1000 Air (Basic kit - 2 heads) Profoto ProFresnel Spot Profoto ProHead Plus UV 500W w/ Zoom Reflector Profoto ProTwin UV 500W w/ Magnum reflector Profoto ProRing Plus UV Profoto ProRing2 Plus UV Profoto Strip (Medium) Profoto BarnDoor for StripLight Profoto Light Stand Profoto Pro10 2400 AirTTL Astera AX1 Pixel Tube Astera AX10 SpotMax Head Astera AX3 LightDrop Head Astera AX5 Triple Par Head Barn Door for Pro Fresnel Spot Profoto Air Remote TTL-C for Canon Profoto Air Remote TTL-N for Nikon Profoto Air Remote TTL-S for Sony Profoto Air Remote TTL-F for Fujifilm Profoto Air Remote TTL-O/P for Olympus/ Panasonic Profoto Barn Door Profoto Head to Pack ext Profoto Sync Cable | £170,000 |
| TRIPODS | Tripods and Gimbals for mounting lights, camera equipment, etc | DJI Osmo Mobile 3 DJI Ronin 2 Gimbal Combo Gitzo Tripod Head for above Heavy Duty Tripod Head for above Manfrotto Monopod Tripod Laptop Table | £20,000 |
| STANDS | Lighting and camera stands | C Stand Studio Stand Double Wind Up Stand Low Boy Floor Stand Floor Stand Extension Manfrotto Master Stand Manfrotto Mega Boom Manfrotto Super Boom Wind Up Stand Extension | £50,000 |
| CURTAINS | Specialist sound dampening - stage / room divider | Stage Curtain Track Heavy Duty - Walk Along / Cord Operated Room Divider Sound Reducing Acoustic Curtain Room Divider Sound Reducing Acoustic Curtain | £12,000 |

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|--|--|---|---------|
| REFLECTORS AND SOFTBOXES | Equipment for shaping light | Extra Large Umbrella Large Umbrella Magnum Grid Medium Umbrella Narrow Beam Reflector Profoto Beauty Dish Silver Profoto Beauty Dish White Profoto Lighting Control Kit inc Snoot Profoto Magnum Reflector Profoto Wide Zoom Reflector Profoto Zoom Reflector Small Umbrella Telezoom Reflector Profoto 1'x3' Softbox Profoto 1'x3' Softgrid Profoto 1'x6' Softbox Profoto 1'x6' Softgrid Profoto 1'x6' Stripmask 7cm Profoto 2'x2' Softbox Profoto 2'x3' Softbox Profoto 2'x3' Softgrid Profoto 3' Octa Profoto 3' Octa Softgrid Profoto 3'x3' Softbox Profoto 3'x3' Softgrid Profoto 3'x4' Softbox Profoto 3'x4' Softgrid Profoto 4' Octa Profoto 4' Octa Softgrid Profoto 4'x6' Softbox Profoto 4'x6' Softgrid Profoto 5' Octa Profoto 5' Octa Softgrid Profoto Giant 180 Profoto Giant 240 Profoto Giant 300 | £35,000 |
| ACCESSORIES, ANCILLARIES, DIGITAL, POWER, SANDBAGS & WEIGHTS | Miscellaneous items including cables, clamps, etc | A Clamp Big Ben Clamp Illuminated Make Up Mirror Spigot Super Clamp AirJammer Large Wind Machine Bowens Jet Stream Oscillating Heater Perspex 8x4 Propress Clothes Steamer Sekonic Light Meter White Box Firewire 400-400 Firewire 800/800 13 Amp 32 Amp 63 Amp Arri Sandbag Boom Weight | £7,000 |

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|--------------------|---------------------|--|----------|
| CAMERAS AND LENSES | | Canon Speedlite 600EX II-RT Flashgun Canon EOS 5D Mark IV body Canon EF 16-35mm f2.8L III USM lens Canon EF 24-70mm f2.8L II USM lens Canon EF 24mm f1.4L II USM lens Canon EF 50mm f1.2L USM lens Canon EF 70-200mm f2.8L IS III USM lens Canon EF 85mm f1.2L II USM lens DJI Mavic Pro 2 Kit DJI Mavic 2 Fly More Kit (Case, batteries, spares etc) Mamiya RZ-67 110mm Mamiya RZ-67 180mm Phase One IQ4 150 w/ XF Body & Prism Schneider Kreuznach 80mm LS f/2.8 lens Schneider Kreuznach 55mm LS f/2.8 lens Schneider Kreuznach 110mm LS f/2.8 lens Schneider Kreuznach 35mm LS f/3.5 lens Schneider Kreuznach 150mm LS f/2.8 lens Schneider Kreuznach 120mm LS f/4.0 macro lens Schneider Kreuznach 240mm LS f/4.5 lens | £235,000 |
| VR KIT | | Microsoft HoloLens 2 smart glasses Renderingn Hardward running Windows OS | £18,000 |
| GAMING EQUIPMENT | | XBox, Switch, Playstation, Steam Subscription, etc | £5,000 |
| TECHNICIAN | Salary for one year | Technician | £35,000 |

SHARED EQUIPMENT

The following are examples of equipment that would be available within a professional level recording studio that would be rented out between £400 - £1,200 per day depending on the space rented.

