

Innovation and entrepreneurship in the Sheffield City Region

Final Report

The Synergy Project - www.thesynergyproject.net

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1. Introduction

The Synergy Project set out to answer the question “How do we strengthen the innovation and entrepreneurship ecosystem in the Sheffield City Region?”

We uncovered a wealth of experience, energy, talent and ideas - and also a number of significant barriers which are preventing our region from realising its potential.

This report details our findings and gives recommendations for practical, achievable actions which will address the core issues identified.

We hope that the outputs from this project will inspire the region’s stakeholders to explore new paths.



2. Recommendations



Address the core issues . . .

- Disconnection & inadequate signposting
- Visibility of innovation & entrepreneurship
- Network building - investment, mentors, collaborators etc.
- Clustering around strengths and emerging capabilities
- Data gathering to benchmark activity and improve support offers
- Improving understanding between private and public sectors
- Bringing the 5 MIT REAP stakeholder groups together

. . . by creating a delivery vehicle

Possible models:

- Delivery Team (e.g. [@idea in Leeds](#),) with dedicated people from different organisations and a leader(s) and core team
- An independent and agile Backbone Organisation (e.g. [West Midlands](#), [Innovation SuperNetwork in the North East](#) , [Nova Scotia](#)) that helps deliver shared objectives
- Stakeholder group that is convened every 1-2 months and co-produces and delivers some actions ([TechTown](#)-like model) with dedicated facilitators

Conditions for success

Whatever the form of delivery vehicle:

- It needs to be at least semi-independent and to have autonomy and the flexibility to move fast.
- Funding (wherever that comes from) must be committed over a decent length of time - at least five years (this is based on what we've learned from other places).
- Funding must be sufficient to employ enough people of a suitable calibre and experience and offer them job security - it must recognise the value of human capital.

Encourage / enable stakeholder action

All stakeholders - more collaboration and partnership working to foster a move away from protectionism and risk-aversion

All stakeholders - provision of suitable workspaces and access to high-value equipment

Risk-capital / public sector / corporates / universities(?) - establish a regional co-investment fund

Universities - approach to IP and general ease of access

Public sector - fine-tuning the business support offer



3. Setting the scene



The Vision

- A region fulfilling its significant innovation and entrepreneurship potential
- A global success story, with a regeneration story similar to Bilbao and Pittsburgh

THE DAILY NEWS

www.SYdailynews.com

SOUTH YORKSHIRE'S FAVOURITE NEWSPAPER

1 July 2026

Regional Productivity Rockets



In 2020-21, the City Region took part in the MIT REAP Programme. This stimulated a new level of partnership working between city stakeholders. Significant progress has been made, despite the setbacks from the Covid pandemic. Some of the highlights include:

- New partnerships in Industry 4.0 leading to a 10% increase in productivity
- Meeting net zero targets in half the time
- Increasing graduate retention rates by 20%
- 10 Queen's Awards for Innovation
- 25% increase in innovation-driven startup formation and a 30% increase in survival
- A connected and thriving innovation and entrepreneurship ecosystem.

Case Study: Bilbao, Spain

- Undergoing an economic transformation.
- Productivity is 28% above the EU average.
- GDP is double the level it was in 1996.
- New industries include advanced manufacturing and industrial services, biotech and digital.
- Private - public sector **partnerships** underpin progress.
- Agencies work together to clearly position the region and attract **talent** and tourism.



Case Study: Pittsburgh, USA

- The US 'Steel City' was hit hard by recession and unemployment in the 1980s.
- Private and public organisations came together to grow back stronger - with higher GDP than other comparative US cities.
- Selected **specific clusters** to build competitive advantage - robotics, advanced manufacturing, life sciences.
- Worked closely with the **universities**, especially computer science (data and AI).
- Pittsburgh Technology Council formed to support businesses with talent, business development, government relations and visibility.
- Strong focus on **innovation and entrepreneurship**, supported by the presence of Google and Apple and seed funding from Innovation Works.
- Commitment to **sustainability**.



Photo from
VisitPittsburgh.com



<https://www.bloomberg.com/opinion/articles/2018-02-13/pittsburgh-shows-the-way-to-a-rust-belt-rebound>

<https://news.crunchbase.com/news/pittsburgh-an-emerging-hotbed-of-robotics-ai-companies/v>

<https://www.innovationworks.org>

What do people say about Mindset?

“Building a knowledge cluster requires a new style of thinking - we need a big vision like the Golden Triangle”

“We need to build the same kind of reputation as Cambridge and Bristol”

“Need to have a mindset of coming together as organisations”

“Be open to best practice from outside the region, nationally and internationally”

“If everyone pays it forward, we can create a bigger and better SCR economy”

“Innovation is not about technology, it's about human behaviour - doing it fosters innovation in others and if it doesn't work, we've learnt something”

“Have an appetite for some risk”

“We need to open people's eyes and hearts that we don't have to keep doing the same old thing - tell them they can do it and give them examples of the change that can come”

“Operating globally, living locally”

“Innovation works when you have open conversations”

What do people say about inclusive innovation?

