Innovation Board Agenda, Minutes and Paper
09:00 – 11:00, 15 December 2021

Agenda

1. Minutes from the meeting held on 22nd September 2021 (Below)
2. Presentation on the Innovate UK action plan for business innovation 2021 to 2025 (Layla Burrows)
3. Presentation on the ongoing TECH SW Research (Dan Pritchard)
4. Discussion following the IDE Survey Results and attached Paper (Andrew Dean)
   a. Innovation Grow-On Space
   b. Recruitment and Skills
5. Verbal update on the latest Technopole developments (Stuart Brocklehurst and David Ralph)
6. Verbal update on the Oceans Future Business Plan (Adrian Dawson)
7. Verbal update on the Environmental Intelligence request of government (Andrew Dean)
8. Any other business
9. AOB and new opportunities (All)

Date of next meeting: Monday 14th March 2022, 2-4PM

Contact
Chair - Stuart Brocklehurst stuart.brocklehurst@applegate.co.uk

Secretariat - Andrew Dean a.dean@exeter.ac.uk

Minutes and the IDE Survey Paper follow.

Minutes from the Innovation Board Meeting
September 22nd 2021

Apologies
Wayne Loschi, Cathrine Armour, David Ralph

In attendance
Stuart Brocklehurst, David Ralph, Chris Evans, Adrian Dawson, Icarus Allen, Sally Basker, Ian McFadzen, Stephen Mariadas, Victoria Hatfield, Vince McConville, Martyn Ashford, Layla Burrows, Paul Coles, Stuart Nicol, Andrew Dean.

Minutes from the meeting held on 30th June 2021
Accepted with no further comments.

Lobbying and engagement (SB, CE, ADaw)
There will be a further meeting with Geoffrey Cox MP in October when the Technopole Business Case will be complete. The Board are progressing the marine and environmental asks accordingly.

Simon Jupp MP has also approached the PM concerning measures that are relevant to the group - such as the environmental impact accelerator.

Stuart has also spoke to Fiona Murray (of the |Prime Minister's Council on Science and Innovation) who will also be informed of developments so she can support our work. Our planned activities are seeking to maximise what we offer - not replace existing innovations.

Technopole business case development (SB, SN) (Paper circulated)
Stuart Nicol spoke on progress in developing the Technopole concept. He has already spoken to many on the Panel and is also speaking to other potentially useful models. On the whole Board Members and others consulted were enthusiastic and any concerns tended to be around unnecessary targets, impacts on resource and potential confusion over where to go for support.

It should be practical to avoid such duplications and the TECHSW Paper was an indication that this should be possible.

SN reported that respondents were concerned that the Technopole must be sustainable – and not a 3-year only activity/project. It must therefore include useful services that can help subsidise the Technopole.

The Board were happy with progress and with Stuart's circulated paper.

Technopole Platform (Paper circulated) (SB)
The LEP was continuing to progress the Technopole and to look out for opportunities for supporting innovation and recently received an interesting proposal from TECH SW to develop a form of Platform that could enable Technopole activity. It is very positive that Tech SW are actively involved in this field.

PC has also seen similar developments in the West Midlands - known as 'the Grid' - this targets IDEs and is supported by universities and Local Authorities. Board members described other similar developments and potential offers in what is an interesting space.

Stuart Brocklehurst requested information and contacts for any organisations that can provide this kind of service.

It could be that such a Platform would cover a larger geography.

Stuart Brocklehurst also identified that there were two Technopole elements – a short term piece for developing the platform, then a longer-term piece which was around the delivery of the Technopole elements.

Board members expressed a desire that the early phase developments should not limit options for future delivery. Making sure the Platform, or its owners, do not define or limit the Technopole.

IA was supportive of the development and identified that a really clear, punchy, case would need to be made for the Technopole – describing the clear benefits.

The Board wished to see the commissioning documents ahead of their going out to tender. This must have the real value proposition incorporated.

It was recognised as important that the Technopole needs to be inclusive and must not be too closely associated with one or other sector.

