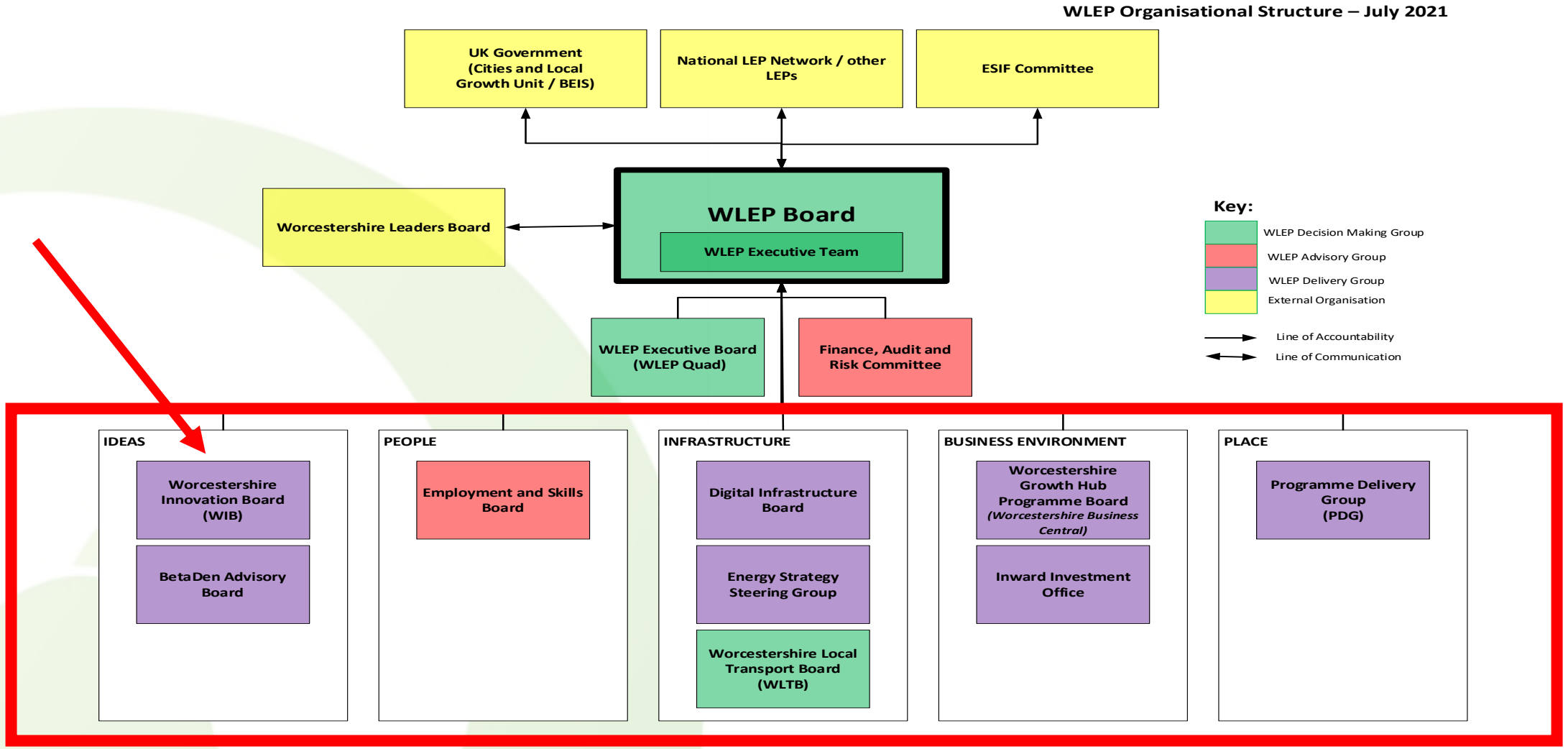
Worcestershire
Local Enterprise Partnership

Worcestershire LEP Innovation Board (WIB) Update for WLEP Board

27 January 2022

WLEP Governance Structure

Worcestershire Local Enterprise Partnership



WLEP Innovation Board Membership

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- Matt Atkinson, Utelize – Private Sector
- Neil Cassidy, Rolls Royce – Private Sector
- Nicola Hewitt, The View From The Hill – Private Sector
- Matt May, WLEP Non Exec Director
- Sue Crow, Worcestershire County Council – Public Sector
- John Jones, Royal Grammar Schools – Education Sector
- Jo Murphy, University of Worcester – Education Sector

