Gamekeeper or poacher?

Britain and the application of State aid and procurement policy in the European Union

Glyn Gaskarth

March 2013

55 Tufton Street
London SW1P 3QL
Civitas is a registered charity (no. 1085494)
and a company limited by guarantee, registered in
England and Wales (no. 04023541)

email: **info@civitas.org.uk**

Contents

Acknowledgements

With thanks to Tamara Chehayeb Makarem and Susan Gaskarth for their support during the compilation of this report and Jonathan Lindsell for his comments and suggestions on the text.

Please note:

European Treaty Articles can change with each new Treaty. For the purpose of clarity all citations here relate to the Treaty establishing the European Community unless explicitly labeled otherwise. A list of the relevant Articles and their designation under the new Treaty on the Functioning of the European Union has been compiled by the Foreign & Commonwealth Office and is available here.

Executive Summary

EU State aid rules prevent the UK implementing a comprehensive policy to rebuild Britain's industrial base. Article 87 (1) of the EC Treaty declares, "*save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market*." EU Directives require the UK to not discriminate in favour of domestic producers in the purchase of goods or services for state entities. UK Government Ministers say any deviation from these rules is illegal and they are powerless to act.

Other EU Member States comply with EU State aid rules and act to aid their enterprises. Finland increased public expenditure on Research and Development (R&D) and used the funding to encourage cluster development in key industrial sectors, with the Prime Minister co-ordinating innovation policy. France created an investment fund to purchase stakes in vulnerable French companies to protect them from foreign takeover. Foreign investors have been required to make binding commitments to maintain French jobs and industrial capacity in order to purchase French firms, and State funding has been used to influence company decisions about where to locate manufacturing facilities.

All German political parties are committed to an industrial strategy designed to maintain German industrial competitiveness. Germany subsidises its exporters' participation in trade fairs, their access to finance, informs them of up coming commercial opportunities overseas and has its Chancellor lead frequent trade missions. German industry is supported by a quasi-public series of research institutes that benefit from government R&D subsidy.

Sweden operates an office for project exports which makes Swedish firms aware of international contracts being put up to tender by intergovernmental and foreign public bodies. Export credit policy is used to preserve domestic industry in key sectors by sponsoring deals which allow foreign buyers to pay to preserve Swedish capabilities e.g. the arms sector. The state creates/maintains a stake in commercially operated corporations to respond to market failure by providing Small and Medium Enterprise (SME) financing etc.

The Netherlands provides an export matching service to match subsidies from non-EU states to prevent domestic firms being undermined by unfair competition. They support the shipbuilding sector by funding technological upgrades in plants to keep the sector competitive. An offset policy is implemented in defence contracts to ensure foreign suppliers purchase a similar amount from Dutch suppliers. The nation's gas reserves are used to fund investment in innovation and innovation vouchers were used to promote the dissemination of this research among Dutch SMEs.

Background

UK deficit reduction targets and economic growth forecasts have been downgraded. The UK economy has not yet exceeded its previous peak output. The structural deficit will not be eliminated and debt will still be rising as a percentage of GDP in 2015. Public expenditure reductions will be greater and last longer than originally forecast. Calls for a growth plan including a UK industrial policy are growing louder. The UK Government seems unwilling to respond. Three events in the first two years of the coalition highlight their approach to investing in domestic firms' product development, regulating foreign takeovers of British firms and backing native producers through government procurement.

