NW2 – Report

Northern **automotive** Alliance

Objective: **Aggregation of demand study aiming to;**

1) Identify opportunities for reshoring key components.
2) Increasing local content through development of regional supply chain.
3) Increasing productivity and competitiveness of supply chain.

NW² **North West LEPs North Wales** | **14** **Companies Surveyed** | **£4.5b** **Combined annual turnover**

Findings: **1. Major component opportunities identified by;**

Vehicle Manufacturers
- Interior Trim
- HVAC assemblies
- Chassis suspension modules.

Tier 1s
- Al Castings & Forgings
- Steel & bearings.

Both
- Stampings
- Indirect material & services

2. Barriers (inc. Lack of confidence in suppliers, No current UK suppliers)
3. Purchasing decisions made out of UK (foreign owned OEMs)
4. Few programmes underway to re-shore suppliers.
5. Supplier approval process (2-3 years)
6. Brexit

NW2 – Areas of Focus

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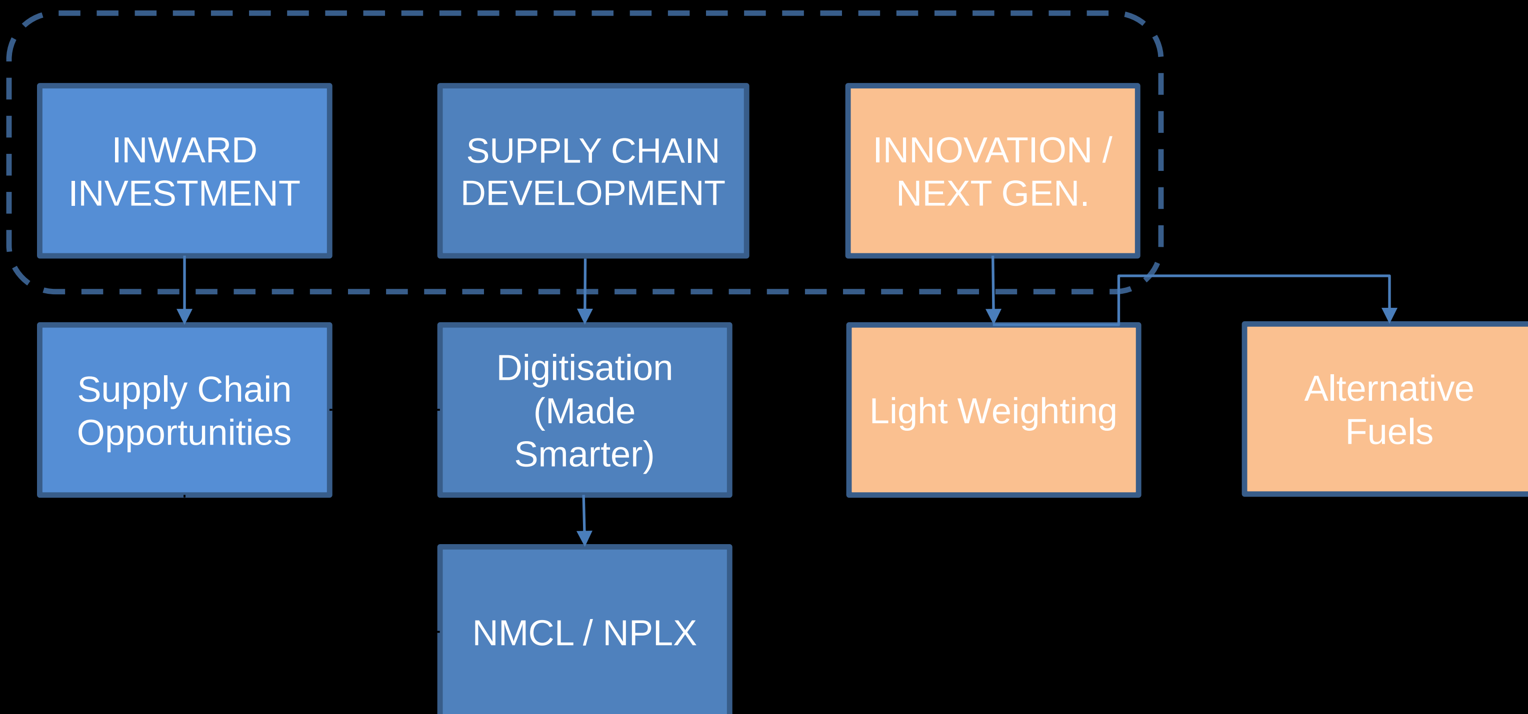

NW2 – Next Steps

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SUPPLY CHAIN
- Evidence: NW^2 report by NAA
- NW^2 opportunities / strengths
- Interventions / responses
- Aggregation work with DIT

LOW CARBON
- Evidence: APC studies
- NW^2 opportunities / strengths
- Interventions / responses
- Awareness / Event with APC