Supported by:

- Luke Willetts – Chair
- Linda Smith – BetaDen
- Kate Snell – Project Management
- Jennie Humphries – Data and Research

Plan for Growth

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The Worcestershire Plan for Growth (2020-2040) sets out 4 goals under the Ideas pillar:

- Increase investment in R&D in line with national target of 2.4% GDP
- Improve links between businesses and Higher Education institutions
- Increase the number of R&D assets across the county to enable greater collaboration with Higher Education institutions beyond Worcestershire's borders
- Increase commercialisation success rate of business R&D investments to bring more products and services to market

WIB Background

- The Worcestershire LEP Innovation Board formed in Summer 2021, to provide assurance to the main LEP board on the Ideas pillar of the Plan for Growth

- Some good discussions around initial areas of focus, with the initial priority being to understand the current innovation ecosystem in Worcestershire

- WIB has considered data from a range of sources, looking at:
- Business Support;
- Recent Access to Public and Private Funding;
- Current Access to Government Funding sources;
- Physical Assets;
- Academic Assets; and
- Business base

- WIB has considered how these fit with the key growth and cornerstone sectors identified in the Plan for Growth. This information has guided discussions on an innovation action plan for Worcestershire.

National Government position

UK Innovation Strategy published in July 2021 aims to:

- Increase annual public investment in R&D to £22 billion
- Develop online finance and innovation hub between Innovate UK and the British Business Bank (due by Summer 2022) to simplify funding option information
- Establish a UKRI-wide Commercialisation Funding Framework to simplify the process of commercialising ideas
- Expand Innovate UK programmes e.g. Innovate Edge, Catapults
- Develop an innovation to export pathway.
- Create the UK Advanced Research and Invention Agency (ARIA) to bring the US Advanced Research Projects Agency model of R&D to the United Kingdom (high risk, high pay-off, low bureaucracy)
- Levelling Up Agenda will also impact on this area

Worcestershire Innovation Headlines

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- Relatively low level of R&D expenditure – circa. 1% of GDP spent on R&D in the area (vs national GDP target of 2.4% by 2027)
  - Driven by business expenditure on R&D (BERD) of £410m in 2014/15– mid-ranking nationally (17/38) and with comparator LEPs
  - Higher Education expenditure on R&D (HERD) was £1.2m - ranked 36 out of 38 LEPs

- Worcestershire has a low share of Innovate UK funding relative to the number of businesses. Between FY2016/17 and FY2020/21 Worcestershire businesses received 76 Innovate UK grants worth £15m. This represents 0.3% of Innovate UK grants and compares with Worcestershire's 1.0% share of the business base

- 785 Worcestershire businesses claimed R&D tax credits in 2018/19 against R&D expenditure of £185m. The value of tax credits claimed in Worcestershire was lower than in most comparator areas – a pattern of low(er) value claims. This matches our knowledge of the local economy – more small(er) companies claiming small(er) amounts

Innovation Headlines (continued)

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The UK Innovation Survey (2016-2018) found particular local strengths in **internal R&D and product innovation**:

- 24.7% of Worcestershire business undertook internal R&D - the third highest LEP and above the England average of 17.3%
- Worcestershire ranked 3rd for businesses undertaking product innovation, 18th for businesses undertaking process innovation and 16th for businesses undertaking strategic and marketing innovation activity
- 6.6% of the workforce is employed in science, engineering and technology below the UK average of 8.4% and all comparator LEPs

Worcestershire Assets Today

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- Malvern Hills Science Park
- nexGworx (formerly Worcestershire 5G Testbed)
- BetaDen: Technology Accelerator (MHSP) and Clean Tech Accelerator (Wyre Forest)
- Midlands Cyber
- Pershore AgriTech Research Centre
- HoW College Centre of Digital Engineering
- Mazak European Technology Centre
- Midlands Energy Hub
- University of Worcester - Centre for Dementia Studies, National Pollen and Aerobiology Research Unit, Centre for Violence Prevention, Three Counties Medical School (2022)

- Flexible working spaces including The Kiln, Wyche Innovation Centre, BloomSpace etc.