Lord Mandelson in the last year of the Labour administration set out plans for a more activist government economic policy in his paper '*New Industry, New Jobs*.' This included an £80 million loan promised to the Sheffield Forgemasters to build parts for new nuclear reactors. In 2010 the coalition government cancelled the loan, subsequently paying compensation to the firm for management costs incurred in devising the original plan. Business Secretary Dr Vince Cable MP declared the decision was made "*on affordability grounds*." The Labour Party left the public finances in an appalling condition. However, by this measure the UK Government indicated government investment in UK manufacturing was a secondary priority. Even in a case where the Business Secretary was on record declaring the loan represented "*good value*", it was an easy cut to make. Reports also indicate concerns were raised with Government Ministers about the loan's legality under EU law prior to the loan's cancellation.[1]

In 2010 Kraft purchased Cadbury's, an iconic British company. Kraft promised not to close the UK Somerdale factory when making this purchase. This plant was subsequently closed. The Business Select Committee said Kraft acted "*irresponsibly and unwisely*" in making the original pledge only to renege on it. Campaigners urged the government to draft a '*Cadbury Law'* to prohibit such foreign takeovers. This proposal was modeled on the '*Danone Law*' adopted in France following PepsiCo's aborted bid to buy the French firm. It prohibits the takeover of 'strategic industries' by foreign corporations. The UK government has not implemented such a law. UK firms remain vulnerable to foreign takeover as Sterling depreciates and British workers have little means of redress if foreign firms renege on promises to maintain domestic production after purchasing British firms. The Financial Times reported that about 70 per cent of UK manufacturing firms are foreign owned.[2] The Organisation for Economic Co-operation and Development recognised that "*several European countries have legislation restricting foreign takeovers; additionally, several European governments recently attempted to discourage cross-country takeovers, in sectors ranging from energy to air transportation and food*." They highlighted that "*one exception is the UK, which let foreign firms acquire its entire automotive industry and large parts of the water distribution and energy sector, sectors that are politically sensitive in many countries*."[3]

[1] The Guardian, *Secret files reveal lobbying behind axeing of Sheffield Forgemasters loan*, July 2010
[2] Financial Times, *Special Report, Manufacturing in North West England*, Tuesday March 2 2010, p.1
[3] OECD, *Policy Roundtables: Competition Policy, Industrial Policy and National Champions* 2009, pp.12, 33

The UK Growth Review contains an 'aspiration' for 25 per cent of government contracts to go to SMEs. However, cost appears the primary concern in contracting at a national level. In 2011 the government awarded the £1.4 billion contract to build 1,200 rail carriages for the Thameslink service to Siemens, who will build them in Germany. Bombardier shed 1,000 temporary UK workers in response. Labour Party MP Margaret Beckett requested the government require the companies to retender. Phillip Hammond MP responded on behalf of the government, "*The procurement was carried out under the terms of the EU directive, and the Siemens bid offered the best value for money on the criteria for appraisal set out in the original competition that the previous Government launched. We have to comply with EU law, and I do not have the power that she suggests I have [the power to require firms to retender]*."[4] Theresa Villiers further clarified the government stance in a later debate, "*even if we had designed the criteria, it remains the case that we could not have made the location of the manufacturing process a condition of successfully achieving the contract; that is simply not permitted by EU law*."[5]

These three cases indicate a clear government line ruling out potential core elements of a UK industrial policy. The UK government will procure primarily on the basis of cost with no bias towards native producers. The UK government will not pick winners or subsidise native firms to develop new product lines. Foreign companies can purchase UK firms without making substantive promises to preserve UK jobs and can renege on any promises made with impunity. Government sources indicate this approach is mandated by EU State aid and procurement law. Britain benefits from the EU common market and must apply its rules.

But do our European competitors follow this approach? What do EU State aid rules allow? Is there scope to reform these laws to allow the government to pursue a more activist policy? Which forms of State aid have been proven to increase economic growth and how would we fund their adoption? How do other EU members legislate to protect their firms from foreign takeover? This report will aim to provide some clarity on the existing EU State aid and procurement rules. It will highlight the recent EU Commission moves to begin a debate on these measures.

[4] House of Commons Deb, 23 June 2011 cc466-467
[5] House of Commons Deb ,12 July 2011 c22WH

Introduction

In our first report in this series, *Growing Pains: How to restore economic growth and rebalance the UK economy*, I explored the government's Growth Review, the economic proposals made by a broad cross section of UK think tanks, trade unions and business representative groups, the approach of three states that had returned to economic growth, and developed fifteen proposals to restore the UK to economic health. In this second report I will outline where and how the UK is allowed to apply State aid to benefit domestic production and where this is banned. The report is divided into three chapters.