DIGITISATION
- Evidence: Made Smarter Review
- NW^2 opportunities / strengths
- Interventions / responses
- Promotion Made Smarter
- NMCL / NPLX

Back Up

NW^2 opportunities / strengths

OEMS
- Stampings
- Interior trim
- HVAC assemblies
- Chassis suspension modules

TIER 1
- Aluminium castings & forgings
- Stampings
- Steel & bearings

Both
- Indirect materials (product consumables & plant services)

- Lightweighting
- Sigmatex
- Cygnet
- TeleDyne CML
- Royce Institute
- EA Technology
- Siemens
- Hydrogen
- (Faraday Challenge)
- (Stephenson Challenge)
- Bio Fuels

- Made Smarter Pilot
- NMCL
- NPLX
- LCR 4.0

What’s the story – LCVs?

- Driver for OEMs to increase proportion of LCV as a proportion of total sales / production
- Need to take weight out of future LCVs (affects battery range / efficiency)
- Regional expertise in light-weighting and materials (industry and academia)
- Alternative future fuel source in Hydrogen (issues about infrastructure)
- Supply chains not yet looking at future LCV needs (concentrating on current model requirements) – need to adapt and re-purpose

NW2…LCVs

- Diverse set of assets – across the spectrum of OEMs / Tier 1s / universities, but currently fragmented engagement / collaboration on developing responses
- Unclear on the medium-long term aspirations for OEMs in terms of business model, ‘ideal factory’, ‘ideal supply chain’.
- [How do we bring the two together?]

Ideas

- APC spokes for light weighting / alternative (non-battery) fuels

Assets - LCV

- Sigmatex – one of the largest carbon fibre producers in the UK; working with APC on advanced composites
- Cygnet – manufacture machinery for carbon fibre weaving (?)
- Teledyne CML – Auto supplier of composites / carbon fibre
- Royce Institute – UoM – research facility into lightweight materials
- EA Technology – Impact of electric vehicles on LV power networks
- Siemens – controls
- Additive Manufacturing Centre
- VEC
- AMRC / MTC (Lancs. / Wales / LCR)
- UoC Thornton / Inovyn (Hydrogen fuels)

Opportunities - LCV

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- Lightweighting
- Faraday Challenge
- Stephenson Challenge
- Bio Fuels

What's the story – Digitisation?

- Drive for greater efficiency and productivity in manufacturing facilities utilising digital technologies
- Ability for supply chains to connect and share information in real time
- Foreshortening of the design cycle
- Rapid prototyping using virtualisation and additive manufacture
- Creation of new digital products and services within the supply chain
- Ultimately leading to more competitive manufacturing facilities competing against global competition (low cost economies)
- Challenges around replacement demand (skilled staff) that could be part met by technology

NW2…Digitisation

Northern automotive Alliance

- Made Smarter NW pilot is national trailblazer
- LCR 4.0 has been delivering for two years and begun to build an IDT ecosystem of companies that are interacting with one another
- NW pilot will support development of a regional ecosystem
- Series of significant assets – high concentration of digital research
- Potential for NW NMCL pilot (via CWLEP Virtual IOT)

Ideas

- Support for understanding the ‘ideal factory’
- Opportunity for an Automotive Digital Demonstrator (‘Factory in a Box’)
- Engaging NAA / WAF membership in Made Smarter via Growth Hubs / Business Wales to improve efficiency

Assets - Digitisation

- Siemens / ABB – controls
- VEC
- AMRC / MTC (Lancs. / Wales / LCR)
- Sensor City
- Print City
- University of Liverpool
- LJMU
- MMU
- Hartree Centre

Opportunities - Digitisation

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- Made Smarter NW Pilot
- NMCL
- NPLX
- Cross Industry (automotive & aerospace) – increased opportunity / competitiveness in domestic and international markets / resilience
- Significant industrial capability (ABB, Siemens)

Opportunities – NW2 study

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OEMS

- Stampings
- Interior trim
- HVAC assemblies
- Chassis suspension modules

TIER 1

- Aluminium castings & forgings
- Stampings
- Steel & bearings

Both

- Indirect materials (product consumables & plant services)

What is the ask / offer?

Northern automotive Alliance

- Support in establishing:
  - An identity for NW^2?
  - Mapping the auto innovation ecosystem
  - A supply chain development programme?
  - An inward investment proposition?
  - A programme for innovation for next generation vehicles / mobility?
  - All of the above?
- More of a strategic relationship with BEIS (Automotive Team) / DIT (AIO)?
- Improved relationships with Catapults / KTN?

Engagement Strategy / Messaging

- **NAA Board** (January 2019) – sounding board / sense checking areas of focus
- **WAF Board** - sounding board / sense checking areas of focus
- **NW2** Stakeholder Roundtable (March 2019)
- **BEIS Automotive / DIT** (automotive / NPH)(March / April 2019)
- Wider stakeholder buy-in activity (APC / Made Smarter / Catapults / KTN / OEMs, etc) – the opportunity
- **Automotive Council**?