REGIONAL PATHFINDERS

Regional Tertiary Pathfinders: Data and Intelligence Thematic Report

Scottish Funding Council
Comhairle Maoineachaidh na h-Alba

Executive Summary

The two Pathfinders in the North East (NE) and South of Scotland have been exploring the potential for enhanced strategic planning and decision making at a regional level.

Colleges and universities have been collaborating, along with other regional partners, on seven pilot projects to deliver coherent, attractive and sustainable education pathways and provision that align with current and emerging regional skills priorities and needs of the economy.

This report focuses specifically on how colleges and universities in the two regions access and use a wide range of data, information and intelligence to make planning decisions on areas of provision, on volume and on level and mode of study and on pathways. Though there is no blueprint for how to do this, there are common approaches. The report highlights the benefits for regional planning for skills and curriculum responsiveness when colleges, universities and other regional partners work in partnership to make sense of data to inform and respond to skills needs.

Ensuring alignment with skills needs

The range of data and intelligence used by colleges and universities to understand current and emerging skills needs to effectively align areas of course provision is vast and comes from a range of sources at local, regional and national level. Where data is not readily available, institutions supplement their understanding from other data sources. The process of developing education provision in line with current and emerging skills needs is complex and dynamic. It requires robust, timely, and focused labour market information and data, requires employers to be actively engaged in forecasting and articulating their future needs, and schools to share data about flow of pupils, volume and learner choice.

Employer engagement is built into an institution's regular course and curriculum planning schedule in a variety of ways, and also happens as a result of institutions being responsive in real time to the needs of local and regional employers.

Institutions work closely with employers, including SMEs, to understand what their current skills needs are, which sectors are growing and declining, and to identify what the jobs of the future will look like and their geographic location. This intelligence and insight from employers, is critical in planning responses to identified needs. Colleges and universities are well-placed to understand how to shape their course provision and curriculum design to align with skills needs.

Challenges and tensions

Institutions shared some of the challenges and tensions they experience in accessing and using available skills data and labour market intelligence to support their alignment of course provision.

Collecting and analysing data and intelligence requires resource and time. This might be particularly challenging for smaller colleges. Pilot projects were able to illustrate how collaborative working can make the best use of available resources, where one partner may have dedicated staff and a unit to horizon scan, distil and share available data.

Data requires interpretation and a shared understanding via shared terminology, to be most useful.

Data from different sources can appear contradictory. Pilot projects illustrated how they checked out nuances with employer partners in order to get a clearer understanding of regional implications.

Sharing data across the Pathfinder pilot projects

Sharing data and intelligence to inform provision and pathways was critical to the operation and success of all seven collaborative pilot projects across the two regions.

At the outset an evidence-based proposal was necessary to gain the endorsement of the key regional partners via the Regional Delivery Board (RDB) process. Colleges, Universities and their project partners, were required to demonstrate a shared understanding of the regional skills needs and priorities and a clear rationale for how the course provision, approaches or pathways being developed would deliver appropriate outcomes.

As the projects were underway, partners continued to ensure that developments were shaped by sharing information and intelligence from a range of sources, including employers, schools, skills and enterprise agencies, and, not least, input from their own institutional data sets. The glue that joined this together was a shared commitment to getting the provision and course offer right for learners, employers and the region.

This report highlights specific examples from the pilot projects on how crossinstitutional groups came together to discuss and make sense of the available data, how they were able to break down any pre-existing barriers to sharing what might be considered business sensitive information and use data sharing agreements to set out the framework for that sharing, standards expected and roles and responsibilities. In some cases, Project Leads noted a real shift from a pre-existing ethos of competition to one of collaboration during the operation of these groups.

Background and approach

The key role of colleges and universities in the context of the Regional, Tertiary Pathfinders Programme is to deliver appropriate course provision and education pathways that align with, and respond to, identified regional economic and skills priorities, meet employer needs and which will also be attractive to learners, secure a significant uptake (pipeline) and provide a smooth learner journey.

We have seen from our early work across the two Pathfinder regions that colleges and universities must balance a range of issues when making decisions on courses, curriculum offers and pathways. (This is illustrated at Appendix 4) This includes responding to regional and national skills needs, taking account of learner needs and choices, responding to specific industry sectors, considering more local, community needs, aligning with their strategic priorities (which for universities will include their international/global offer) and funding considerations (sustainability). Good quality, and relevant, data and intelligence, are key to planning responses to meet regional skills needs.

This thematic report is based on contributions and feedback from key stakeholders participating in the Regional Tertiary Pathfinders Programme, particularly the pilot projects, over the period AY2023-24.

The focus of this report is on how colleges and universities access and utilise data and intelligence to understand employer needs and skills gaps and to underpin their decisions about course offer and wider curriculum planning for the future.

Specific issues concerning data and intelligence are covered in this report while curriculum review and planning processes are covered in a separate Pathfinder thematic report. However, we recognise that the two are closely linked.

This report highlights what has, and is, working well and makes reference to good practice from the pilot projects themselves and finally identifies some key points to consider in the future.

Photo: Dumfries and Galloway College

Using data and intelligence – Learning from the seven Pathfinders' Pilot Projects

In autumn 2023 we invited the key partners across each of the two Pathfinder regions to attend a workshop to **explore how data and evidence on current and emerging skills needs are made available and used across institutional partners in their region**.

We asked Pathfinder partners to share how they used regional skills data and labour market intelligence, to shape and deliver their pilot projects.

We look at each of the projects in turn below. We then consider key themes, and issues emerging, about available data and intelligence, how it is used, what is working well and what could be enhanced.

The aims of all seven pilot projects were consistent with the objectives of the Pathfinder Programme.

Align provision to societal and employer needs

Enhance coherence and sustainability across provision

Provide simpler pathways and better outcomes for learners

Photo: North East Scotland College

South of Scotland

South of Scotland Digital Pathfinder
Dumfries and Galloway College (DGC) and Borders College (BC)

Synopsis

The pilot project built on the work of the South of Scotland Digital Skills Hub, established in 2020, focusing on digital capacity in response to the COVID-19 pandemic and to help the region become more competitive by facilitating the development of higher-level digital skills. It recognised the place-based factors which together, present significant economic challenges for the Scottish Borders and Dumfries and Galloway local authority areas.

The aim was to contribute to developing a highly skilled and adaptable digital workforce in the South of Scotland by equipping learners in core college courses with the digital skills required by employers across the region and to increase the number of postsixteen learners on digital courses.

Data and intelligence

A wide data set was used, with both a national and regional focus, to ensure developments were in line with wider digital aspirations for Scotland. In addition to the Regional Economic Strategy and the Regional Skills Investment Plans for the South of Scotland, the reports and intelligence that were used to understand digital skills needs, skills gaps and future job roles included, but not exclusively, the following:

• Digital Economy Business Survey

• Digital Economy Maturity Index for the South of Scotland

• Digital Strategies for the Scottish Borders and Dumfries & Galloway

• National Digital Strategy

• South of Scotland Enterprise's Digital Strategy

• Digital exclusion research from Third Sector Dumfries and Galloway.

Working with key stakeholders to make sense of dataThe project team and Working Groups engaged with a wide range of regional stakeholders to analyse the data and to understand the needs, skills gaps and future role requirements in the region and inform the focus and delivery of the college courses.