In chapter one, we will explore what the EU State aid and procurement laws allow and require. What constitutes State aid and which types of State aid are permissible? What can government and local councils legitimately consider when procuring goods or subsidising consumer choices?

In chapter two, we will review the policy approach of five EU states, examining the types of State aid they offer and how this aid has contributed to building their economic strength. We will explore the policies implemented by Finland, France, Germany, the Netherlands and Sweden.

In chapter three, we will explore specific sectoral weaknesses in the UK economy and the current legal situation.

This report challenges the coalition government to consider a more activist economic policy to build a high skilled, more balanced UK economy. An activist economic policy does not necessitate a bigger state; it can make a better one, helping to reduce debt and increase economic growth. For a philosophical defence of industrial policy please consult '*A strategy for economic growth: a modern industrial policy*' by David Green, Director of Civitas.

Chapter One:
The EU State aid and procurement rules

What is State aid?

Even with clear restrictions and an enforcement process more effective than other comparable trading arrangements, "*approximately €52 billion, or 0.42% of EU GDP, was granted by member states in the form of state aid in 2010, according to Commission figures*."[6] The EU definition of State aid is contained in Article 87 (1) of the EC Treaty, which declares, "*Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market*." So State aid applies where a policy meets the following conditions: it "*is financed directly or indirectly through State resources; it confers an economic advantage to undertakings exercising an economic activity; the advantage is selective and distorts or threatens to distort competition; and it has an effect on intra-Community trade*."[7] If a policy does not meet all these conditions it is unlikely to be State aid.

Actions by a Member State include those of organisations founded by the state and those funded by the state including regional governments and quangos etc. EC law requires that, for a measure to constitute State aid, it must correspond to government expenditure (i.e. a cost to the granting government). This is referred to as the requirement of a '*charge on the public account*'. The seminal case establishing this requirement is the Sloman Neptun case. In that case, the European Court of Justice examined a measure enabling certain shipping undertakings flying the German flag to subject non-EU seafarers to working and pay conditions less favorable than those applicable to German nationals. The Court refused to consider such a measure as State aid and affirmed that only advantages that are granted directly or indirectly through State resources are to be regarded as State aid within the meaning of Article 87.

The OECD describes some of the forms of State aid that nations can use in their industrial policies. These include "*government procurements, exemptions from antitrust laws, regulatory barriers to competition, access to credit, arranged mergers and acquisitions,*

[6] Pinsent Masons, *European Commission to propose changes to state aid rules by summer*, February 2012
[7] EU Competition Policy Newsletter Articles, Number 3, *Public Procurement and State aid control – the issue of economic advantage*, Nóra TOSICS and Norbert GAÁL, 2007, p.15

control of acquisitions of national companies by foreign investors, easy access to commodity resources and the products of monopolist companies. National champions may be created or protected in a number of ways, such as by the granting of state aid, the encouragement of domestic mergers, or the opposition to a takeover of a domestic company by a foreign company."[8] Paul Craig and Grainne De Burca in EU Law Text, Cases and Materials describe some of the forms State aid can take, including "*Direct subsidies, tax exemptions, exemptions from parafiscal charges, preferential interest rates, favourable loan guarantees, the provision of land or buildings on special terms, indemnities of fiscal or social contributions and dividend guarantees*." The European Court of Justice adds that State aid includes the supply of goods or services at a reduced rate. Each of these actions could qualify as aid granted by a Member State.

State resources are also involved in cases where tax revenues are foregone and where pecuniary advantages are acquired for an undertaking (could include debts deferred), even at no loss to the state. Tax advantages may take many forms including "*permanent or temporary exemptions (fiscal holidays), tax credits, reduced tax rates, reduced taxable base, accelerated depreciation, favourable rules allowing loss carry-overs, deferment or rescheduling of fiscal debt, be it unilateral or by virtue of a transaction, other payment facilities, negligence in the collection of taxes, fiscal amnesty and, more generally, the attribution to the tax administration of a discretionary power that goes beyond the simple management of tax revenue by reference to objective criteria*."[9]

What forms of aid are permitted?