As identified within the interviews, there is an opportunity to share the cost / equipment procurement with regional partners and store and make equipment available throughout the different hubs within the region.

Sharing equipment between members using : -

SMIL

SRC : Media and Innovation Hub

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|------------------------|-------------|---|-------|
| Lighting - Flash Heads | | Profoto D1 1000 Air (Basic kit - 2 heads) Profoto ProFresnel Spot Profoto ProHead Plus UV 500W w/ Zoom Reflector Profoto ProTwin UV 500W w/ Magnum reflector Profoto ProRing Plus UV Profoto ProRing2 Plus UV Profoto Strip (Medium) Profoto Barndoor for StripLight Profoto EasyStand L Profoto Light Stand | |
| Lighting - Power Packs | | Profoto Pro10 2400 AirTTL | |
| Lighting - LED | | Astera AX1 Pixel Tube Astera AX10 SpotMax Head Astera AX3 LightDrop Head Astera AX5 Triple Par Head | |
| Stands | | C Stand Studio Stand Double Wind Up Stand Low Boy Floor Stand Floor Stand Extension Manfrotto Master Stand Manfrotto Mega Boom Manfrotto Super Boom Wind Up Stand Extension | |
| Tripods | | DJI Osmo Mobile 3 Gitzo Tripod Head for above Heavy Duty Tripod Head for above Manfrotto Monopod Tripod Laptop Table | |

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|--------------|-------------|--|-------|
| Reflectors | | Extra Large Umbrella Flags (small, medium, and large) Large Umbrella Magnum Grid Medium Umbrella Narrow Beam Reflector Profoto Beauty Dish Silver Profoto Beauty Dish White Profoto Lighting Control Kit inc Snoot Profoto Magnum Reflector Profoto Wide Zoom Reflector Profoto Zoom Reflector Small Umbrella Telezoom Reflector | |
| Backgrounds | | Colorama 12' Colorama 9' | |
| Accessories | | Manfrotto 175 Spring Clamp Matthews 429620 Clamp Manfrotto 013 Adaptor Spigot Manfrotto 035 Super Clamp | |
| Ancillaries | | ELUMEN8 Windstorm Professional DMX Wind Machine PiXAPRO Studio Wind Machine PTC-2500-G FREESTANDING SPACE HEATER 2500W Elinchrom 21cm Gel Set Assorted Colours (20 pcs) Propress PRO290 Portable Professional Steamer - Cream Sekonic Flashmate L-308X Light Meter Can be constructed in-house or by an outsourced joiner - needs to be sturdy enough to hold one person | |
| Digital | | 3m 6 Pole Male to 6 Pole Male Firewire Cable Assembly StarTech.com 10 ft 1394b Firewire 800 Cable Phase One IQ4 Digital Back | |
| AV Equipment | | "TOSHIBA 50UL2063DB 50"" Smart 4K Ultra HD HDR LED TV" Apple TV Beyerdynamic Microphone Stand Duronic Floor Projector Screen Epson EB-X48 Numark TTX Turntable PA System (inc. Soundcraft mixer/ amp, Studiospares speakers & Stands) LG PH550G HD Ready Mini Projector Pioneer CDJ-350 DDJ-SR2 Serato Controller Pioneer Mixer DJM-900NXS2 Rokit Monitor Speakers (pair) PANASONIC DMP-BDT167EB Smart 3D Blu-ray & DVD Player Shure SM58 Microphone Technics SL1210MK6 | |
| Power | | Masterplug 13A 4-Gang Unswitched Surge-Protected Extension Lead 2M StageCable 32A 240V Cable + Blue 3pin 6h Plug & Socket - 20m StageCable 63A 240V Cable + Blue 3pin 6h Plug & Socket - 20m | |