ACTION LEP: In procurement, we will need to add in that 'the chosen solution does not limit options for the future implementation of the Technopole'

ACTION LEP: Make sure Technopole documents make the value proposition very clear and circulate the commissioning documents ahead of tender - for comments by the Board.

ACTION AD: Circulate the Grid presentation (Via PC)

Environmental intelligence and proposals for Exeter (CE)

Exeter have been seeking to pull together an ask around Environmental Intelligence for Government. A potential vehicle could be an Environmental Impact Accelerator. This idea has been consolidated to involve a number of partners including PML, UoE, UoP, Met Office. There is also the potential for an Innovation District in the city where the Environmental Impact Accelerator would be a core offer.

Smaller projects have also been progressed - that could form part of a larger 'whole' though form different funds.

The UoE VC will meet BEIS soon to help progress discussions. This is is on target and discussions are ongoing, including through COP26 where the University is well represented. The Business Case is not far from being finalised.

Ultimately this will be part of a larger package that includes the below Marine and Ocean Futures work.

ACTION: CE to circulate details to organisations concerned and interested on the Board

Marine and Ocean Futures (ADaw)

The Brand was successfully launched last week in London to help get traction for the concept. Business Plan is 70+% complete. The central elements/themes are now well defined. BEIS discussions have already taken place and a further briefing with BEIS and MOD will take place later in September. A related Lloyds Register application will be submitted that would complement what is being proposed more broadly.

As with the previous item – there is areal need to encapsulate this in one or two sentences.

Entrepreneur Panel (ADea) (Paper circulated)

The secretariat has contacted the individuals who that have engaged previously in the MIT-REAP work and have circulated details to all Board members requesting their support with recruitment. They have also reached out through networks and organisations such as: CBI, FSB, SWBC, TechSW, ExIST, Chambers of Commerce and Innovate UK.

We have just over 40 members already, but the list is not terribly diverse. Board members recommended individuals and organisations to contact.

Board members were consulted on topics to consult the IDE Panel, the following were agreed as themes:

1. Testing the proposals of the Technopole consultancy work underway.
2. Exploring 'skills' as a topic given the labour market shortages - the LEP Board may well have specific questions and Stuart Brocklehurst will advise. Similarly, the SWIoT are in a position to suggest questions around skills.
3. Space to grow for IDEs (availability across the region) and can they access that space.

ACTION: SBro approaching three local Directors re: Panel membership

ACTION LB: Please check the Women in Innovation award winners for potential Panel nominees

ACTION SM: SWIoT are looking to survey people regarding apprenticeships and other provision given skills gaps – liaise with ADea as to whether the Panel can support this by sending out a small number of questions.

ACTION: ADea inform Panel of the forthcoming survey(s) and their topics and circulate survey(s) when ready

Innovate UK update (LB)

The wider context of the Innovation strategy were not considered. The presentation was very much concerned with Innovate UK's delivery strategy. Particular elements include:

- Build on the Plan for Growth
- Business and SME focussed
- Seeking a major change in private sector investment

The slides presented by Layla were circulated after the meeting.

In addition to the programmes and approach set-out open competitions and KTPs will allow bids to include areas wider than these. There are still considerable elements to be confirmed including County Deals.

The Board were concerned at the lack of R&D funding in the LEP area. Over the last 7 years, £866m has been given to 1,058 companies in broader SW. But half of that was just to West of England. This year only £3.2m has gone to HotSW so far. The Board recognised the major impact of R&D investment and that large areas in the HotSW geography receive very little compared to many others outside the region – and this has, and will, continue to hinder any attempts at Levelling Up.

CE noted a report had been produced a few years ago concerning R&D barriers for regional businesses that could be re-visited.

ACTION CE: Recover the cited report and circulate (via secretariat) if possible

LB was eager to discuss where the major regional opportunities are – for place-based innovation support, possibly linked to Levelling Up. Creating a regional package of support. Marine and Environmental Intelligence are the two core priorities for the Board.

Catapults will remain part of Innovate UK's delivery. SME grants of up to £15k are available for those seeking to engage Catapults (whether in region or not).

