Creating new pathways? Policy activism, offshore wind and the potential for industrial revitalisation in North East England

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‘ We lead the world in offshore wind: the UK already generates more power from offshore wind than the rest of Europe combined. We also have an exceptionally strong pipeline of projects going out to 2020 and beyond. Offshore wind will help us improve our energy security, cut our emissions, and *create new industries and employment around the Country*’

Charles Hendry, Minister of State for Energy, DECC (cited in Crown Estate 2012)

- **UK opens its first demonstration site in 2000**
- **2012: > 50% of installed European capacity**
- **30,000 jobs by 2020 (UKTI 2013) and 6,000 turbines by 2030 (40gigawatts) (DECC 2011)**
- **UK market worth £19bn p.a. and 250,000 jobs by 2050 (Carbon Trust 2010)**

“Today, we are launching what could be the North-East leading the world as the number one power for offshore wind. It’s a huge opportunity for us to move from the shipbuilding industry to the offshore wind industry and I think the North-East can lead the way ……..

This is a new industry where Britain can be number one in the world and where the technologies constructed here can be built, developed and constructed and then sent out to the world from the Tyne…..the North East is at the forefront in providing the skills, expertise, and enterprise to capitalise on this rapidly expanding market, which has the potential to create thousands of green jobs."

Source: PM Gordon Brown cited in Pearson 2010

1. **Path Creation: institutions, agency and peripheral regions**

2. **The rise of the offshore wind industry in North East England: 'policy-on & policy-off'**
   - **Episode I: Entrepreneurship, state-led niche management and path creation (early 1980s to mid-1990s)**
   - **Episode II: Regional Policy Activism: creating enabling environments & contextual policy (early to late 2000s)**
   - **Episode III: Regional Policy Vacuum: 2010+**

3. **Placing localities and regions in the UK's offshore wind sector: industrial revitalisation?**

4. **Conclusions**

1. Path Creation: institutions, agency and peripheral regions

- “question of repeatedly b geographers challenging i

- ‘Evolutionary open and dy (Martin 2010

Source: Martin (2010)