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|----------------------|-------------|--|-------|
| Lighting Accessories | | Barn Door for Pro Fresnel Spot Profoto Air Remote TTL-C for Canon Profoto Air Remote TTL-N for Nikon Profoto Air Remote TTL-S for Sony Profoto Air Remote TTL-F for Fujifilm Profoto Air Remote TTL-O/P for Olympus/Panasonic Profoto Barn Door Profoto Head to Pack ext Profoto Sync Cable | |
| Softboxes | | Profoto 1'x3' Softbox Profoto 1'x3' Softgrid Profoto 1'x6' Softbox Profoto 1'x6' Softgrid Profoto 1'x6' Stripmask 7cm Profoto 2'x2' Softbox Profoto 2'x3' Softbox Profoto 2'x3' Softgrid Profoto 3' Octa Profoto 3' Octa Softgrid Profoto 3'x3' Softbox Profoto 3'x3' Softgrid Profoto 3'x4' Softbox Profoto 3'x4' Softgrid Profoto 4' Octa Profoto 4' Octa Softgrid Profoto 4'x6' Softbox Profoto 4'x6' Softgrid Profoto 5' Octa Profoto 5' Octa Softgrid Profoto Giant 180 Profoto Giant 240 Profoto Giant 300 | |
| Sandbags and Weights | | Arri Sandbag Boom Weight | |
| Cameras and Lenses | | Canon Speedlite 600EX II-RT Flashgun Canon EOS 5D Mark IV body Canon EF 16-35mm f2.8L III USM lens Canon EF 24-70mm f2.8L II USM lens Canon EF 24mm f1.4L II USM lens Canon EF 50mm f1.2L USM lens Canon EF 70-200mm f2.8L IS III USM lens Canon EF 85mm f1.2L II USM lens DJI Mavic Pro 2 Kit Mamiya RZ-67 110mm Mamiya RZ-67 180mm Modern, high-end medium format DSLR Standard lens to match above w/ leaf shutter, high res glass Mild wide lens to match above w/ leaf shutter, high res glass Mild tele lens to match above w/ leaf shutter, high res glass Wide lens to match above w/ leaf shutter, high res glass Tele lens to match above w/ leaf shutter, high res glass Macro lens to match above w/ leaf shutter, high res glass Longer tele lens to match above w/ leaf shutter, high res glass | |
| VR Kit | 5 x VR Kits | VR Kit (HoloLens) - headset and Dev Kit High Spec Machine running Windows OS | |
| Gaming Equipment | | Xboxes, Switches, Playstations, Steam Subscription | |

| CATEGORY | DESCRIPTION | DETAILS | TOTAL |
|-------------|-------------|--|-------|
| Microphones | | Neumann TLM103 Neumann TLM102 Sennheiser Shure SM58 Sennheiser Shure SM7B Cloud Microphones Cloudlifter CL-1 Mic Activator (to be used in conjunction with Sennheiser Shure SM7B) | |

Glossary

Accelerator: A space that provides later-stage start-ups with access to mentorship and a larger network to further develop their business ideas over an intensive and limited time frame of a few weeks to months. Often times the start-ups give equity in return for mentorship and small seed investment.

Angel investor: A person who supplies starting or growth capital for seed-stage and early stage companies in exchange for convertible debt or ownership equity.

Bootcamp: An immersive and technical training program focused on up-to-date trends in technology, entrepreneurship, coding and design, and professional skills development.

Community Interest Company: A type of company introduced by the United Kingdom government in 2005 under the Companies Act 2004, designed for social enterprises that want to use their profits and assets for the public good.

Community space: A space that is designed to be inclusive of all members of a community, often providing learning activities and a space to recreate and exchange ideas.

Co-working space: A membership-based work space that allows diverse groups of independent creative professionals and individuals that work remotely to work in a shared setting. Co-working spaces aim to help those with common values develop potential synergies.

Incubator: A space designed for early stage start-ups that provides a shared space as well as access to mentors and a variety of services (for example, business literacy programs, market research, marketing assistance, business coaching, and so on).

Innovation hub: A space that as community managers that integrate many of the other functions of creative community spaces. Innovation hubs' main function is to coordinate all actors of the ecosystem and help manage the community of tech-innovators and entrepreneurs to grow sustainably. Many of these innovation hubs enjoy the participation of the most relevant actors of the technology innovation ecosystem, including entrepreneurs, universities, private sector, creative community spaces, and government — particularly city government.

Fab lab: A space that specialises in digital fabrication (a type of manufacturing that uses computer-controlled machines), which includes a range of additive manufacturing technologies, with 3-D printing being the most common.

Hacker space: A space that is operated by a community of like-minded individuals, often with a strong interest in technology, science, and digital fabrication, with an aim to provide a ground for collaboration and socialisation for the members of the community.

Hub: An effective focal point and generator of activity for a given sector. It applies to spaces, regions, and networks.

Maker space: A space for creative production in art, science, and engineering where people of all ages and career paths integrate digital and physical technologies to learn technical skills and create new products.