ACTION LB: Circulate presentation to the Board

The parallel R&D People and Culture Strategy is led by UKRI and as yet has not filtered down into Innovate UK. Inclusivity is a key element of the delivery of the Innovate UK approach given the demographics of the sector. CE highlighted the work of the regional IKEEP project - and the potential for entrepreneurial support through this.

ACTION: LB offered to link Board Members into UKRI

Date of Next Meeting
ACTION: Andrew Dean to 'Doodle' the Board Members for the next 2 Meeting Dates

Results of the first HotSW IDE Panel Survey

Background

The IDE Panel is a volunteer group of entrepreneurs and leaders in innovation driven enterprises (IDEs). The IDE Panel was established as a recommendation of the MIT-REAP exercise in which the HotSW LEP took part alongside other member s of the regional innovation ecosystem. The make-up of the IDEs is provided in the Annex.

This survey, the first of its kind, looked at two specific topics:

- The availability of grow-on space for IDEs
- Skills needs and recruitment concerns within our IDEs

Approximately half of the IDE Panel members responded (20 of 41).

Grow On Space

When asked if in their local area (where their business is based) there was sufficient Space available for their organisation to grow and expand, 55% of respondents replied 'yes' (Figure 1.)

Figure 1. Availability of sufficient grow on space locally
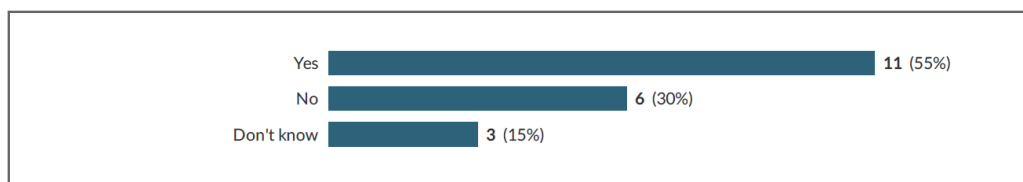
Of those responding 'Yes' that there was enough space, over 60% felt that nonetheless they were not able to access that space. When asked to reflect on this and the availability of grow on space more generally there were a number of common themes and confirming shortages "I hear a lot about space in Exeter, but I also hear people in North Devon (Barnstaple etc) saying that such innovation space is limited:"

Lack of flexibility

- A lack of affordable space and a lack of flexibility within spaces that are available.
- Many hubs/locations still insisting on long leases (and) 5 days a week occupancy, when we know of many companies looking for more flexibility.

There is a gap in the market for different forms of provision with support

- There is a fantastic opportunity - our client (xxx) is seeing high levels of interest (25 new tenants in 2021 so far) - companies returning from remote working no longer want to work just anywhere - they are looking for the right environment/added value - connections/support progs/links with unis etc.
- Space is one consideration, but close location to other industries and research organizations (especially universities) helps with new idea generation and innovation.
- My business is purely online, and all contractors are remote, although mostly in the UK, so this isn't much of an issue. Co-working spaces would be nice though.

Sectoral problems

- We need spaces that meet the needs of the creative industries sector which are versatile and accessible to the regional universities R&D resources.
- Low marine-based facilities.
- If we didn't already own our site, I feel that it would be impossible to set up a new textile business with circa (a large number of) employees (with the resultant industrial processes) in the Southwest.

Others had found that spaces were available locally:

- I think the Exeter/East Devon area is reasonably well served.
- No, I have found access to space to be pretty well catered for.

There was recognition that the definition of an IDE and how it was recognised and understood was an important factor in overcoming gateway questions at venues such as Science parks and that some sectoral needs were different to others:

- The HiTech industry requires CLEAN industrial space not Garages or offices. The EPIC centre is the first attempt to provide this in Torbay but industrial space is also required to address the manufacturing needs in Hi Tech sector.

Summary

Recognising that this is a relatively small sample size, nonetheless the fact that over half of respondents identified a lack of suitable local grow-on space is significant. Further, the finding that those responding that there 'was' enough space still felt they could not access said space, reinforces concerns.

