



Insight
Unlocked

Annexes

A service delivered by



1. Annex A

1.1. Steering Group Membership*

| Organisation | Representative | Position |
|--|--------------------|---|
| Active Together | Ali Clements | Economy & Sport Growth Manager |
| Association of Colleges (AoC) | Jen Hope | Area Director (East & West Midlands) |
| Association of Employment and Learning Providers (AELP) | Simon Ashworth | Policy Director |
| Chartered Institute for the Management of Sport & Physical Activity (CIMPSA) | Spencer Moore | Director of Strategy |
| Confederation of British Industry (CBI) | Nikki Paterson | Deputy Director |
| D2N2 Local Enterprise Partnership (D2N2 LEP), Observer | Fiona Baker | Head of People and Skills |
| De Montfort University, LSIP Data Lead | Harsh Shah | Knowledge Transfer Partnership Associate |
| De Montfort University, LSIP AI Lead | Mario Gongora | Associate Professor, Faculty Lead for Enterprise |
| Department for Work & Pensions (DWP) | Jenny Young | Senior Partnership Manager & Estates Leader for Leicestershire & Northamptonshire |
| Department for Work & Pensions (DWP) | Steve Pinchbeck | Partnership Manager |
| East Midlands Chamber | Scott Knowles | Chief Executive |
| East Midlands Chamber, LSIP Project Director | Chris Hobson | Director of Policy and External Affairs |
| Futures Group | Sandra Cowley | Director of Strategy Growth and Partnerships |
| Institute of Directors (IoD), LSIP Project Coordinator | Gareth Thomas | Education and Skills Ambassador |
| Leicester & Leicestershire Enterprise Partnership (LLEP) | Stewart Smith | Head of Skills and Employment |
| Leicester & Leicestershire Enterprise Partnership (LLEP) | Gerarde Manley | Careers Hub Lead - Strategic |
| Leicester College | Deborah Donnarumma | Vice Principal – Curriculum, study programme and apprenticeship |
| Loughborough College | Matt O'Dowd | Loughborough College Sport Work Related Learning Manager |
| LSIP Logistics Lead | Shane Walton | Consultant & Executive Coach: HR, Leadership & Logistics, Qinesis |
| LSIP Manufacturing Lead | Malcolm Healey | Skills, Training & Business Development Consultant, Qinesis |
| LSIP Sport & Health Lead | Lara Lill, | Director, Global Active Ltd |
| Make UK | Bhavina Bharkhada | Head of Policy & Campaigns |
| Make UK | Jamie Cater | Senior Policy Manager (Employment) |
| Midlands Engine, Observer | Scott Grindey | Senior Skills Researcher |
| National Federation of Self Employed & Small Businesses Ltd (FBS) | Jennifer Thomas | Development Manager- Leicestershire, Northamptonshire and Rutland |

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|---|--------------------|---|
| Northern Council for Further Education (NCFE) | Andrew Barton | Senior Operations Manager |
| University of Leicester | Piyal Samara-Ratna | Mechanical engineer |
| University of Leicester, | Guy Peters | Professional Learning Manager |
| Wigston Academies Trust | Natasha Box | Assistant Headteacher (Careers – Information Advice and Guidance) |

*** In some cases, nominees have attended on behalf of steering group members**

2. Annex B

2.1. Lessons Learned Log

| | What worked well | Areas for Improvement | Remedial Actions |
|-----------------|---|--|---|
| November | <ul style="list-style-type: none"> • Communication with partners and stakeholders provided a variety of perspectives • Quick turnaround (mitigation) to select right technology – AWS Cloud, NestForms, Power BI • Weekly communications meetings • Positive Steering Group meetings • TNA completion was a good precursor to the survey • Providing hands-on training was much more effective than sharing technical documents | <ul style="list-style-type: none"> • Legal procedures regarding track changes delayed work and cost time • EMSI API did not provide raw data as expected • The project timeline was impacted due to several factors: stakeholder's availability, purchase of tools and inadequate expertise in using these tools • Very tight timescale for engaging companies | <ul style="list-style-type: none"> • Redraft project timeline - extend business survey timescales into February • Confirm new timeline with steering group and project team members • Broaden business engagement approach with further stakeholder groups |
| December | <ul style="list-style-type: none"> • Employer representative bodies very supportive • Establishing data sharing agreements to enable access partner business databases and more coordinated promotion • Phone calls to engage companies rather than emails and letters (personal touch made a difference) | <ul style="list-style-type: none"> • Loss of momentum between agreeing to take part and accessing the App • Login details were missed by participants or went to junk/spam folders | <ul style="list-style-type: none"> • Renew business engagement programme in line with timescales • Redraft communication and instructions around app usage • Focus resource on personal explanatory meetings with business |
| January | <ul style="list-style-type: none"> • Made clients feel special by timely resolving queries, updating them daily and personally assuring their role in the project | <ul style="list-style-type: none"> • Incomplete documentation from external organisation (NestForms API and EMSI API) delayed outcomes • Issues with Nest Forms app update took up | <ul style="list-style-type: none"> • Ensure new questions uploaded consistently before gam • Further engagement with NestForms to |