Venture capital: Capital that is provided to seed-stage and early stage companies by professional investors if these companies are seen as potential high-growth ventures

APPENDICES

APPENDIX 1

Full list from Crunchbase of companies who have received investment:

| Organisation Name | Headquarters Location | Founded Date | Industries | Industry Groups |
|------------------------|-----------------------|--------------|---|---|
| Hughes and McLeod | Downpatrick | 01/01/1977 | Music, Musical Instruments | Media and Entertainment, Music and Audio |
| Inform communications | Ballynahinch | 01/01/1984 | Digital Marketing, Event Management, Social Media | Events, Internet Services, Media and Entertainment, Sales and Marketing |
| Around Noon Sandwiches | Newry | 01/01/1989 | Food and Beverage, Food Processing, Snack Food | Food and Beverage |
| Quick Step | Newry | 19/08/1991 | Interior Design, Local Business, Product Design | Design, Real Estate |
| Kx | Newry | 01/01/1993 | Analytics, Database, Information Technology | Data and Analytics, Information Technology, Software |
| The Rug House | Newry | 01/01/1993 | E-Commerce, Retail, Social Shopping | Commerce and Shopping |
| First Derivatives | Newry | 01/01/1996 | Banking, Consulting, Financial Services | Financial Services, Lending and Investments |
| Cartoncare | Newry | 01/01/1996 | Marketing, Packaging Services, Printing, Product Management | Administrative Services, Content and Publishing, Media and Entertainment, Sales and Marketing |
| JK Fabrications LTD | Newry | 01/01/1998 | Industrial, Industrial Engineering, Manufacturing, Mechanical Engineering | Manufacturing, Science and Engineering |
| Brilliant Red | Newry | 01/01/1998 | Consulting, Marketing, Training | Education, Sales and Marketing |
| Townview Foods | Newry | 01/01/1999 | Food and Beverage | Food and Beverage |
| The Mourne Lodge | Newry | 01/01/2000 | Association, Tourism, Travel | Travel and Tourism |
| Bluezone Technologies | Newry | 01/01/2001 | Information Technology, Software | Information Technology, Software |
| Nitronica | Ballynahinch | 01/01/2002 | Electrical Distribution, Electronics, Manufacturing | Consumer Electronics, Energy, Hardware, Manufacturing |
| Green Energy Wind | Castlewellan | 01/01/2002 | | |
| Fresh 2 U | Newry | 23/09/2003 | Food and Beverage, Food Delivery, Wholesale | Commerce and Shopping, Food and Beverage, Transportation |

| Organisation Name | Headquarters Location | Founded Date | Industries | Industry Groups |
|---------------------------|-----------------------|--------------|---|--|
| RentPro | Downpatrick | 01/01/2004 | Information Technology, Software | Information Technology, Software |
| Solar NI | Newry | 01/01/2004 | Energy, Solar | Energy, Natural Resources, Sustainability |
| Conard Care Services Ltd. | Saintfield | 01/01/2005 | Health Care | Health Care |
| Platinum Recruitment | Downpatrick | 01/01/2006 | Human Resources, Recruiting, Staffing Agency | Administrative Services, Professional Services |
| STATSports | Newry | 01/01/2007 | Sports | Sports |
| Media Lightbox | Newry | 01/01/2007 | Digital Media, Software, Video | Media and Entertainment, Software, Video |
| Mourne Training Services | Newry | 01/01/2007 | Biotechnology, Consulting, Education, Pharmaceutical | Biotechnology, Education, Health Care, Science and Engineering |
| Fast Tech NI | Downpatrick | 30/09/2008 | Consulting, Information Services, IT Management, Mobile, Software | Information Technology, Mobile, Software |
| Newry Web Design | Newry | 01/01/2009 | E-Commerce, Internet, Web Design | Commerce and Shopping, Design, Internet Services |
| Irish Shopper | Newry | 01/01/2009 | E-Commerce, Gift, Home Decor | Commerce and Shopping, Real Estate |
| Commercial Connections | Crossgar | 03/04/2009 | Commercial, Consulting, Manufacturing | Manufacturing |
| Green Energy Engineering | Dromore | 28/10/2009 | Industrial, Industrial Automation, Manufacturing | Manufacturing, Science and Engineering |
| Gluten Free Ireland | Ballynahinch | 01/08/2010 | Food and Beverage | Food and Beverage |
| TriggerAppy Ltd | Downpatrick | 01/01/2011 | Automotive, Internet, Software | Internet Services, Software, Transportation |
| Alimay Sports | Newry | 01/01/2011 | E-Commerce, Recycling, Retail | Commerce and Shopping, Sustainability |
| Gapogroup | Castlewellan | 01/01/2011 | Commercial | |
| PR's Me | Downpatrick | 01/01/2011 | Content Creators, Public Relations | Media and Entertainment, Sales and Marketing |
| Future Healthcare NI | Newry | 01/04/2011 | Health Care, Hospital, Software | Health Care, Software |
| All 3 Studio Design | Newry | 01/01/2012 | Graphic Design, Printing | Content and Publishing, Design, Media and Entertainment |