States are free to intervene in the market if they follow the **Market Economy Investor Principle (MEIP).** This requires that government support granted to an enterprise would also be granted on the same terms and in the same conditions by a private investor. If so this support is allowed. When investing in a firm the state must have some interest in the long term profitability of the firm - it cannot simply be to bail the firm out of current difficulties or the payment will constitute State aid and need to conform to the restrictions on rescue and restructuring aid.[10] This also applies to the state acquiring capital holdings in businesses.[11] General economic measures such as interest rate policy and quantitative easing are not deemed to be aid,[12] although by affecting the value of the national currency they can affect the competitiveness of national industry. The European Treaty Establishing the European Community explicitly permits particular forms of State aid which are listed in the table overleaf.

[8] OECD, *Policy Roundtables: Competition Policy, Industrial Policy and National Champions 2009*, p.11
[9] Cameron May Ltd, *The EC State Aid Regime: Distortive Effects of State Aid on Competition Trade*, 2006, p.76
[10] Case C-142/87, Re Tubemeuse: Belgium v Commission [1990]
[11] Case 323/82 Intermills SA v Commission [1984]
[12] Case C-143/99 Adria-Wien

What does this mean for state entities looking to grant aid?

State aid is permitted if it existed prior to the Treaty, is approved under Article 87 (3) EC Treaty pursuant to a community objective, notified to the Commission pursuant to Article 88 (3) EC Treaty but the Commission has taken no action within the required time period, or the aid did not count as aid when it was extended but has become so due to the evolution of the common market. If the State aid rules apply, public authorities need to ensure one of the following applies or they will be breaking the law:

- The spending operates within an existing UK scheme approved by the European Commission or
- The spending meets the terms of a State aid "Block Exemption" (in particular the SGEI Decision) or
- The proposed aid is notified to and approved by the European Commission before the money is spent.

Government entities need to determine if their action is an economic activity, if it constitutes State aid, if so whether the form of State aid is permitted and if so how Government bodies are required to conduct the procurement process. Failure to comply with any of these steps can result in the aid being declared illegal, the aid being terminated, compensation awarded and any aid payments already made having to be recovered.

European Treaty Establishing the European Community - Article Number	**Description of the form of State aid permitted by the Article**
Article 87 (2) (a)	"*Aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned*"
Article 87 (2) (b)	"*Aid to make good damage caused by natural disasters or exceptional occurrences*"
Article 87 (2) (c)	Makes provision for Germany to compensate for the economic disadvantage caused by the prior division of their country.
Article 87 (3) (a)	"*Aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious under-employment.*" The problem must be serious and this will be judged in a European Community, not a national context.[13] The European Commission has published criteria on the development of regions compared to the community average.
Article 87 (3) (b)	"*Aid to promote the execution of an important project of European interest or to remedy a serious disturbance in the economy of a Member State.*" The Commission requires such aid to be "*part of a*

[13] Case 730/79 Phillip Morris Holland BV v Commission [1980]

	transnational European programme supported jointly by a number of governments of the Member States" or the product of "*concerted action by a number of Member States to combat a common threat such as environmental pollution*."[14]
Article 87 (3) (c)	"*Aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest*." The purpose must be to develop a particular sector or region and not a specific undertaking or product line.[15]
Article 87 (3) (d)	Aid to promote culture and heritage conservation may be compatible with the common market where it does not affect trading conditions and competition.
Article 87 (3) (e)	Provides that other categories of aid may be specified by the decision of the Council acting by a qualified majority on a proposal of the Commission may be compatible with the common market.

What constitutes an economic activity?