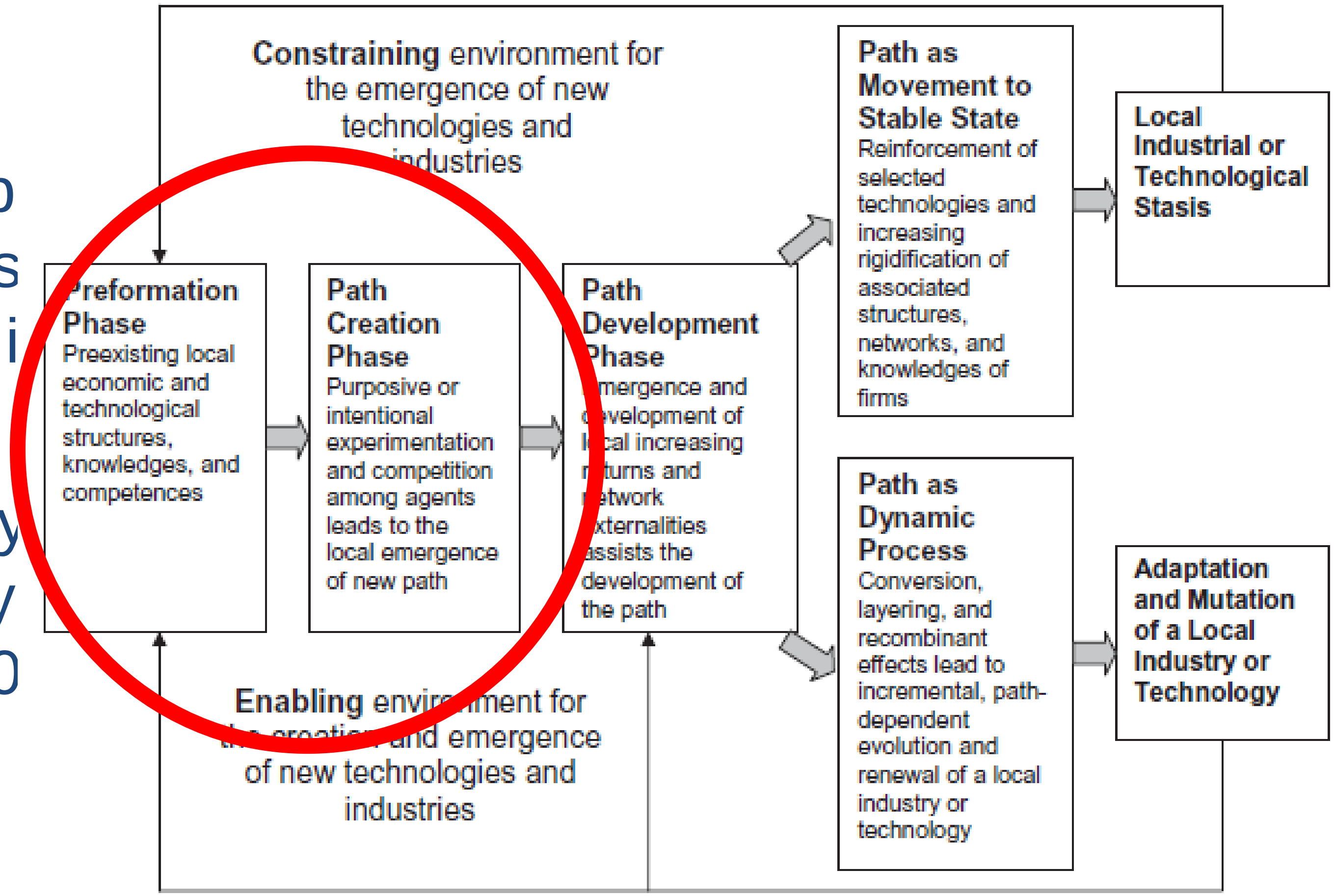

Figure 5. Toward an alternative path dependence model of local industrial evolution.

- **Analytical clarity and causality?**

  "…in other places – precisely for the reasons arising from the specifics of their past economic development – the local environment maybe less conducive to, perhaps even a constraining force on, the emergence of new technologies and industries" (Martin 2010 p.20)

- **How do regions move from constraining to enabling?**

Mechanisms of path creation: conditions, agency and actors

- **Candidate 'de-locking mechanisms' (Martin and Sunley 2006)**

Sources of new path	Characteristics
Indigenous creation	Emergence of new technologies and industries from within the region that have no immediate predecessors or antecedents there
Heterogeneity and diversity	Diversity of local industries, technologies and organizations promotes constant innovation and economic reconfiguration, avoiding 'lock-in' to a fixed structure
Transplantation from elsewhere	Primary mechanism is the importation of a new industry or technology from elsewhere, which then forms basis of new pathway of regional growth
Diversification into (technologically) related industries	Transition where an existing industry goes into decline but its core technologies are redeployed and extended to provide the basis of related new industries in the region
Upgrading of existing industries	The revitalization and enhancement of a region's industrial base through the infusion of new technologies or introduction of new products and services

Mechanisms of path creation: conditions, agency and actors

- **Related variety and 'Path branching': Boschma, Frenken, Neffke *et al***

  > **" the industrial history of regions, and in particular the parts of technology space their portfolios inhabit will affect the ways region's create new variety overtime, and how they transform and restructure their economies (Neffke *et al* 2011 p.241)**

- **"strong need to determine through which mechanisms the process of path branching operates" in stimulating new regional growth paths (Neffke *et al* 2011 p.261).**

Mechanisms of path creation: conditions, agency and actors

- Multifaceted notion of social agency, integrating firm-level analysis within multi-scalar institutional contexts. In particular:

  “examine the strategic decisions made by policy-makers, including the nation state, if we are to properly understand regional path creation”
  (Martin and Sunley 2006 p. 427).

  “little understanding of how regions diversify into new growth paths, and to what extent public policy may affect this process”
  (Asheim *et al* 2011 p.894).

- Path creation only implicit within RIS literatures

- Evolutionary ‘contextual policy’ (Ashiem *et al* 2011; Neffke *et al* 2011; Boschma 2009)

- Extra-regional political economic contexts (MacKinnon 2012)

2. Evolution of the offshore wind sector in North East England

- **Episode I: Entrepreneurship, state-led niche management and path creation (early 1980s to mid-1990s)**

- **Episode II: Regional Policy Activism: creating enabling environments & contextual policy (early to late 2000s)**

- **Episode III: Regional Policy Vacuum: 2010+**

'Policy-on to Policy-off'

Centre for Urban & Regional Development Studies
CURDS
Newcastle University

Episode I: Entrepreneurship, state-led niche management and path creation (early 1980s to mid-1990s)

- **'Entrepreneurialism'** (Garud and Karnoe 2003) by small scale, hobbyist, 'lifestyle companies' ope
- **Natural assets and recombinati** **e**

- **National level regulatory chang** stimulated market opportunities fo 1992 & 2000. Drawing on ERDF a
- **SME driven, connecting to MNC consortia** with resources and expertise in sub-sea and power expertise and eventual M&A
- **'Demonstration effect' and 'seedbed' for a new regional asset**

Episode II: Local and Regional Policy Activism: creating enabling environments & contextual policy (early to late 2000s)

- **Post-1997+ One NorthEast, RDA**
- **Twin track: R&D-led & Business Development**

- **2000s 'Strategy for Success':** Largest innovation programme in English regions (circa £200million 2006-9)
- **New and Renewables Energy Centre (NaREC):** Technology-push programme based on large scale R&D and test facilities for renewables
- 2003-11: £30m of RDA funding; >£150m capital investment
- Testing undertaken by world's leading TNCs
- 2007: US firm Clipper locate R&D site at NaREC
- World's largest offshore wind physical test asset base