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|-----------------|---|--|--|
| | <ul style="list-style-type: none"> Engaging stakeholders in every step of the project by having constructive discussions Performing a pilot study before moving to live environments Strong relationships developed with participants and their companies Created a sense of belonging among participants – sense of being a part of something worthwhile | <p>participant's time, and we experienced a big drop off in completion rates</p> <ul style="list-style-type: none"> There were repeated requests to complete a weeks' worth of questions at once Feedback of duplication was a common theme, the understanding of it being a validation process wasn't explained strongly enough | <p>ensure technological solutions in place</p> <ul style="list-style-type: none"> Re-explanation of process and approach to participants Feedback of initial findings to maintain engagement |
| February | <ul style="list-style-type: none"> Low dropout rate and overwhelming commitment from the majority of participants The survey was quick and easy to complete Strong buy-in from Steering Group | <ul style="list-style-type: none"> The move from short answer questions to longer written answers reduced responses | <ul style="list-style-type: none"> Redraft questions to move away from 'open text' Organise wrap-up in person session for further feedback One-to-one feedback as part of business engagement evaluation Offer digital platform engagement with ERBs locally |

3. Annex C

3.1. Businesses Panel Participants*

| Logistics | Manufacturing | Sport and Health |
|---|-----------------------------|--|
| Asda Logistics Services | A W Technology Ltd | Asfordby Amateurs Ladies, Girls, and Inclusive Football Club (AALGIFC) |
| Bleckmann | Antalis | Active Together |
| C.S.Ellis (Group) LTD | ATM Automation | Aim Strong Sport LTD |
| DPD Group | Babcock International Group | Basketball England |
| Druck Ltd | Baker Hughes | CEL Sports LTD |
| GXO Logistics | Bi Limited | Chapel Health and Fitness plus Leicester Outdoor Fitness |
| Hallmark | Blink Print | DMU - Sports Department |
| Northwest Leicestershire District Council | DPI UK | Everyone Active Harborough |
| Pyramid International & The Art Group | DTB Europe | Fit Plus Leicester |
| Translink Express | Everards | Harborough District Council |
| Viking UK | Flexeserve | Hinckley and Bosworth Borough Council |
| | Forst | Hinckley Dance Fitness |
| | Hormann UK | Joanna Celer (sole trader/self-employed) |
| | Impact Air Systems | Leicester City Council |
| | ITS Designs Ltd | Leicester City in the Community |
| | Jeld-Wen | Leicester City School Sport and Physical Activity Network |
| | Jersey Tex | Leicester Outdoor Pursuits Centre |
| | JJ Churchill | Leicester Riders (Morningside Arena - Leicester Riders Foundation) |
| | Metalfacture | Leicestershire County Cricket Club |
| | Mettler Toledo | Loughborough University |
| | MWS Ltd | Rural Community Council |
| | Newtons4th Ltd | Stevenage Leisure |
| | NS Engineering | Super Star Sport Midlands |
| | PCE Group | Swim England (the Institute of Swimming) |
| | Penny Price Aromatherapy | Tyson Fitness |
| | PGM Reball Ltd | Up Starts Gymnastics Club |
| | Prime Casual | |
| | Structural Adhesives | |
| | Vitec Imaging Solutions | |