| Organisation Name | Headquarters Location | Founded Date | Industries | Industry Groups |
|--------------------------------|-----------------------|--------------|---|--|
| RNN Communications | Ballynahinch | 01/01/2012 | Consulting, Public Relations | Sales and Marketing |
| FIELDMOTION | Newry | 09/11/2012 | Cloud Data Services, Enterprise Software, Field Support, SaaS, Software | Information Technology, Internet Services, Software |
| Plotinus | Newry | 01/01/2013 | Analytics, Database, Information Technology | Data and Analytics, Information Technology, Software |
| Kitchen OS | Newry | 28/02/2014 | Internet of Things, iOS, Software | Internet Services, Mobile, Platforms, Software |
| Right Revenue | Saintfield | 01/01/2015 | Analytics, Hospitality | Data and Analytics, Travel and Tourism |
| If Consulting & Marketing | Newry | 01/01/2015 | Advertising, Business Development, Consulting, Social Media | Advertising, Internet Services, Media and Entertainment, Sales and Marketing |
| Neos Design Studio | Newry | 01/01/2015 | Mobile Apps, Web Design, Web Development | Apps, Design, Mobile, Software |
| Bluefin Software Solutions | Castlewellan | 15/07/2015 | Software | Software |
| Gig Graftor | Newry | 01/01/2016 | Mobile, Software | Mobile, Software |
| Pearlai | Newry | 20/04/2016 | Analytics, Predictive Analytics, Retail Technology | Artificial Intelligence, Commerce and Shopping, Data and Analytics, Hardware, Software |
| Clicks Help | Newry | 01/01/2017 | Computer, Software | Consumer Electronics, Hardware, Software |
| FreeTikTok | Newry | 01/08/2018 | Internet | Internet Services |
| Greenshoots | Newry | | Incubators | Financial Services, Lending and Investments |
| Ryco Marketing | Newry | | Advertising, E-Commerce, Marketing | Advertising, Commerce and Shopping, Sales and Marketing |
| Resonate Testing | Newry | | | Manufacturing, Real Estate |
| GGD Global Ltd | Newry | | | Product Design, Web Design |
| Aes Automation | Downpatrick | | | Industrial Automation, Manufacturing, Security |
| Digney Grant Insurance Brokers | Newry | | | Commercial, Insurance |
| PrinterInkCartridges.ie | Newry | | | Printing |

| Organisation Name | Headquarters Location | Founded Date | Industries | Industry Groups |
|---------------------------|-----------------------|--------------|------------|--|
| Spa 4 Schools | Ballynahinch | | | |
| Sootano | Square | | | Recruiting |
| Protomatter Web Solutions | Newry | | | Internet, Software, Web Development |
| Central Translations | Newry | | | Professional Services, Translation Service |

APPENDIX 2

List of top 50 companies receiving Invest NI funding

| Business Name | Total Assistance | SIC Code | SIC Sector |
|--|------------------|----------|---|
| First Derivatives Public Limited Company | £4,552,596 | 66190 | Financial & Insurance Activities |
| STATSports Group Limited | £4,008,479 | 74909 | Professional, Scientific & Technical Activities |
| Finnebrogue Artisan | £3,218,049 | 10130 | Manufacturing |
| Norbrook Laboratories Limited | £1,156,339 | 21200 | Manufacturing |
| Around Noon Foods Limited | £1,066,326 | 10710 | Manufacturing |
| Killeavy Castle Ltd | £998,250 | 55100 | Accommodation & Food Service Activities |
| B/E Aerospace (UK) Limited | £990,818 | 30300 | Manufacturing |
| Right Revenue | £978,780 | 70229 | Professional, Scientific & Technical Activities |
| Funky Monkeys Playcentres Ltd | £900,000 | 82990 | Admin & Support Service Activities |
| Autoline Insurance Group | £654,366 | 66220 | Financial & Insurance Activities |
| Plotinus Limited | £640,700 | 63110 | Information & Communication |
| Exact CNC (NI) Ltd | £558,471 | 25620 | Manufacturing |
| HBE Risk Management | £535,170 | 71129 | Professional, Scientific & Technical Activities |
| MJM Group | £507,567 | 16230 | Manufacturing |
| Hill Engineering Limited | £374,793 | 28220 | Manufacturing |
| Anord Mardix (NI) Limited | £345,021 | 27120 | Manufacturing |
| Netwatch System | £340,000 | 80200 | Admin & Support Service Activities |
| Resonate Testing Ltd | £320,345 | 30300 | Manufacturing |
| Cartoncare Limited | £280,000 | 17219 | Manufacturing |
| Sauce Works Ltd | £278,776 | 10840 | Manufacturing |
| Bradfor Limited | £273,307 | 13960 | Manufacturing |
| Fieldmotion Ltd | £266,250 | 62010 | Information & Communication |
| J.K. Fabrications Limited | £260,027 | 42910 | Construction |
| Walter Watson Limited | £253,896 | 25110 | Manufacturing |