This included employers, Skills Development Scotland (SDS), South of Scotland Enterprise (SOSE), Local Authorities, the Data Driven Innovation programme, innovation centres, industry member groups and universities.

Employer roundtable events identified employers' digital skills needs in the Construction, Social Care and Health sectors which informed curriculum development to integrate the identified digital skills into college courses.

West of Scotland Educational Pathways

UWS, Dumfries and Galloway Council and Dumfries and Galloway College (DGC)

Synopsis

The two institutions in this pilot project have been working in partnership for a number of years and established a strategic intent to pursue closer alignment of provision to meet regional skills needs. They identified the need for a pathway that supports students to enter study at SCQF level 7 and beyond as a recurring theme in their regular regional strategic meetings.

At the outset, it was important to engage with employers and the Local Authority to further understand the needs of the region, to gain a more granular understanding of regional data, and to coordinate with schools on provision developed for senior phase pupils to experience a transition into tertiary education. Employer Skills Reference groups were set up in key sector areas (i.e. business and computing) to facilitate collaboration with employers and support and enhance the learning experience and employment prospects for learners.

Data, alongside engagement and input from key stakeholders, was key to ensuring the right provision was developed to meet regional, employer and learner needs.

Making decisions about priority skills needs - evidence

The Regional Skills Assessment (RSA) for Dumfries and Galloway was a key source of data for the project. It flagged replacement and expansion demand for business as critical for the region, particularly customer service and management, and identified that employers were looking for digital skills; however, it did not provide granular regional information.

A labour market vacancies and prediction tool, which can be tailored to a UK region, was used to provide data at a more granular level. This tool forecast demand in business roles in the region towards 2032 as stable at circa 600 job openings per annum, fractionally above the national average. For computing roles, the predicted growth to 2032 was 6% - predicted to be 51 job openings per annum.

In addition, analysis from the Digital Economy Business Survey (DEBS) provided more detail about computing roles and demand for computing skills in the region.

The Digital Economy Skills Action Plan (DESAP) identified that employers need to ensure their employees have the correct digital skills to work in the future.

The partners reached a shared understanding of the data and subsequently proposed pathways in computing and business to help close the skills gap in Dumfries and Galloway.

Developing a Joint Prospectus for Learning and Innovation in the Land-based Sector

SRUC and Borders College

Synopsis

Both SRUC and Borders College serve the land-based sector in the region. Through discussion they recognised that the scale of provision was not always visible, and it was unclear if there were gaps in the provision, either at subject area or level and type of provision. They were also aware that upskilling for those in the sector was a challenge.

An initial focus of the project was to map existing provision to create the joint prospectus - Rural Skills Pathways.

A joint prospectus on rural skills was launched for 2023/24, with learning opportunities available from SCQF Level 4 (National 4) to Level 12 (Doctoral Degree), and an enhanced curriculum across various areas. The collaboration has since intensified, with partners exploring additional areas for joint curriculum development in key areas.

Both SDS and South of Scotland Enterprise (SOSE) were key partners, providing a range ofdata and intelligence. Understanding the view of employers in the region was crucial in focusing the course offer, alongside understanding student interest and demand.

Making decisions about priority skills needs - evidence

Teams from both SRUC and Borders College worked together, sharing institutional data, to map their existing provision and to identify gaps. The project used SDS reports at a regional level and sectoral level to understand existing and future skills demand in the sector. Data was cross-checked through significant employer engagement carried out by both SRUC and Borders College to provide a clear picture of demand pressures within existing sub-sectors of the land-based industry. The land-based sector is the fourth largest employer in the region with circa 4,500 new employees predicted to be required over the next 10 years to replace retirees and allow growth.

Other data sources were used to identify areas not already active. For example, the project team worked to understand the emerging needs in the area of peatland management and restoration. Rapid change in the regulatory framework had produced an identified demand and SRUC was able to respond quickly. Additional information on the demography of the labour force and need for replacement labour was also sourced.

The project was keen to integrate industry demand and learner demand to ensure a pipeline of skilled individuals to priority areas. Historical learner demand information was further enhanced and validated through discussion with learners who enter study in this sector, and those that do not and who opt for alternative destinations.This included employers, Skills Development Scotland (SDS), South of Scotland Enterprise (SOSE), Local Authorities, the Data Driven Innovation programme, innovation centres, industry member groups and universities.

Employer roundtable events identified employers' digital skills needs in the Construction, Social Care and Health sectors which informed curriculum development to integrate the identified digital skills into college courses.

North East

Enhancing the Senior Phase

North East Scotland College [NESCol], Aberdeen City Council, Aberdeenshire Council, Robert Gordon University [RGU], University of Aberdeen

Synopsis

This project built on existing partnership working in the NE, established over many years, and brought the key partners together around the table to focus on senior phase provision, while recognising the strong role of the college in the offer to secondary school pupils in Aberdeen City and Aberdeenshire Council areas. Partners agreed to focus on a more cohesive approach to the senior phase in the region, maximising opportunities, as a collective, for the enhancement of S4–S6 education.

The aim was to create diverse and sustainable educational pathways to meet the needs of students and the regional economy. In addition to establishing the Senior Phase Regional Strategic Working Group, two further 'tests of change' were agreed following the initial discussion:

- Development of HN level 7 opportunities for S6 Pupils with articulation options on completion.

- Development of a meaningful Winter Leaver Programme, with potential to access a positive destination such as a higher-level college course or employment.

Further evidence was gathered across the partnership to demonstrate the need and focus on specific subject areas, regional employers needs and pupil interest and demand.

Making decisions about priority skills needs - evidence

Prior to the start of the Pathfinder project, the College had detailed discussions with central officers and head teachers from both Local Authorities on the content, recommendations and case studies presented in the College Development Network research 'Co-Creating the Learner Journey – School-College Partnerships and Effective Skills Pathways'. This initially led to piloting some new approaches and initiatives with schools in both Aberdeen City and Aberdeenshire.

Additional HN level 7 opportunities for S6 Pupils were piloted in AY2022-23. Eleven school pupils completed and achieved HNC Business. To inform the next stage of development feedback was sought from those involved in the pilot. Almost all pupils who completed the qualification in 2023 progressed to degree level studies, with one pupil entering Year 2 of a degree and feedback from participants was very positive.

The College is a member of the Aberdeenshire Council Developing the Young Workforce (DYW) Partnership Group and received good insights and data from this group to inform this pilot project, including from employers. The College also takes part in the National DYW Leads Network – providing further data and insights relating to the Sector – and confirming that the senior phase was a key area of national interest.

Enhancing and Co-ordinating the Region's Simulation Infrastructure

Robert Gordon University [RGU], University of Aberdeen [UoA], North East Scotland College [NESCol] with NHS Grampian and Social Care partners

Synopsis

Health and Social Care delivery is a priority in the NE and having an appropriate and well-trained workforce is key to meeting regional needs in future.

The focus of this project was to enhance and coordinate the simulation infrastructure for health and social care education in the wider region and contribute to developing a sustainable health and social care workforce for the NE region.

Project partners agreed that the lack of simulation education facilities in health and social care was one of the challenges for workforce development, as these facilities were key to support the development of essential skills. Bringing together all relevant stakeholders (including the institutions, NHS Grampian and other local and regional health and social care partners) to share data and map existing facilities enabled the project to build a regional overview of Simulation Education infrastructure and the potential to enhance future use.