Skills and recruitment findings

The survey asked IDEs about their recruitment activities, 'hard-to-fill' vacancies, skills gaps, the availability of suitable training and their own training activities.

Hard to fill vacancies

Of the 20 respondents 17 had recruited or tried to recruit during the last 12 months and 10 of these (nearly 60%) found that their vacancies were 'hard-to-fill'. This is considerably higher than the economy average reflecting the nature of the posts being recruited. Last month CIPD reported almost half (47%) of employers had vacancies that were 'hard-to-fill', and more than one in four (27%) expected the number of these vacancies to increase in the next six months[1].

The IDE Panel respondents had 37 current vacancies – typically 1 or 2 per organisation but one larger employer had 15 current vacancies. The listed vacancies were included:

- Sales Co-ordinator
- Digital Content Specialist
- HPC Engineer (Background in Computer Science or Electrical Engineering), preferably with a Post Graduate Degree
- Post-grad engineering and technology posts
- Experienced machine tool operators, toolmaker Experienced sales engineer and experienced production manager
- CFO, Manufacturing

---

[1] https://www.cipd.co.uk/about/media/press/151121hard-fill-vacancies-increase

- Administration
- Operations Assistant
- Technical Administrator
- Shop floor operatives, technical textiles experts and graduates

We asked what the reasons for the 'hard-to-fill' vacancies were typically both a lack of suitable applicants a general lack of applications (Figure 2.).
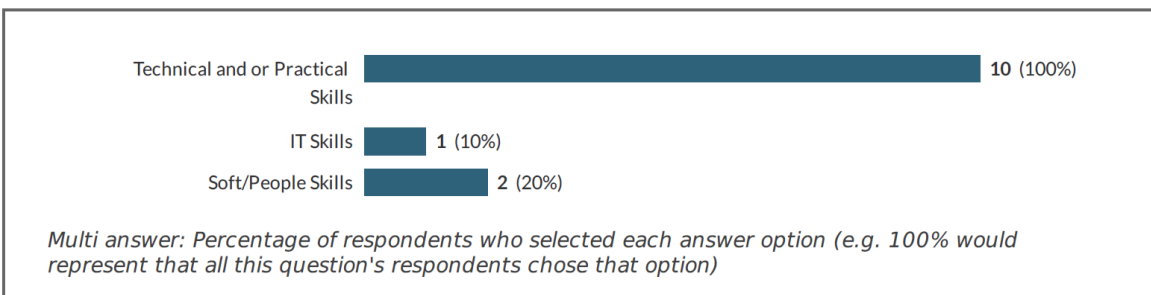
Figure 2. IDE Reasons for Hard to Fill vacancies
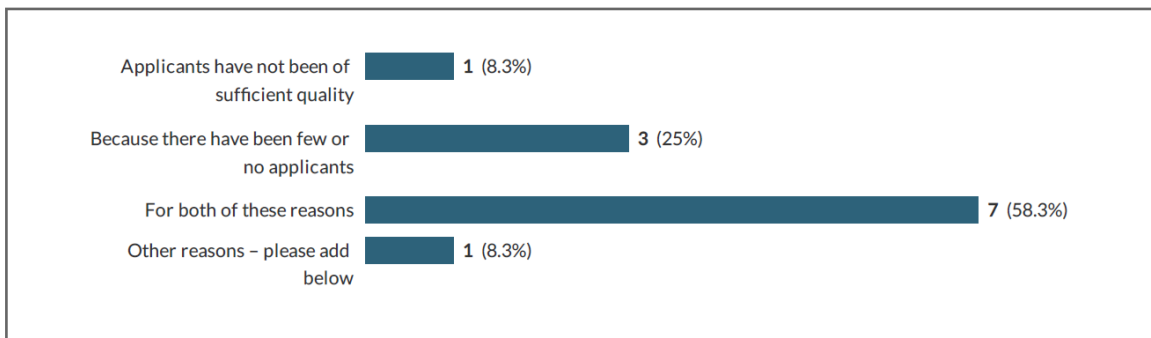
Skills that were hard to find

Further, when those that had struggled to finds the right skills amongst those applying, all cited Technical or Practical Skills (Figure 3.) rather than IT or soft/people skills.