| Business Name | Total Assistance | SIC Code | SIC Sector |
|---|------------------|----------|---|
| Treze Limited | £250,955 | 62010 | Information & Communication |
| McAllister Bros Limited | £236,369 | 81229 | Admin & Support Service Activities |
| Gourmet Island | £235,310 | 10130 | Manufacturing |
| Newcel Paper Converters Limited | £217,000 | 17220 | Manufacturing |
| Blue Clarity Design Services Ltd | £213,196 | 71121 | Professional, Scientific & Technical Activities |
| Herron Engineering Limited | £203,989 | 29202 | Manufacturing |
| Kilkeel Seafoods Ltd | £191,710 | 10200 | Manufacturing |
| Deli Lites | £191,563 | 10890 | Manufacturing |
| Rademon Estate Distillery Limited | £182,979 | 11010 | Manufacturing |
| National Building Services | £178,148 | 43999 | Construction |
| Orior By Design Limited | £175,660 | 31090 | Manufacturing |
| Gola Wood Works Ltd | £175,000 | 70229 | Professional, Scientific & Technical Activities |
| Nitronica Limited | £162,190 | 26110 | Manufacturing |
| East Coast Seafood | £159,365 | 10200 | Manufacturing |
| Kukoon | £159,158 | 47910 | Wholesale & Retail Trade & Repair of Vehicles |
| Cathal Grant Design & Management Ltd | £157,300 | 71121 | Professional, Scientific & Technical Activities |
| Savage & Whitten Wholesale Ltd | £156,200 | 46390 | Wholesale & Retail Trade & Repair of Vehicles |
| Terra Solutions Limited | £142,500 | 43999 | Construction |
| AX Board Ltd | £137,134 | 31090 | Manufacturing |
| T.S. Foods Limited | £133,694 | 10850 | Manufacturing |
| Aidan Strain Electrical Engineering Limited | £126,277 | 33130 | Manufacturing |
| CES Quarry Products Limited | £124,932 | 23610 | Manufacturing |
| Donite Plastics Ltd | £122,984 | 22290 | Manufacturing |
| Whitewater Brewing Co. Ltd | £116,100 | 11050 | Manufacturing |
| Platinum Precision Engineering Limited | £112,596 | 25620 | Manufacturing |
| Crawford Hide | £110,508 | 46240 | Wholesale & Retail Trade & Repair of Vehicles |

APPENDIX 3

Job Creation companies - by order of highest number of jobs created

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|--|-------------------------------|------------------|---|
| First Derivatives Public Limited Company | 365 | 66190 | Financial & Insurance Activities |
| STATSports Group Limited | 237 | 74909 | Professional, Scientific & Technical Activities |
| Finnebrogue Artisan | 150 | 10130 | Manufacturing |
| Killeavy Castle Ltd | 83 | 55100 | Accommodation & Food Service Activities |
| Autoline Insurance Group | 60 | 66220 | Financial & Insurance Activities |
| Around Noon | 55 | 10890 | Manufacturing |
| B/E Aerospace (UK) Limited | 50 | 30300 | Manufacturing |
| Anord Mardix (NI) Limited | 48 | 27120 | Manufacturing |
| Walter Watson Limited | 41 | 25110 | Manufacturing |
| Hill Engineering Limited | 34 | 28220 | Manufacturing |
| Kilkeel Seafoods Ltd | 33 | 10200 | Manufacturing |
| Savage & Whitten Wholesale Ltd | 28 | 46390 | Wholesale & Retail Trade & Repair of Vehicles |
| Bradfor Limited | 26 | 13960 | Manufacturing |
| McAllister Bros Limited | 26 | 81229 | Admin & Support Service Activities |
| Blue Clarity Design Services Ltd | 25 | 71121 | Professional, Scientific & Technical Activities |
| Deli Lites | 23 | 10890 | Manufacturing |
| Cathal Grant Design & Management Ltd | 17 | 71121 | Professional, Scientific & Technical Activities |
| Exact CNC (NI) Ltd | 17 | 25620 | Manufacturing |
| Pearlai Ltd | 17 | 63110 | Information & Communication |
| Resonate Testing Ltd | 17 | 30300 | Manufacturing |
| AX Board Ltd | 16 | 31090 | Manufacturing |
| Netwatch System | 15 | 80200 | Admin & Support Service Activities |
| Terra Solutions Limited | 15 | 43999 | Construction |
| Fieldmotion Ltd | 14 | 62010 | Information & Communication |
| J.K. Fabrications Limited | 14 | 42910 | Construction |