"Your background shouldn't limit your progress" - in relation to knowledge about investment

"We need to embrace diversity and see the new voices of innovation"

"A lot of people can't rely on savings to start a business - there's an issue around social mobility and starting up"

"All people will win when they are taken care of"

"We need to communicate better what's happening in the tech hubs as local people don't understand"

"We need outreach and support for under-represented founders"

"We need conversations with people with different backgrounds and knowledge"

"35% of the population are in low skilled jobs, what is their incentive to innovate?"

"Diverse teams are the most innovative and successful"

"No more smoke and mirrors around innovation"

What others are doing

- <https://innovationwm.co.uk/our-activity/new-voices-of-innovation/>
- <https://idealeedscityregion.com/build/>

A suggested way forward

We can't rely on the public sector alone to develop our regional innovation and entrepreneurship ecosystem.

We need to:

1. Bring together the 5 stakeholders identified in the MIT REAP model - entrepreneurs, risk capital, corporates, local government and universities - in a way that facilitates partnership working.
2. Initially, identify 1-3 regional priorities in the Strategic Economic Plan that can be addressed by a focus on innovation and entrepreneurship.
3. Encourage a participatory culture to co-produce a mission-orientated delivery plan that is sufficiently resourced.
4. Share information and results to build community, confidence and resilience in the ecosystem.
5. Take on more collective challenges and see the ecosystem flourish.

4. About the project



The Synergy Project: Objectives

Building on work done by Sheffield City Region (SCR) as part of the MIT REAP programme:

- Identify barriers to formation of Innovation Driven Enterprises (IDEs) in the SCR
- Explore the regional innovation and entrepreneurship ecosystem, identifying what works, what doesn't and where there are gaps
- Formulate and test out activities to strengthen the ecosystem and encourage IDEs to start and thrive

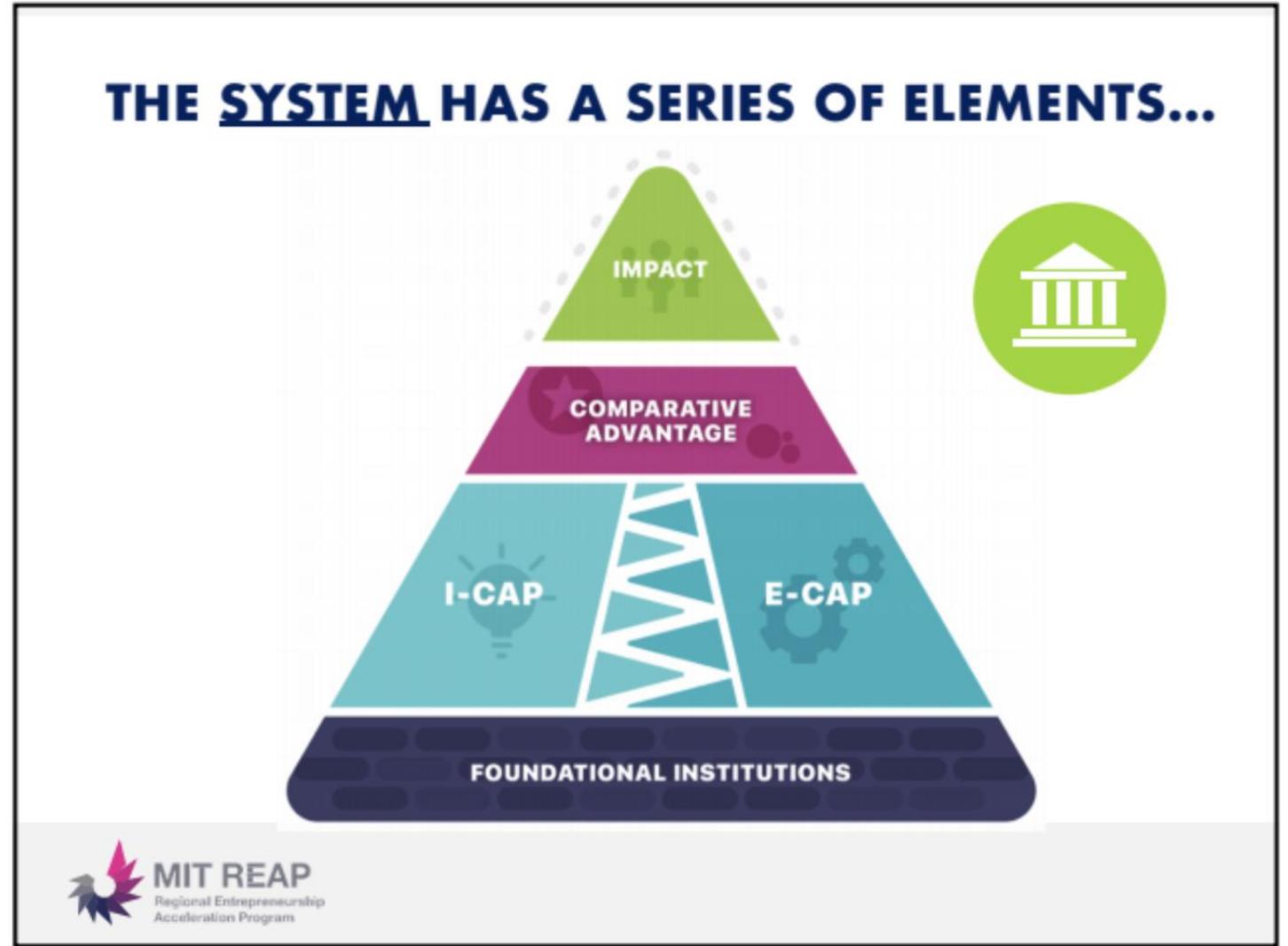
MIT REAP Stakeholder Model for Innovation Ecosystems