*Businesses have only been listed where explicit consent has been received

4. Annex D

4.1. Engagement with Stakeholders

Specific Engagement Meetings and Events – General

| Date | LSIP Lead | Meeting Title/Theme | Audience | Approximate Number of Attendees |
|-------------------------|--------------------------------|---|---|---------------------------------|
| 11/10/2021 | Chris Hobson | D2N2 briefing meeting | D2N2 LEP | 1 |
| 11/10/2022 | Chris Hobson and Gareth Thomas | Leicester and Leicestershire Skills Advisory Panel | LEP | 12 |
| 09/11/2021 | LSIP Team | Steering Group meeting | Steering Group members | 20 |
| 10/11/2022 | Gareth Thomas | Wigston Academies Trust Executive Principal (and Ofsted Inspector) and Careers Lead | Schools Representatives | 3 |
| 11/11/2021 | Chris Hobson | ERB briefing meeting | CBI/Make UK/IoD/FSB | 5 |
| 12/11/2025 ² | Gareth Thomas | NCFE | Product and Qualification Development Teams | 5 |
| 24/11/2022 | Gareth Thomas | Institute of Directors Leicester and SE Midlands Committee Meeting | Business Directors in Leicestershire | 10 |
| 3/12/2022 | Gareth Thomas | NCFE on behalf of Awarding Bodies | Head of Policy | 2 |
| 07/12/2022 | Gareth Thomas | AELP | Policy Director | 2 |
| 09/12/2021 | LSIP Team | Steering Group meeting | Steering Group members | 23 |
| 10/01/2022 | Gareth Thomas and Harsh Shah | EMSI Burning Glass | Labour Market Insight Team | 6 |
| 11/01/2022 | Chris Hobson and Gareth Thomas | LinkedIn and British Chambers of Commerce | LinkedIn Directors, BBC | 6 |
| 11/01/2022 | Chris Hobson and Gareth Thomas | Midlands Engine Observatory Programme Board | Midlands Engine Observatory Board members | 10 |
| 11/01/2022 | LSIP Team | Steering Group meeting | Steering Group members | 17 |

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|------------|---------------|---|---|----|
| 12/01/2022 | Chris Hobson | Loughborough College Board | Board members | 15 |
| 25/01/2022 | Gareth Thomas | AoC Midlands Curriculum and Quality Network Spring 2022 | College Directors of Quality and Curriculum (Midlands) | 40 |
| 26/01/2022 | Chris Hobson | LLEP Skills Advisory Panel | SAP members | 12 |
| 01/02/2022 | LSIP Team | Steering Group meeting | Steering Group members | 22 |
| 03/02/2022 | Gareth Thomas | AoC Midlands Principals' Network Spring 2022 | College Principals | 40 |
| 03/02/2022 | Gareth Thomas | IfATE | IFATE | 2 |
| 09/02/2022 | Gareth Thomas | AoC Midlands Chairs' Network Spring 2022 | College Chairs | 40 |
| 22/02/2022 | Gareth Thomas | Leicestershire and Northants Branch Committee Meeting | Institute of Directors Branch Committee (All Local Directors) | 8 |
| 24/02/2022 | Gareth Thomas | DfE Emerging Skills Project | DfE | 1 |
| 25/02/2022 | Chris Hobson | West Notts College Skills Conference | West Notts College stakeholders | 75 |
| 28/02/2022 | Chris Hobson | FE College Feedback session | Leicester and Leicestershire FE colleges | 4 |
| 01/03/2022 | Gareth Thomas | AELP Spring Conference | College Principals, VPs and Directors. CEOs of Independent Training Providers | 40 |
| 03/03/2022 | Gareth Thomas | West Notts College Principal's Meeting | WNC Principal | 2 |
| 04/03/2022 | Chris Hobson | Business survey feedback | Business Panel members | 40 |
| 08/03/2022 | Chris Hobson | D2N2 People and Skills Board | Board members | 20 |
| 16/03/2022 | GT | Leicester College Principal's Meeting | Leicester College Principal and VP | 3 |
| 18/03/2022 | LSIP Team | Steering Group meeting | Steering Group members | 17 |
| 22/03/2022 | Chris Hobson | Chamber Leicestershire Members Forum | Chamber business members | 20 |
| 24/03/2022 | Gareth Thomas | SMB Group Principal's Meeting | SMB Group Principal | 2 |

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| 25/03/2022 | Chris Hobson and Gareth Thomas | Loughborough College Principal's Meeting | Loughborough College Principal | 4 |
| 25/03/2022 | Gareth Thomas | Association of Colleges Policy Meeting | AoC Policy Director and Midlands Director | 3 |
| 30/03/2022 | Gareth Thomas | Market Harborough Chamber of Trade and Commerce Meeting | South Leicestershire Businesses | 20 |

