

Midlands Low Carbon and Environmental Goods and Services (LCEGS) Sector Study

Milestone 4 Report: Stakeholder engagement interviews & workshops

For: Midlands Energy Hub



29 January 2021

Document information

Title: Midlands Low Carbon and Environmental Goods and Services (LCEGS) Sector Study. Milestone 4

Report: Stakeholder engagement interviews & workshops

Version: Draft, 29 January 2021

Customer: Midlands Energy Hub

Project Manager: Anna Bright

Project Contributors: Anna Bright, Alan Carr, Mike Peverill

Disclaimer: This document represents the independent advice commissioned by Sustainability West Midlands and not necessarily that of the funders.

Copyright: This report may be freely distributed and used for public benefit and non-commercial use. If information is used from this report it must reference the source which is *“Midlands Low Carbon and Environmental Goods and Services (LCEGS) Sector Study. Milestone 4 Report: Stakeholder engagement interviews & workshops.”*

About Sustainability West Midlands

We are the sustainability adviser for the leaders of the West Midlands. We are also the regional sustainability champion body for the West Midlands, as designated by government. We are a not-for-profit company that works with our members in the private, public and third sectors. Our Board is private sector led and has cross-sector representation; they are supported by our team of staff and associates.

Our vision is that the West Midlands is leading in contributing to the national target of net zero greenhouse gas emissions by 2050 whilst addressing health inequality and driving inclusive growth. We play our part by acting as a catalyst for change through our advice to leaders, developing practical solutions with our members, and sharing success through our communications.

www.sustainabilitywestmidlands.org.uk

Registered company No.04390508

Last updated: 29 January 2021

Contents

1. Introduction.....	4
2. Recommendations based on stakeholder feedback	5
Policy & Governance	5
Investment	5
Technology & Infrastructure.....	6
Business Support & Skills	7
Funding	8
Use of study findings.....	9
3. Appendix 1: Notes from Focus Groups.....	10
Black Country LEP	10
Coventry & Warwickshire LEP.....	12
D2N2 LEP.....	14
Greater Birmingham & Solihull LEP	17
Greater Lincolnshire LEP	19
Leicester & Leicestershire LEP	21
Marches LEP.....	25
Stoke & Staffordshire LEP	29
Worcestershire LEP.....	31
4. Appendix 2: Interview Notes	32
Energy Capital	32
Energy Research Accelerator	35
Energy Systems Catapult.....	36
Environment Agency.....	37
Innovation Alliance for the West Midlands	38
Knowledge Transfer Network	40
West Midlands Growth Company.....	42
5. Appendix 3: Focus Group Registrations	44
Black Country LEP	44
Coventry & Warwickshire LEP.....	45
D2N2 LEP.....	46
Greater Birmingham & Solihull LEP	47
Greater Lincolnshire LEP	48
Leicester & Leicestershire LEP	49
Marches LEP.....	50
Stoke & Staffordshire LEP	51
Worcestershire LEP	52

1. Introduction

[Sustainability West Midlands](#) (SWM) and [kMatrix Data Services](#) have been commissioned by the Midlands Energy Hub to provide an evidence-based study to understand the current state of the Low Carbon Environmental Goods & Services (LCEGS) Sector in the Midlands, where support is needed to help grow this sector, and the role the sector can play in driving a low-carbon recovery from Covid-19. The outputs include information at local authority and LEP level, along with a Midlands wide report. The study is being delivered between November 2020 and March 2021 and the views of a full range of regional stakeholders were sought to complement the quantitative data analysis.

Nine focus groups (one for each LEP area) were held in January 2021:

Date and Time	LEP	Registrations
Wed 13 Jan 13:30	Greater Lincs	18
Thu 14 Jan 10:00	Coventry & Warwickshire	25
Thu 14 Jan 13:30	Worcestershire	17
Mon 18 Jan 13:30	Stoke & Staffordshire	24
Tue 19 Jan 10:00	Black Country	18
Tue 19 Jan 13:30	Greater Birmingham & Solihull	27
Wed 20 Jan 10:00	D2N2	42
Wed 20 Jan 13:30	Leicester & Leicestershire	25
Thu 21 Jan 13:30	The Marches	22
	TOTAL	218

The aim of the focus groups was to highlight emerging statistics on the LCEGS sector from data analysis undertaken by kMatrix, map out skills needs for the sector and identify any gaps in provision and identify available support including funding programmes and ideas for future support. Discussions at the focus groups focused on the following points:

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?
2. How can we tailor support to our strongest and most scalable sectors?
3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?
4. What are the skills challenges and how can they be addressed?

Over 130 cross-sector delegates attended the focus groups and shared their valuable insight with us. In addition, individual interviews were held with representatives from the following organisations:

- Energy Research Accelerator
- Energy Systems Catapult
- Environment Agency
- Knowledge Transfer Network
- Innovation Alliance for the West Midlands
- LCET Steering Group
- WM Growth Company

This report provides a high level summary of the feedback provided at the focus groups and interviews, and recommendations to explore further. This will be fed into the final report expected by March 2021 where more detailed recommendations will be provided along with an indication of ownership, key partners, and prioritisation.

2. Recommendations based on stakeholder feedback

Policy & Governance

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Lobby Government to use and impose new regulation - e.g. the construction sector could rapidly become low carbon with the right regulation										3
MEH must feedback findings and study recommendations to BEIS										
The sector needs a growth plan to deliver against which is agreed by all key partners (e.g. MEH, Midlands Engine, ESC, ERA, Energy Capital etc.)										2
The data in this research needs to be considered in the context of policy drivers which affect sector growth										2
Push for stronger devolution (either at CA/LEP/LA level) of responsibility for decarbonisation of infrastructure/net zero and energy										2
Study should be aligned to the new energy Action Plan and work at the Midlands Engine										
Evidence can be used to justify the role of a Low Carbon Champion on LEP boards if not already										

Investment

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Develop initiatives to offer investment support to micro companies - many investors don't know much about the market and companies support to articulate their ideas										
Focus on attraction of investors. What could a pilot look like with the intention to attract investment. Specific focus on hydrogen?										
Develop portfolio of investable propositions for each LEP										
Myth busting for investors is important										

Technology & Infrastructure

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Infrastructure for Electric Vehicles must be scaled up providing capacity to support anticipated rapid uptake										
Look at potential for shared infrastructure (perhaps founded by LA's or LEP) to install shared charging for electric last mile										
Grid connectivity limitations must be addressed to drive investment in renewables										
Region could be a testbed for new energy usages. E.g. supporting hydrogen and making hydrogen attractive could be key for alternative fuels										
Learning from high growth sectors (e.g. wind, solar PV) needs to be captured and shared with emerging and scalable sectors (e.g. alternate fuels)										
Future funding needs to be defined now so that businesses and local authorities can plan ahead. Can we learn from funding such as HNDU which has evolved to support projects from early stage feasibility through to capital investment?										
Baseline assessment of housing stock is required to understand the retrofit activity necessary										
Address confidence in new technologies through Living Labs and pilot domestic installations (e.g. heat pumps within fitters homes)										2
Knowledge transfer from academia to industry is critical										3
Mapping of supply chain and skills requirements against large infrastructure projects such as HS2 and the Commonwealth Games										
Supplementary planning documents around new builds need updating and need to support zero carbon – what things can be copied from elsewhere?										
Heat pumps may be highly scalable due to the projected increase in demand as gas boilers are progressively phased out. Training and support required here.										
Smart energy and digitalisation also needs focus										3

Business Support & Skills

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Re-employment opportunities in the low carbon sector should be promoted to those that have lost jobs, some permanently (e.g. hospitality)										
Opportunities for businesses to grow in the low carbon sector must be promoted: An online platform supporting supply and demand could help.										
Produce case studies of people who have upskilled, retrained or simply transferred into the LCEGS sector as success stories										
Support business for re-skilling through funded training										
Reduce required match funding from micro and small companies for grants										
Train the trainer is required										
Education in school setting of low carbon jobs										
Mechanism for ensuring referrals from various business support programmes needs to be improved to ensure that all businesses receive the full suite of support available										
Carbon literacy across all organisations needs to be addressed										3
Greater awareness of the role of Growth Hubs needs to be supported										
Existing 'low carbon' business networks need to be supported (e.g. sben, Solihull Sustainability Visioning Group, SWM) and potentially established where non-existent										
Develop directory of local businesses to help with decarbonisation efforts										
Cluster development/facilitation of compatible sectors together, allowing cross-transfer between sectors										
Could training be offered at very local basis (e.g. industrial estates) where people and businesses know each other and could help ensure sufficient uptake										
Support the identification and development of low carbon ambassadors										
Train the trainer is required										
Education in school setting of low carbon jobs										
Engagement with those involved in course design to make sure they are mindful of new technologies and tailor courses to include new technologies										
Industry placements for students will be helpful in developing skills and expertise										

Funding

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Support business for re-skilling through funded training										
Reduce required match funding from micro and small companies for grants										
Mechanism for ensuring referrals from various business support programmes needs to be improved to ensure that all businesses receive the full suite of support available										
Funding should be made available for R&D and project developments considering different development stages within R&D specially for the sub- sectors found to be with a higher growth potential and restricted scalability										
Support the introduction of more targeted/stringent environmental criteria in public funding applications to support the growth of the low carbon sector										
Need clarity about what will happen once some of the current funding streams (ERDF, RHI, ERDF, PSDS etc.) end										
Funding needs to be provided in a more coordinated way and not limited to LEP geographies as this leads to competition and confusion										2
Clarity needs to be provided on the Shared Prosperity Fund and the National Skills Fund and how it may be able to support LCEGS										
Changes to public sector procurement can drive growth of the low carbon sector through more stringent sustainability criteria, and investing on new and innovative solutions										
Simplification of the application process for funding and grants (e.g. Innovate UK) to allow more small companies to apply OR provide support with applications										
Business Recovery grants don't currently include criteria regarding LC but could be used to influence businesses if new criteria were developed locally to make it more explicit										

Use of study findings

Recommendation	Raised at LEP Focus Group									Int.
	BC	CW	D2N2	GBS	GL	LL	SS	Mar	Wor	
Our biggest export competencies are in skills, therefore can we compare this to other regions to try and encourage investment here? Some of the data are pointless if there is no national comparison.										2
The data and recommendations must be made accessible for a variety of audiences (e.g. small businesses, business support organisations) by way of non-technical summary documents										
Survey of businesses to identify their challenges and ask what support they need										2
Data on imports would be useful to assess the potential for reshoring industry										
Develop insight pieces to compliment data to make the data more accessible										
Council should make the information from the LCEGS study available at all levels										
Information should be targeted and using the 'language of industry' not councils										
Workshops should be used to disseminate information and the supply sector should be targeted										
Is there an opportunity to map the funding provided by the support programmes										
An energy data portal is being set up for the region - can this data be used to supplement it?										
There are companies in the Black Country who make components for nuclear, even though it says 0 in the data										
More thinking about which are most scalable sectors, in terms of competencies. Cut the data up differently. What are the opps for LC services and what are the skills required in these services?										
On scalability graph - could the bubble sizes be used to show something different?										
Could large businesses in the sector (e.g. E.On Coventry) skew the data? Interesting to take these businesses out and see what happens to the data										
Seeing WMCA data in detail would be helpful, to determine where project activity could support gaps etc										

3. Appendix 1: Notes from Focus Groups

Black Country LEP

Tuesday 19 January 2021

Facilitator Notes: Anna Bright, Patrick Flemming, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

a) General agreement that we should ask the companies within the LEP what they want and need
Combination of a) and c) the potential to try and work out what funding might occur and pre-empt it, to try and work out in advance what might be needed and build networks around the possibility. In a similar way to how Universities operate – they build programs on anticipated need.