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|--|--------------------------------------|-------------------------|---|
| Sweet Things | 13 | 10710 | Manufacturing |
| Markey Drilling Ltd | 11 | 43999 | Construction |
| Mayfair Civils | 11 | 41100 | Construction |
| Herron Engineering Limited | 10 | 29202 | Manufacturing |
| KFPC Limited | 10 | 62090 | Information & Communication |
| Mobipaypoint UK Ltd | 10 | 62010 | Information & Communication |
| Kukoon | 9 | 47910 | Wholesale & Retail Trade & Repair of Vehicles |
| O'Hare Steel | 9 | 25110 | Manufacturing |
| PT Treats | 9 | 10710 | Manufacturing |
| Sauce Works Ltd | 9 | 10840 | Manufacturing |
| Crilco Confections Ltd | 8 | 10822 | Manufacturing |
| Donite Plastics Ltd | 8 | 22290 | Manufacturing |
| Newcel Paper Converters Limited | 8 | 17220 | Manufacturing |
| Orby Engineering | 8 | 28302 | Manufacturing |
| SpillAssist | 8 | 39000 | Water Supply, Sewerage, Waste Management & Remediation Activities |
| Peter Martin Engineering Ltd | 7 | 25110 | Manufacturing |
| Platinum Precision Engineering Limited | 7 | 25620 | Manufacturing |
| 3RD Digital Limited | 6 | 58200 | Information & Communication |
| APS Auto Parts Ltd | 6 | 45320 | Wholesale & Retail Trade & Repair of Vehicles |
| Blockbusters Environmental Services (NI) Limited | 6 | 81299 | Admin & Support Service Activities |
| Copas Technologies Ltd. | 6 | 25730 | Manufacturing |
| Doran Precision Engineering | 6 | 25730 | Manufacturing |
| East Coast Seafood | 6 | 10200 | Manufacturing |
| Fat Fish Marketing Limited | 6 | 62012 | Information & Communication |
| JBC Security | 6 | 80100 | Admin & Support Service Activities |
| John Tinnelly & Sons Limited | 6 | 43110 | Construction |
| McGahon Surveyors Limited | 6 | 74902 | Professional, Scientific & Technical Activities |

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|---|--------------------------------------|-------------------------|---|
| National Building Services | 6 | 43999 | Construction |
| Rademon Estate Distillery Limited | 6 | 11010 | Manufacturing |
| Right Revenue | 6 | 70229 | Professional, Scientific & Technical Activities |
| Roundwood Engineering Works Limited | 6 | 71121 | Professional, Scientific & Technical Activities |
| theVisorshop.com | 6 | 29100 | Manufacturing |
| Whitewater Brewing Co. Ltd | 6 | 11050 | Manufacturing |
| Aidan Strain Electrical Engineering Limited | 5 | 33130 | Manufacturing |
| Beautiful Jobs Limited | 5 | 63990 | Information & Communication |
| Bite to Savour | 5 | 10890 | Manufacturing |
| Cg3 Systems Ltd | 5 | 43220 | Construction |
| CM Precision Components Ltd | 5 | 25620 | Manufacturing |
| Crawford Hide | 5 | 46240 | Wholesale & Retail Trade & Repair of Vehicles |
| DR Group | 5 | 71121 | Professional, Scientific & Technical Activities |
| Gourmet Island | 5 | 10130 | Manufacturing |
| Hannaway Hilltown Limited | 5 | 31020 | Manufacturing |
| ITS New Media Ltd | 5 | 62020 | Information & Communication |
| Leak Detector Ltd | 5 | 71200 | Professional, Scientific & Technical Activities |
| Quest Medical Locums Ltd | 5 | 63120 | Information & Communication |
| Ryco Marketing | 5 | 62090 | Information & Communication |
| T.S. Foods Limited | 5 | 10850 | Manufacturing |
| Bedwin Soft Furnishing | 4 | 13920 | Manufacturing |
| Clonallon Laboratories Ltd | 4 | 21200 | Manufacturing |
| Copeland Spirits Ltd | 4 | 11010 | Manufacturing |
| Digital DNA | 4 | 82301 | Admin & Support Service Activities |
| DSS Limited | 4 | 63110 | Information & Communication |
| Erth Engineering Limited | 4 | 28302 | Manufacturing |
| Foodsafesystem.com | 4 | 62012 | Information & Communication |