Specific Engagement Meetings and Events – Logistics

| Date | LSIP Lead | Meeting Title/Theme | Audience | Approximate Number of Attendees |
|------------|--------------|-----------------------------|--------------------------------------|---------------------------------|
| 17/11/2021 | Shane Walton | Engaging employers | Make UK | 2 |
| 19/11/2021 | Shane Walton | Logistics | UKWA, RHA, FSDF, CILT, DMU | 6 |
| 22/11/2021 | Shane Walton | Logistics | WiL, Novus (Aston) | 2 |
| 23/11/2021 | Shane Walton | Logistics | Make UK | 1 |
| 24/11/2021 | Shane Walton | Logistics | Logistics contacts in Leicestershire | 20 |
| 24/11/2021 | Shane Walton | General | Co-creation | 2 |
| 24/11/2021 | Shane Walton | Logistics | Northants Logistics Forum | 8 |
| 25/11/2021 | Shane Walton | Logistics | LinkedIn contacts in Leicestershire | 30 |
| 25/11/2021 | Shane Walton | Logistics | Brunel University | 2 |
| 25/11/2021 | Shane Walton | Logistics | Think Logistics and Career Ready | 10 |
| 25/11/2021 | Shane Walton | Logistics | Institute of Couriers | 4 |
| 25/11/2021 | Shane Walton | General | DWP | 3 |
| 26/11/2021 | Shane Walton | Logistics and Manufacturing | NWSLC | 1 |
| 26/11/2021 | Shane Walton | Logistics | Biffa | 1 |
| 26/11/2021 | Shane Walton | Logistics | Contacts at Magna Park | 2 |
| 30/11/2021 | Shane Walton | Logistics | CILT WM Group through CEN Global | 8 |
| 02/12/2021 | Shane Walton | Logistics | UKWA | 2 |
| 02/12/2021 | Shane Walton | Logistics | RHA | 3 |
| 06/12/2021 | Shane Walton | Logistics | SEMLEP | 2 |
| 07/12/2021 | Shane Walton | Logistics | RHA | 10 |
| 08/12/2021 | Shane Walton | Logistics | EMA Group | 4 |
| 09/12/2021 | Shane Walton | Logistics | SEMLEP | 7 |
| 13/12/2021 | Shane Walton | Logistics | Goodwill Solutions | 2 |
| 15/12/2021 | Shane Walton | Logistics | RHA | 1 |

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|------------|--------------|-----------------------------|---|----|
| 15/12/2021 | Shane Walton | Logistics and General | NW Leicestershire Council - Amazon, Buy It Direct, DHL/Mars, DHL/Caterpillar, DHL Aviation, Games Workshop, GXO, Kuehne & Nagel, M & S, The Very Group, UPS | 11 |
| 16/12/2021 | Shane Walton | Logistics | DWP | 5 |
| 21/12/2021 | Shane Walton | Logistics | Salad Skills | 1 |
| 22/12/2021 | Shane Walton | Logistics | EMEG | 1 |
| 22/12/2021 | Shane Walton | Logistics | Samworth Bros, Pet Products, Coates, Data Academy, Sherwoods, Cobbley's Transport, Eddie Stobbart | 7 |
| 04/01/2022 | Shane Walton | Logistics | Harborough District Council | 5 |
| 10/01/2022 | Shane Walton | RHA EM Regional Meeting | RHA EM | 10 |
| 16/01/2022 | Shane Walton | Logistics | UKWA CEO | 1 |
| 17/01/2022 | Shane Walton | UKWA Member meeting | UKWA Members | 12 |
| 20/01/2022 | Shane Walton | Logistics | GXO | 1 |
| 25/01/2022 | Shane Walton | Logistics and Manufacturing | Melton Council | 1 |
| 08/02/2022 | Shane Walton | Logistics | NWLDC | 2 |
| 09/02/2022 | Shane Walton | Logistics | NWSLC | 3 |

Specific Engagement Meetings and Events – Manufacturing

| Date | LSIP Lead | Meeting Title/Theme | Audience | Approximate Number of Attendees |
|------------|---------------------------------|-----------------------------|--|---------------------------------|
| 17/11/2021 | Malcolm Healey | Employer Engagement | Qualitrain Ltd | 2 |
| 15/11/2021 | Malcolm Healey and Shane Walton | Introduction to LSIP | Make UK | 3 |
| 16/11/2021 | Malcolm Healey | LSIP Engagement & Promotion | Oxford Innovation (Leicestershire Manufacturing Peer Networks) | 2 |