Look into whether companies have a knowledge of funding and how to access it, they can be so busy trying to stay afloat that they then need help to find the funding and apply for it.

Look at best practice – are there other areas where the private sector is supported by the public sector – can we build on previous experience.

Makes use of existing links with business, e.g. Sandwell has a Business Growth Team supporting companies during Covid, look at using those existing links already in place through growth teams and other initiatives.

Would a business network be beneficial in the Black Country? Would the Peer to Peer Networks be a good starting point where this doesn't already exist. Question over who will lead on them. Must be linked to LEPs and local authorities but also independent. Independent chair. Scale is important.

Any further government recovery funding post covid should be focused the green economy rather than supporting legacy industry.

2. How can we tailor support to our strongest and most scalable sectors?

The strongest and most scalable sectors are likely aware of the market potential of the sector. It is business that do not realise they are part of the green economy, or those that are under existential threat (e.g. fossil fuel engine parts), that need support to transition.

1 to 1 support is needed to make a difference.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

Any further government recovery funding post covid should be focused the green economy rather than supporting legacy industry.

How will ERDF funding be replaced. Will Shared Prosperity Fund provide as much funding?

Innovate UK requirements are 85% scoring across 10 questions which can be a challenge for businesses. Is there a way of making the application process for funding more streamlined.

A new solution in waste management is to create an online platform where 'waste' products are listed and can be utilized by other who have a use for them. Part of a circular economy solution. Would reduce exports and could be done at scale to provide economies of scale.

There is a lot of support but is it enough? Is it linked together enough?

From a business perspective some might say there is not enough grant funding support. There can be a problem with cross-referrals due to inherent competition. No central database within the Uni!

Very poor uptake of R&D tax credits and innovation funding in the Black Country.

Innovate funding could be used for product testing at local universities, E.g. Infrared heating popular in Poland but it has no traction in the UK.

The tax credit model could be used to release funding for training but designed such that any such funding can be focused on the sector.

4. What are the skills challenges and how can they be addressed?

See if the skills gaps align with the courses offered in local education, talk to people involved in courses to make sure they are mindful of new technologies and tailor courses to include new technologies. Advertise that these courses are on offer better and the presence and need to local green jobs.

Talk with skill-based colleges and align with what they are already doing to address gaps, include adult training courses and talk with Local Authorities about links they already have with education and skills, what are they already doing. Most LA's have skills teams, feed into the Black Country skills and employment board, they have a Green Agenda, so may have a best practice for how to engage with companies.

Capitalize on the local universities having a student base who come from the area and don't want to leave it – balanced against the need for internationalism. Perhaps find a way to increase awareness that jobs in the area can be relevant to industries that seem a long way away – e.g. Offshore wind activity or Marine Pollution Control doesn't need to be coastal, there are relevant activities in those industries that don't require relocation.

Courses at Universities are generally funded on the basis of the number of students in previous years, leading to inertia of teaching.

Encourage the linking of companies to colleges – exploit platforms such as Zoom, so that people from industry can provide employment based lectures, without having to lose a day physically going to a college to teach, could lead to better links by reducing the time element for industry.

There are a lot of independent training providers in the area, who might be more flexible in their ability to offer courses, Unis can be less adaptable.

Training of people within companies also important – establish who is providing the training, is it predominantly training of employees by a company, or are they employing people who already have the qualifications. Do employees come trained, or need to be trained – extra cost for company. Potential to build capacity for an element of peer to peer training.

There are a lot of people who don't know their skills are transferable, awareness needs to improve at the individual level – general “LCEGS skills are transferable” isn't really good enough, the individual job description needs to know they are relevant and can move. Many skills are transferable but this is a real issue. E.g. the new economy will need fewer mechanical engineers but more electrical engineers.

Overlaying the skills shortages with available training provision in the Black Country to identify any gaps is an excellent idea.

Coventry & Warwickshire LEP

Thursday 14 January 2021

Facilitator Notes: Anna Bright, Jack Hayhoe, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

In terms of the academic and educational sector, there are a lot of jobs that have been lost which are not likely to come back, for example in hospitality, we need to somehow align re-skilling with the green economy.

We need to look at the infrastructure for the Electric Vehicle sub-sector in terms of how to support going forward – it is ok now, while only a few people charge their car overnight, but rapid uptake has the potential to disrupt infrastructure.

We need to normalize the sector – it has the perception of being a technically difficult sector which is 'other', whereas much of it is no different to the rest of the economy, for example marketing of products, so need to normalize perception of the sector.

We need to create awareness within businesses, particularly SMEs, so for example in the construction sector, big companies have and are installing the tech, while small businesses not so much – inference being big companies are both using LCEGS products/services within their businesses and installing elsewhere, whereas neither are as prevalent in smaller construction companies. Potentially create legal responsibilities.

Focus on the positives of the LCEGS sector and what can come out of it – capitalize on opportunities, such as encouraging those who find themselves unemployed into the Green Economy. Possibly produce case studies of people who had upskilled, retrained or simply transferred into the LCEGS sector as success stories to advertise that LCEGS is open for business. Also potentially create a matchmaking services between companies, opportunities and people – match companies to opportunities to diversify and then point to people to employ.

2. How can we tailor support to our strongest and most scalable sectors?

Support business for re-skilling. There is generally a lack of skilled operatives for projects, but companies don't have the finance or inclination to train on the 'never never'. It is currently expensive to train, resulting in upskilling being slower. Because there aren't enough skilled people doing it, they can charge a lot for the service, need more people trained to reduce project costs and make them more viable. They are currently covering the cost of training and expensive certification costs in the fee they charge for the service – this marries in with the education piece.

Micro-companies – when looking for funding, the hoops are high. Innovate UK grants need a 30% capital contribution from the Micro, which is difficult. Considering the climate crisis and the new green policies, maybe steps could be taken to reduce that capital contribution a bit to make it more viable for more companies.

Anecdote around a project offering funding to SME run by the council, most companies receiving it were companies from outside the LEP who could provide the service within the LEP, not those based there. When asked why local SMEs didn't apply, answer was it was too difficult and perception was funding was unachievable.

On a similar note to above, maybe initiatives to offer investment support to Micro companies – a big problem is finding the fit between investment and the company, a lot of investors actually don't know

much about the market they are investing in. Likewise the company cannot necessarily explain it to them – they can't afford to get an advisor in turn their ideas into the investors language so it can be easily understood. Also, harder to address, some kind of support to help find ethical investment in terms of an investor taking 20% as opposed to having to give up 49% of an early-stage company. Region could be looking at a testbed for new energy usages. Supporting hydrogen and making hydrogen attractive could be key for alternative fuels.

We need to be learning more from Europe, from the graphs we can see that they are clearly buying their own products rather than ours. Why are our products and services unattractive to Europe but attractive to China & ROW?

There could be more connections facilitated between existing and established industry sectors (e.g. wind, Solar PV), and the sectors that are smaller but have a high scalability factor (e.g. alternative fuels). From experience, there is clearly a need and desire to facilitate these conversations. Through engagement with the private and public sector it is clear that many don't know about emerging technologies (e.g. PV glass). Very fast moving sector. How do they access this information? Currently refer to Edie and LinkedIn. Can a platform be developed to support this?

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

A lot of this was covered above, but additionally, there is a lot of funding available, but the management isn't necessarily good. For example, the green grant funding is a great idea, but what happens after it, to keep those employed? The short timescales for funding mean that companies work hard to deliver what they can, maybe employ one or two people, but no more because they have to try and keep them in work after the scheme has ended. Opinion was that £1bn across a few years was better than £1bn across a few months to provide more certainty in the job market.

4. What are the skills challenges and how can they be addressed?

Train the trainer exercise. There is a vocational skills building being built BUT the skills they are looking to provide are mechanic, bricklayer etc but not Low Carbon sector, because they can't deliver the training. Teachers don't have the knowledge, so how can they teach it? The vocational colleges don't risk teaching what they haven't got experience in teaching.

Careers hub model, bringing the expertise into schools would be a good idea so the kids know about the opportunities even if the teachers don't.

Knowledge transfer partnerships can help – where companies and universities partner, with the Uni expert 70% government funded and 30% by the company. (Sarah opinion – this is REALLY specific and niche, good idea for areas it does help, but won't help most people).

Overall across the Midlands region, there are industry training facilities, but really could do with a central vocational training facility actually teaching what's needed. Essentially the Midlands has the ingredients, but it hasn't been brought together yet.

GHG programme will drive employment in residential retrofit. But Phase II expires in March 2022 so what is the legacy afterwards? Further funding should reflect this. Can we learn from other funding which has developed to support project implementation e.g. funding to support heat networks.

D2N2 LEP

Wednesday 20 January 2021

Facilitator Notes: Mike Peverill, Michael Gallagher, Will Morlidge, Alex Pearson, Jack Hayhoe

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- From an SME perspective, the key thing is funding and financial viability particularly during the current time when everything's been done to drive down the cost base. Support would be welcome from anywhere that's really accessible, it's a minefield! Is there any support locally? The Furlough scheme has been brilliant especially the speed with which it was set up and ease, via the tax system. Simplification is key.
- D2N2 Growth Hub can help with helping develop clear growth plan and getting investment ready (if not with securing actual investment).
- Need to get business advisors trained in the LC sector's specific requirements.
- Funds are available for apprenticeships (Notss CC) though a new modular approach may be needed to set up the kind of multi-skilling apprenticeships talked about earlier in the session which are likely to be better for the many small companies in the sector.
- Such energy and passion from young people for this issue, need to harness that somehow so they get opportunities to work on something they're passionate about. Careers Hubs need to have LC rep's so they can advise YP knowledgeably.
- Procurement is really important
- Ensuring local businesses are fit for supply
- Desire to grow confidence in the sector, not just in residents but in businesses that may want to access funding as well. There should be more support for buyers to know that the service they are purchasing is a quality one.
- Need strength in places – i.e. automotive sectors
- Bandwidth of Businesses is Covid and Brexit, so difficult for organisations to think about other things
- Business need to understand what they can do now to be more resilient in the future. Covid has shown that swift changes are possible, and can have positive impacts including environmental
- Still a lot of work needed to bring business to the table who are not engaged
- There is an opportunity for businesses to capitalise on the changes to peoples habits that have changed post covid i.e. people are now more vegetarian so pubs, restaurants etc.. should adapt to these changes...
- Lack of SME awareness: can unis help get the message out. How do we weight towards sustainability. S needs diff support as generally technical
- Needs support for both decarbonisation and growth – business skills across the business
- Council should make the information from the LCEGS study at all levels.
- Information should be targeted and using the 'language of industry' not councils.
- Workshops should be used to disseminate information and the supply sector should be targeted.
- Messaging should reference Energy White paper and 10 point plan.
- Knowledge transfer should use local educational establishments to 'localise delivery'