Making decisions about priority skills needs - evidence

Significant work was undertaken prior to the start of the project to determine the workforce need. A range of reports and available data were assessed. Partners were aware that Human Health and Social Work is the biggest employing industry sector in the NE region and is expected to have the greatest employment growth in the medium and long term. At the same time partners agreed that providing student placements in appropriate work environments had become problematic in the region.

NHS Grampian and Health and Social Care Partnerships were key partners. They have several roles in the education pathway: they are major partners for accepting placements of students; they are employers; and they also have large continuing professional development programmes that are delivered internally. As employers, they were able to contribute a range of data on future workforce needs.

As there were no existing datasets available to draw on, the first task for the project was to generate a shared understanding of the simulation infrastructure available and future need for simulation education.

Data Collection and Resource Mapping: A data collection exercise was conducted in 2023 to map the simulation resources available across the region and gather qualitative data on their utilisation.

Working groups were set up with project partners, employers and stakeholders which allowed the project to collect data on available simulation resources and their use and led to the development of a data dashboard to be used by the Regional Interprofessional Simulation Group to promote and support interdisciplinary learning across the sector.

Developing demand-led, aligned and sustainable learner pathways
North East Scotland College [NESCol] and the Robert Gordon University [RGU]

Synopsis

NESCol and RGU have developed a strong working partnership over more than 20 years. Their delivery of smooth and effective articulation routes for learners has previously been held up as a model of good practice across Scotland. Given the changing context in the region from 2020 onwards, the two institutions saw the importance of further enhancing their partnership working. Their commitment was to:

1. Create sustainable tertiary education, ensuring a seamless and aligned learner journey, representing better value to the public purse.
2. Develop a more efficient, responsive, and relevant shared course portfolio that supports regional and national education, and skills needs in key strategic areas, benefitting various stakeholders including employers.
3. Contribute to a stronger education and skills infrastructure in the NE and an effective and efficient approach to widening access and participation.

Making decisions about priority skills needs - evidence

In 2020, members of the executive at both institutions considered a jointly prepared paper, 'Developing Demand-led, Aligned and Sustainable Learner Pathways' that recognised that the NE of Scotland would be one of the most negatively impacted regions in the UK by Brexit and the global oil and gas downturn, with added disruption from COVID-19. The two institutions agreed they should work even closer together to review the skills needs of the region and ensure appropriate alignment of their provision and contribute to economic recovery.

In early 2022, a joint planning workshop was scheduled with key staff from both institutions. RGU had recently undertaken an extensive portfolio review project, examining the potential for pathways to new provision. These findings were shared at the workshop to jointly understand gaps in provision and growth areas within the local region.

Following the establishment of data sharing agreements, two data sharing meetings were hosted by RGU's Planning and Insight team. Two data sets from NESCol - (a) applications to NESCol by school (2018-2022) and (b) destination of leavers data (AY2016-17 to AY2020-21) supported by internal data records from RGU on applications from 2018-2022 - were drawn on to understand previous recruitment and destinations.

The Follow-up Leaver Destination (2021/22) report from the Scottish Government was used to inform marketing and recruitment to the SFC-funded provision within the region (Aberdeen City and Shire).

In addition to external reports and internal intelligence referred to above, a key source of data and insight required for this work was the staff of the two institutions. Staff have specific expertise and knowledge on subject areas, employer needs, learner demand, and data and marketing insights which are crucial.

Further data analysis to inform the development of this project has come through the set up of joint working groups with key staff members, focusing on curriculum, marketing and student recruitment. Discussions and analysis in these groups inform joint marketing and recruitment approaches, shape the development of the curriculum and articulation routes, and incorporate feedback to inform emerging themes and areas for development.

NESA – National Energy Skills Accelerator

Robert Gordon University [RGU], the University of Aberdeen [UoA] and North East Scotland College [NESCol], supported by Skills Development Scotland [SDS] and Energy Transition Zone Ltd)

Synopsis

Energy Transition, and the development of associated skills, was already identified as a regional priority in the NE and a key priority for NESA. The NESA Board has representatives from all relevant partners (including the three education institutions), with collaboration agreements in place between the institutions and a Memorandum of Understanding signed between NESA and industry partners.

A lack of understanding of pathways into energy careers was identified as being a barrier for many. This project was established to create, through collaboration with industry and across academic institutions, an accessible tool that communicates routes into low-carbon energy jobs. The tool would support workforce development by providing accessible information on pathways, promoting transferability from other industries, and educating the future generation on the opportunities available.

Making decisions about priority skills needs - evidence

Published reports and sector data, graduate outcomes and college leaver destinations were used by NESA to understand demand and student pathways. In addition, engagement with employers, communities and learners to gather more qualitative information was key to the successful development and delivery of this project.

Through funding from the Scottish Government, the Just Transition Fund for the North East and Moray, NESA was able to take forward a large-scale Pilot Energy Transition Skills Project. As part of this project, a programme of work was carried out in 2023 to identify the skills needs and skills gap in the region, in relation to the Energy Transition, and four main areas of Offshore Floating Wind, Hydrogen, Carbon Capture and Storage and Geothermal. The Pathfinder pilot project, delivering within the same timeframe, was able to benefit from the Just Transition research and data collection process which included:

- Desk-based research (RGU Making the Switch, Workforce Transferability Review, Powering Up the Workforce, Offshore Energies UK reports, SDS RSAs and Data Matrix)

- SFC data (Graduate Outcomes, College Leavers Data)

- SIMD Data

- Industry (three) & academic (one) focussed workshops

- Community engagement through workshops and surveys (300+ responses)

- 1-to-1 sessions with eight SMEs.

Results were analysed and published in July 2023: "Clear pathways within and into Energy" was ranked as the top priority.

Industry Stakeholders: NESA consulted industry partners, including energy operators, supply chain companies and trade bodies, throughout the project to determine and verify job roles and qualification routes, ensuring the accuracy and industry-relevance of the pathways included in the final product.

User Groups: NESA engaged industry, education and community representatives throughout the testing and refinement phases of development, to ensure the final product met user requirements.

Key strengths and opportunities

Working with partners across the Pathfinder regions it was clear that every pilot project used a unique combination of data, intelligence, and insights to understand and evidence skills needs relevant to their project aims. However, the table below shows the key sources and approaches used by all. These are each considered in more detail.

Labour market information (LMI) and intelligence on skills priorities – national, regional and tailored information

Engagement with employers, gathering insights on current and future needs, including cross-cutting skills

Working closely with schools and Local Authorities to understand the flow of pupils and pupil aspirations

Gathering data and insights on learners' needs and interests (and using data to influence as appropriate)

Sharing and making sense of institutional data – entrants, pathways, course choice, success, next steps/destinations

Ongoing sharing of insights and data on skills priorities with enterprise and skills bodies and other regional stakeholders

All projects made extensive use of a range of LMI information to understand and respond to emerging skills priorities. And all projects consistently raised issues about understanding and responding to learners' interests and needs alongside employer needs.

We did observe an element of prioritisation of data by project focus/type.

The projects where the focus was predominantly on responding to a specific sector need were more likely to prioritise data related to that sector, engagement with relevant employers and industry bodies to gain further insights and work more closely with skills and enterprise agencies to share intelligence. For example, South of Scotland Digital Pathfinder, Developing a Joint Prospectus for Learning and Innovation in the Land-based Sector and Energy Transition Skills Interactive Pathway Toolkit.