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|------------|---------------------------------|---|--------------------------------------|----|
| 17/11/2021 | Malcolm Healey | Leicester Business Festival: Investment Trends & Opportunities in the Advanced Engineering and Manufacturing Sector | Employers & stakeholders | 10 |
| 19/11/2021 | Malcolm Healey | Employer Engagement | Betterweld | 2 |
| 25/11/2021 | Malcolm Healey | Introduction to LSIP | University of Leicester Space Park | 2 |
| 25/11/2021 | Malcolm Healey | Introduction to LSIP | Manufacturing Growth Programme (MGP) | 2 |
| 30/11/2021 | Malcolm Healey | Engagement support | Invest in Leicester | 3 |
| 02/12/2021 | Malcolm Healey | LSIP support & promotion | CBI | 2 |
| 13/12/2021 | Malcolm Healey | LSIP promotion & access to stakeholder contacts | DWP | 2 |
| 13/12/2021 | Malcolm Healey | LSIP Promotion | Warwick Manufacturing Group | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | Leicester Employment Hub | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | NW Leicestershire District Council | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | Knowledge Transfer Network | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | Oadby & Wigston Borough Council | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | LLEP | 2 |
| 14/12/2021 | Malcolm Healey | LSIP Promotion | Leicestershire County Council | 2 |
| 15/12/2021 | Malcolm Healey | LSIP Promotion | Blaby Borough Council | 2 |
| 04/01/2022 | Malcolm Healey and Shane Walton | LSIP Introduction & Promotion | Harborough Borough Council | 3 |
| 06/01/202 | Malcolm Healey and Shane Walton | LSIP Introduction & Promotion | Hinckley & Bosworth Borough Council | 3 |

Specific Engagement Meetings and Events – Sport and Health

| Date | LSIP Lead | Meeting Title/Theme | Audience | Approximate Number of Attendees |
|------|-----------|---------------------|----------|---------------------------------|
|------|-----------|---------------------|----------|---------------------------------|

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|------------------------------|-----------|---|--|----|
| September 2021 to March 2022 | Lara Lill | Skills Accelerator Steering Group | CIMSPA, Active Together, Loughborough College, Leicester College, NWSLC college, SMB college, Loughborough University | 10 |
| September 2021 to March 2022 | Lara Lill | Training Need Analysis | CIMSPA, Active Together, Loughborough College | 4 |
| 11/11/2022 | Lara Lill | CSCOPs - Leicestershire Culture & Sport Chief Officers Partnership | Local authority Leisure and Culture leads from across LLR | 12 |
| 16/11/2021 | Lara Lill | Leicester Business Festival Event - Physical Activity and Sport - prioritising skills, wellbeing, digital, diversity and green recovery | Self-employed, businesses, clubs and organisations operating in the physical activity and sport sector in Leicester, Leicestershire, and Rutland | 34 |
| 25/11/2022 | Lara Lill | Work and Skills Forum. Bi-monthly network sessions organised by Leicestershire County Council | Public, private, and voluntary sector agencies working with service users and partners around employment, skills and labour market participation | 40 |
| 26/01/2022 | Lara Lill | Active Together - Business Oversight Group | Active Together Boards members and advisers from the local area | 6 |
| 01/02/2022 | Lara Lill | Business of Sport Online Network Session - Children & Young People Opportunities | Self-employed, businesses, clubs and organisations operating in the physical activity and sport sector in Leicester, Leicestershire, and Rutland | 12 |
| 01/02/2022 | Lara Lill | Employer Engagement Meeting | Clubzone | 1 |
| 01/02/2022 | Lara Lill | Employer Engagement Meeting | Leicester Outdoor Pursuits Centre | 1 |

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|------------|-----------|---|--|----|
| 02/02/2022 | Lara Lill | Employer Engagement Meeting | CEL Sports | 1 |
| 02/02/2022 | Lara Lill | Employer Engagement Meeting | AALGIFC - Asfordby Amateurs Ladies, Girls and Inclusive Football Club and Loucoll | 1 |
| 08/02/2022 | Lara Lill | Employer Engagement Meeting | Superstarsports Midlands | 1 |
| 09/02/2022 | Lara Lill | Employer Engagement Meeting | Rocket Youth Sports | 1 |
| 10/02/2022 | Lara Lill | Employer Engagement Meeting | Concussion Rebalanced | 1 |
| 03/03/2022 | Lara Lill | Business of Sport Online Network Session - (focusing on CIMSPA's ReTrain to ReTain Funding & Digital Marketing Hub) | Self-employed and businesses, clubs and organisations operating in the physical activity and sport sector in Leicester, Leicestershire and Rutland | 4 |
| 09/03/2022 | Lara Lill | Active Partnership Network | Active Partnerships, Active Together, CIMSPA | 10 |

5. Annex E

5.1. Data Recommendations

Emerging Technology and Data Recommendations from the development of the Local Skills Improvement Plan

Throughout the production of the Collective Intelligence Skills Observatory (CISO) several challenges were identified with regards to data availability, quality, accessibility and associated documentation.