The Department for Business, Innovation and Skills defines an economic activity using "*a test of whether there is a competitive market for the delivery of the service. If a service is monopolised by a state body or a charity and run on a non-commercial basis as a function of the state, it is unlikely to be economic*." Economic activity is defined as any activity which consists of offering goods and services on the market. Regulatory and public functions are not economic, e.g. funding a planning department or the police. If the activity is not economic then State aid rules will not apply and it is permitted.

Economic activity does not require that a profit be generated and the definition can vary between states, regions and local authorities and over time. For instance, with household waste collection, BIS declare that, "*Most probably it is economic in those localities which have chosen to embrace competitive supply, but not in those localities which have retained a state monopoly of in-house service provision.*" If the activity is economic the state needs to determine if the payment to the service provider is *"entirely commercial procurement or whether it is possible that there is an element of subsidy in the finance*."

State aid is present if the state pays a market price for the goods but "*public intervention in the market is superfluous for achieving the social or environmental goal and is simply designed to provide support to a local supplier of goods or services*." If the service would be provided by the market in the absence of this purchase, or the purchase is made in a non-competitive process, or at an inflated price or includes the purchase of superfluous products, subsidy will be present. There can be legitimate reasons to subsidise a commercial activity.

[14] Case 62 and 72/87 Executif Regional Wallon and Glaverbel SA v. Commission [1988]
[15] Ibid, Case 323/82, Intermills SA v Commission [1984]

Subsidy can provide lower prices, wider access or higher standards but these acts will likely constitute State aid and need to comply with EU State aid rules.

What constitutes economic advantage?

Any advantage *"which the recipient undertaking would not have received under normal market conditions"* qualifies as economic advantage. In the London Underground Private Partnership case the Commission decided that *"when these types of infrastructure arrangements are concluded after the observance of an open, transparent and non-discriminatory procedure, it is, in principle, presumed that the level of any market sector support can be regarded as representing the market price for the execution of the project. This conclusion should lead to the assumption that, in principle, no State aid is involved."* Services of General Economic Interest (SGEI) "*are economic activities that public authorities identify as being of particular importance to citizens and that would not be supplied (or would be supplied under different conditions) if there were no public intervention. Examples are transport networks, postal services and social services*." In cases of SGEI, compensation for all providers of an individual SGEI must be calculated the same way. The calculation should be done on the basis of the net avoided cost methodology, used under the Postal and Telecommunications Directives. This methodology says the cost of the SGEI must be *"calculated as the difference between the net costs of the undertaking operating the SGEI and the net costs of the same undertaking but without the SGEI entrustment. This methodology provides a better estimate of the economic burden of the public service obligation."* Efficiency incentives must be built into the contract but suppliers can retain some of the gains made as additional reasonable profit.

What constitutes a distortion or threat of distortion of EU trade?

EU competition law does not mandate that services be performed in house or contracted out or how they are funded. It does not force states to create competitive markets in health, social or waste disposal services. However, states are not free to distort existing competitive markets with subsidies and cannot distort intra-community trade. If no such market exists they are not obliged to create one but if large firms compete in a market sector, or foreign companies might choose to set up in the UK to compete in our market, any measure could distort trade. A Europa report stated that, "*In practice, the European courts have unfortunately set the bar extremely low for those seeking to prove that a subsidy has an impact on intra-community trade*."

What spending comes under the Block Exemption Regulations?

State aid rules could cover all items of state expenditure, exhausting the Commission's capacity to enforce these rules. To allow focus on the most distortive forms of State aid and to permit State aid which conforms to the policy aims of the European Union, the

Commission has created three main Block Exemptions to State aid regulations. These are; the 'de minimis' rule, the General Block Exemption and the SGEI Block Exemption.