The projects which focused more on delivering smoother pathways were more likely to prioritise data sharing and working closely with schools and sharing their own institutional data relating to learner choice, success and destinations. For example, West of Scotland Educational Pathways, Enhancing Senior Phase, and Developing Demand-led, Aligned and Sustainable Learner Pathways.

There was also consistent messaging in the feedback institutions provided about their experience of accessing data and intelligence to inform and support their course planning and responses.

What has worked well for institutions as they access and use the regional data and intelligence available to support their planning and response?

What are the challenges?

What are the key messages around improvement?

Photo: University of Aberdeen

Institutions access data and intelligence from a range of sources

Pathfinder project teams built up a rich picture of current and emerging skills needs and priorities in their region from a variety of sources which included Regional Skills Assessments (RSAs), Regional Skills Investment Plans (RSIPs), SDS's Data Matrix, Sector Skills Assessments, The Employer Skills Survey, Regional Economic Strategies and other regionally focused skills data and reports, alongside demographic data and information from industry, employers, schools, teachers, DYW, and independent LMI providers for more granular information.shows the key sources and approaches used by all. These are each considered in more detail.

"Our curriculum planning and course offer is based on the messaging and intelligence derived from regional and national data."

(Senior Manager, College)

"There has been a lot of work done through the Pathfinder Pilot Projects to date and there are a lot of linkages being made through intelligence and data gathering, both helping now and for future education and skills planning and projections."

(Senior Manager, University)

"No single source of data is enough to provide a 360 view. We use a variety of data sources and gather intelligence from regular interaction with regional partners and wider."

(Senior Manager, College)

Photo: Borders College

From the range of data available, institutions distil information and share intelligence with their curriculum leads and course planners, who bring their own understanding and knowledge of what course provision is required.

Some institutions referred to the data as providing "a jigsaw of evidence" that needs to be put together in the right way.

Senior managers stressed the need to have a shared understanding of the data and to have a shared language.

"Data is only useful if it can be interpreted. The challenge is transferring data to intelligence."

(Senior Manager, University)

Senior managers recognise that their role in accessing and distilling a variety of data and sharing intelligence to inform curriculum planning is critical for the sustainability of their college or university.

"Curriculum planning is in our DNA".
"Data [is transformed] into intelligence to inform provision or we go broke."

(Senior Manager, College)

At the same time, we heard the following challenges

Institutions access and use granular information, relevant to their local labour market, for curriculum planning

Responses from some of the institutions indicated that they access independent LMI to supplement the data already available. This provides them with more granular data for the region.

"Everyone is encouraged to make use of available skills planning data, but it is not yet granular enough to provide the right level of data to be of most help. Thedifferential between the data and the reality on the ground of where education should be investing sometimes creates two different stories."

(Senior Manager, University)

"Data we require is for the here and now as well as the future."

(Senior Manager, College)

Photo: Robert Gordon University

There is a resource cost

The need to take account of regional skills data and intelligence is an ongoing, yearround and resource intensive process for tertiary institutions. Universities and larger colleges are more likely than smaller colleges to have dedicated staff and teams in place to undertake horizon scanning and focus on market insights and intelligence gathering. There are constraints for some smaller colleges with less resource and fewer dedicated staff to undertake this task of scanning and distilling the data available.

> "It is more effective and efficient for institutions to jointly distil the external data available and plan in collaboration. This can be underpinned by cross institution data sharing agreements while being mindful of commercial sensitivities across institutions."
>
> (Senior Manager, College)

> "Investment is required in the data that is made available on skills need, so that we can ensure the actual curriculum planning itself is right."
>
> (Senior Manager, University)

Institutions highlighted that SFC funding guidance gives scope to colleges and universities in how they respond to regional and national skills need through alignment of their course and curriculum offer. However, there is no dedicated funding for this function. At the same time SFC will seek assurance that institutions are responding appropriately to skills needs.

Working with employers and industry is key

We heard from the Pathfinder project teams that by engaging with local and regional employers they were able to gain information and evidence to define, refine and inform their pilot project proposals to align course provision with employer need. This engagement was ongoing and happened through a variety of routes, this included facilitated round table discussions, employers joining strategic working groups and through surveys and focus groups. The approach meant pilot projects were able to gain insights into the specific skills that employers require and to understand where the gaps are.

When developing the Energy Transition Skills Interactive Pathway Toolkit, NESA held workshops with employers from the industry to understand current and future skills needs across the energy sector. These informed the selection of the priority job roles and profiles to be piloted via the Toolkit. The project team also learned about the additional generic skills required by the industry, for example project management and digital skills.

The South of Scotland Digital Pathfinder engaged with employers through roundtable events which were focused on identifying and understanding employers' digital skills needs in the Construction, Social Care and Health Sectors. The information was then used to plan the embedding of digital skills into specific college courses.

The project team for Developing a Joint Prospectus for Learning and Innovation in the Land-based Sector highlighted that the range of data used to inform sector needs required cross-checking with employers to drill down and secure a clearer picture of demand.

Senior staff from SOSE outlined that they are in a position to engage with employers and employer groups to gather real-time information on skills needs. They have a range of touch points, tapping into the Business Panel Survey and Business and Social enterprises, to understand performance growth and aspirations of the local business community (macro and granular level). SOSE was able to share relevant information directly with the Pathfinder projects in the South of Scotland.

Photo: SRUC

More general comments on working with employers

Institutions have mechanisms in place to engage with employers/industry as part of their regular curriculum planning processes. This might be through employer and industry advisory boards, contributing to course provision or through institution and employer relationships which have been built over time (e.g., through the Flexible Workforce Development Fund (FWDF) and other work-based learning opportunities).

Institutions also stressed the need to engage with SMEs.

> "With SMEs we don't always know what their needs are, but we find out through conversations, no one consistent source of information will give us a full picture."
>
> (Senior Manager, College)

Some colleges reported that they had learned a lot about employers' skills needs and wants via the operation of the FWDF. They intended to build on established relationships through continued engagement with regional and local employers.

In addition to engaging with employers and industry bodies, universities access employer and industry views through a range of other routes including Industry and Employer Advisory Boards. Although one university highlighted that responses from employers, even in the same industry, are not always consistent.

> "In some subject areas, such as Engineering, our Employer Advisory Boards don't always agree but they do bring a corporate perspective. That is why it is challenging to plan."
>
> (Senior Manager, University)

At the same time, we heard the following challenges

Employers do not always have the most up-to-date information about courses available or course content

Colleges and universities were particularly keen to understand what employers want and to respond appropriately. They recognised that employers may not have the most up-to-data awareness of the education and skills provision in the region to meet their needs. Or they may not be aware of iterative changes that happen in course content, even where a course title remains unchanged.

Institutions look for ways to engage regularly with employers about how they might adapt course offer further to meet their skills needs and better prepare learners for the jobs available, and to do this within a realistic timeframe.

Employers often ask for quite specific niche skills

Employers often approach their local college or university to ask for the delivery of niche skills to meet specific industry needs and skills gaps. Institutions reported that their priority is look to deliver wherever possible, and this might be through short courses, microcredentials and (previously) dedicated upskilling courses, for example at SRUC. However, they always try to balance this with what is appropriate for learners.