2. How can we tailor support to our strongest and most scalable sectors?

- Currently a lack of skilled labour for building retrofit and much of the materials/products used are imported. Could more be made in the UK and more support be provided for training?
- Need to ensure skills training is pump primed to meet future demand

- Risk of gearing up at great cost and time to then be met with little or no demand
- Will need to see how the shared Prosperity Fund can help
- Need a clear 5-10 year plan, so we can then work to resource that across growth areas; businesses know what they need and there is a need to listen them
- More help to rural/farming. Challenge – public perceptions eg of meat production.
- Can we do more to promote buying local?
- Food/supply chains needs to be addressed
- Danger in supporting the usual suspects – eg should we back hydro inc. skills. Great for optics and relative local impact.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- Skills funding is there but isn't working, particularly as Gov't moving towards a 60% match requirement from private sources.
- Difficult for micro-businesses in particular, particularly given past mistakes with former Green Deal scheme.
- Is support from Growth Plan for investment readiness, but the challenge is more about communications to businesses to ensure they are aware of the opportunity – the infrastructure is already there to support delivery.
- Identification of different sectors and seeing which ones can be focussed in and engaged with
- A need to link opportunities available with people who need it, possible funding needs to be advertised in the right areas
- Having a strong evidence base is important when requesting funding
- Evidence to show that findings will have a positive impact on green recovery post covid
- Could show where we need to work collaboratively across the region / sectors
- Being able to compare data across Midlands is useful, it can drive competition but also could encourage areas of collaboration, though this has proved to be a continued challenge...
- With the range of approaches, how do we ensure consistent approach i.e. electric v hydrogen
- Greater discussion needed at business level to help steer strategic conversations
- There is a need for both breaking challenge down into manageable chunks, but also need that regional steer, while businesses want to focus on what will benefit them
- Some opportunities will be local and need the local focus, other need regional focus.
- With PSDS (£1bn), who can this with other funds be drawn together to give consistency and longevity... so market knows how to react from supply chain and skills perspective.
- Existing programmes – need to get better at learning and sharing what we've learnt about pro-env businesses. Keen to support how we can support offshore wind.
- Need to ensure LC support is mainstreamed: all business support should include low carbon elements. 30% SMEs already doing something – can we double it?
- Need to shift % funding towards helping procurement professionals switch to low carbon – big businesses/public: purchase green, purchase locally
- Supporting the infrastructure: eg how do we get H2 moved around. Food waste collections – Veolia don't have a FW processing facility here.
- Technical assistance to be offered.
- Hurdle rates for grant funding to be lowered to stimulate uptake – less grants but higher value.
- Less match funding required.
- Responsive and streamlined process for SME's.
- Would like to see more support for growth hubs as they have key networks that can identify and support businesses get more traction. Any funding that is made available needs to be accessible with easy to follow applications.

4. What are the skills challenges and how can they be addressed?

- Getting more than 20 people together to make a training session viable is often a key problem – could it be done on an industrial estate basis where people and businesses know each other and could help ensure sufficient uptake?
- A sectoral peer network would also be a helpful way of promoting skills training and encouraging take up.
- There is a need to create new provision, new curriculums.
- There is a challenge in getting these courses set up and funding is needed to develop new content. Very hard to work out what is worth investing time and resource in, particular as many skills are quite niche.
- Placements where a student placement works to a business need.
- Higher level apprenticeships are valuable.
- Graduate placements, to get well skilled graduates is important.
- Carbon literacy training should be compulsory.
- Careers – STEM inspiration
- C19: gaps while we fill areas with a shortfall. Can we bridge the gaps as the sector grows.
- Hard to address provision without hard data.
- We do know about some niches – eg offsite construction
- Training needs analysis to inform colleges – what provision to provide?
- Sector round tables as part of needs analysis.
- Listen to the wider sector and respond to feed back.
- Responsive institutions required.
- Use capacity in local providers.
- Make use of knowledge transfer mechanisms.
- Like to see investable portfolio, with more ambition from local government.

Greater Birmingham & Solihull LEP

Tuesday 19 January 2021

Facilitator Notes: Anna Bright, Serena Bacuzzi, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

There is an opportunity for strategic projects, such as HS2, to map the supply chain and see how the LCEGS sector sits in that, how it could contribute and benefit, same for all large built environment projects. With regards to HS2, businesses within 20-miles of the new stations, how do micros make use of the new stations – in terms of helping build them but also the wider opportunities based around greater transport links

How many companies are part of a Growth Hub, where they can access specialist Low Carbon support coming online – need to make sure people know about them and can make use of them.

Would a 'low carbon' network add value? Certain companies find it hard to engage with networks including those with high knowledge-based focus. Solihull Sustainability Visioning Group is a mixture of private and public sector to inform programmes and update on support etc, they tailor support to businesses within the local area – to identify high growth and high scalability opportunities.

Rather than buying 'off the shelf' the public sector could make an allowance in the budgets to allow new and innovative solutions to be trialed and used as a showcase. Birmingham is hosting CG2022 could offer an opportunity to showcase the emerging markets to these delegations. Resources are available to support this via KTN.

Red tape around innovation area needs to be addressed to help businesses, particularly micro businesses/start-up.

For some sub-sectors there is huge growth potential from collaboration with companies abroad.

From the numbers shown in the presentation it has been noticed that exports from Low Carbon Sector is very low. Perhaps there is an opportunity to develop interventions, policies or programmes that can support businesses to increase export, and navigate complications that might be caused by Brexit.

Lack of facilities/test sites/labs and very costly. Funding opportunities there too.

2. How can we tailor support to our strongest and most scalable sectors?

In terms of tailoring support for strongest, most scalable sectors, we need to implement strategic serious play stations, to allow us to take advantage e.g. hydrogen being used in aircraft, clean energy etc, if we had an environment to test and validate ideas, we'd get better knowledge transfer. More on creating serious play spaces – create the infrastructure to validate techniques, e.g. parts of cities abroad are set aside to test ideas. IT such as large platforms for computers, such as 5G are tested in one city then rolled out. Franchise ideas out once they have been tested in one area.

Look at markets abroad, look at improving the export markets we've got though innovation at scale facilities. Example of California, where they built the hydrogen, electric and traditional fuel infrastructure to attract the big companies to develop there – created a cluster Innovation centres allow links to be formed between the companies using it.

Possible cluster development/facilitation of compatible sectors together, allowing cross-transfer between sectors.

At present, the universities are innovating, but then don't do the translational activity from Uni's to Industry. Compare with China where they have significant corridors of translational activity. Knowledge transfer is a critical enabler going forward

Improve digital systems, improve connectivity, they act as nervous systems to industry

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

Funding – think ahead about WHY and HOW things are being done, rather than just ploughing ahead and ensure that things we built or processes we adopt continue down the line and can adapt to climate change, a pandemic, Brexit etc.

LA and CA are better placed to understand local needs (fuel poverty, building stock, skills need). Funds should be diverted regionally and local government led schemes could be more successful. Retrofitting projects are underway in the LEP, however to do it at scale to make a difference, would require mass funding.

Timescales to apply for funding often small and needs shovel-ready projects. Answer would be to have a wider window of opportunity, so that companies can have time to plan projects to fit the funding. Allow time to plan projects from scratch. Alternatively, prior-notice of future opportunities would be helpful – Sarah note: they did that with the Green Homes Grant and stalled the market, so fine balance.

Funding to support high-risk proposals should be made available.

The majority of small and micro businesses find it challenging and too competitive to bid for large funding streams (i.e. Innovate UK). Support with funding application will be helpful. Alternatively, simplify the application process.

Attract more companies to the region to provide private finance options

Need to build capability around green finance to address funding gap.

Uncertainty around public funding is not helping businesses.

4. What are the skills challenges and how can they be addressed?

There is an opportunity for strategic projects, such as HS2, to map the skills requirements.

Skills Challenge – address in early school. Career opportunities and jobs, how are schools informing youngsters what new jobs are coming in the pipeline over the next 10-15 years.

The region lacks strategic knowledge transfer hubs. We need a flow of skillsets across the region and companies within the sector.

Large companies such as National Grid can support training schemes. They are currently working on WorkWise project to get those starting in employment and offering free travel to get into work. They can work with training providers to provide travel to those getting to the training and then into work at the start of their employment. "it's all very well telling people to train, but they need to get there". Developing Energy Technologies Institute being built next to Innovation Birmingham. Partnership across HE and FE to provide range of different skills and demonstration projects. Aston, BCU, Uni are partners.

Greater Lincolnshire LEP

Wednesday 13 January 2021

Facilitator Notes: Mike Peverill, Jack Hayhoe, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

How can the wind sub-sector support sector growth in light of Covid -19. There are many ongoing activities in this sector within Orsted in line with the Govt' 10 Point Plan announced recently and the UK decarbonisation plans. Activities vary between wind turbine production, wind farm development and recruitment which confirm the report's findings that the wind sub-sector is one of the largest in LCEGS by sales account in GL LEP, although there was not enough info about competitors' activities.

Local authority colleagues mentioned that there is great potential to invest in solar and AD projects in GL LEP. However, grid connectivity limitation is one of the most important factors delaying investment in low carbon sector specially renewables, therefore if we want this sector to lead economic recovery post Covid 19, there should be serious and collective effort from public and private sector to solve this issue.

2. How can we tailor support to our strongest and most scalable sectors?

How can we use the known elements of wind technology to help other sectors?

Would like to see more support and opportunity given to start-up businesses to help grow some of the high-scalability sectors. We need to ensure we are open to new ideas, we need to ensure that the process for getting financial aid is simple and easy to accomplish, as this can be a barrier for some small businesses.

North and NE Lincs give a strong opportunity to further develop the energy (offshore wind) sub-sector across Gtr Lincs. Feel on the precipice of something quite exciting but need the level of detail of this report to be able to quantify and articulate – energy has only come on to the LEP agenda relatively recently.

Lincolnshire's traditional farming economy needs developing in order to accommodate more LC requirements like waste processing (can we formulate some big questions using the study findings?), energy and flood alleviation/habitat creation.

Issue of rurality in some parts of the area (e.g. coastal strip) where there aren't the critical number of assets as in say Lincoln, so growth more difficult. However the council leader (East Lindsey) is supportive and a LEP board member and there's a resilience to the local community.

And there are LC pioneers too like Powerguard, an EV specialist company in Louth. JH has worked on a range of local LC projects and plans and found that there are significant opportunities but that they may need localised solutions, particularly where there may be opportunities for symbiotic solutions between neighbouring businesses.

Growth Hubs can help and support LC sector growth but need to be prepared so that LC doesn't end up as another Covid/Brexit. Lincoln Uni is well geared to new research areas, e.g. agricultural robotics which can help improve the efficiency of farm processes like weeding.