To support a future data-led approach to analysing skills supply and demand-side issues, this document outlines specific challenges encountered across different activities within the LSIP development and makes recommendations for how processes can be improved for future activity. It is intended to be used by those with responsibility for data management within Government and elsewhere, and to support the development of the new Department for Education Future Skills Insight Unit.

Activity: Web Scraping – Department for Education, Higher Education Statistics Agency and IFATE (Open datasets)

Challenges

The DfE does not currently provide data through API (Application Programming Interface), but instead uploads data in CSV format on the Explore Education Statistics website. Similarly, HESA provides CSV files from HESA website. As a result, the only option to automate the data extraction process is through web scraping. Web scraping involves methods used to perform data collection from the internet.

The web scraping scripts failed once during the project as the URLs used to provide the latest data were revised part way through the project. This followed the refinement of the 'Explore Education' website and data release in November'21.

Finding definitions of variables or understanding the methodology of data collection remained a challenge throughout the development as the only option was to search for information on DfE and HESA websites. The 'data guidance' notes provided along with data download by DfE were limited in their use in helping to understand variable definitions and did not explain methodology. HESA meanwhile did not provide any information with the data download.

The data available through the IfATE API had inconsistencies as not all roles included Knowledge, Skills and Behaviours. As a result, the findings do not replicate the KSBs in demand for all apprenticeships job postings and some job titles were excluded from the analysis.

Recommendations

Short-term – Support automation of data exploration through ensuring consistency of availability

To avoid the need for manual processes of data extraction and allow for automated processes:

1. The URL of the website should not change with new data releases
2. The elements of website structure should remain unchanged
3. Coordination should take place across different data sources to provide data downloads in a consistent format e.g. zip file including data and data guidance folders

4. There needs to be coordinated consistency in labelling and definitions of data sets – even slight differences make automation significantly harder to do through web scraping

Medium-term – Make data available through consistent APIs

To really encourage better use of data and, ultimately, data-driven decision making, in the long-term data should be made available through APIs. The data available through API should also include metadata as is available from the existing guidance documents at present. The metadata should help explore variable definitions, methodology, next release date, geography levels, time period, content etc.

There needs to be consistency in the APIs to ensure the right outcomes are achieved from analysis and reduce the number of assumptions that may need to be made.

Note: data should remain available through CSV files as not every organisation will have capability to fetch data from API.

Activity: Purchasing and using 3rd Party Applications (Licensed datasets)

Challenges

In total, five services were licensed to ensure the CISO delivered the right information in the right way. The legal implications involved in using new services or tools are complicated and the process of accessing these are lengthy, given the uniqueness of the requests around usability, functionality, accessibility, and infrastructure. Communication with third-party providers was often slowed down by the nature of the enquires being different from those that have been handled in the past.

The documentation on accessing external license API was often of poor quality. In fact, in one instance an organisation published the Chamber's own scripts on their website as documentation for future clients. On several occasions, the Chamber had to involve third party development teams to certify the right data access. There were variable levels of development team support at third-party organisations and the project often had to rely on its own expertise to explore the APIs.

There were also instances where the incorrect data was provided, or with incorrect definitions making it difficult to understand the variables. On another occasion, the data provided included a lot of noise at a granular a level making it difficult to understand what is truly of value.

Finally, issues also exist around potential competition and these need to be recognised in any future model around data provision. High dependency on one organisation may lead to increased costs. Thus, it is always a good idea to look for alternatives in the market.

Recommendation

Coordinated work is needed with third-party suppliers to maximise their ability to support the Future Skills Insight Unit. This includes Government ensuring it is asking the right questions.

There is much that third-party suppliers can offer to a system that makes best use of data to understand skills supply and demand-side issues, however, at present there is little consistency in quality or provision. Current provision is often based on what providers are easily able to provide and not necessarily what would support better outcomes.

It is essential that the right questions are asked at the outset and third-party providers are challenged to come forward with solutions to these questions as opposed to their own pre-existing products. While recognising that in many instances these are commercial businesses, they all demonstrated a willingness to support, and with coordinated direction can play an important role in providing the solutions required.