Collaboration across key stakeholders is crucial for collective impact and for the acceleration of 'innovation-driven entrepreneurship' at the ecosystem level.



Both innovation and entrepreneurship capacities need to be robust to ultimately achieve impact

See <https://www.thesynergyproject.net/project-updates/icap-and-ecap> - for an analysis of our region's I-Cap and E-Cap.



Innovation Driven Enterprise (IDE)

An enterprise that pursues global opportunity based on bringing to customers new innovations that have a clear competitive advantage and high growth potential. The term “new innovations” refers to new-to-the-world ideas in the technical, market, process or business model domain - innovation is not limited to technology. IDEs may be start-ups, scale-ups or existing businesses.

Starting and scaling an IDE can be much more complex than for more usual SMEs and bespoke support is required.

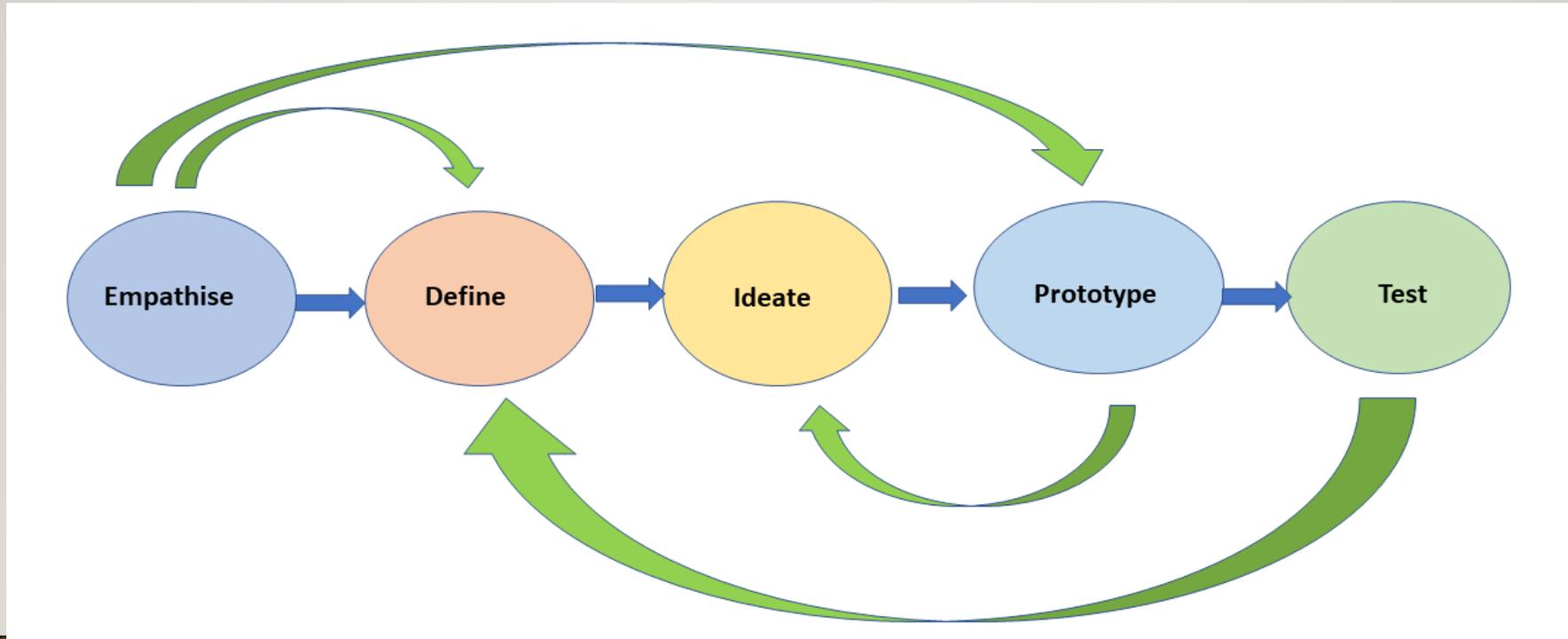


5. Methodology



Project Methodology

We used a “design thinking” approach to this project. This is a non-linear approach involving feedback loops between 5 key stages:



Project Plan

Set-Up	Set up project management tools and contact management system Build contact database Communication strategy and messaging (including website)
Discovery	Conduct in-depth one-to-one interviews with a range of representatives of all 5 stakeholder groups, starting with regional entrepreneurs and corporates.
Ideation	Generate a variety of possible activities/interventions that could help address the problems identified in the interviews. This will be achieved through co-design workshops with selected stakeholder representatives.
Pilot & Test	Create and implement pilots of a selected set of interventions.
Analysis	Gather evidence on the practicality and impact of the pilots.
Report	Provide a report with a draft action plan for future activity.

Interview participants

- We used our networks to compile a list of target participants, ensuring representation of all 5 key stakeholder groups.
- We also took the opportunity to speak to people from outside our region who are involved in their local ecosystems.
- We paid attention to ensuring a gender-balanced set of participants and, as much as possible, to including individuals from different demographics. However, it must be recognised that the region's innovation and entrepreneurship ecosystem is not very diverse at present. Our participant list necessarily reflected that fact.
- Participants were interviewed on an anonymous basis. A list of the organisations they represented can be found in Appendix 1.

Notes re interview sample

- The sample of businesses may have been self selecting to the extent that we approached companies already within our network who we identified as Innovation Driven Enterprises.
- The focus of the project was on uncovering barriers and gaps and exploring areas for improvement - resulting in a bias in our questions towards what isn't working.
- See Section 6.1 on what is going well.

Interview approach

- Interviewees received a background information document beforehand.
- Interviews were conducted online and recorded for note-taking purposes only.
- We had a list of open, non-leading questions to cover, but all the interviews were conversational so that we had the flexibility to follow interesting topics and ideas.
- To encourage openness, interviewees were told they would not be identified and would only be quoted anonymously.
- We conducted a total of 58 interviews during the course of the project.

Interventions

- During the Discovery phase, we responded to enquiries and requests for information, contacts or introductions as they came up.
- We used a 'Connection Team', made up of people who could represent important sectors and organisations and act as a sounding board for us to test our findings.
- We took the opportunity to speak to contacts outside the region to learn what had worked for them.
- Where time and resources permitted, we implemented some ideas (particularly around communication). However, it was clear that the project timescales were too short to allow in-depth testing and evaluation.

6. Findings



6.1 What is Going Well?



What is going well?

Business support activity centred around hubs, including Sheffield Tech Parks, Barnsley Digital Campus and the AWRC.

Sheffield Digital's organisation of the tech ecosystem via representation, meetups, communication and connections is well received

Developing spin-out pipeline from the University of Sheffield and KTP success at Sheffield Hallam

Support from SCR and local authority business advisers (including tech advisers specifically) is often helpful

When people in business-facing roles all do their bit to share knowledge and make connections, you see the ecosystem starting to function well

Appreciation of some of the regional strengths and assets such as the Universities including AMRC, AWRC

Momentum is good - get the sense that whilst things are challenging there's a collective will to improve the business support ecosystem

Good examples of support from the Universities (including the AMRC) once the right connections have been made

Excellent examples of IDE start-ups, e.g. Rinri Therapeutics, Four Jaw Manufacturing Analytics, Opteran

Excellent examples of established IDEs, e.g. Tribosonics, The Flow, WanDisco, AESSEAL

The Chambers of Commerce are one to watch - increasingly modernising to address changing needs

Existing accelerator programmes are good - IoT Tribe, Y accelerator and AWRC - and producing businesses that stay in the region

Progress in our universities (1)

As partners in the Synergy Project, both Universities have demonstrated their commitment to and interest in the growth of the region's innovation ecosystem. Both are also investing internally in innovation and entrepreneurialism:

- Since 2016, the University of Sheffield has invested ~ £6m in building start ups - 10 projects received in excess of £200k each in funding. In 2019/20 Research England ranked the University 6th in the Russell Group for startup formation, having created 7 spin-outs.
- The recent establishment of [Northern Gritstone](#) has created a regional investment company that intends to raise £350m-£500m to invest in University-related IP-rich businesses.
- The University of Sheffield currently has over 40 graduate start-ups in the pipeline in addition to the commercialisation pipeline.
- Both Universities are partners in the Sheffield Innovation Programme (SIP).