Gtr Lincs has many small and micro businesses and they are well supported already, but now need to tailor the support to include Low Carbon. Improved productivity is also important in achieving LC gains

and Business Support could be adapted to ensure this is included in its standard provision. But business support more generally needs to be responsive to changing business needs as the LC transition takes place.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

Focus on investment and how to attract investors. What could a pilot look like with the intention to attract investment. Specific focus on hydrogen?

Need a portfolio of investable propositions, e.g. to grow wind, hydrogen, alternative fuels, CCS sectors in Humber South & Estuary where there's already more constructive infrastructure in place than other areas.

Need to drive investment efforts towards hydrogen, wind and solar sub sectors, address any investment restriction issues within these areas such as (planning, technical support availability and current contracts arrangement).

Funding should be made available for R&D and project developments considering different development stages within R&D specially for the sub- sectors found to be with a higher growth potential and restricted scalability.

Funding should be focused more towards the Micro-SME businesses, as that seems to be where most of our businesses is held. By giving them more opportunities to grow, this should support bigger more attractive investment in projects.

Innovate UK's approach may be a good model where they target investment very carefully to sectors which have the highest chances of success, rather than sharing out more evenly.

4. What are the skills challenges and how can they be addressed?

When recruiting, highlight that skills for LCEGS sector are transferable.

Education and Awareness - really need to 'improve people's energy IQ' to explain why and how new energy developments are needed and are a good thing and help stimulate demand for low carbon.

Challenges/opportunities in diversifying and repurposing other sectors and their employees e.g. agriculture into energy, decarbonisation of sectors like transport, ports, logistics, and declining sectors like oil & gas. Need to avoid repeating the mistakes of the past like the 1980's experience when coal mines were phased out. Oil refinery workers need to be reskilled/repurposed and their existing skills utilised in new ways. Redeployment and reskilling via local FE colleges in new Low Carbon skills is likely to become more important.

Think more can be done to address the skill gap; this will only happen if a long-term plan can be seen that businesses and education can invest into in order to avoid risk. Local Government could further support this by being a more active contributor in the sector.

Leicester & Leicestershire LEP

Wednesday 20 January 2021

Facilitator Notes: Mike Peverill, Gavin Fletcher, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

There are two aspects regarding this, broadly the Covid-19 situation is a sign of what is to come with threats re Climate Change, especially as the increase in disease, both human and livestock is a predicted side effect of Climate Change. The flip side though is that the Covid-19 situation has shown that what we thought was important has been shown to not necessarily be, so now there is a focus on nature, clean air, being able to breathe etc, we need to capitalise on that and build on it to encourage the sector. There is more emphasis on buying local for example, the circular economy is more of a thing, recycling and other LCEGS activities are more socially at the forefront.

It also comes back to the point about companies who don't see themselves as being in the LCEGS sectors, but they could grow into it. By supporting companies to move into the LCEGS sector to by understanding that they need to balance the risk, in terms of the risk of NOT being in the LCEGS sector, so for example mainstream heating installers need to understand that there is a risk of not moving into cleaner energy sources, alongside the benefits that are there too.

In terms of Leicester, there is a need within education, for teaching staff to understand what it is. They need to understand what the key challenges are and how it fits in with other sectors such as textiles, logistics etc. The LEP has prioritised the Low Carbon sector while they draw up an economic recovery plan, not to have an LCEGS one as a separate strategy, but to weave it as a golden thread throughout the whole recovery plan. The LEP is applying the LCEGS sector across the board and has been considering this since the first lockdown.

We need to bring companies together in the locality, to work together, forming groups of compatible companies to help with chains and networks of supply.

The LEP needs to look at big projects to do, such as the large food sector, can we look at food for energy generation for example? Need an exemplar project. LEP representative informed the group that the LEP has discussed and are in the process of coming up with a big ticket project to drive the LCEGS sector.

WE NEED A PLAN, a comprehensive plan to drive the sector, with coherent policies and strategies to help drive it.

Leics County Council looking to stimulate local low carbon growth through operations like fleet and procurement to help drive local demand. Retrofitting housing is a key priority but there's a limiting factor of a lack of suitably qualified suppliers/installers. Providing skills and training via local FE is an option but needs to scale up quickly.

Could the LEP facilitate the process of linking training providers to new demands and connecting to the companies that could benefit (LLEP Work & Skills Forum?). Support in LC is already available from local uni's but isn't always well known about or taken up by local SMEs

Resource available from new National Skills Fund due out this year?

However, big job to persuade local companies that this is a genuine long term opportunity as a lot of companies went bust following the rapid change to policy and incentives in 2015

Hydrogen is a potential local growth opportunity (identified as no.2 in Govt's recent 10 Point Plan for Green Industrial Revolution), with hydrogen 20% blending via the gas network testing by 2023 and new hydrogen village/town by 2030 – needs new/adapted boilers and appropriately skilled installers.

There is a need for LA's to step up and drive change in policy that can enable the public to follow suit. Districts need to play their role too – this can help to create demand for the sector (e.g. electric fleet). Positive Policy, leading to planning (EV Chargers etc) – Local Plans

Need to recognise the new problems e.g. skills – need some good examples (e.g. Nottingham City and the EV skills) and links to support colleges (perhaps through links to ERA and Midlands Engine, especially with the Green Growth Conversation leading into the Midlands Engine Green Growth Strategy – apparently some courses have already started.

Supplementary planning documents around new builds need updating and need to support zero carbon – what things can be copied from elsewhere?

Need to make sure that areas are gathering a directory of local businesses to help with decarbonisation efforts (getting the list of businesses from this study would be good)

Covid has put extra pressures on LA staff and so capacity to react to this agenda is tough – however there are opportunities from having to work differently e.g. reducing overheads and potential to repurpose our towns and buildings (ref the 15 minute town concept)

2. How can we tailor support to our strongest and most scalable sectors?

We need to know who the winners are and the losers, to support them both. If we don't support the losers, then we'll get pushback and it will be harder to grow the LCEGS sector, so need to support both. That said... at some point you also have to flip from supporting the losers to letting them go and support the winners. *Sarah note: there idea being a grace period where both are supported.*

People helping the companies need the knowledge, but we need to remember that the companies themselves also need the knowledge. We need to help these to transition into the sector, within other sectors such as logistics, building construction, food etc. The people within those 'traditional' sectors need to know how to apply the LCEGS sector to their own.

Hydrogen is an alternative fuel and that's the 3rd biggest sub-sector in LLEP's LCEGS so could be an option for additional support. Hydrogen doesn't only have to be produced in a large industrial zone and can be made locally via renewable energy. Needs engagement with specialists (e.g. Institute of Gas Engineers) to consider viability/practicalities.

Need to make use of intelligence from the report and link local strengths (wind power) with local opportunities (wind power)! The opportunities for wind power are well understood locally from various studies/reports and this is the cheapest and lowest 'impact' form of renewables. Other opportunities that should be grasped are solar on new builds and on warehouses.

Magna park – opportunities with new developments and potential for last mile delivery work

Should look at potential for shared infrastructure (perhaps founded by LA's or LLEP) to install shared charging for electric last mile.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

c) It would be good if we could support growth through the supply chain, look at Local Authority procurement practices and run them through the LCEGS sector. Sarah note: the idea was to apply a LCEGS filter to public sector procurement, it could bleed into taking a circular approach, but as a minimum ensuring that public sector procurement was done in a LCEGS-friendly way, throughout the supply chain.

There is a need for new and innovative financing plans and models, maybe through the chain and network of supply, to use Covid recovery money to also recover towards a green economy.

kMatrix input – the idea of Smart Financing has been around for a while in pockets and maybe now is the time to utilise it. It was used during the construction of the Robin Hood Airport, for the supply chain when building the Eurofighter and we suggested it in New Zealand, where it has been adopted. The idea is that a procurement company, which 90% of the time belongs to a bank, manages the procurement process across a chain of supply, for non-core procurement. In addition, the corporate at the end of the line commits to the supply chain, on the understanding that they conform to standards. As a result the bank forward finances manufacturing equipment in the chain of supply where required, engaging directly with the supply chain companies. Whereas before, the end corporate was financing or providing machinery to companies in the chain of supply, which isn't idea for either the Corp or the supply chain company. The procurement company represents a further reduction in risk to the bank. The advantage is it stabilises the chain of supply, improves the banks return and keeps the companies independent of the Corporate, but at the same time, it locks in the chain of supply, improving scalability.

First challenge is ensuring enough people/businesses know about existing funding opportunities.

Existing funding from ERDF for LC is limited to businesses so doesn't cover vol sector organisations, where there is some local demand for support.

Business Recovery grants don't currently include any criteria regarding LC but could be used to influence businesses if new criteria were developed locally to make it more explicit.

(Referring to earlier point from Cenex), what's the USP of the LLEP – what are the opportunities for joining up some key local strengths and developing a bigger idea that's an investable proposition? Is LLEP at the right table? East Midlands is down the pecking order and doesn't seem to have the connections with Gov't that some other areas have.

4. What are the skills challenges and how can they be addressed?

There is a massive skills challenge within the staff in the public sector. Example given was the staff within an economic growth team who didn't understand the LCEGS or circular economy concept. If we upskill the public sector workforce, they in turn can help to support companies better and pass the knowledge on to the companies they help.

Sustainable construction a few year ago was provided as an example where great work was done by getting the idea into the colleges to upskill the workforce. Heat Pumps are an acknowledged skill shortage, so can we work with colleges to run certification schemes etc.

The LEP is a low skill, low wage economy, so we need to horizon scan for the skills in jobs that will be needed in the LEP area over the next few years to be able to upskill them. This is both for ensuring young people entering the workforce have the skills, but also upskilling the existing workforce.

Make good use of the 3 universities, all three of which have good low carbon credentials.

A barrier to skills is the short term nature of projects, such as retrofit. There have historically been quite low standards in construction, they will only upskill their workforce if they are confident that they have continued work.

With the move to Low Carbon, there will be more micro companies, which will change the need for support. Companies with only 2 or 3 employees need to be jack of all trades, they can't do everything so need targeted support considering they don't generally have marketing and other departments.

Now there's a new Green Jobs Taskforce and associated Skills Fund due in 2021, this should give some steer and lead, particularly if needs/gaps have been assessed at a regional/sub-regional level that take account of differences around the country. Otherwise, this is something that LLEP/MEH can establish.

Massive job to get local companies aware and enthused about the possibilities

Need to identify potential 'losers' in those industries that will decline as LC grows and help cushion the impact by providing reskilling opportunities in long term growth areas

Need to ensure something happens as a result of this project! Needs a plan and champion to take it forward (is there a LC lead on the LEP board?)

There is a need for some higher level thinking on apprenticeships and re-training and then how that filters down locally

Also need to look at training for Cllrs and senior officers to aid decision making and to help with facilitating the bigger picture linking businesses, skills and colleges, etc.

How can funding be brought into local areas – examples e.g. workplace parking levy, and other innovative financing options

We know we have a low skill low wage economy – how can we facilitate an upskilling locally.