Figure 3. Skills lacking in applicants

Multi answer: Percentage of respondents who selected each answer option (e.g. 100% would represent that all this question's respondents chose that option)

The technical skills that respondents cited as difficult to obtain are given below with a particular preponderance of engineering-related skills:

- HPC Engineer with broad experience in Linux server systems, MPI programming and understanding of engineering and science-based simulation software
- Post-grad engineering academic skills
- Skills around engineering manufacturing
- Engineering, finance
- Lack of customer service experience
- Technical skills in Agritech
- SEO skills at a suitable level
- DevOps Lead
- (People with) academic technical degrees who can demonstrate the aptitude to train and learn
- Technical textiles
- STEM graduates

Where IT skills were hard to find, these were cited as:

- Lack of customer service experience
- Lack of attention to details
- Machine learning and data science
- SQL, Telecom network architecture and services

The soft/people skills that were cited as hard-to-find were:

- Poor communication written and verbal
- Leadership, team management, communication

Implications for the IDEs

Those IDEs struggling to recruit the applicants they needed cited the following impacts on their businesses, typically extra strain on other staff and impacts on business growth and what they could deliver:

- Extra hours for some members of staff, some projects delayed.
- Team has had to pick up the extra work
- This is always ongoing and not specific to a period or location. It's the nature of the highly specialised work.
- Posts stay open, delay in completing projects
- Our business is being restricted to some extent
- This has restricted our pace of growth
- We have had to outsource for certain roles, and our existing team members have been over-stretched
- Highly stressful Operations Team as we successfully win contracts but always tight on resourcing projects
- Unable to keep up with record high demand and difficulties due to higher absenteeism during the pandemic

Actions to overcome recruitment difficulties

Respondents have tried to overcome the recruitment problems in a number of ways – which together largely cover all possible options (different recruitment approaches, agencies, increased pay and conditions, innovating new relationships and building new links and outsourcing).

- Finally filled the position
- Used specialist national recruitment agencies (expensive) for the first time
- We prefer word of mouth references with hands on, paid for internships or trial periods before hiring
- Advertise further afield to attract, consider on-the-job training using less qualified.
- Pay rates have been increasing. We are trying for more automation in some areas.
- Signed the Defence Covenant and seeking to recruit from those leaving the armed forces
- Outsourced certain roles
- Used a local employment agency which really helped
- Increased activity with Exeter College, DCC Economy Team, MDDC and the Education and Training Foundation regarding T-Levels and restarting apprenticeships etc.

Of those looking to offer vocational and placement activities, the following were popular:

- Apprenticeships
- Placements
- Internships

None currently offered T-Levels and approximately 40% of the IDEs were not offering any of the (above) options. When asked as to why they were not offering these, the responses largely reflected the small size of most of the regional IDEs and the specialist nature of the businesses. Others cited a preference for outsourcing and freelancers, and one was unaware of what T-Levels were.

<u>Skills lacking in IDE enterprises</u>

The survey asked specifically if (independent of recruitment issues) there were skills lacking in the IDE enterprises. A large proportion - 75% responded that YES this was the case. They further cited the following skills as currently being lacking in their enterprise (broken down by broad area):

Engineering and Technical

- Testing skills
- Technical textiles
- Multi-skilled fabricator
- Design engineer
- Marketing and Sales Engineer
- Specialist technical skills -photonics knowledge and experience
- Optical design
- CAD

Technology/IT/Digital

- Digital literacy
- Niche digital marketing skills
- AI and Satellite Image Analysis
- Data presentation
- Software development
- Software design and programming

Graphic Design

- Graphic designer
- Graphic Design and media

Other

- First steps into management
- Videographer
- Marketing strategy
- Social media and newsletter writing

<u>Impact on IDEs from current lack of skills</u>

IDEs cited a number of impacts on their enterprises from a lack of skills, these have been grouped as:

Impact on business performance and cost

- (Impact on) Short term growth potential

- Skilled people are expensive
- Reduced promotional activity
- Delays scaling and removes focus from the technical products being developed
- Means I have less time to focus on top level thinking
- Slows down R&D, delays release of new products, hit to income
- Hard to move quickly and promote effectively

Internal impacts and changes to business model

- Major distraction in a small team
- Having to bring in good developers and pay them whilst they learn these new skills
- We rely on a small number of experienced staff to train and share skills
- Higher workloads on existing staff, slower developments, and slower resolution of technical/quality problems
- Offering our support to businesses remotely (instead)
- We have to pay to out-source

Suggestions for addressing the lack of skills

IDEs recognising an internal lack of skills were asked what they felt was needed. There responses are grouped below:

Link with education providers

- Work with the FE colleges to develop skills
- Work with local universities to develop photonic technology schools to develop potential new staff
- In progress, new training schedule implemented

Changes needed to education provision and signposting in the region

- Better free courses, better advertising of those courses
- Create incubation centres and flexible freelance networked workforce specific to the creative industries and link these to the regional university and enterprise networks
- Greater interactions with universities and more placements as part of courses
- Exposing students to more than just the science skills but also economic and sales/marketing skills
- More recruitment support options - it's hard to know where to advertise and which recruitment agencies are a good fit.
- Re-open the Chemistry Department at Exeter University
- Start some technical textile degree courses in Devon.
- Produce more local STEM graduates in Devon.
- Massive improvement in state education in Devon.
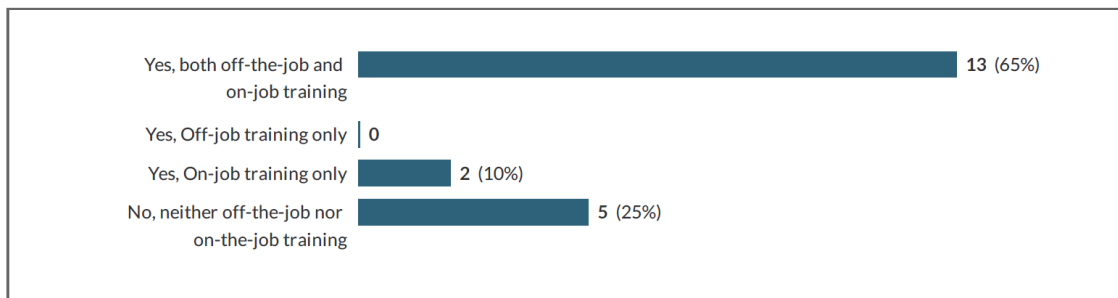- Optical design training in University/college

Other

- Affordable housing in Devon.
- Allow recruitment from the EU into the manufacturing sector

Internal Training

IDEs were asked if in the last year they had arranged or funded any training for their employees. Three quarters had provided training and typically this was both 'on-the-job' and 'off-the-job' (Figure 3.).

Figure 4. Training delivered to employees

Category	Value
Yes, both off-the-job and on-job training	13 (65%)
Yes, Off-job training only	0
Yes, On-job training only	2 (10%)
No, neither off-the-job nor on-the-job training	5 (25%)

Those employers who had not trained did not cite specific courses/topics that were not available. But one identified that "Our local college often advertises courses, but they aren't guaranteed to run unless the applicant numbers are sufficient. That's disappointing."

