

Department of Business, Innovation and Skills on the issue of what the UK's membership of the EU means for the UK national interest.

This consultation is part of the Balance of Competences Review

Call for Evidence Questions – Rolls-Royce response

Impact on National Interest – Research, Development and Innovation

1. EU action has had a positive impact on research, technological development and innovation in the aerospace sector in the UK.

There are many examples of this impact from aerospace programmes in the Framework programmes, especially the most recent, Framework 7 (FP7). Through the FP7 CleanSky Joint undertaking, Rolls-Royce is leading 3 large jet engine demonstrator programmes, aimed at dramatically reducing the environmental impact of aviation. Rolls-Royce is also participating in a number of the Level 1 and Level 2 collaborative research programmes in FP7. Through its policies on research & technology programmes, the EU actively encourages the participation of SMEs and the academic sector. Nearly 40% of the competed research in Clean Sky goes to SMEs. Through its involvement, Rolls-Royce has been able to encourage the participation of a number of other UK companies and universities.

EU action has also been effective in pulling together an integrated industry view of the future of the aerospace industry through ACARE, the Action Committee for Aviation Research in Europe, and a technology strategy to ensure the future competitiveness of the European aerospace industry in an increasingly competitive global market. For Horizon 2020, ACARE is recognised as the “technology platform” for the European Aviation Sector.

In Horizon 2020 new and welcome focus is brought to the Marine Sector and to Advanced Manufacturing (Factories of the Future). Both of these provide further avenues for engagement and funding of UK Companies

2. The EU has slowed the speed of innovation in nationally funded programmes through its rules on state aid. For example, for nationally funded programmes over 10million€, EU approval must be obtained, taking at least 6 months.

On other occasions, UK (BIS) interpretation of EU rules for National programmes has been more stringent and limiting than the same rules as applied to the EU's own programmes. This has penalised UK Companies in relation to the levels of funding they have enjoyed, particularly for early-stage pre-competitive research, when compare to European competitors. European allows such funding to be at 75% of full cost, whereas UK rules generally limit such funding to 50% of full costs, as for programmes which are closer to market.

3. The EU has had a positive impact on UK engagement with Japan and Canada, although due to its insistence on applying EU FP7 rules to participants from countries outside of the EU, setting up programmes has proved difficult and hence the active

engagement is limited in scale. This and asymmetry between EU and non-EU country national programmes has made real collaborative projects difficult to launch.

The EU has been ineffective in helping relationships with the US. The aerospace COOPERATEUS programme degenerated into a talking shop with the EU participants doing most of the talking and no evidence of real research cooperation. The main problem here is complete asymmetry between EU and US institutions: e.g. the FAA (Federal Aviation Authority) can fund research whereas EASA (European Aviation Safety Authority) cannot; USA has NASA as both a funding agency and a body with skills and facilities to do research whereas The European Commission Directorate for Research can only fund research and the facilities and research resources similar to NASA exist only at national level, e.g. ONERA in France, DLR in Germany, etc.

4. European Research Agency (ERA)

As industrial companies we have little or no visibility of the ERA. Since we work closely with UK national research agencies, especially EPSRC, this would suggest that national agencies and ERA have very little engagement, and few if any jointly integrated programmes.

5. The EU has established the policy instruments for all areas in FP7 through the set of rules governing participation. It is in the process of finalising the rules for Horizon 2020. It has been largely successful in these processes.

Future opportunities and challenges

6. In order to most helpfully promote scientific and technological progress, the EU could most usefully:

- Reduce the complexity of its rules
- Increase the speed of its decision making
- Increase the speed with which payments are processed for programmes
- Continue to encourage to development of Joint Technology Initiatives (JTIs)
- Allow on derogation within JTIs to allow greater flexibility of operation: e.g. monobeneficiary participation for SMEs

7. There are concerns over future EU actions around the Lisbon treaty. Industrial companies need to gain protection of the Intellectual Property (IPR) they generate through investment in R&T programmes. Hence, mooted action to force opening up IPR will have serious implications for the willingness of industry to invest in R&T in the UK and the EU. Any move towards a European position similar to the USA's Bayh-Dole Act should be strongly resisted.

8. Further enlargement of the EU could have a negative impact on aerospace R&T as any new nations joining the EU are unlikely to be major players in the aviation industry. This would be likely to be seen in reduced funding for aerospace as new nations would have primary interests in other areas of research. We have seen this already, with a level of disinterest in aerospace programmes in many of the new accession states, which has left programmes like Clean Sky appearing to benefit predominantly the established western European nations, but that will benefit all of the EU.

Rolls-Royce plc
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