Marches LEP

Thursday 21 January 2021

Facilitator Notes: Mike Peverill, Tim Yair, Sarah Howard

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

Covid experience has shown that many employees of large employers don't want to return to normal office working so working from home may become a more permanent arrangement where workers will be responsible for their home running costs 24/7. Energy demand will change overall and may have implications e.g. for smaller offices. As a result workers may be more receptive to home LC retrofit to help lower bills and increase comfort levels – Building Technologies is a large sub-sector already so this could become a local priority.

Simon's earlier point about 300,000 homes in the Marches requiring £20k retrofit represents a huge economic opportunity (£6bn) but is fraught with challenges in terms of delivery (considering the experience of Smart meter rollout for instance)

Brokerage role will be important and has worked well in Marches area previously to help facilitate getting ERDF funds to local projects, aggregating where necessary to reach the minimum threshold (Marches Low Carbon working group/T&F group could be reconvened to help coordinate access to new Shared Prosperity funds).

B2B relationships have changed and are changing as a result of the current situation, practical support would be to provide workshops around how they are changing and how to take advantage of that change.

Myth busting in the business community is important. Not enough companies are taking steps to limit their carbon footprint, we still need more communication about what can be done easily by companies. Education needs to be better targeted, the older generation can feel picked on and switch off. The classic being told by the youth that they've destroyed the planet – by the same youth who use fast fashion and all have mobiles and high carbon lifestyles. It is easier to educate the younger generation, teaching in schools is essential about pollution, the younger generation then push the older generation to take action. BUT the messaging needs to be updated or changed to stop the older generation switching off. One option is to incentivize people – in Germany people are fined for putting the wrong thing in the wrong bin – not sure that would work here though

Create more ambassadors, David Attenborough has driven huge change through the Blue Planet series and plastic for example.

The group thought that this should be revised to “in spite” (rather than “in light”) of Covid19. Many projects or developments have been paused or stopped as a result of Covid. As a result momentum in some previously quickly developing areas has been lost.

Covid business support provided at local level. LA teams have been dedicated to provide a lot of support, which has enabled them to make best use of available recovery funding. If support is there, businesses/people will use it and they and the economy will therefore benefit. How can we learn lessons from that?

2. How can we tailor support to our strongest and most scalable sectors?

The private sector lacks information, but this new report will help by providing a benchmark. Further details/research may be needed to drill down sufficiently to be able to convince potential investors.

The most scalable probably need more local support than the largest/fastest growing sub-sectors but again this needs more detailed information to be able to understand the full picture (though that may already exist to some extent in what KMatrix have done already?)

One specific product, heat pumps may be highly scalable due to the projected increase in demand for the technology as gas boilers are progressively phased out. This is more mainstream technology in Germany and some suppliers are already expanding in anticipation with new factories on the continent. Would be helpful if this could be drawn out more in the data analysis (as discussed in the group session) so that heat pumps are a more quantifiable item.

We need to find a way for companies to make a profit, while becoming carbon neutral – ethical profitability would be the magic bullet

Make technology cheaper and more accessible. Many people don't have the luxury of buying ethical products that are significantly more expensive. Case in point, Jan bought a new car last year, she wanted an electric one, but couldn't afford one – the desire was there, the funds weren't

Big issue includes Brexit – currently the problems trying to export to the EU are ridiculous, could be teething problems and in time might get better, but at the moment the paperwork and logistics around the problem are interfering

Everything need to be more streamlined within the chain and network of supply, to ensure that everything needed is there to scale. For example, if you want EV charging points at everyone's home... you need enough cable.

Jan point - don't rush into fashionable projects, tailor the projects in an area to the area in question. The obvious point is you need to do your homework about which are relevant, so Hydro was investigated in Herefordshire, but the wrong water courses for big projects, but biofuels might be more relevant to that area. Sarah note: It seems an obvious point – but they're trying to build a super-factory up North for Lithium batteries.... They'll be superseded by new battery technology within a few years so it'll be a waste of time

Need to reduce bureaucracy in the process to apply for funding, especially in a sector with a lot of micro's and SME's

Invest in the grid to cope with the new electric car revolution that is planned.

The report highlights areas of strength. It offers a start to the conversation, but we need to make sure that the opportunities it provides are not lost.

The group felt strongly that this is a good first step, but continued work will be needed. Experts (kMatrix) will be needed to ensure that the conversation is carried forward. Need to be able to engage with those sectors.

We are working with tough targets and timescales. These are not always helpful.

Build Back Better/Greener – LEPs and local authorities need to grab opportunities to do things differently to support area of strength. The report needs to be used to emphasise these messages.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

MEH are well positioned to feedback to Gov't via BEIS, so are in the right place to make a case for increased funding with the new report.

One weakness of the current ERDF scheme is the high minimum threshold for getting projects funded, so if future funds had a lower threshold this would help increase uptake.

Major problem with smaller and particularly micro-businesses is they lack the capacity to think about and access external funding, so ideally need to find ways to make it simpler to apply for. Reinforce what works already – local Growth Hubs work well, so increase the resources available to them to support LC businesses.

There has historically been a lot of funding around the subject and presumably that will continue? Sarah note: the question alone represents a lack of clarity and confidence that funding will be there.

Jan - There has been a trend in the interest in ESG (Environment, Social and Governance) investments, where interest has become much more mainstream. In the past, ethical investments didn't perform as well, but now they do and in some respects they perform better and are more reliable. Sarah question: do you think that will continue as a natural evolution or can we help it along even more? Jan: Both. It is a natural evolution in investment, but we could also have channels to keep pumping information out to investors that it isn't a dud investment. Myth busting for investors is important.

Funding for start-ups is available, but longer-term support is not so readily available to support projects that might need some additional support further down the line.

Funding for innovation perhaps needs to be re-imagined. Funding for innovation is often tricky to get, and has to go through an overwhelming process.

Chances of success are at least perceived to be very slim and therefore put people off. It would be useful for some funding to be non-competitive.

Providing help with bid writing to make the process as easy as possible would also be helpful.

4. What are the skills challenges and how can they be addressed?

There are a lot of tradespeople in the building sector who make a good living already and who lack the incentive to start retraining in new LC areas.

Surprise at AutoCAD being a local skill gap given all the young people going through FE/HE and being generally more IT literate. Universities are providing courses that include those skills e.g. MSc at Wolves Uni but the graduates often leave the local area in search of jobs elsewhere – need more local job opportunities in LC.

Is there a need for an Entrepreneurship programme locally - there are recognized programmes like Catalyst that have a proven track record that could be brought in.

There is a gap between the educational bodies and industry, with university courses being too lengthy and graduates not being "job-ready" at the end of them. We are short of training bodies for re-skilling, for example, there are not many trained in heat pumps.

Sarah asked if, in his opinion, unis would be interested in providing short courses, answer: Uni's don't rely on students on short courses, they predominantly rely on students for longer courses and particularly international ones. Aston is different, because they don't rely so much on international students as much as others, so haven't been hit so hard with the drop of international students this year. But at the same time, there is no appetite within the universities for providing short courses. They offer help to businesses in terms of bringing ideas and products to market, but they don't train people to be able to install it etc. This needs to be from the technical colleges etc.

Jan – New university in Hereford is opening, the New Model Institute for Technology and Engineering. Should have opened in September but didn't, no idea if it has yet. They are looking at a new way of educating students with a strong association with businesses – might be worth contacting them to see if they're doing or would do courses to fill skills gaps locally.

Innovative approaches and technology is often available but not always supported. There is a real need to raise awareness of new tech and what is possible.

How to foster innovation further? Need further raising of awareness.

There is a knowledge gap that needs to be addressed both between businesses and innovators, but also with funders and public bodies (LA/LEP). There is a collective responsibility to raise awareness.

Central government targets are often challenging, and therefore don't always help in real life situations. This is needed if we are to bring others with us.

Stoke & Staffordshire LEP

Monday 18 January 2021

Facilitator Notes: Anna Bright, Serena Bacuzzi

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

What is the positive impact of CV-19? What is the long-term impact (i.e. on transport) of CV-19, what changes will shape the future of the business community? What happens when the CV-19 emergency is over?

We need to baseline current housing stock to establish the required retrofit activities.

Boiler fitters are very conservative and will always recommend the boiler they know. They can be daunted by talk of new technologies. Could they be funded to install a heat pump in their own homes and then act as advocate?

Studies have identified six barriers as to why people don't decarbonize (covers residents and SMEs). Much is down to uncertainty on what is a good technology to use. Need to capture the expertise of 'pioneers' who do trial technology.

Formation of carbon clubs (+200 homes) and establishing self-supporting communities who buy services together and achieve economies of scale or getting group discounts (e.g. heat pumps, LED lighting). This can also help increase installer reputation.

2. How can we tailor support to our strongest and most scalable sectors?

Looking for blockers to scalability. If we can fix barriers to scalability we can accelerate recovery.

Use COP26 in Glasgow as side market of growth opportunities for businesses (i.e. Commercialisation through spin off).

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

Most businesses do not know where to ask for help. Make it easier for businesses to ask and obtain support.

LEP should communicate better what the growing business opportunities are (not only funding, diversification opportunities, etc.)

LEPs/Growth Hubs to be more visible.

Need clarity about what will happen once some of the current funding stream (ERDF, RHI, etc.) run out.

Review Grant/Loan funding application. Currently there is lack of ability/willingness to capture environmental/low carbon enhancement from businesses seeking funding. Funding application process do not ask for evidence about what the businesses are doing to reduce carbon emissions. The introduction of more targeted/stringent environmental criteria in public funding application can be a way to support the growth of the low carbon/environmental/sustainability sector.

LEPs could review criteria for funding based on UN Sustainability Development Goals.

There has been a change in attitude in the investment community more towards ethical investment. Capital venture, Private Equity and Banks want to help investee in the light of CV19 and the climate emergency. The financial community want to be involved more in the future of industry.

Ethical investment is the now the right thing to do and can offer a better return.

Better coordination across Midlands' LEP. Cooperation and consistency in development of inward investment programmes and asks to government through the work of MEH and SWM.

4. What are the skills challenges and how can they be addressed?

There is an evident gap on fundamental skills in support of growing markets (EV, electrification of heat, etc.). A typical example is the lack of qualified electricians.

Heat academy at Stoke College – It is key a level of ambition and dynamism at the SSLEP - high ambition led to the DHN and SEND, it made it attractive for Swedes to come over to help start the Heat Academy (who are off now doing it across the country) - need this level of ambition again.

The shape of training needs to be different now in light of Covid-19 restrictions (i.e. more frequent and 1-2-1 support rather than larger events).

Need to revisit intensive training offers – general education is necessary before we start to see demand for low carbon technologies increase.

Resources should be channeled into the existing business clubs across the LEPs (e.g. sben) who can support with training and education.