Summary

The labour market nationally and locally is particularly tight now with many employers struggling to recruit. It is therefore not a surprise that our IDEs are struggling to recruit, however the percentage of employers struggling is considerably higher than the recent figures from CIPD. Applicants for vacancies typically were both lacking the requisite skills – and in short supply.
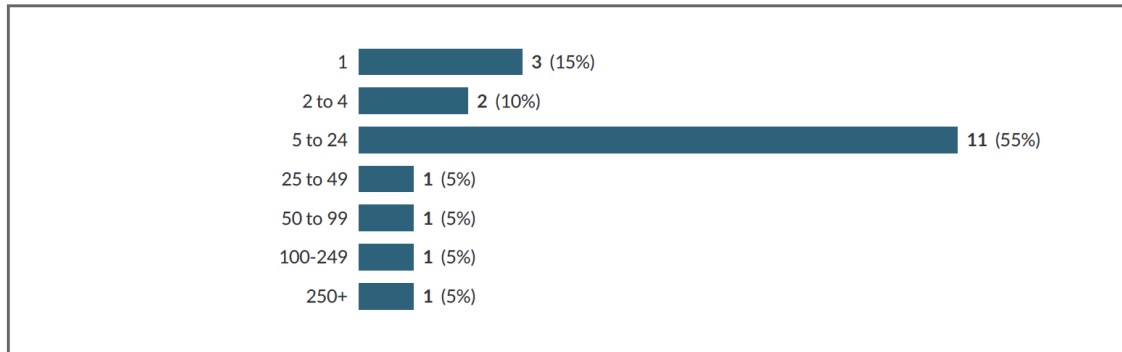
The greatest current shortage of available skilled labour identified by the IDEs were workers with suitable technical and practical skills – most related to engineering, manufacturing, and technology. The lack of recruits was undoubtedly undermining IDE performance and productivity, and therefore with a knock-on impact on the regional economy. IDEs were seeking several different approaches to overcome the staff shortages.

Within their existing workforces, IDEs were able to identify skills shortages, the greatest concentration of these were in the 'Engineering and Technical' and 'Technology/IT/Digital' sectors. As with the persistence of 'hard-to-fill' vacancies the lack of internal skills was undoubtedly undermining business performance and leading to new ways of operating. To overcome the problems with skills and to support them with skills provision some IDEs are already seeking closer links with colleges and universities. They are also looking for new courses and qualifications locally.

Annex. Respondent details (Firmographics)

<u>Enterprise size</u>

Over half off respondents were from enterprises with 5-24 employees.

Size	Count (%)
1	**3** (15%)
2 to 4	**2** (10%)
5 to 24	**11** (55%)
25 to 49	**1** (5%)
50 to 99	**1** (5%)
100-249	**1** (5%)
250+	**1** (5%)

<u>Sectors</u>

IDE respondents came from:

- Information & Communications (25%)
- Manufacturing (20%)
- Engineering and Engineering Research (10%)
- Business Services (5%)
- Arts & Other Services (5%)
- Health & Social Work (5%)
- Education (5%)
- Aerospace (5%)
- Publishing and media (5%)
- Consultancy and Wholesale/Distribution (5%)
- Horticulture, specifically garden and planting design (5%)
- Photonics (5%)

Innovation Board Membership

Organisation Types	Organisation	Member	Email
CHAIR	Applegate	Stuart Brocklehurst	stuart.brocklehurst@applegate.co.uk
LEP Representative	HotSW LEP	David Ralph	david.ralph@heartofswlep.co.uk
2* Universities	Exeter Plymouth	Chris Evans Adrian Dawson	Chris.Evans@exeter.ac.uk adrian.dawson@plymouth.ac.uk
3* Key Research Assets	MET Office UKHO PML	TBC Cathrine Armour Prof Icarus Allen	TBC cathrine.armour@ukho.gov.uk jia@pml.ac.uk
2* Science Parks	Exeter SP Plymouth SP	Sally Basker Ian McFadzen	sbasker@exetersciencepark.co.uk ceo@plymouthsciencepark.com
1 Rep for Innov Centres	EPIC	Wayne Loschi	wayne.loschi@tda.uk.net
1 SWIOT and FE	SWIOT	Stephen Mariadas	stephenmariadas@exe-coll.ac.uk
1 LA ECC, PCC, SCC or DCC	ECC	Victoria Hatfield	victoria.hatfield@exeter.gov.uk
1 LA from another LA	South Somerset	Alex Parmley	alex.parmley@southsomerset.gov.uk
1 Corporate Rep	Babcock	Mark Ratcliffe	Mark.Ratcliffe@babcockinternational.com
1 LEP Board Observer	Independent	Paul Coles	paul.3.coles@outlook.com
1 Innovate UK	Innovate UK	Layla Burrows	layla.burrows@innovateuk.ukri.org