"Some employers still have specific asks of the education system to delivery ready-made, skilled individuals to fill quite specific, niche, skills gaps. We have to balance this with what learners need to be fully prepared for the workplace and to ensure they can be adaptable and resilient in their future careers."

(Senior Manager, University)

Working with other regional stakeholders to share data and insights on skills priorities to inform course provision

During our discussions with the Pathfinder Programme partners we heard from SDS about how key stakeholders in the NE came together to share data and insights to inform regional skills responses. The Regional Learning and Skills Partnership (co-chaired by SDS and NESCol), worked to develop a Skills Plan to support the successful delivery of the refreshed Regional Economic Strategy (RES) in 2023.

This work was progressed via a series of workshops, facilitated by SDS with input from a range of partners including both Local Authorities, Opportunity North East, the regional college and universities, Scottish Enterprise, SFC, NHS Grampian, DWP, DYW, Energy Transition Zone (ETZ) Ltd and Grampian Regional Equality Council (GREC). This work helped secure partner agreement on the scope of the plan and ownership of the strategic aims and priorities

In the South of Scotland during 2023, SDS facilitated a series of workshops to support partners in interpreting and understanding evidence around skills demand arising from the drive to net zero. The workshops focused on the construction, engineering and forestry sectors and involved a wide range of partners from the regional Education and Skills Strategic Coordination Group (ESSCG), the skills subgroup of the Regional Economic Partnership, including colleges, universities, Local Authorities, training providers, DYW, third sector, SOSE, employers and sector experts.

Partners identified that their different aims and operating plans often require different types and granularity of data to best support curriculum planning now and in the future. However, all partners identified a need for insight into both the volume of certain types of skills (e.g. construction skills) required in the future, the associated resource, and detail on what those specific skills will look like to enable them to develop suitable curricula to ensure an appropriately skilled workforce.

Further details of these two exemplars are included at Appendix 2.

Photo: University of Aberdeen

Engaging with schools and Local Authorities (LAs)

All pilot teams engaged with schools and/or LAs at some point during the development of their projects. This was particularly relevant for the projects focusing on enhancing pathways from school to college, school to university, college to university and on to employment.

For example, in developing their Winter Leaver programme, the Enhancing the Senior Phase pilot worked with their LA partners to access and share data to inform the shape and scope of the programme. This included data on flow of pupils, existing data for exceptional entrants, referral and selection of pupils, progression and retention, and data on next steps/destinations. This ensured the project team could plan a meaningful programme and target the right learners.

UWS, Dumfries and Galloway College, and Dumfries & Galloway Council were partners in the West of Scotland Educational Pathways Project. They worked closely together during the development phase of the project, sharing data on existing pathways, course content, student demand and identifying where there were gaps preventing a flow of students into higher level courses. This data was considered alongside LMI, regional skills priorities and engagement with employers to identify and design integrated degree pathways.

Understanding and influencing pupil and learner choice

Pathfinder project teams and senior managers across institutions were clear that industry requirements and employer needs are only one part of the equation in aligning course provision to meet skills needs and designing curriculum. They need to know what courses pupil and prospective learners are looking for/ interested in, and what they understand about the jobs that are available now and in the future.

"Throughout this project, acknowledgement has been made at various stages that one of the biggest hurdles faced is a lack of awareness of pathways. This lack of awareness is not unique to one specific group of stakeholders, but is true of teachers, parents/carers and pupils."

(Senior Manager, College)

Pathfinder pilot projects have organised joint events to share information about pathways and courses on offer with learners themselves and teachers and others who are most likely to influence learner choice.

Meet the Learner

The South of Scotland Digital Pathfinder organised 'Meet the Learner' online events where learners at school, college, and university discussed their learning journeys in computing science and cyber security to break down perceived barriers and encourage access.

Foundation Apprenticeship Simulation Day

Enhancing and Co-ordinating the Region's Simulation Infrastructure organised The Foundation Apprenticeship Simulation Day (RGU and NHS Grampian) attracting 90 students from across Aberdeenshire. The day included simulation learning opportunities for a range of health and social care professions. The event provided an opportunity for students to be exposed to various occupations within health and social care, potentially inspiring future career choices.

Careers in Health event

The same project held a Careers in Health event, led by RGU and NESCol. The aim of the event was to raise awareness of the varied job roles that are available in the region for individuals that are interested in a career in healthcare. The curriculum teams involved included Nursing, Pharmacy and Life Sciences and Sports Science. Alongside the promotion of healthcare careers, this event also aimed to raise awareness of different learner pathways available in the region, including routes straight from school to university and articulation routes via college courses.

The Enhancing Senior Phase project recognised the lack of awareness about pathways across a range of key influencers. As a final element of the project they scheduled an event for Depute Head teachers and Guidance teachers that explored positive pathways within the region and aimed to improve knowledge and awareness of all pathways. This event also linked with the Developing Demand-led, Aligned, Sustainable Pathways Pathfinder Project and was supported by representatives from Aberdeen City and Aberdeenshire Councils.

More general comments on understanding and influencing learner choice

A course offer is only viable if it attracts the right number of students as colleges and universities have to consider sustainability as they align their provision to regional needs. Courses are developed at the institution's risk. Colleges and universities all reported close working with local schools to share information and influence course choice. They are keen to work with schools and to understand what underpins the choices pupils make in the senior phase and focus on the gap between demand from learners and the courses on offer.

"We need to influence parental/carer expectations, and what their young people need and want to create the ability to be more adaptable and resilient, and allow pathways beyond school into education and jobs, creating clarity for all young people."

(Senior Manager, College)

"There will continue to be a gap between what employers need and what young people need, and want, unless we reach the influencers more effectively."

(Senior Manager, University)

Addressing gaps in data, creating new data sets

Not all pilot projects had readily available data and intelligence at the right spatial level to guide their project development, define priority skills needs, pathways or influence their course provision.

The Enhancing and Coordinating the Region's Simulation Infrastructure for Health and Social Care Education pilot in the NE had to ask partners to gather and identify the information needed to understand the simulation education landscape in the region, including the physical spaces that partners had available to conduct simulation activities and the resources they had available to use during those activities (for example, mannikins, hoists, patient actors, etc). They wanted to also know details about their experience of access to and use of these resources for learning.

A second set of data was required on which groups were getting access to simulation education along their education pathway. To gather the information,

they reviewed partner websites to construct a matrix of entry requirements for courses by different learner interests. Data was then collected from partners on whether simulation education was offered as a part of these courses by different types of skills (i.e. training for professional knowledge, clinical skills, non-clinical skills, technical [non-clinical] skills and interpersonal skills).

The data collection which formed part of this pilot allowed an overview of simulation education facilities to fill the gap identified around student placements in appropriate work environments and the perceived lack of simulation education facilities to develop essential skills.

Preparedness to take risks

Sometimes institutions have to take risks in their responses to meet identified and emerging skills needs. There is a significant investment cost to develop new curriculum and new course provision to meet regional demand and needs, and resource is finite.

> "Understanding what will 'sail' in terms of course offer is difficult to gauge, some of it is a bit of a risk. Though with the Energy field there is a greater sense of what is needed and we have faith that the asks are right."
>
> (Senior Manager, College)

There was a clear message that institutions can mitigate risk through sharing data, closer joint planning of curriculum and joint delivery of new course provision.