Worcestershire LEP

Thursday 14 January 2021

Facilitator Notes: Anna Bright, Alex Pearson

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- Target post covid grant funding and provide information with training and skills support.
- Engaging with the financial sector was stressed as being important as was working with universities and colleges.
- Use of IT to communicate grant info via websites and webinars.
- Carbon Literacy vital for staff and students in order to build a long term sector recovery.
- Are we planning as part of the study to speak to businesses to get their perspective?
- To what extent do businesses engage with some assets on the patch – do we need more or make better use of what we have.
- Growth Hub is transitioning across to be more closely engaged with the LEP (led by Phoebe)
- Timescales associated with some local authority funding have been a blessing and a curse.
- Remote working has challenged the ability to work collaboratively
- Nature of the government funding is short term.
- Automotive and skills centres (Heart of Worcester College and Kidderminster) will focus on work on hybrid related skills. These centers need to be future-proofed and so new skills were identified by providers but also from students and businesses.
- Is there an opportunity to map the funding provided by the support programmes?
- Target funding using the information available particularly for skills.
- Financial sector is important.

2. How can we tailor support to our strongest and most scalable sectors?

- Use of data from the study to inform decision makers, stressing the scalable parts of the sector for initial attention.
- Exploring the potential for a hydrogen economy is a new stream kicking off. Worcester Bosch are key pilot. Other local company doing German pilot which they may bring to the LEP.
- Geothermal is another specific area of focus which is important to LEP.
- Lack of clarity on the future funding landscape is a challenge.
- Would like to know more about the supply chain and where we can have the most impact?
- What are the key points in the timeline where we can have the greatest impact through intervention?

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- Simplify funding, engage with the financial sector more and lower the requirements to help both ends of the scale – Micro businesses and those larger than SME's.
- Gaps in funding to support agriculture, extended support and skills. Information can be used to target the businesses
- There should be support for Peer to Peer initiatives and energy networks at an industrial estate level.

4. What are the skills challenges and how can they be addressed?

- Market stability and making the most of what is already here in terms of educational provision. Being responsive and listening to the training needs of the sector.
- Home energy efficiency is a big focus for the City but few local companies able to act as suppliers and so they are having to look outside the LEP. This is starting to be addressed through training by providers in the LEP.
- Highlighted the support that the university can provide.
- Support to those currently unemployed and looking for work, may be open to reskilling or moving into new sectors.

4. Appendix 2: Interview Notes

Energy Capital

Matthew Rhodes and Cheryl Hiles

26 January 2021

Interviewee: Alan Carr

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- Lobby Govt to use and impose new regulation - e.g., the whole construction sector could become low carbon overnight if regulation forced them to.
- The data in this research needs to be driven by policy - of course there will be growth in alternative fuels because of the phasing out of combustion engines. The 'additional energy sources' bit is unviable due to lack of regulation. The main growth is where regulation has already happened, so more will result in growth in other areas.
- Pushing stronger for devolution (either at CA/LEP/LA level) of responsibility for decarbonisation of infrastructure/net zero and energy as there isn't any at present. Resources won't be allocated to the local areas as it currently stands and statutory responsibilities won't happen.
- The Environment Bill has been kicked into the long grass at the moment due to Covid; these also need to be re-tabled.
- The West Midlands is NOT supported by the energy white paper, which largely favours 'shiny' technologies such as CCS, nuclear, offshore wind etc and we don't have these. We need to be careful we're not left behind. Our greater strengths and opportunities, such as smart local energy systems, are not mentioned in White Paper.
- Are we capturing high-value jobs? For example, consultancy is low compared to more 'engineering' or manual jobs. If the growth/number of sales etc is high in the latter, does that tell a positive story? Can we grow higher value areas.
- Most of the growth the graphs show is currently very small and continuing at the same pace means we won't reach our net zero targets; for example, private equity investment needs to be exponential and it's only small - businesses aren't currently getting the investment.
- Boundaries of the sector should expand - everyone should be LC business.
- Support demand side. Regulation drives the market.
- Covid is an opportunity. Forces people to do things differently.
- There are companies in the Black Country who make components for nuclear, even though it says 0 in the data. Certain analyses won't pick these up. Nuclear needs specialist metal skills which we have in the Black Country. Similarly, what about the ceramics industry in Staffs? Does this count? If, nationally, we ban policy on nuclear on the back of this study showing that there's no industry in the Midlands, then we risk these businesses being lost. Black Country data will be underrepresented because of this omission.

- There are opportunities out there that we haven't grabbed yet; this study needs to be used to target these. Don't JUST want to invest on existing strength, we need to also invest in opportunities.
- Why are the countries we export to not European? Could be an interesting answer! Is something specific dominating these figures? This could be a really exciting picture due to the lack of having to factor in the impact of Brexit! But are exports to China all wind? All waste? Three massive projects? Do we know? If we do, this could provide a great opportunity.

2. How can we tailor support to our strongest and most scalable sectors?

- What is missing is smart energy and digitalisation. The main focus seems to largely be on 'big shiny stuff' such as offshore wind and CCS. To enable decarbonisation, we need to make what we already have as smart as possible, e.g. if we made everything responsive, flexible and if we could link areas such as buildings, energy and transport together, this would create loads of jobs. But this is not mentioned in the Energy White Paper or this study explicitly.
- What can the West Midlands do itself? We're strong at 'smart' energy efficiency and data management. We can't scale things without smart/data aspect of things.
- Do we have many 'anchor' industries in WM?
- There are opportunities in the transport/buildings space but need strong leadership and Govt regulation to scale properly.
- Surprised hydro and energy management is growing more here than in the UK - perspective is that there is no real growth potential in this sector and this means we don't have anything exciting as a region.
- Bit more thinking about which are most scalable sectors. Need to think more in terms of competencies. Cut the data up differently. What are the opps for LC services and what are the skills required in these services?
- More about capabilities and sectors.
- e.g. study looking at how we can use steel industry as lever into low carbon sector.
- The categorisation of the LCEGS sector is important - every business is in the low carbon sector!
- Renewable energy data should be put in context of UK/other areas. Wind contributes the most to the economy but deployment opportunity is less. By contrast, geothermal could have much higher deployment potential. Need to ensure the data is qualified so we don't miss opportunities.
- The data reflecting the highest growth sectors (hydro etc) looks suspiciously similar; it would be good to qualify the methodology to ensure this reflects reality.
- Re the scalability graph - could the bubble sizes be used to show something different?

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- There is a big focus on innovation, but what is the support? Does support such as what the ESC offer helpful?
- Business support landscape is a bit messy generally.
- Aligned with where money is flowing, i.e. LEPs and CAs - aligned with Government priority.
- Make findings available so people can cut them to their needs. Needs to be available at LEP level and flexibly.
- It would be good to understand more about the investment figures? Where are these from? Do they cover the fullness of R&D?

4. What are the skills challenges and how can they be addressed?

- LCET businesses aren't struggling as much as other sectors due to Covid, so given how much it will take (e.g.) retail to bounceback, can we use skills from more struggling sectors to improve the LCET sector for the better? Where there's no money to invest in fixing things, the LCET sector has the opportunity to regulate to create growth.
- Stop in-fighting on how support is delivered!
- If there's a strong political commitment the skills providers will provide. The challenge is that we need long-term commitments in decarbonisation in energy systems, transport and buildings.
- Our biggest export competencies are in skills, therefore can we compare this to other region to try and encourage investment here? Some of the data are pointless if there is no national comparison.
- We need whole teams and organisations to get on board with decarbonisation agenda rather than just the 'greenies' and usual suspects. Low carbon needs to be BAU.
- Is the issue SKILLS in planning permission or is it regulation/complexity of the system? Could end up with the wrong solution to the right problem. So if we're putting funding into this, should it go into the system.
- Re the LCEGS grouping of business 'type': Building technology and automotive covers practically the entire construction and automotive sectors. These are very different markets and totally different businesses that require a very different set of skills. Maybe (re construction) this is where point about planning and skill came from?
- CCS requires mining skills. Geothermal requires drilling skills - existing skills can be tailored elsewhere.
- Leadership - e.g. industry JAM but have skills could be massively tailored to LC sector - but they don't dare/have the confidence pivot the business and point to LC sector. If you sort this out - others will follow.
- Transformational change in business is needed.
- If you put funding into projects that support energy eff in businesses - the way to do this is to allocate public funds differently. Can't do this in one-size fits all across whole Midlands.

Other issues

- Midlands Engine Energy Action Plan will be looking at the Energy White Paper opportunities which are largely East Midlands (again, big and shiny stuff rather than smart energy).
- Can we have some creativity? What's the messaging we're putting out? There needs to be better narrative around the data, and not just the data, as the data could do a disservice to WM and the sector.
- An energy data portal is being set up for the region - can this data be used to supplement it?
- WM REDI - have we we spoken to them?
- The large businesses in the sector are huge, e.g. Eon (Coventry); is it the case that one company totally skews the data? It would be interesting to take these businesses out and see what happens to the data. It could be misleading as a result.
- Could we put carbon emissions or market size into the LEP breakdown pie chart to show where the sector growth links to these?

Energy Research Accelerator

Faye McAnulla & Nicolas King

13 January 2021

Interviewee: Anna Bright

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- FM – universities have ERDF programmes with the aim of working with SMEs to help and give them specific advice to help them grow. Each is LEP focused and means that institutions are able to help within their own areas. Each institution has their own specialism. Before Covid ERA were trying to put in a proposal for more coordinated across the Midlands. Keen to explore this as a future option. Could link with Innovate UK as a national programme. Link with others such as ESC.
- Midlands Energy Hub has been providing grants and funding sources so this needs to be maintained.

2. How can we tailor support to our strongest and most scalable sectors?

- Support of innovation will generate growth through large scale funding. Build and commercialise activity out of this.
- ERA Large proposal going to central government. Others need to be focused on the scalable sectors.
- In the Midlands Engine energy action plan, thinking of how these sectors can be supported. Engagement with sectors is ongoing through focused workshops.
- Better governance across energy sector bearing in mind key players such as MEH, ERA, Energy Capital – needs a more strategic plan across region.
- Example projects include Development Corporation e.g. Ratcliffe Power Station and redevelopment (like EIZs in the West Midlands).

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- Evidence base is really useful to make the case.
- Move research to innovation to commercialisation – links between ERA and MEH are useful here. Share details on the WMIP.
- ‘Living Lab’ to share info on projects across the region/nation – how can this be shared? Funding required but at basic level could be more detailed knowledge exchange activity.