The **de minimis** rule "*allows for aid of up to €200k to be provided to any undertaking regardless of size, so long as the enterprise has not received de minimis aid from any other source in the last three years which would result in the total de minimis aid to that company exceeding the threshold*."[16] The aid cannot be given to road hauliers, farmers or export related activities. There is no requirement to inform the Commission but the companies must keep records for ten years. The state must ensure that aid from multiple state entities does not exceed the threshold when combined.[17]

The **General Block Exemption** lists 26 different exemptions for State aid. It authorises aid to SMEs including research, innovation, regional development, training, employment, risk capital, environmental protection and measures promoting entrepreneurship including aid for young innovative businesses, newly created small businesses in assisted regions and measures to help female entrepreneurs.[18] Aid schemes under this regulation must be registered with the European Commission within twenty days of implementation. The European Commission suggests "*the fact that a service contributes to the economic development of the region or increases employment will almost certainly not be enough*."[19] Nicholas Moussis writes, "*A new General Block Exemption Regulation (GBER) of the Commission consolidates into one text and harmonises the exemption rules previously existing in five separate Regulations, and enlarges the categories of state aid fulfilling the conditions of compatibility outlined in Article 87(3) of the EC Treaty*".[20]

Services of General Economic Interest (SGEI) as defined on page twelve. The European Court of Justice ruling in the Altmark case 2003 identified the SGEI criteria (see table below).

	Criteria to qualify as a Service of General Economic Interest
1	*The recipient undertaking must have public service obligations and the obligations must be clearly defined;*
2	*the parameters for calculating the compensation must be objective, transparent and established in advance;*
3	*the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of the public service obligations, taking into account the relevant receipts and a reasonable profit;*

[16] Europa Consultation, European Commission, November 2010
[17] Official Journal of the European Union, *COMMISSION REGULATION (EC) No 1998/2006 of 15 December 2006 on the application of Articles 87 and 88 of the Treaty to de minimis aid*, December 2006
[18] European Commission, *Commission Regulation (EC) No 800/2008*, August 2008
[19] European Commission, *Guidance on how the state aid rules impact upon funding for the delivery of public services including services of general economic interest (SGEI)*
[20] Europedia, *EU state aid policy in the crisis situation*

4	*where the undertaking which is to discharge public service obligations is not chosen pursuant to a public procurement procedure which would allow for the selection of the tenderer capable of providing those services at the least cost to the community, the level of compensation needed must be determined on the basis of an analysis of the costs of a typical well-run company*.

If one or more of these conditions was not met the aid would need to be examined under State aid criteria. The state should choose the tenderer that is capable of providing services "*at the least cost to the community*." Overly generous compensation of private suppliers could allow cross subsidisation of their other activities to distort the private market. Establishing there has been no overcompensation requires a fair and transparent procurement process. A public service assignment designed to establish this is called an entrustment act. Entrustment of the undertaking of the SGEI to the recipient must be by means of primary legislation, a contract or a Ministerial letter and this must outline the public service obligations and their duration, what is to be supplied and the quality, the territory and undertakings required, any exclusive or special rights assigned to the undertaking, parameters for calculating, controlling and reviewing the compensation and the arrangements for avoiding and repaying any overcompensation. Records must be kept for ten years and regular checks must be made to ensure no overcompensation is paid.

In 2005 the European Commission adopted new State aid rules regarding Services of General Economic Interest (SGEI). These included:

- "*a* ***Decision****, which provided that public service compensation, below certain amounts and fulfilling certain conditions, could be considered compatible with Article 106(2) TFEU, and therefore were exempt from the obligation to ex ante notification to the Commission under Article 108 TFEU;*
- *a* ***Community Framework*** *outlining the Commission's approach to cases falling outside the scope of the Decision and therefore subject to the notification obligation and Commission assessment; and*
- *an amended* ***Directive*** *on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings, setting the basic rules for separation of financial accounts between SGEI and other activities performed by the same undertaking*."

This means that services which conformed to the criteria would be exempt from the requirement of prior notification to the Commission. These include those "*meeting social needs as regards health and long term care, childcare, access to and reintegration into the labour market, social housing and the care and social inclusion of vulnerable groups*." Those services not meeting the exemption need to comply with the SGEI Framework, which stipulates the rules for awarding compensation to operators outside the social services field, and the transparency directive, which stipulates that the contracting authority must annually publish the entrustment act and details of the aid involved. All firms tendering for SGEI need to have separate financial accounts for the SGEI provided. This is to ensure providers do not use profit made on SGEI services to cross subsidise their activities in private competitive markets.