Progress in our universities (2)

- Through the Sheffield Innovation Programme, Sheffield Hallam University has supported 375+ businesses over the last 4 years, investing in helping regional SMEs to grow their R&D capacity. This work has already led to 9 Knowledge Transfer Partnerships as well as other Innovate UK awards.
- The AWRC Wellbeing Accelerator has supported 28 healthcare businesses over 18 months, providing another node in the regional innovation infrastructure.
- SHU has also invested heavily in work-based skills, student start-ups and entrepreneurship. Employability is closely aligned with business in the development of skills provision and higher degree apprenticeships for employers, the delivery of student led consultancy programmes, enterprise and start up support (both within and outside the curriculum) and an integrated placement and internship programme. This award winning approach is effective – in the last 3 years it has produced:
 - 171 Student start ups
 - 400+ internships with SMEs
 - 30 Degree Apprenticeship courses with 1512 degree apprentices in study

Successes in business support

- Co-ordination of the business support offer across the region has improved, both through the local authorities and SIAN (Sheffield Incubator and Accelerator Network).
- The introduction of more specialist advisors (via SCR and the local authorities) is well received and having a positive impact.
- Areas of cluster development, such as the AWRC Accelerator (healthcare), AMRC (manufacturing) and Sheffield Digital (tech) have an important influence.
- The design and research element of the AWRC Accelerator, sometimes also involving the AMRC, has been useful to a number of businesses.
- Availability of flexible workspace has increased and successful hubs are providing focal points for start-up communities, e.g. Sheffield Tech Parks, Barnsley Digital Campus, Kollider
- A number of local companies have set up their own accelerator programmes, e.g. Razor (Buldozer), Twinkl (TwinklHive) and TribePad (TribePad Ventures).
- An active meetup scene helps people make valuable connections, e.g. SmartSheffield, Sheffield IoT meetup, Immerse Sheffield.
- A number of funded programmes are in progress, e.g. Sheffield Innovation Programme, Digital Innovation for Growth, Scale-up 360, TEAM SY etc.

