



Skills and supply chain networks for the NGV sector and market



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Skills and supply chain networks

- Context & value via personal experiences through skills pathway
- UCLan in top 3 UK universities for graduate business start ups
- Launchpad – programme to use skills from LBS in a business environment
- Links to local & national businesses
- Student projects
- Apprenticeships
- Higher Apprenticeships



Higher Apprenticeships

- Higher Apprenticeships are helping to meet this need. They are developed by employers for employers and help businesses grow the leaders of the future
- A Higher Apprenticeship incorporates a work-based learning programme and leads to a nationally recognised qualification at Level 4 and above
- Level 4 and 5 is equivalent to a higher education certificate, higher education diploma or a foundation degree
- Level 6 is equivalent to a bachelor degree
- Level 7 is equivalent to a master's degree
- They offer a new work-based route into professions which have traditionally been the preserve of graduates



The Energy Challenge For UK Localities



ENERGY &
UTILITY SKILLS

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- Realise locality's potential to pioneer energy security and cost stability
- Facilitate the development of Energy Cluster
 - E.g. Gas vehicle development is a significant component
- In Lancashire we recognise and articulate that energy is the most exciting opportunity this county has had in recent times
 - E.g. Shale Gas / Leyland Daf Trucks – long history and legacy
- Enable this through consistent incentives and enabling of legislation and regulation
- Understand that this will attract further investment and will deliver substantial commercial return
- Link with a national strategy on transport and energy security



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LowC^{VP}
Low Carbon Vehicle Partnership

BARROW GREEN GAS

GreenGas
CERTIFICATION SCHEME

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Maximise Local Economic Impact Through Social Sustainability

- Maximise the proportion of employment vacancies must be filled by workers resident in the local area
- Enable this through education and/or training provision
 - Motorsports degrees could incorporate sustainable fuel development
 - Peter Jost Institute of Tribology @ UCLan – research into lubricants and fuels
- Work closely with the community
- Create local sustainable jobs to retain young people
 - 5th largest university in UK



Research informed development growth coalition: partnership of industry, government and educators



- Work together to identify training needs in this field
- Reduce the need for imported workers and will maximise the potential to hire, train and retain a local labour force
- Facilitate long term local economic sustainability by maximising the multiplier impact to the benefit of the regional economy
- Align structural funds and enabling legislation



Shale Gas – skills & supply chain

1. Regulation: Robust and Consistent
2. Communication and Stakeholders
3. Research
4. Skills
5. Supply Chain Development
6. Manufacturing
7. IP
8. Funding
9. Contributes to energy security – part of a holistic energy mix



Invest to develop Locality based training and educational programmes (e.g. Shale Gas)



**ENERGY &
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- The Shale (Penn State University) example from the USA highlights investment required
 - Training academy in Shale Gas
 - Professor Kathryn Brasier – collaboration
- Meet the skills requirements of the industry and realise local economic gains
 - E.g. College and Industry Apprenticeships based on Shale Gas
- Industrial sponsorship, research and vocationally informed learning environment to benefit both community and industrial interests



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A pro-active partnership approach: The Case of Lancashire

- The North West Energy Coast / arc:
 - Nuclear
 - Wind
 - Off-shore oil and gas
 - Building Services Engineering
 - Shale gas
 - Marine
- Sustainable Development
- Up-skilling the region
- Creating / maintaining prosperous communities
- Enabling through Growth Cluster via supply chain development
- Industry, Government Agencies and Educational Institutions working together



Local and National Energy Networks

- LNG / Biomethane / other vehicle fuels –
 - How widespread are refill places currently?
- Car charging grid –
 - Research into developing the gas network to grow alongside the car charging network
- Synchronise resources to grow Natural Gas Vehicle refill points along with electric cars



Recommendations

- Community apprenticeship schemes (extending to engineers & older skilled workers)
- An on-going employers' skills group forum
- An HR manager's forum to share ideas
- Student placements into industry
- Closer & early working with local schools Collective responsibility through LEP/ skills sub group for addressing education linkages
- Enhance collaboration and coordination/develop growth cluster to attract funding



Funding

- AMSCI – Advanced Manufacturing Supply Chain Initiative
- Government investment
- Industry partnerships
- EU funds
 - ERDF, ESF, H2020..... Interreg
- Research Councils UK
- Technology Strategy Board



Energy and utility industries set out plan to tackle skills crisis (10 June 2014)



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- [UK Commission for Employment and Skills](#) Part of: [Business and enterprise](#), [Employment](#) and [Further education and skills](#)
- The **government** will invest in **partnership** with **energy** and **utility companies** to **address skills** and **recruitment issues** in the **sector**.
- The government and energy and utility employers today set out an action plan to strengthen the UK's energy and utility workforce over the next three years.
- As an estimated 50 per cent of current employees are set to leave these sectors and **200,000 new recruits will be needed by 2023**. The **Energy and Efficiency Industrial Partnership** sees 67 employers working together to fill training and skills problems in the power, gas, water, renewables and waste management industries.
- The partnership, the biggest government scheme of its type, is supported by **Energy & Utility Skills (EU Skills)**, the **National Skills Academy for Power (NSAP)** and employers including **National Grid, British Gas, E.ON UK, Thames Water and United Utilities**. The employers will match the government's £33m investment in the partnership to help deliver around 70,000 new learning opportunities including Apprenticeships and traineeships. The partnership will also fund increased training to ensure the industry has the right quantity, quality & diversity of new recruits.
- Energy and Efficiency Industrial Partnership Chair and National Grid Chief Executive, **Steve Holliday**, said:
 - This investment shows major government recognition of the challenges facing the UK's energy and utilities sectors, and the vital role young people and local communities can play in solving them. The strength and scale of this partnership means it will build consensus within these industries on how to meet the demand for new, innovative power and energy solutions, and build a more secure, sustainable economy for the future.
- **Sally Cabrini**, Business Services Director at water provider United Utilities, said:
 - We are delighted to be involved in this bold, ground-breaking partnership. It will bring local communities such as ours across the north-west of England, closer to their energy and utility employers. By working together as an industry, we can improve awareness of what we do and grow the pool of young talent in our sector.
- The partnership is the largest initiative within the government's flagship Employer Ownership of Skills pilot, which offers investment to develop sector workforces. The scheme empowers employers by giving them flexibility in how publicly funded training is created and delivered. It also focuses on providing opportunities for unemployed young people and those from disadvantaged communities or backgrounds.



What Next?

- Develop/expand community / supply chain apprenticeship scheme
- Develop older workers pool?
- Coordinated links with schools – curriculum / career focus
- Develop coordinated FE/HE partnership approach
- Encourage more women into science
 - Only 7% of women currently in science
- Closer collaboration between industry, skills providers and government:
 - A Forum for Growth
- Work collectively on addressing key vacancies
- Seek funding – EU funds
- Develop a communal science and engineering career process?



- What can we offer?
 - Academic / Industry / Government / Community partnership building
 - E.g. Shale Gas & other technologies
 - Research – fuels
 - Links to academic partners – e.g. Thornton site with Chester
 - Industry networks
 - Oil & Gas e.g. Cuadrilla and Peterson
 - Student projects / Placements
 - Develop employment opportunities / fuel market analysis
 - EU structural funds – learn best practice from Europe & beyond
 - ERDF, ESF, Horizon 2020 & Interreg



Thank you



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Please direct any questions to either Joe or myself at the above email addresses