> "We are having more discussions with our partner university on sharing data sets to inform joint planning, and in particular understanding the pipeline of students from school to college and university."
>
> (Senior Manager, College)

At the same time we also heard that a change to the SFC funding model could make it easier to collaborate and undertake joint work.

> "There is not always the ability for institutions to pivot so instead have to offer a broad curriculum that allows and takes account of the flex required, the peaks and troughs in needs and wants of sectors. In general FE Sector does cope well with this"
>
> (Senior Manager, College)

Photo: Dumfries and Galloway College

Future proofing the curriculum

Through the work of the pilot projects and more widely, institutions are working closely with employers to identify what the jobs of the future will look like, where they will be located and to ensure the availability of smooth pathways to the right skills and qualifications.

"It is an institution's responsibility to challenge preparedness and take risks in identifying new subject areas for future development, though this is done within the constraints of financial resourcing."

(Senior Manager, University)

Institutions are futureproofing the flow of specific high-profile course and curriculum development to meet the skills demands of the economy, e.g., green skills.

"We need to ensure that we are keeping our eye on future needs/opportunities for the region that we see as potential areas of strength - for example, in regenerative agriculture, space supply chain and renewable energy. We definitely don't have certainty about what is required but we need to have these discussions and plan for the future."

(Senior Manager, College)

Colleges and universities are well-placed to do this and it is built into their curriculum planning processes.

What are we learning from the SFC Pathfinder pilot projects about sharing access to and making sense of regional data and intelligence?

A joint vocabulary and shared understanding are needed when accessing and using data.

No single overarching source of information to inform current and emerging skills needs – institutions need to join up intelligence.

Both high level and granular level data is required to inform decisions, on different spatial levels.

Need data in real time.

Accessing and analysing data, and distilling key messages, is time consuming.

Not all institutions will have equal access to the available data or similar capacity to respond.

In addition to meeting regional skills needs, there are other issues to consider when planning curriculum. These include institutional sustainability, learner choice, community needs, needs of major industry sectors, international and global demand.

Good practice in data sharing

Pathfinders' projects have shown the benefits and value of institutions and key partners sharing their own data and intelligence, even in instances when this data may be considered market sensitive, and particularly where this would not have happened previously or to the same extent. This has been a significant achievement of the Pathfinder Programme and is something which has not been given a high enough profile in relation to the positive outcomes it enables.

Data and intelligence sharing happened at various points across the life of the pilot projects, including prior to the project proposal being submitted for consideration as a Pathfinder pilot project, during the ongoing development and delivery of the project, and in some cases beyond the life of the project.

We have included examples earlier in this paper via the project summaries to evidence decision making for course alignment with skills needs. In some cases, SFC has seen this first hand through attendance at Project Strategic and Operational Working Groups.

For example, in the project Developing a Joint Prospectus for Learning and Innovation in the Land-based Sector, SRUC and Borders College brought together teams to develop and communicate a joint prospectus to highlight the range of learning opportunities available in the land-based sector in the region. A strategic statement of intent was put in place between the two institutions to enable collaboration and joint work. A joint working group shared institutional data to map and document the regional education provision across both colleges in the land-based sector. Through this work teams were able to identify gaps in subject areas, provision, articulation and progression. The coming together of joint teams to share information and develop a joint marketing approach through the joint prospectus allowed

for a comprehensive and cohesive educational and skills offer in the sector with learners having clarity on the courses available and progression pathways.

RGU and NESCol were working together in 2022 to agree the focus of the Developing Demand-Led, Aligned and Sustainable Learner Pathways Project. RGU shared key institutional planning data to illustrate the potential for a collaborative project to address the needs of the economy in the NE. This pilot also went on to establish a shared institutional approach to marketing, insights, analysis, and promotion in order to jointly understand employer needs and student interest and likely level of demand. Sharing sensitive institutional information was central to the partnership working and delivery of the project outputs.

Data sharing agreements

A key enabler for institutions and partners, to share what might have previously been considered (market) sensitive information, has been the development of data sharing agreements. They provided a way to formalise and facilitate the arrangements so that the exchange of data could occur in a secure way, while being mindful of GDPR. The commitment to a Strategic Statement of Intent between SRUC and Borders College was influential in authorising the sharing of institutional data.

Allowing those on the ground to implement changes to ways of working to share data, within a safe and authorised environment, and the good practice that has emerged as a result, is potentially an indicator of a shift across institutions (including staff across a range of functions), from an ethos of competition to one of collaboration. The sustainability of these arrangements will be critical to the future success of regional tertiary partnerships.

Issues to consider for the future

Continue to improve data sharing across institutions and across regional stakeholders. Institutional data sharing agreements have facilitated this sharing as part of the Pathfinders collaborative project working.

Establish overarching tracking data (learners) to better understand the pathways taken into and through the learning system.

Institutions should continue to build on established relationships and work closely with employers to test out the nuances of LMI and skills information.

In planning pathways from school to college/university and into jobs, what more could be done to include schools in institutions' curriculum planning processes?

In summary

Overall, this report highlights how colleges and universities make the best use of the whole range of data and intelligence available to them to make judgements about what areas of provision they need to 'dial up' or 'dial down'. This includes where they need to adapt existing provision or introduce completely new provision. Both horizon scanning to assess future demand while engaging with local employers, including SMEs, to understand immediate skills needs.

The evidence gathered from the Regional Pathfinders and the pilot projects demonstrates clearly that regional responsiveness is enhanced when institutions and partners are working jointly to access and make sense of a range of data and intelligence which impacts planning decisions around their course offer.

There is no doubt that colleges and universities consider it critical to their regional role that they get their planning right, to identify which subject areas and course provision will be a priority now and in future years to meet the skills needs of their region, and to make the necessary shifts in their offer. The motivation that drives them is to get it right for their learners, for employers and for the economy.

Appendix 1 - Approach/methodology

The approach taken by SFC in this work included a combination of desk-based and qualitative research across the Academic Year 2023-24. This included evidence gathered from a range of Pathfinder workshops and evaluation events. Some of these sessions focused solely on data and intelligence, some had a wider focus.

1. Two workshops, one in the NE and one in the South of Scotland, set a series of provocations around how data and intelligence on current and emerging skills needs are made available and utilised by all stakeholders. The aim was to hear directly from those participating directly in the Pathfinder activity on their experiences and to understand if and where there may be gaps in how it is currently accessed, shared and used.

   These sessions were attended by a range of regional partners with a link to the Pathfinders work and included senior leaders across colleges and universities, skills and enterprise agencies, education departments and those working in a Project Lead or Co-ordinator role to drive delivery of the designated Pathfinders Pilot Projects.

2. We heard directly from a range of staff and wider stakeholders working to deliver the seven Pathfinder pilot projects across the two regions via three learning events hosted jointly by Evaluation Support Scotland and SFC. The focus of the sessions was programme wide, but amongst other things participants shared both the challenges and successes in utilising data and intelligence in delivering their projects. (October – December 2024)

3. Intensive discussions with a range of staff across the seven institutions in the NE and South of Scotland to understand how they review, plan and design their curriculum. The use of data and intelligence was central to much of these deep dive discussions. (December 2023- March 2024)

4. Feedback from pilot projects via final reporting in April 2024.

Appendix 2 - Case Studies

The two case studies below set out examples of skills planning work (outwith the Pathfinders) that take an evidence-based approach to engaging with regional stakeholders.