- Comprehensive ERDF Start-Up Support and business support for Small and Medium size businesses via Growth Hub, BIPC, Worcestershire Innovation Network (WINN), Innovate Edge, private sector offerings

- **No real single focus / strength – broad economy base – useful during the pandemic not to have a single point of failure!**

Worcestershire Challenges Today

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- **No real single focus / strength – broad economy base means assets are spread quite thinly over multiple sectors – this is a challenge for innovation**

- Lack of a single shared Innovation vision for the county – public, private and education sectors each have individual priorities
- Historically no dedicated HE R&D capability on patch to access (however UoW is developing R&D catalogue offer for local businesses; and neighbouring Universities, Academic Centres of Excellence, Catapults have been matched against key/cornerstone sectors)
- Complex funding and investment landscape outside of ERDF-funded start-up and SME support
- Low interest in government funding competitions from local companies
- Need to engage and influence large/corporate companies to embrace local SMEs in innovation supply chain
- Businesses find it difficult to recruit the right skills and talent
- Historic low levels of central government investment outside of London/South East

An effective ecosystem…

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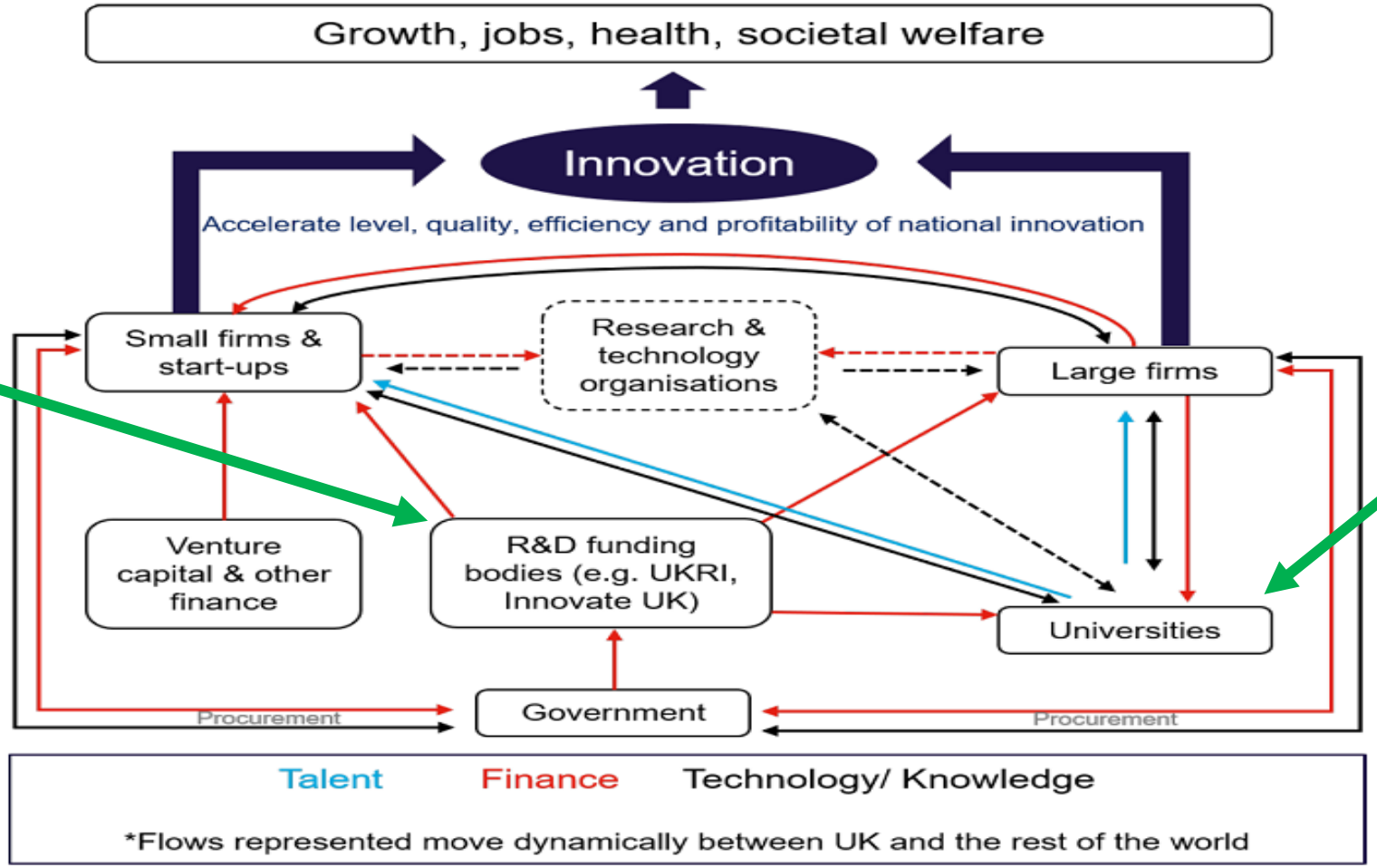
Areas of Focus