The Current and Future Role
of Technology and Innovation
Centres in the UK

A Report by Dr. Hermann Hauser

For Lord Mandelson
Secretary of State
Department for Business Innovation & Skills

This does not however mean that there have been no successes. The New and Renewable Energy Centre (Narec) which has received £30m of investment over the past five years from One North East is recognised in the renewable energy industry as one of the lead centres of excellence worldwide for offshore wind technology development and provides employment for 115 people, many whom have graduated from the region's leading universities. It has major clients in Europe, Asia Pacific and the US and international R&D collaborations in 10 countries. It was also appointed technology advisor to The Crown Estate in relation to the Offshore Wind Round 3 programme in 2010 and by the end of 2011 will have the largest onshore physical test asset base in the world constructed at a cost of £100. It has played a part in attracting inward investment including Clipper Wind's $65m offshore wind turbine development project.

Hauser Review (2010 p.21)

Business Development

One North East:

- Small team of specialists recruited from industry
- Integrated strategy:
  - **Diversification**: talks with 60 firms in sub-sea, engineering, steel etc.
  - Start-ups and partnerships
  - **Transplantation:** Inward Investment promotion

- By 2011, £300m of offshore wind work undertaken by North East companies

Episode III: Local and Regional Policy Vacuum: 2010+

Hallowing out an enabling environment?

- Regional Development Agencies abolished: now 2 LEPS
- NaREC: now **<u>‘national’</u>** operational centre for UK’s TIC consortium for Offshore Wind (HQ in Scotland)

- Attempts to plug emerging ‘regional’ vacuum by industry-led initiative (Energicoast)

And, at the same time:

- Centralisation of FDI promotion (UKTI) and renewed inter-territorial competition: proactive ‘v’ reactive ‘catch-up’ regional models
- Regulatory uncertainty and dampened industrial investment

3. Placing localities and regions in the UK's offshore wind sector: industrial revitalisation?

I: State-led markets: regulating demand in path development

- **Protracted Energy Bill, rejected amendment (to be reviewed in 2016) and Energy Market Reform**

  "in 2009 it looked liked we had certainty with the Government aiming for 18GW of new offshore wind by 2020. Back then we thought the market would have really taken off by now…investor confidence has lapsed due to Government indecision over the level of support for offshore wind. Its hard to make anything happen until the investment situation becomes clear" (Director of EnergiCoast 2009)

- **June 2013 ASR: strike prices and 'contract-for- differences' set, but only for 15 years:**

  "industry asked for certainty. We've given it. *So now they need to get on with it*" (Chief Sec to Treasury, 27th June, 2013)

II: National industrial policy and path development

“We know Government is all too aware that a UK supply chain will not form of its own accord, but will require Government to be an active player and supporter of this market” (Deputy Chief Exec, Renewables UK 2013)

Industrial Activism (1 of 11 sectors – BIS 2012):

- 2013: Offshore Wind Industry Strategy (c. July 2013?); Council; Investment Organisation (FDI)
- Offshore Renewable Energy Catapult (TSB)

International Competition

- UK content <30% of value of existing capacity (CBI 2013)
- ‘Light touch’ regulatory approach (BVG 2013)
- Industry support for 50% local content clause

III: Sub-national industrial policy and path development

- Implicit (BIS 2012) and explicit (Heseltine 2012) spatial dimensions of industrial policy
- 6 Centres for Offshore and Renewable Engineering (CORES) cf. more proactive ‘regional hubs’ (CBI 2013; RenewablesUK 2013)
- Post-RDA: limited resources for FDI-battles and/or contextual policy (Ashiem *et al* 2011)
- Regional geographies of ‘catch-up’ or differentiation: turbine manufacture (FDI) ‘v’ ‘balance of plant (BoP)’ (diversification)
- **Scotland:**
    - 2020: all electricity from renewables
    - Mitsubishi (Edinburgh); Gamesa (Leith); Areva; Samsung (Fife)
    - Grants and assistance

4. Conclusions

- Move beyond firm-centric accounts and connect to wider set of actors and multi-scalar contexts mediating the emergence and development of growth paths
- The role of the state and policy as key agents of the ‘mechanisms’ of path creation, especially in peripheral regions
- Illustrates the potential of evolutionary inspired, local and regional ‘contextual policies’ in catalysing and supporting growth through historical and place based assets
- Reveals the scope of local and regional actors as being enabled and constrained by broader political economies of the state and power of extra-regional relations (including FDI)
- Key case for renewed debates on industrial policy and its geographies (Heseltine 2012)
- Capturing the varied interplay of multi-scalar institutions and settings in shaping path creation requires international comparative research
- Mechanisms overlap and shape the nature of the path being formed in qualitative ways