6.2 Barriers and Gaps



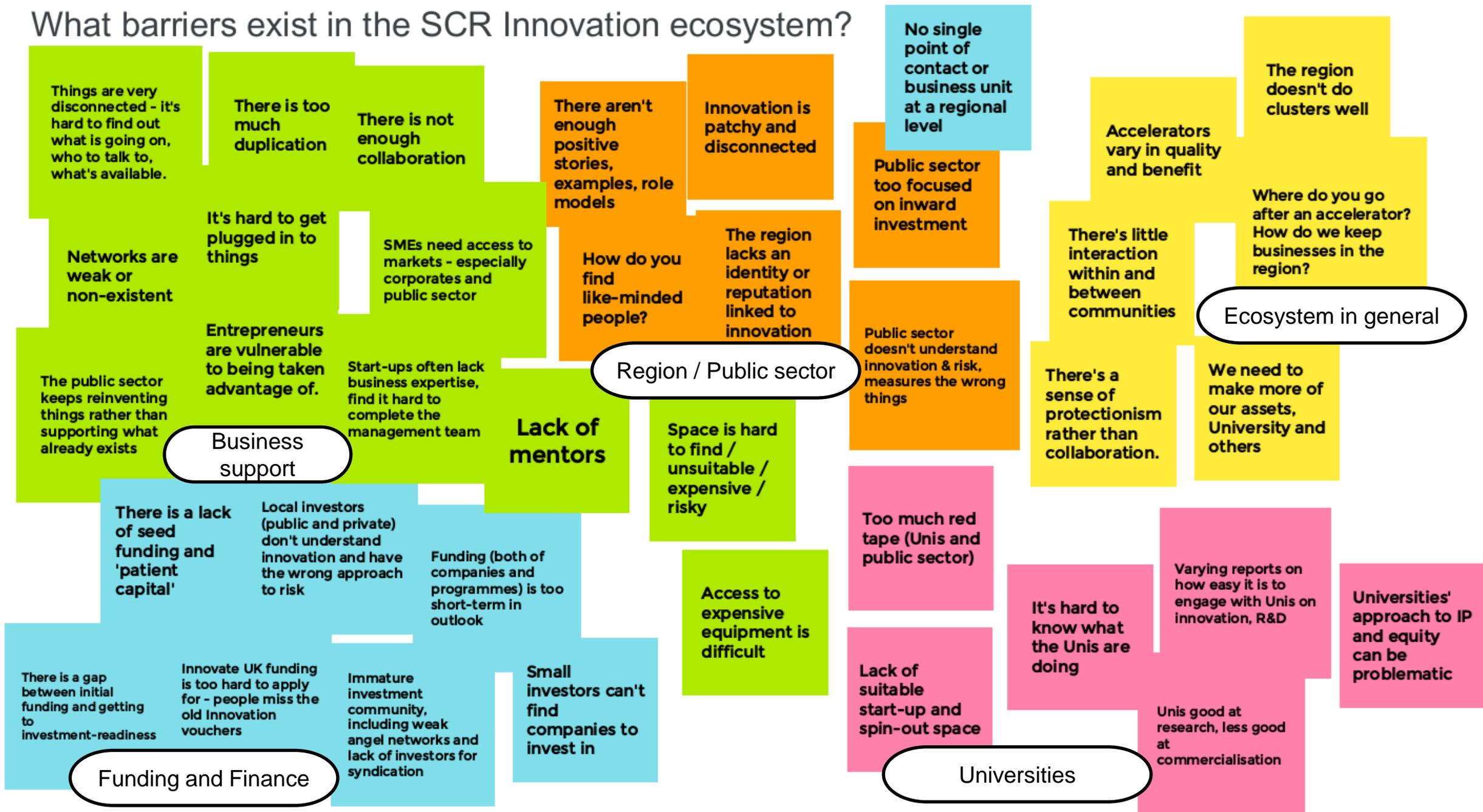
Introduction

- We captured feedback from the interviews related to **barriers to growing and supporting Innovation Driven Enterprises (IDEs)** in the SCR.
- 52 / 58 interviews were conducted with people within the SCR ecosystem or that had knowledge of it (the remaining 6 were with people outside the region).
- These 52 interviews were reviewed to identify the different themes and topics, and quantified to determine the number of people who mentioned a topic.
- An interim Barriers and Gaps report was provided to project funders and the Connection Team about two thirds of the way through the project.
- A full version of the final Barriers and Gaps report can be found in **Appendix 2**.

Barriers and Gaps: Emerging Themes

1. Ecosystem in general
2. Region / Public sector
3. Business support
4. Funding and finance
5. Universities

What barriers exist in the SCR Innovation ecosystem?