- Innovation Funding
- R&D Tax Credits



Area of Focus

- Innovation Alliances/ Collaborations
- Skills / recruitment

Current / Short Term Focus

- WLEP, WGH, WCC and the University Business school will work together to promote and support bids to government funding competitions and grants in innovation priority sectors, including addressing barriers to applications (e.g. technical advice and bid writing)
    - For example, the University Business School can provide support for bid writing, which is known to put off businesses from applying for funding. WCC host an Agri group and have funded research into the sector opportunities. WGH uses their Specialist Business Advisers programme to provide technical input for 'green' funding bids – for example WGH are supporting 2 bids to the Industrial Energy Transformation Fund.
- WCC are collating data on innovation funding opportunities
- WIB feel there is a need for a wider piece of detailed work to be done on the positioning and promotion of Worcestershire as a county, from encouraging a skilled workforce to (re)locate here, encouraging high value businesses to relocate or remain here, and encouraging inward investment. This work is wider than the scope of the WIB, and could involve using existing forums to road-test new messaging/ideas i.e. Skills Show and Midlands Engine

Medium/ Longer Term Focus

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- Taking a broad-based approach will limit the ability to achieve the gains we want to see
- WIB would like the county to be ambitious and create 2 or 3 areas of geographical and sector focus to create dynamic, vibrant innovation ecosystems – with a focus on applying the research or innovation.
- These **Innovation Enterprise Zones (IEZ)** would have a ***strong focus on commercialisation***
- If successful these IEZs should stimulate both wider supply chain opportunities across the county and act as magnets for talent and investment.
- Within these 2-3 IEZs, WIB recommend a proactive and coordinated approach to solving the problems known to hinder innovation e.g.
  - Business recruitment campaigns to a coordinated activity on inward investment
  - skilled recruitment campaigns e.g sector specific Skills Show in IEZ location with businesses paying in and leading on event
  - resource to help with securing funding and collaborations
  - local authority support for business rates/ innovation incentives
  - dedicated business support links and potential to focus on new business model and technology through a technology accelerator BetaDen type model
  - schools outreach to make the future workforce aware of local opportunities
- WIB recommend initially investigating potential of an Innovation Enterprise Zone at Hartlebury
- WIB will conduct a mapping exercise and SWOT analysis for other potential sites and sectors in the county – including levels of engagement from key stakeholders

Green Tech / Clean Tech

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UNDERUSED ASSET
(Wychavon) Hartlebury Energy from Waste Plant

Other Useful Resources
Midlands Energy Hub; Heat Network; Development Unit (BEIS) Beta Den North

Research / Evidence
LCEGS report; Horticultural Energy Study; Kada Research (Agriculture, Horticulture and Agritech)

Academic/ Research Assets
Uni of Worcester; AgriTech Research Centre (Pershore); ATETA /Uni of Birmingham; Hartpury

Advanced Manufacturing; Agri/Horticulture; (Construction)

Business Assets
Indra; Excool; Rock Clean Energy; Bosch; Eco2Solar; and more..

Innovation potential AND good chance of government funding for:
Carbon Capture Storage and Use; Ambient Loop Heat Networks; Alternative Fuels; Anaerobic Digestion; Substation Waste Heat; Air-to-Air Heat Pumps; proprietary additive cooling and more…

Why Hartlebury?

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- Hartlebury (Wychavon) hosts the county's Energy from Waste (EfW) plant, located on the Hartlebury Trading Estate
- The EfW plant, run under a PFI contract, currently produces electricity and feeds it back into the grid. However, there are possibilities to go further and add some combination of:
  - Low Temperature Heat Network to make a Combined Heat and Power plant;
  - Carbon Capture Storage and Use (CCSU);
  - Vertical Farming;
  - (possibly) Green Hydrogen Generation
- Adding some of the above options would provide a focus for innovation opportunities **and** cheap energy/ heat for nearby businesses
- The location ties in well with BetaDen North focus
- The county has existing business strengths in green tech/ clean tech nearby

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QUESTIONS / VIEWS?

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Worcestershire 2040 Vision:

"A **connected, creative, dynamic economy** for all."

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