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|--|--------------------------------------|-------------------------|---|
| HBE Risk Management | 4 | 71129 | Professional, Scientific & Technical Activities |
| J R Lighting | 4 | 71200 | Professional, Scientific & Technical Activities |
| Jumpack | 4 | 93199 | Arts, Entertainment & Recreation |
| Meddev Solutions Limited | 4 | 70229 | Professional, Scientific & Technical Activities |
| Mourne Mountains Brewery | 4 | 11050 | Manufacturing |
| Need of Meats Ltd | 4 | 10130 | Manufacturing |
| NI Mechanical Ltd | 4 | 43220 | Construction |
| Nitronica Limited | 4 | 26110 | Manufacturing |
| Pinnacle Professional | 4 | 70229 | Professional, Scientific & Technical Activities |
| Sea Source Processing Ltd | 4 | 10200 | Manufacturing |
| The Blinky Company | 4 | 47789 | Wholesale & Retail Trade & Repair of Vehicles |
| Tony Patterson Sportsgrounds Ltd | 4 | 42990 | Construction |
| Unislim Clubs Limited | 4 | 86900 | Human & Social Work Activities |
| 3R Mobility | 3 | 82990 | Admin & Support Service Activities |
| Bluesona Limited | 3 | 26400 | Manufacturing |
| Clanrye Electrical Supplies Limited | 3 | 46440 | Wholesale & Retail Trade & Repair of Vehicles |
| Fabtops Limited | 3 | 16230 | Manufacturing |
| Health Matters (Occupational Health) Limited | 3 | 85590 | Education |
| Jofar Ltd | 3 | 94120 | Other Service Activities |
| Lignum Interiors | 3 | 31090 | Manufacturing |
| MVMS | 3 | 25990 | Manufacturing |
| O'Kane Resourcing | 3 | 82990 | Admin & Support Service Activities |
| Oh So Lean Ltd | 3 | 10130 | Manufacturing |
| P W S Ireland Limited | 3 | 25990 | Manufacturing |
| RK Marketing Ltd | 3 | 62020 | Information & Communication |
| Ruach Music Ltd | 3 | 32200 | Manufacturing |
| Tusk Machinery Limited | 3 | 28302 | Manufacturing |

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|---------------------------------|--------------------------------------|-------------------------|---|
| Water Solutions Ireland Ltd. | 3 | 71129 | Professional, Scientific & Technical Activities |
| AJC Electrical | 2 | 27120 | Manufacturing |
| B M Steel Fabrications Limited | 2 | 25990 | Manufacturing |
| CCL Services (N.I.) Limited | 2 | 43210 | Construction |
| CES Quarry Products Limited | 2 | 23610 | Manufacturing |
| Chromascope Europe Ltd | 2 | 23610 | Manufacturing |
| David Henderson Design Ltd | 2 | 90030 | Arts, Entertainment & Recreation |
| Down Sauce Co. Ltd | 2 | 10840 | Manufacturing |
| F M Environmental Limited | 2 | 37000 | Water Supply, Sewerage, Waste Management & Remediation Activities |
| Horse First Limited | 2 | 20590 | Manufacturing |
| Kilkeel Kipperring Ltd | 2 | 10200 | Manufacturing |
| Marshall Day Accoustics | 2 | 71129 | Professional, Scientific & Technical Activities |
| Maurice Walsh & Company Limited | 2 | 25110 | Manufacturing |
| Me2You | 2 | 10890 | Manufacturing |
| Orior By Design Limited | 2 | 31090 | Manufacturing |
| Rockincolour Ltd | 2 | 23610 | Manufacturing |
| RTA Ireland Limited | 2 | 30300 | Manufacturing |
| Slackpress | 2 | 59112 | Information & Communication |
| Typerite (2008) Limited | 2 | 32990 | Manufacturing |
| Water Teknik Ltd | 2 | 71129 | Professional, Scientific & Technical Activities |
| Advantage Control N Ireland Ltd | 1 | 27110 | Manufacturing |
| Bluezone Technologies Ltd | 1 | 62090 | Information & Communication |
| ETimes2 Ltd | 1 | 70229 | Professional, Scientific & Technical Activities |
| G Smyth Boats | 1 | 30120 | Manufacturing |
| Macspect Engineering Ltd | 1 | 42990 | Construction |
| McCreight Potatoes Limited | 1 | 10310 | Manufacturing |

| Business Name | Jobs to be Created (Assisted) | SIC Code 5 Digit | SIC Sector |
|--------------------------------|--------------------------------------|-------------------------|---|
| McNamee's Bakery | 1 | 10710 | Manufacturing |
| Moon & Spoon | 1 | 56290 | Accommodation & Food Service Activities |
| Numac Fabrications Ltd | 1 | 28920 | Manufacturing |
| Panacea Drinks | 1 | 11070 | Manufacturing |
| Rooney Fish | 1 | 10200 | Manufacturing |
| Smet Building Products Limited | 1 | 46130 | Wholesale & Retail Trade & Repair of Vehicles |
| T H Nicholson | 1 | 46380 | Wholesale & Retail Trade & Repair of Vehicles |

APPENDIX 4

| | |
|---|-----|
| Manufacturing | 134 |
| Information & Communication | 35 |
| Professional, Scientific & Technical Activities | 22 |
| Construction | 20 |
| Admin & Support Service Activities | 18 |
| Wholesale & Retail Trade & Repair of Vehicles | 17 |
| Accommodation & Food Service Activities | 11 |
| Other Service Activities | 9 |
| Arts, Entertainment & Recreation | 8 |
| Water Supply, Sewerage, Waste Management & Remediation Activities | 3 |
| Financial & Insurance Activities | 3 |
| Agriculture, Forestry & Fishing | 3 |
| Human & Social Work Activities | 3 |
| Education | 2 |
| Mining & Quarrying | 1 |
| Transportation & Storage | 1 |
| X Unknown | 1 |