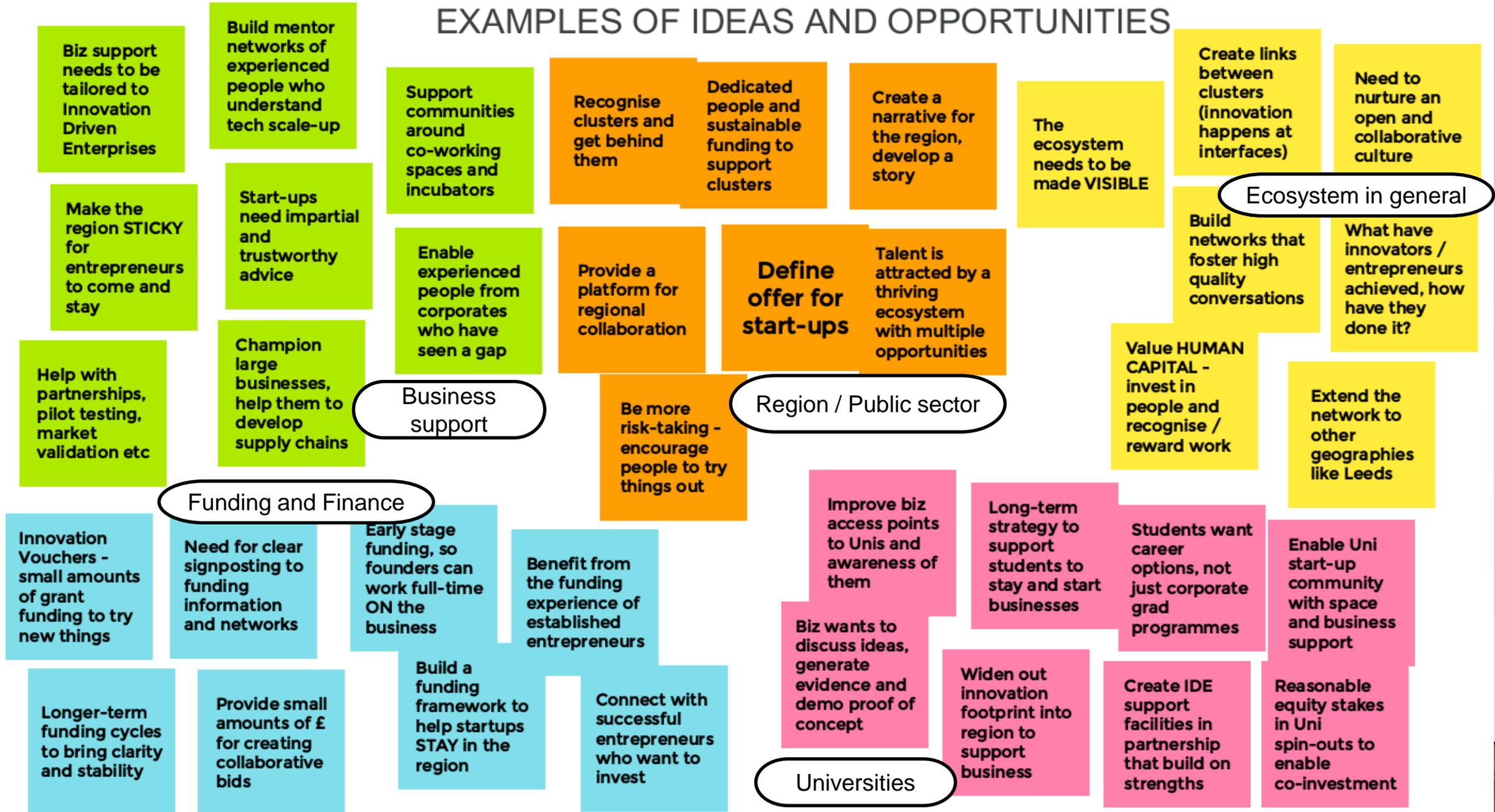
6.3 Ideas and Opportunities



Introduction

- We reviewed the interview scripts to identify suggestions for ideas and opportunities to develop the ecosystem to support IDEs.
- The different suggestions were captured on 'Jam Boards' with post-its to represent them.
- The next slide has a selection to provide examples from each of the themes.
- We discussed the emerging ideas with the Connection Team, who helped to organise and prioritise them. This helped inform our interventions.
- A detailed Ideas and Opportunities report can be found in **Appendix 3**.

EXAMPLES OF IDEAS AND OPPORTUNITIES



7. Intervention Examples



7.1 Theme: Ecosystem in general - barriers

- Ecosystem is fragmented, disconnected.
- Lack of connectivity and it's difficult to find contacts/collaborators.
- People don't know what support is available.
- SCR doesn't have a reputation as a hub for innovation and entrepreneurship.

Ecosystem - interventions

1. Operating as a “backbone organisation” to provide a point of connection and signposting
2. Setting up the Connection Team to help share understanding and learning more widely
3. Compiling a set of information resources (Synergy Project website)
4. Establishing an accessible directory of people interested in the project’s aims (LinkedIn group)

Intervention 1: Pilot “Backbone Organisation” - an independent entity that facilitates the ecosystem

What we've done

- Been lean and strategic
- Created a space for people to engage
- Listened to people and captured their input
- Pursued a wider engagement strategy through our Connection Team to have a broader base of support and regional traction
- Shared results and analysis
- Acted on suggestions, creating connections and carrying out other interventions
- Identified opportunities

What we've learnt

- That you need to have a proper, long term commitment - people and financial resource
- Ideally a semi-autonomous, small team and an agile, well-respected Steering Group
- Be clear about what you will and won't do - don't try and be all things to all people
- Add value by operating in areas where activity is needed but isn't happening
- Stop pushing things that aren't working
- Be the 'glue' that brings good stuff together

Intervention 2: Connection Team

What we did

- We formed a “Connection Team” made up of people who could represent important sectors and organisations
- Meetings were held every 4-6 weeks and acted as a sounding board for us to test our findings
- The Connection Team has been invaluable in helping us to organise our thoughts and focus our activities
- They have also helped us with introductions and signposting to new contacts

What we learnt

- We have highly capable people in the region who understand this agenda
- Though people are busy in their existing roles and have limited capacity
- Lack of empowerment from their organisations also limits their ability to contribute more fully
- A longer-term delivery team would need buy-in from regional anchor organisations and a dedicated time allocation

Intervention 3: Information Resources

What we've done

- Documented the customer journey for entrepreneurs and innovators
- Used the [Synergy Project website](https://www.thesynergyproject.net/support) to collate information on available support
- Used the website to present news, events, information and ideas relating to innovation and entrepreneurship

What we've learnt

- The SCR business support landscape is complex and confusing
- There are lots of great stories to tell
- Simple tools are available to make it easy to collate and share information online
- More time is needed to position the website as a source of information

<https://www.thesynergyproject.net/support>

<https://www.thesynergyproject.net/news-and-resources>

Intervention 4: Directory

What we've done

- Created a [LinkedIn Group](#) for project participants and other interested individuals from the ecosystem
- Sent personal invitations to people to join the group

What we've learnt

- Response to the invitations has been encouraging so far
- Time will show if people are inclined to start posting
- There's an opportunity to drive engagement by actively managing the group

7.2 Theme: Region / Public sector - barriers

- No one place to find out what's going on
- Lack of understanding of innovation and entrepreneurship
- It's not obvious what businesses gain from the region

Region / Public sector - interventions

Intervention 2: Connection Team – to help share understanding and learning more widely (as above)

Intervention 3: Information Resources - see Synergy Project website (as above)

Intervention 4: LinkedIn Directory - to encourage more interaction with the private sector (as above)

7.3 Theme: Business Support - barriers

- Businesses are not getting the right support to scale
- There's a lack of tech talent and startup management experience
- Start-up founders can be vulnerable and need tailored support including mentoring
- It's difficult for businesses to find customers in the region

Business Support - interventions

Intervention 5 - we identified a funded opportunity to enable links between a multinational organisation and regional SMEs. This is currently in discussion and we will continue to follow it through.

