

Geographical and Relational Proximities in the European Airbus Project

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Research Questions

- 1) To what extent does geographical proximity play a role for success in innovation for Airbus Broughton and Airbus UK and Airbus SAS?
- 2) Which relational proximities – here cognitive, organisational and social proximities (Boschma) – are equally or more important?
- 3) What more generic theoretical lessons can be drawn, not only regarding individual firms, but also clusters and other interaction constellations they operate within?
- 4) What are the implications for policy making regarding the promotion of aerospace and other industries in the EU and Wales/UK?

Relationship Airbus Broughton and Airbus SAS

- **Airbus at Broughton** in Wales produces wings for all Airbus aircraft, including very large planes such as the A380
- Geographical proximities seem to play a key enabling role for the Broughton supply chain, in facilitating generation and application of tacit knowledge and in easing transport problems
- However, **Airbus SAS** operates 16 widely dispersed European manufacturing sites, and many other facilities worldwide
- Wings are designed in England; and shipped after production at Broughton to France or Germany for final aircraft assembly
- Hence, other forms of proximity might be equally or more important than geographical proximity

Wing Production at Airbus Broughton

- For several firms of the Airbus Broughton supply chain geographical proximity to Airbus appears to be crucial
- **Metal Improvement Company** and **RD Precision**, e.g., moved closer to Airbus to be able to interact more intensely and handle large wing parts, **Ellison Sensors International** achieves shorter response times
- Especially MIC and RD also share cognitive framework with and trust Airbus, and seem thus cognitively and socially proximate to OEM
- However, even the biggest wings travel far by plane, boat and lorry after leaving Broughton, in journeys sometimes lasting days
- Also, Airbus seems much more sceptical than suppliers about relevance of cognitive and social proximity to its supply chain

Wing Development and Aircraft Assembly in Airbus SAS

- Airbus wings are designed at **Airbus at Filton** in England, collaborating with Broughton in '**Centre of Excellence Wing,**' enabling regular and intense knowledge exchange
- Yet, geographical proximity plays no role with the sites located far apart, while cognitive and organisational proximities are pronounced, facilitating mutual technology learning
- Having arrived in one of the fiercely competing **Toulouse or Hamburg Airbus** assembly sites, Broughton wings are fitted into aircraft
- Economic success of international and often conflict-ridden Airbus SAS challenges the relevance of geographical and social proximity
- However, cognitive and – to some degree - organisational proximities are important as the 'glue' that keeps Airbus SAS together

Proximities at Airbus Broughton and Airbus SAS

- Geographical proximity proves quite important to several firms of the Airbus Broughton supply chain, mainly in facilitating generation and application of tacit knowledge
- However, also cognitive and social proximities as particular types of relational proximity matter, as Airbus and suppliers share common understanding of technology and trust each other
- Geographical proximity is of no significance both within the UK 'Centre of Excellence Wing' and within Airbus SAS, and conflict rather than social proximity often characterises Airbus SAS
- Yet, cognitive and organisational proximities are important to both Centre and Airbus SAS, allowing for knowledge exchange and keeping all parts of the international company together

Theoretical Lessons and Policy Implications

- Confirming recent scholarship (Boschma), the limited overall significance of geographical proximity becomes clear
- Different types of proximity coexist in a contingent manner, usually exercising their effects only in conjunction, and facilitating the flow of innovation knowledge
- Public policy making should thus not single-mindedly bet on promotion of geographically delimited cluster or similar constellations
- To promote advanced industries in the EU and Wales/UK, it might be more effective to identify the relational proximities relevant in any particular case, and help strengthening these proximities