For example, "*Deutsche Post (in 1990s) was an SOE active on two very different markets. On the one hand, it handled letter mail monopoly in Germany, at government-regulated prices, providing a government-regulated public service. On the other hand, Deutsche Post was active on the business parcel delivery market, which was open to competition, in particular that from United Parcel Service (UPS), Federal Express, and other private companies. UPS complained to the European Commission that Deutsche Post was using letter mail monopoly profits to subsidise the sale of its parcel delivery services at below-cost prices. In March 2001, the EC found that for five years Deutsche Post failed to cover incremental costs in its pricing of parcel delivery service, thereby abusing its dominant position*."[21]

In 2011, following a public consultation, the European Commission sought to further clarify the application of the 2005 SGEI rules and allow for "*Simplification for small-scale public services of a local nature with a limited impact on trade between Member States and for certain social services*" and a new focus on "*efficiency and competition considerations in the treatment of large-scale commercial services with a clear EU-wide dimension*". Member States have discretion in defining a SGEI but the activity must be in the interest of the whole of society. The Department for Business, Innovation and Skills suggest that a service that benefits a small group would "*probably not qualify unless they had special needs*." Services to businesses alone do not qualify as SGEI and addressing local market failures would not be in compliance if the public can source the service elsewhere. A public service organisation cannot be declared for a service area that is or could be provided "*under conditions, such as price, objective quality characteristics, continuity and access to the service, consistent with the public interest, as defined by the State*." The Commission retains the authority to investigate activities defined by states as SGEI to see if they have made an error in designating services as SGEIs.

What thresholds apply to the Block Exemptions?

A Block Exemption applied to providers receiving annual aid for a service of general economic interest (SGEI) of less than €30m given to undertakings whose annual turnover in the last two financial years was less than €100m. There is no threshold with regard to health or housing services provided they are carrying out an SGEI. The European Commission increased the *de minimis* ceiling for local social services from €200,000 to €500,000. Economic support for transport links to outlying or less developed areas is also allowed, including compensation for ports and airports where annual average traffic in the last two

[21] OECD, *Policy Roundtables: Competition, State Aids and Subsidies 2010*, p.24

financial years does not exceed one million passengers in the case of airports and 300 000 passengers in the case of ports.

SGEI not covered by the exemption from notification need to inform the Commission if they exceed the *de minimis* threshold below which the level of compensation does not constitute State aid. There is a higher threshold due to the extra costs an SGEI has under the public service obligation. "*For the remaining SGEI, the notification threshold of the Decision has been lowered to EUR 15 million of compensation per SGEI, while the threshold for the turnover of the undertaking has been eliminated*."

What State aid can EU members use to provide R&D support?

The European Commission's Community Framework for State aid for research and development includes a "*matching clause*" which allows EU Member States to match aid provided by non-EU Member States for research purposes. Research and Development is "*the only sector in which the existing (and proposed new) Commission State aid rules explicitly envision the granting of matching aid*."[22] EU firms can exceed the maximum intensity of 50 per cent subsidy for firms' R&D expenses where non-EU competitor firms can be shown to have benefitted from R&D subsidy in excess of what the EU would allow in the previous three years.[23] The Europe 2020 Strategy aims to increase Community wide R&D expenditure to three per cent of GDP by 2020.

What aid can EU members grant to their deprived regions?