Intervention 3 - the Synergy Project website includes a listing of available business support and we also undertook some basic mapping of the customer journey (as above). See <https://www.thesynergyproject.net/project-updates/mapping-business-support>

7.4 Theme: Funding and Finance - barriers

- IDEs need more sources of investment and easier access to finance
- Lack of visibility of angel networks and follow-on investment
- Founders are expected to fund themselves / bootstrap
- Small investors can't find local companies to invest in

Funding and Finance - interventions

Intervention 6 - Kick-starting a regional investor network

Intervention 4 - LinkedIn Directory. A number of the entrepreneurs joining are also exploring angel investment, plus the group is also open to start-up founders (as above)

Intervention 6: Kick-starting a regional investor network

What we've done

- In our interviews, a number of people (both investors and entrepreneurs) cited the need for a local network
- Through sharing our findings with interested parties, we identified a potential leader (Twinkl Hive) for such a network
- We are now supporting Amber Jardine to put an internal case together

What we've learnt

- Being able to share challenges and ideas often unlocks resources
- While Twinkl Hive seem willing to take a lead role, they will need support in getting the network off the ground
- It will be important to position the network in a neutral way
- There is untapped angel investment in the region



7.5 Theme: Universities - barriers

- The universities are not providing an enabling environment for regional innovation and entrepreneurship
- We are not seeing many start-ups from the universities and the support for start-ups could be improved
- There are no clear entry points to the universities

Universities - interventions

Intervention 7 - Increasing the universities' capacity to learn about the ecosystem. Their involvement in this project has provided a direct conduit to information they didn't have access to before.

Intervention 8 - Helping UoS Management School explore an entrepreneurship research centre, in collaboration with the Chair in Entrepreneurship and Enterprise.

Intervention 9 - Support of a Future Leaders Fellowship to help develop university culture of entrepreneurship and links with region.



Additional learning from the interventions

During the project, we identified a number of “easy fixes” that are activities that could be put in place quickly and would create impact. These include:

- set up a mentoring programme where experienced entrepreneurs support start-up founders
- put capacity in place to build up the communities around existing tech hubs and increase their outreach
- create a managed partnering programme that supports collaboration between larger companies and start-ups
- create community manager roles to support cluster development
- encourage further region-wide co-ordination of the business support for IDEs

8. Conclusions



Main conclusions

The high level of engagement in this project has clearly demonstrated the huge amount of talent, enthusiasm, ideas and willingness to contribute that we have in our region - all representing significant unlocked potential.

There is solid evidence from other areas in the UK and overseas that by working collaboratively and aligning to address regional priorities, significant progress can be achieved. Improving the innovation and entrepreneurship ecosystem needs to be a key focus that will bring multiple economic and social benefits.

Given the joined-up thinking elsewhere, we are in a highly competitive landscape of globalisation and digitisation, so there must be a sense of urgency to respond.



9.1 Acknowledgements

Thank you to everyone who was kindly willing to be interviewed for this project. You have provided a rich source of information and ideas for improving our innovation and entrepreneurship ecosystem.

Many thanks to our partners for supporting the project:

SCR Executive Team (Paul Johnson and Felix Kumi-Ampofo)

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9.3 References

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The Big House Accelerator (Nottingham) - <https://bighouse.org.uk/events/23/10/2018/introduction-to-the-big-house-accelerator>

City Verve - <http://www.digitalfutures.manchester.ac.uk/case-studies/the-cityverve-project/>

International Conclave of Entrepreneurs (ICE) <https://theicelist.com/>

Bilbao <https://www.mascontext.com/issues/30-31-bilbao/bilbaos-strategic-evolutionthe-metamorphosis-of-the-industrial-city/>

Pittsburgh <https://www.pghtech.org/>

Innovation Alliance West Midlands <https://innovationwm.co.uk/>

ONSIDE (Nova Scotia) <https://onsidenow.ca/>

Tech Town <https://urbact.eu/techtown>

9.4 Appendices

The following appendices are provided as separate documents:

Appendix 1 - List of organisations interviewed

Appendix 2 - Barriers and Gaps (detailed report)

Appendix 3 - Ideas and Opportunities (detailed report)