(1) Refresh of the Regional Economic Strategy and Skills Plan: NE Scotland

During 2022-23, regional partners, led by the two LAs and Opportunity North East (ONE), worked to refresh the Regional Economic Strategy (RES) to best address the impacts of recent economic shocks on the regional economy (e.g. climate emergency, the UK's exit from the EU, the COVID-19 pandemic and the war in Ukraine) and to ensure the region's economy continues to diversify, thrive and grow.

This was achieved through a series of partner workshops and engagement activities to ensure maximum reach and partner input, outlined in more detail below. As a key partner in this work, SDS was able to support development of the RES while maintaining a strong understanding of the refreshed vision and strategic aims of the region and how they feed into the ambitions of the National Strategy for Economic Transformation (NSET).

• Regional partners came together via the Regional Learning and Skills Partnership (co-chaired by SDS and NESCol), and worked to develop a Skills Plan to support the successful delivery of the refreshed RES. All partners recognised that a highly skilled workforce will be critical to the region's economic success, with higher skills being recognised as a route out of unemployment and low pay and to support access to the opportunities flowing from the transition to net zero.

• This skills work progressed through partner consultation via a series of workshops, facilitated by SDS with input from a range of partners including both LAs, ONE, regional colleges and universities, Scottish Enterprise, SFC, NHS Grampian, DWP, DYW, ETZ Ltd and the Grampian Regional Equality Council, to gain partner agreement around the scope of the plan and ownership of the strategic aims and priorities. Partners continued to work to identify a small number of prioritised, SMART actions in support of the refreshed RES while keeping the plan as a live and flexible document to enable the region to adapt its skills response as appropriate.

Use of Data in Developing the Skills Plan:

In developing the draft skills plan partners are working to better understand the range of data and evidence available to them and how it can best be used to inform shared skills and curriculum planning in support of the RES and target limited resources to where they will have the most impact.

Photo: SRUC

(2) Supporting the Drive to Net Zero: South of Scotland

SDS facilitated three workshops in the South of Scotland during 2023, to support partners to better interpret and understand evidence around skills demand arising from the drive to net zero. The workshops focused on three sectors, construction, forestry and engineering and involved a wide range of partners including colleges, universities, Local Authorities, training providers, DYW, third sector, SOSE, employers and sector experts.

Partners identified that their different aims and operating plans often require different types and granularity of data to best support curriculum planning, now and in the future. However, all partners identified a need for insight into both the volume of certain types of skills (e.g. construction skills) required in the future and detail on what those specific skills will look like to enable them to develop suitable curricula to ensure an appropriately skilled workforce. Employer engagement is vital to this process, both in terms of informing need and in supporting and delivering work-based learning.

During these workshops consensus was reached amongst partners regarding emerging challenges and opportunities and where partnership priorities should be to drive skills provision.

Challenges Identified:

Partners agreed that, even after consensus is reached with regard to what available evidence is showing, pragmatic choices, informed by economic ambitions of the region, and resource availability still need to be made. That said, they recognise the value in coming together to share and assess the available evidence to develop a pragmatic response which also captures the region's ambitions.

Photo: University of the West of Scotland

Appendix 3 - Summary of key messages about data and intelligence from the Pathfinder Programme

- No single overarching source of information to inform current and emerging skills needs – need to join up intelligence.

- Institutions use multiple and varied sources of intelligence.

- Accessing and analysing data, and distilling key messages, is time consuming.

- Both high level and granular level data is required to inform decisions, on different spatial levels.

- Need for further clarity from employers and industry regarding what roles, skills and positions they will need in future.

- Recognise the need to balance what employers want with learner interest and demand.

- Universities noted the need to take account of both global and regional/local data when making planning decisions, and the tensions between meeting local need and global market demands.

- Colleges are close to LAs/schools and also to local employers, including SMEs; gathering useful intelligence around skills needs, employer demand and student choice through these engagements. This is recognised by their Pathfinder partners.

- In addition to meeting regional skills needs, there are other issues to consider when planning curriculum. These include institutional sustainability, learner choice, community needs, needs of major industry sectors, international and global demand.

Scotland's Wellbeing Economy

Coherent Learning Provision: Six Lenses

NSET

RUK, International/Global

Appendix 4 - Six Lenses of Coherent Learning Provision

Through our Pathfinder work we have developed the Six Lenses of Coherent Learning Provision diagram as a way of describing and better understanding the priorities that institutions have to consider when planning curriculum and the broader interdependencies within the aims of the learning and skills system to meet different Scottish Government priorities and objectives.

RUK, International and Global context:

Funding

World Skills

Foreign Policy

Global Climate Emergency

Research and Innovation

NSET Ecological ceiling:

Scotland's nature is protected and restored, and we make a positive contribution to planetary protection

NSET Social Foundation:

Sustainable Development Goals / National Performance Framework

Six Lenses

Regional   Sectoral

National   Socio-cultural/ Community

Learner   Institutional

NSET - National Strategy for Economic Transformation | RUK - Rest of the UK

Regional

- Clear approaches to skills and provision planning to meet regional need.
- Engagement with City Regions, Local Authorities and other regional stakeholders.
- Schools, colleges, and universities as partners and providers to meet regional need.
- Ensure skills & education provision aligns with regional demographic challenges, including rural depopulation, urban growth, and ageing populations.

National

- National priorities for the provision of learning and research opportunities are met.
- Systems level governance and funding.
- Engagement with national organisations.
- Impactful continuation to national recovery.
- Mission orientated research.

Learner

- Clarity of opportunity for learners of all ages and stages.
- Clear, coherent and flexible pathways.
- Engagement with learners and a voice in the enhancement of their learner journey.
- An understanding of well-being and support needs and resources

Sectoral

- Employer involvement
- Coherent planning for key sectors of the economy and public services
- Sectoral curriculum planning which makes sense at a national, regional and institutional level.
- Opportunity for work-based learning
- Research/knowledge exchange to support innovation and development.

Socio-cultural / Community

• Socio-cultural role of learning provision for thriving communities

• Alignment with CPPs on place-based policies, and health and socio-economic priorities. Colleges are statutory partners.

• Develop skills and employability strategies alongside Local Employability Partnerships to address regional and local priorities and maximise funding opportunities.

• Support for underrepresented and vulnerable groups through Community Learning and Development partnerships in lifelong skills development.

• Cognisance of community wealth building activity to retain local wealth and reduce inequalities (legislation planned in 2024-2025).

• Utilise role as anchor organisations to leverage local assets to drive economic growth and tackle inequalities.

• Contribution to resilient and sustainable communities through National Planning Framework's 20-minute neighbourhoods.

Institutional

• Institutional sustainability.

• Staff and students as stakeholders.

• Tertiary sector development.

• Schools, colleges, and universities (institutional interests).

• Institutional agency.