4. What are the skills challenges and how can they be addressed?

- What are the future technologies coming through (e.g. heat decarbonization – heat networks, air/ground source heat pumps, hydrogen) and have we got the skills?
- Hydrogen (e.g. ZC Humber project) - reskilling of the workforce required.
- Diversity is a challenge but could be built into a reskilling programme from the outset
- At higher level ERA have programme training researchers of tomorrow including four year (CEDI?) focus on energy, infrastructure and cities. Bringing researchers together. 60 Phds working on energy funded by ERA

Energy Systems Catapult

Neil Whittaker and Paul Jordan

18 January 2021

Interviewee: Anna Bright

- 1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?**
 - 2. How can we tailor support to our strongest and most scalable sectors?**
 - National centre for decarbonisation of heat – will share report called D4E. Six pillars looking at innovations, production, Living Lab. Goes into skills and training, standards and verification. How do you trial green finance recommendations that are coming out. Midlands has great potential in taking a lead in the decarbonization of heat.
 - How does work take into account new areas which are likely to grow?? Might not feature on list now but could be important over the next 10 years time.
 - Most impact will be made by focusing on scale up of sectors – are there some enabling activities that could be funded. E.g. Living Labs for decarbonization of heat is focus for ESC. Allow technology to be trailed at scale.
 - Could all public estates be used to create a mini-market to allow solutions to scale?
 - Are there grid connections where if a specific connection was funded it would allow businesses to scale up more quickly.
 - Production set up can also be addressed – are there ways that this can be funded/supported to allow some components to come through at lower cost.
 - 3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?**
 - Other programmes could be linked together Network Innovation Competition, central government funding across the department (e.g. 5G rollout as well as Smart Meters and Transport – bring together to make more efficient.
 - Look at receivers of ERDF funding – where did it go?
 - 4. What are the skills challenges and how can they be addressed?**
 - Energy Academy are looking at assessment of skills shortages with focus on buildings and decarbonisation of heat. Not just a shortage of skills (for every 100 gas engineers only two can do LC heat), new roles also need to be introduced (e.g home energy auditing).
 - Skills analysis – look at which sectors and businesses existing today (possibly in decline) and where skills are needed or could be redeployed. Spinning Reserve -start up focused on redeployment of people in the energy sector springing out of Covid-19. How many people are available and what skills do they have? E.g. AutoCAD could be transferred from one sector to another.
 - Because of the scale of the businesses in this sector – start-up, micro and SME, should be asking the sector what their challenges are.
-

Environment Agency

Hayley Deighton

26 January 2021

Interviewee: Anna Bright

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

Given the role of the EA in permitting, licensing, regulation of businesses, they can be seen as constraining growth.

River Severn Partnership has a programme of environmental management and services linked to the green recovery. How can the EA link in to consultancies and universities to support innovation (e.g. role of AI).

2. How can we tailor support to our strongest and most scalable sectors?

River Severn Partnership is testing new ways of working and is part of national pilot on adaptive pathways. How do we go forward with investment decision making? Producing a framework to embed across all organisations on collective adaptive pathway. Scenarios on climates and growth will be developed. Needs testing and embedding, and identification of sector based risks.

River Severn Partnership needs to work with all relevant LEPs but engagement has been varying. Worcestershire LEP are very engaged and have mapped the work with their LIS. Has resulted in £5m funding. Engagement has been more challenging in the Marches and in GBSLEP.

Audit office report has highlighted challenges on private sector partnerships. Can these partnerships be strengthened to support growth ambition?

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

EA has £5.2bn nationally for flood management. Focus is on housing but also on deprived communities, and on industrial and commercial property. Can this be utilised to support businesses and key sectors in flood risk areas? *(NB – SWM have been commissioned to deliver a WM Climate Change Risk Assessment and action plan for the EA. This can be aligned to the findings of the LCEGS sector study)*

4. What are the skills challenges and how can they be addressed?

EA could contribute on skills development within organisations like local authorities and LEPs. River Severn Partnership is focused on integrated approach to environmental management. How is knowledge shared? Funding is in silos. To max opportunities this connectivity needs to be addressed.

Innovation Alliance for the West Midlands

Pam Waddell

21 January 2021

Interviewee: Alan Carr

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- Covid has put a huge spotlight on building back better so there is a clear opportunity to focus on this and green growth is clearly a good way of doing this. It also already has Govt support and with the UK hosting COP this year and America now being back in Paris accord, the opportunity is there; we just need to ensure these are being felt in the region. The LCEGS data so far clearly shows potential, we just need the coordination and wherewithal make it flourish.
- A key question is: How do we grow micro companies? Do they WANT to grow?
- A key challenge is that there are so many uncertainties with Covid. Adaptability is, therefore, clearly important. The LCEGS sector is the right tune to dance to, so let's dance along! [Quote Pam]

2. How can we tailor support to our strongest and most scalable sectors?

- Do we know whether the micro-enterprises are new or old? Are they start ups or more established? Do these businesses grow, or want to grow? This will affect what interventions are best and what contribution they make to the economy.
- It is surprising that we have micro-enterprises in sectors such as building technologies; what are these companies and what do they do? We don't know yet whether there's an appetite for scaling by these companies.
- We don't have any specific accelerator programmes for low carbon - should we? We know how to do accelerator programmes, but is this what's needed? Again, depends on the appetite to grow of start ups.
- Is low carbon actually a sector? The business opportunities are across aerospace, automotive, energy, manufacturing etc. Building connections across multiple sectors is crucial. Low carbon is like digital - it's not a thing on its own and can't be. It has to cut across everything. Can we learn from digital?

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- The Carbon Financing sector (as shown in the data) is quite low. We will need the private sector to fund activities so is this a concern?
- There is demand for the goods and services, so how do we accelerate the private sector to pay for what it wants? Should we be looking at carbon finance as a strong focus? Lets not be hung up on the fact that the public sector should support the sector, or Covid recovery, on its own.
- Read Jamie's MIT REAP report - there's a focus on need for start-up/scale-up funding which is vital. [Pam will send this across]
- Public funding is often R&D and we don't need this as we know the market has demand. Hence why private sector funding is so important.
- We can also still do better with public funding. For example, what is the Midlands' relative success at acquiring recent Sustainable Innovation Funds, for example, when compared to other areas? Case studies would be useful, as would targeted support to small companies as they don't have ability to apply for such funding due to the resource implications.

4. What are the skills challenges and how can they be addressed?

- Training providers and universities are still training people to prepare for oil and gas, even though lots of the skillsets could be applied to low carbon technology such as CCS, for example.
- Often an assumption with skills is you have to 'rip it up and start again' rather than rollout 'adaptive skilling,' e.g. most skills in oil and gas can be re-applied in other areas. The application of the skills needs to be re-developed, rather than the skills themselves. We need to train people to have skills that are more about problem solving in general, e.g. drilling a hole is the same thing be it for oil or CCS!
- Making people more resilient and adaptable is also important; we need to teach people to solve problems overall rather than in specific concepts. The sector doesn't matter, the problem is solving skills that can be applied to multiple sectors do, along with this basic technology skills.
- A couple of useful articles on skills - not directly low carbon but making similar points:
 - https://www.geolsoc.org.uk/~media/shared/documents/geoscientist/2020/october%202020/Geo_OCTOBER2020_soapbox.pdf?la=en
 - <https://www.insidermedia.com/blogs/midlands/business-matters-time-to-rethink-talent-development-for-the-post-pandemic-world>

Other issues

- Midlands Engine Energy Action Plan - what's it's purpose?
- Where does hydrogen fit in the data analysis sectors? Assumption is it's in 'alternative fuels.'
- How does Midlands data compare to UK? Is advantage being sustained across the Board? The answer to this could depend on other support requirements. Likewise with the impact of Covid.
- Suggestion to interview David Hardman as innovation lead on GBSLEP board.
- Seeing WMCA data in detail would be helpful, to determine where project activity could support gaps etc.

Knowledge Transfer Network

Jenni McDonnell

15 January 2021

Interviewee: Alan Carr

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- Continue support that has been provided for companies to innovate during times when they are finding it difficult to sell, i.e. during the pandemic.
- However with lockdown there isn't much more that can be offered aside from money!
- The cost of renewables still higher than gas but going the right way.
- We need to be able to demonstrate innovation in the real world and to be better at shouting about the positive results and not allow these to be kept secret.

2. How can we tailor support to our strongest and most scalable sectors?

- Where support is provided, is it in the right places? We need to educate and promote what is available and showcase companies on what we have to offer.
- Need to continue to signpost funding.
- Need to educate the customer and encourage them to change from gas to renewables; this is still a big barrier.
- We need to encourage private investment; it is difficult at the moment due to Covid. The reason we have so many micro companies is possibly because businesses come up with good ideas but they lack the business sense and funding and quickly fold. Private investment would help with this.
- Similarly, most common challenge is that companies are passionate about their tech but haven't got their business in hand. More business support on this issue is required.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- KTN have tried to ensure that Covid hasn't stopped innovation as there is plenty of competition funding for innovation still available.
- Can we have a more regional based budget, rather than national? At present there is no criteria on geography, it's just down to who wins! Can we ring-fence some funding for regions?
- The Public Sector Decarbonisation Fund may indirectly be able to help businesses who are struggling.
- Can we improve the exposure of the application service for companies?
- There will be more Covid recovery money to come which will help all sectors.
- Many small businesses can't bid for public funding, however, which is why private sector funding is vital. Govt needs to de-risk it enough to make it viable.
- Funding should seek to improve stability and competitiveness of businesses. Then we need to show where companies have done well.
- Some competitions now need to have case studies.
- Need to be able to demonstrate impact on past investment. The business case for justifying the next rounds of funding is crucial; the ROI for Govt is just as important.

4. What are the skills challenges and how can they be addressed?

- Not many people in the fossil fuel industry want to be re-skilled as they have a good customer base (e.g. installation of gas boilers); this is a big problem. We need to encourage people to be upskilled in the first place and convince them that we're not making their jobs obsolete, rather, we're giving them new skills for (e.g.) the renewables industry. This is especially critical as it's people like boiler installers that consumers get their advice on energy from!
- Can the Birmingham Skills College initiative quoted in the slide be rolled out?

Other issues

- Planning remains a barrier, including at parish level. New builds are still built without renewables. Who can influence this?
- Standards: need to tweak current building regs but will change stifle innovation? We need standards urgently and they need to be lenient enough to be able to innovate, without compromising on safety.
- Regarding slide 9: should alternative fuels be grouped with renewable energy? Whereas currently under renewable energy is electricity generation not heat; can renewables for heat generation come under renewable? How would it affect percentages if this was the case?

West Midlands Growth Company

Adam Titchen

11 January 2021

Interviewee: Alan Carr

1. How can we support continued growth of the LCEGS Sector, in light of Covid-19?

- Support should take the form of anything that makes it easier for a potential customer to buy their products.
- There is a huge opportunity for the region as a result of the UK's hosting of COP26 as a legislative push for the sector in general. Can we use this to position ourselves to receive more funding to support our existing strengths and what we're doing already, e.g. modular housing. This could demonstrate that the WM has a large customer base, combined with the huge issue of decarbonising housing by demonstrating that there's a market and appetite which could help the local sector.
- Greater use of smart technologies e.g. the work of ESC on smart homes.
- Businesses will not consider moving to the UK unless customers can be found for their product, e.g. solar PV manufacturers. They always ask: is there a market for my goods and a demonstrated pipeline of business? This is critical to attract investment.
- Businesses will also only choose the region if we have certain capabilities.

2. How can we tailor support to our strongest and most scalable sectors?

- We need to help stimulate demand amongst the customer base, using new or existing technologies.
- Removing subsidies for certain things such as FiTs for solar PV is an issue as it disincentivises decarbonisation.

3. How can available funding strengthen the sector, and how can these findings be used to attract more funding?

- The Industrial Energy Transformation fund was an example of a successful funding pot, but overall such funds need to be flexible as companies can be put off by rigid requirements.
- Funding that is to accelerate existing technologies is useful for manufacturing companies to help create a market for low carbon service providers. However, these types of funds are more challenging to get universities, who can significantly help with the likely success of a bid, involved in as there's no new research element required.
- Overall, funding is hard to get hold of if you're a large manufacturer, especially to stimulate carbon reduction; most of the funding is for SMEs (e.g. other Innovate UK funds and ERDF). This is partly understandable as they could absorb some costs themselves but top ups could encourage further innovation and commitment.