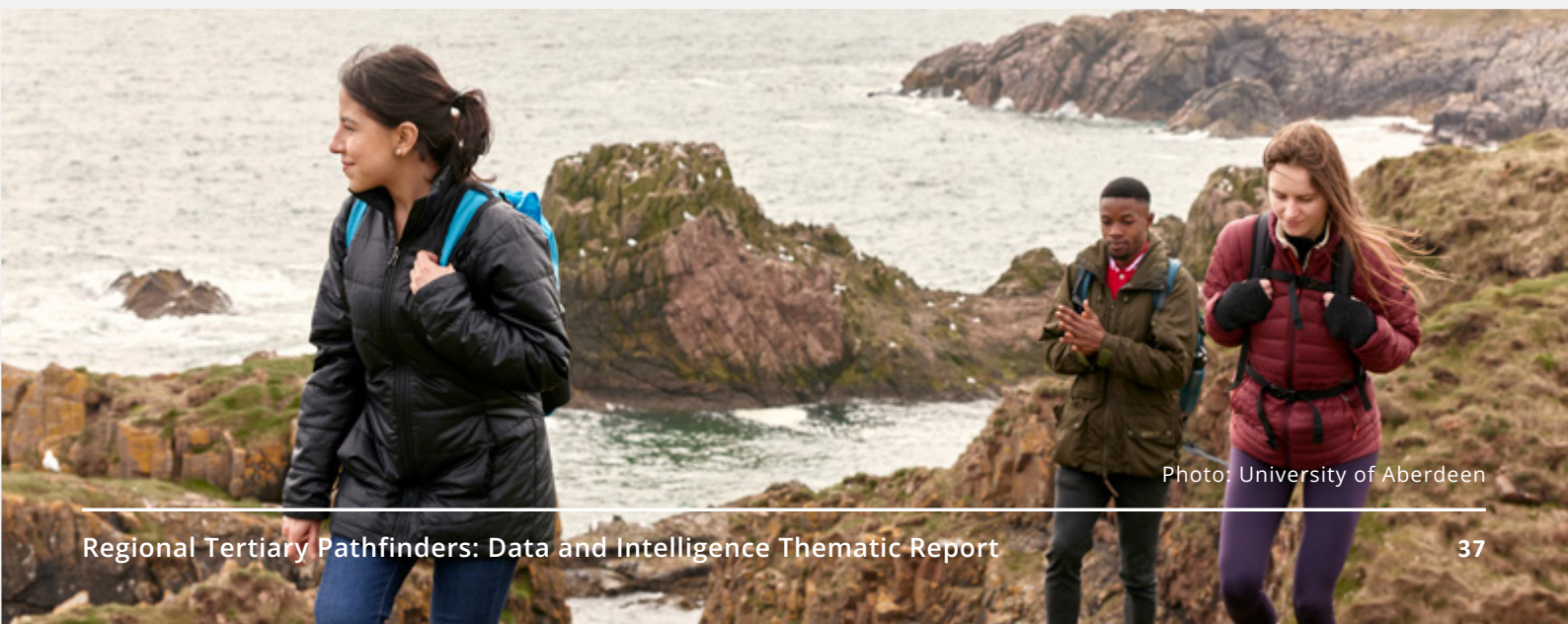• Balance and quality of provision.

• Research and Inovation

Photo: University of Aberdeen

Appendix 5 - Data and Intelligence Evidence

Institutions utilise data and intelligence from regional and local groups and other sources to identify skills and employer needs at the regional and local level.
No single source of data is enough to provide a comprehensive view, therefore institutions triangulate between a variety of data sources and gather intelligence from regular interaction with regional partners and wider. The various sources can be organised under the Six Lenses of Coherent Provision:

National

• Economy, People and Skills reports: These reports are developed monthly by SDS and provide succinct and up-to-date evidence on Scotland's economy, business and people.

• Industry Advisory Groups: provide data and intelligence on key national industry trends, skills requirements, and emerging technologies, which institutions can use to update their curricula and enhance the relevance of their programmes.

• National DYW Leads Network: Provides strategic oversight at the national level. The network is responsible for sharing data, insights, and best practices across sectors to support alignment with current and future labour market needs. It helps facilitate employer engagement across Scotland with schools and offers intelligence on skills demands and employment trends, particularly through employer feedback and collaborative efforts with schools and colleges.

• Employer Skills Survey: Data on employer perceptions of skills provision and demand includes comment on skills shortages, recruitment, and gaps in the workforce across the UK, including Scotland. Can help institutions understand employer needs, skills gaps, and sectoral demand.

Photo: Borders College

Regional

• Regional Economic Strategy and linked Regional Skills Action Plan: These outline the broad sector skills demands. Institutions understand the need to engage industry and ensure they have up-to-date data and information when further developing and delivering on educational responses stemming from the plans.

• SDS Regional Skills Assessment reports (RSAs): RSAs are developed by SDS and provide a coherent evidence base to inform future investment in skills, built up from existing Oxford Economics datasets and forecasts. RSAs are published annually, covering all College Region areas, City and Growth Deal Regions and Rural Scotland.

• Local authority business and economy data

• Employer Engagement: REPs have connections to employers.

• SDS Data Matrix: The Data Matrix, provides a searchable database that is updated monthly at a local authority and regional level (including City Deal and Growth Deals), covering over 80 indicators including Skills Supply, Skills Demand and Skills Mismatches. This provides the ability to interrogate the data more deeply at a sub-region level.

• Infrastructure investment: Significant infrastructure projects launched through national and regional funding sources can drive demand and an institutional response, this information is not held centrally

• Engagement with enterprise agencies: Regional enterprise agencies, such as SOSE, can provide real-time data by engaging directly with their network of employers and business groups. Through multiple touchpoints—including business surveys and panels—they gather insights on business performance, growth, and future aspirations. This data can be shared with educational institutions.

Sectoral

• Sectoral Skills Assessments: SSAs have been developed annually by SDS and provide updated LMI for the key sectors across Scotland.

• Sectoral surveys: These can be used to identify demand. For example, surveys such as the Digital Economy Business Survey (DEBS) and the Scottish Business Monitor provide data and insights on business trends, skills gaps, and emerging technological needs across Scotland and the UK.

Socio-cultural / Community

• Local community priorities: Working closely with schools and Local Authorities is key to understand the flow of pupils and pupil aspirations. Also identified through involvement in partnership groups that plan and deliver local Community Planning Partnership (CPP) strategies and plans, such as the Local Outcome Improvement Plan (LOIP) and the associated delivery and locality plans. Additionally, Council Economic Development Services can generate valuable data on local labour markets, demographics, and economic trends. Notably, in the Glasgow City Region, the Economic Development service offers a data and intelligence hub, which provides economic insights, including real-time data on employment, population shifts, and business growth.

• Employer Engagement: CPP Business Gateway provides a range of services that can be beneficial for colleges looking to engage with the SME business community. These resources can help colleges establish connections with local businesses for partnerships, curriculum development, and student placements.

Institutional

• Labour Market Intelligence Companies: LMI software products can provide tailored labour market and real-time vacancy data on licence.

• Institutional Data: Important to share and make sense of institutional data – entrants, pathways, course choice, success, next steps/destinations.

• Employer Engagement: institutions have strong internal connections with a variety of employers, for example through networks of apprenticeship assessors. Engaging with employers is vital to gather insights on current and future needs, including cross-cutting skills.

Learner

• SFC Graduate Outcomes data.

• SFC College Leaver data.

• National Survey of Students

• Learner satisfaction data.

• Intended destination data.

Scottish Funding Council
Comhairle Maoineachaidh na h-Alba