4. What are the skills challenges and how can they be addressed?

- There is a significant gap with regards to skills needed for retrofitting of homes and rollout of heat pumps.
- Jo Lopes is a Business Engagement Director at the WMCA and used to work for JLR; he has set up an automotive task force which is focusing on skills requirements for electrified automotive section. One of the big questions is: what happens to current employees in (e.g.) JLR who's role focuses on combustion engines when we go fully EV by 2030? No-one knows the answer to this

at the moment. The Task Force is represented by JLR, BMW, large engineering consultancies/recruitment etc and may be a good sounding board to ask the questions around skills to.

- Relating to the above, the key question is: do existing people need to be retrained? Or do we need to train new people?
- The Faraday Institute did some research which found that ~108k jobs in the UK are reliant on automotive. If we don't attract enough EV manufacturing then EV manufacturers will move to where batteries are being made, therefore the UK automotive sector at risk. If we retain these jobs we can grow the sector. This is especially important in the WM due to our strengths in automotive.
- This report contains some UK statistics on skills and job requirements for EV manufacturing in future. See pages 4-6 in particular:
 - https://faraday.ac.uk/wp-content/uploads/2020/03/2040_Gigafactory_Report_FINAL.pdf

5. Appendix 3: Focus Group Registrations

Black Country LEP	
Name	Organisation
Mark Smith	Aston University
Glenn Barrowman	BECCI (University of Wolverhampton)
Corin Crane	Black Country Chamber
Charlie Hopkirk	Black Country Consortium
Emma Forde	Black Country Consortium
Ric Bravery	City of Wolverhampton Council
Ian Stevens	DIT
Chris Barnett	Dudley MBC
Irene Watkinson	EBRI, Aston University
Helen Boyle	Future of gas
Steve Howard	kMatrix Data Services Ltd
Pat Fleming	Midlands Energy Hub
Paul Fisher	Sandwell Metropolitan Borough Council
Jo Miskin	Sandwell Metropolitan Borough Council
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
Andrew Stott	University of Wolverhampton
Yomi Okeyinka	University of Wolverhampton

Coventry & Warwickshire LEP	
Name	Organisation
James Smith	-
Durga Prasad	Aston University
Will Hargreaves	Birmingham Chamber Of Commerce & Industry
Bret Willers	Coventry City Council
Jacky Craddock	Coventry City Council
Annie Truong	Coventry City Council
Lowell Lewis	Coventry City Council
Anne-Marie Tranter	Coventry City Council
Kate Martin	Coventry City Council
Richard Hodge	Coventry City Council
Maciej Gasiewicz	Coventry City Council
Matthew Dillow	Coventry City Council - Sustainability
Ed Watson	edwatson.life
Kevin Mole	ERC/Warwick Business School
Helen Boyle	Future of gas
Steve Howard	kMatrix Data Services Ltd
Jack Hayhoe	Midlands Energy Hub
Ian Finch	Regal Smart Solutions
Peter Rayson	Solihull Climate Change Commission
Anna Bright	Sustainability West Midlands
Alan Carr	Sustainability West Midlands
Angeline Murungu	Warwickshire County Council
Matt Whitehead	Warwickshire County Council
Andrew Pau	Warwickshire County Council
Denise Taylor	Wylde Connections Limited

D2N2 LEP	
Name	Organisation
Hussen Farooq	Arup
Jo Dexter	BEIS, CLGU
David Parkinson	Belcan
Tracey Hylton Burrows	D2N2 Growth Hub/Nottingham City Council
Will Morlidge	D2N2 LEP
Lucie Andrews	D2N2 LEP
Gemma Sylva	Derby City Council
Amanda Brown	Derbyshire County Council
Denise Ludlam	Derbyshire County Council
Nigel Timperley	Don't Do A Dodo Ltd
Ian Bates	East Midlands Chamber
Neil Johnson	Economic Growth
Helen Taylor	Hosta
Steve Howard	kMatrix Data Services Ltd
Andy Cooper	Lagoni Engineering
Alex Pearson	Midlands Energy Hub
Michael Gallagher	Midlands Energy Hub
Jack Hayhoe	Midlands Energy Hub
Philip Angus	NEP
Veronica Dennant	Neward & Sherwood District Council
Matthew Finch	Newark & Sherwood District Council
Briony Ashton	Newark & Sherwood District Council
Andy Guy	NFU
Elisa Jones	Nottingham City Council
Ayat Ahmed	Nottingham City Council
Livia Williams	Nottingham Roofing Services
Nicola Stevens	Nottinghamshire County Council
Trish Adams	Nottinghamshire County Council
Becky Rix	Roadgas Limited
Emma Georgiou	Rushcliffe Borough Council
Kath Marriott	Rushcliffe Borough Council
nicola ellen	Shoosmiths LLP
Heather Foster	South Derbyshire District Council
Paul Whittingham	South Derbyshire District Council
Martin Frost	South Derbyshire District Council
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
Fred Paterson	University of Derby
Julia Roberts	University of Derby
Tim Saunders	University of Nottingham
Colette Putman	University of Nottingham

Greater Birmingham & Solihull LEP	
Name	Organisation
Roy Cumberworth	adi Group
Terry Ellis	Arup
Clara Paine	Arup
Will Hargreaves	Birmingham Chamber Of Commerce & Industry
Sophie Green	Birmingham City Council
Amit Bratch	Birmingham City Council
Ilias Vazaios	Ecuity Consulting LLP
Dale Powell	ENGIE
Alex Taylor	GBSLEP
Spencer Wilson	GBSLEP
John English	GBSLEP
Will Broad	GBSLEP Growth Hub
Steve Howard	kMatrix Data Services Ltd
Serena Bacuzzi	Midlands Energy Hub
Dal Kalirai	National Express
Patrick Bevan	National Express
Simon Ighofose	PyroGenesys LTD
Lillian Elekan	Solihull Chamber of Commerce
Peter Rayson	Solihull Climate Change Commission
Maddie Booth	Solihull College
Jon Lander	Solihull Council
Sarah Evans	Solihull MBC
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
David` Terry	University of Birmingham
Matt Beveridge	University of Birmingham
Nishal Ramadas	University of Warwick

Greater Lincolnshire LEP	
Name	Organisation
Jon Beasley	APC UK Ltd
Jo Dexter	BEIS, CLGU
Peter Udy	Boston Borough Council
Katie Hedges	CATCH
Jill Mooney	CATCH
Kate Bell	City of Lincoln Council
Sarah Baker	East Lindsey District Council
Phillip Hubbert	J.E. Piccaver & Co (Gedney Marsh)
Steve Howard	kMatrix Data Services Ltd
Andrew Brooks	Lincolnshire County Council
Dan Clayton	Lincolnshire County Council
Jack Hayhoe	Midlands Energy Hub
Ayat Ahmed	Nottingham City Council
Emma Toulson	Orsted
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
John Henry Looney	Sustainable Direction
Rebecca Forster	University of Lincoln

Leicester & Leicestershire LEP	
Name	Organisation
Sally Brewis	Cadent
Keith Budden	Cenex
Chris Rimmer	Cenex
Maria French	Charnwood Borough Council
Dale Powell	ENGIE
Helen Chadwick	Harborough District Council
Isabel De Veer	Harborough District Council
Geoff Davenport	Hinckley and Bosworth Council
Steve Howard	kMatrix Data Services Ltd
Irshad Mulla	Leicester & Leicestershire LEP
Duncan Bell	Leicester City Council
Michael Richardson	Leicester City Council
Helen Harris	Leicestershire County Council
James O'Brien	Leicestershire County Council
Donna Worship	Leicestershire County Council, E&T
Kelly Manders	Loughborough University
Gavin Fletcher	Midlands Energy Hub
Michaela Skodova	nmcn PLC
Julia Marshall	NWLDC
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
Asha Mistry	University of Leicester
Carmine Maffei	University of Leicester - Innovation Hub
Tim Saunders	University of Nottingham
Colette Putman	University of Nottingham

Marches LEP	
Name	Organisation
Durga Prasad	Aston University
Glenn Barrowman	BECCI (University of Wolverhampton)
Latif Imran Jalil	BECCI (University of Wolverhampton)
Gareth Williams	Caplor Energy
Helen Boyle	Future of gas
Sharon Smith	Herefordshire & Worcestershire Chamber of Commerce
Robert Elliott	Herefordshire & Worcestershire Chamber of Commerce
Jan Bailey	Herefordshire Business Board / Marches LEP
Richard Vaughan	Herefordshire Council
Ewa Bloch	Innovate UK
Steve Howard	kMatrix Data Services Ltd
Simon Ross	Marches Energy Agency
Emma Chapman	Marches Growth Hub Shropshire
Tim Yair	Nottingham City Council
Delia Yapp	Shropshire Council
Adrian Cooper	Shropshire Council
Samuel Kirby-Bray	Shropshire Council
Anna Bright	Sustainability West Midlands
Mike Peverill	Sustainability West Midlands
Harj Rayet	Telford & Wrekin Council
Yomi Okeyinka	University of Wolverhampton
Sian Thomas	Zero carbon Shropshire

Stoke & Staffordshire LEP	
Name	Organisation
John Carr	6sigma
Joan Walley	Aldersgate Group
Nicola Templeton	Business in the Community
Anthony Morris	Cannock Chase Council
Joss Presland	Cannock Chase Council
Irene Watkinson	EBRI, Aston University
Louise Alter	ENGIE
Claire Preston	ENGIE
leanne poole	ENGIE
Andrew Fletcher	ESP Ltd
Andrew Leech	Fleet Evolution
Helen Boyle	Future of gas
Julian Read	Keele University
Steve Howard	kMatrix Data Services Ltd
Craig Lambie	Landlord
Serena Bacuzzi	Midlands Energy Hub
Diane Roberts	sben, Staffordshire County Council
nicola ellen	Shoosmiths LLP
Charles Bradshaw-Smith	SmartKlub
Joanne Kemp	Stoke & Staffordshire LEP
Anna Bright	Sustainability West Midlands
Alan Carr	Sustainability West Midlands
Judith Smith	Sustainabilitysmith Ltd
Danny Ball	Urban Energy

Worcestershire LEP	
Name	Organisation
Martyn Bridges	Bosch Thermotechnology
Dominic Lavelle	Go Green Experts Ltd
Steve Howard	kMatrix Data Services Ltd
Matt Barker	Malvern Hills District Council
Alex Pearson	Midlands Energy Hub
Ben Murcott	Murcott Energy
Jane Berry	NWedR
Anna Bright	Sustainability West Midlands
Alan Carr	Sustainability West Midlands
Katy Boom	University of Worcester
Ruth Corrall	Worcester City Council
Janet Yates	Worcester City Council - Economic Development
Christopher Atkinson	Worcestershire County Council
Sue Crow	Worcestershire County Council
Elizabeth Alston	Worcestershire County Council
Luke Willetts	Worcestershire LEP
Jenny Moreton	Wyre Forest DC