Regional aid is permitted within the areas agreed with the EU. The European Court of Justice has held, "*The use of the words 'abnormally' and 'serious' in the exemption contained in [Article 87(3)(a)] shows that it concerns only areas where the economic situation is extremely unfavourable in relation to the Community as a whole*." Members have agreed an approved regional aid map for each Member State concerned for the period 2007-2013. From 2000-2006 the UK had regions accounting for 28.7 per cent of its population eligible for regional aid under derogations Article 87 (3) (a) and Article 87 (3) (c). In 2007 -2013 the UK designated regions equivalent to 23.9 per cent of the UK population.[24] British Areas covered under Article 87 (3) (a) included Cornwall & Isles of Scilly, West Wales and the Valleys and the Highlands and Islands, covering 4.6 per cent of the population with the remaining 19.3 per cent of the population subject to State aid falling under Article 87 (3) (c). The UK's ability to provide regional aid has reduced at a time of expanding regional economic differences. The regions were chosen on the basis of the employment rate, adult skills at Level 2 or above, incapacity benefit claimants and the manufacturing share of employment.

[22] European State Aid Law Quarterly, *The interface between EU state aid control and the WTO Disciplines on subsidies*, Claus-Dieter Ehlermann and Martin Goyette, EStAL 4/2006, p.716

[23] European Commission, *Innovation and Industrial Policy for key enabling technologies in Europe – Findings for micro-/nanoelectronics and industrial biotechnology*, Sven Wydra, October 2011

[24] European Commission, *State aid N 673/2006 – United Kingdom Regional aid map 2007-2013*, 2006, p.2

The total population coverage of assisted regions had to be "*substantially less than that of unassisted regions*" within the European Community. Aid can take many forms including: "*Grants, low-interest loans or interest rebates, state guarantees, the purchase of a share-holding or an alternative provision of capital on favourable terms, exemptions or reductions in taxes, social security or other compulsory charges, or the supply of land, goods or services at favourable prices*."

Significant restrictions apply to aid disbursals. To limit competition distortion with surrounding regions, "*the Commission will not approve aid for investments by large companies in these areas, or aids for investments with eligible expenses exceeding EUR 25 million*." Aid can only be granted if a beneficiary applies for aid and the beneficiary must provide a quarter or more of the costs itself from non public funds, either commercial loans or firm resources. Aid payments must build long term capacity so there must be "*conditions attached to the aid, or its method of payment, on the maintenance of the investment in question in the region concerned for a minimum period of at least five years after its completion. In addition, where the aid is calculated on the basis of wage costs, the posts must be filled within three years of the completion of the works*" and maintained for five years in the region (three years for SMEs). Countries should desist from granting aid to firms except under "*a multi-sectoral aid scheme which forms an integral part of a regional development strategy with clearly defined objectives.*"[25]

What aid is permitted for SMEs?

Aid for consultancy for SMEs and for their participation in trade fairs such as renting, manning and setting up stands is permissible. Aid in the form of risk capital in favour of SMEs is compatible with Article 87 (3) and is exempt from the notification requirements of Article 87 (3) provided the risk capital is part of a profit-driven equity investment fund managed on a commercial basis. Seed capital and start-up capital can be provided in non-assisted areas but seed capital, start-up capital and expansion capital can be provided in assisted areas. 50 per cent of the capital should come from private investors or 30 per cent in assisted areas. A business plan should establish the viability of the project and there should be a clear exit strategy for each investment and 70 per cent of the investments should be in the form of equity. The limit on investment is €1.5 million for a year.

Can states provide restructuring and rescue aid to firms?

The European Commission allows states to provide restructuring aid to firms in difficulty, but only *"in circumstances in which it can be demonstrated that it does not run counter to the Community interest. This will only be possible if strict criteria are met, and if it is certain that any distortions of competition will be offset by the benefits flowing from the firm's survival (for instance, where it is clear that the net effect of redundancies resulting from the*

[25] Official Journal of the European Union, *Guidelines on National Regional Aid for 2007-2013*, C54/13

firm's going out of business, combined with the effects on its suppliers, would exacerbate employment problems or, exceptionally, where the firm's disappearance would result in a monopoly or tight oligopolistic situation) and that, in principle, there are adequate compensatory measures in favour of competitors."[26] The Directorate General for Competition's Economic Advisory Group on Competition Policy applies two considerations in its 2008 commentary on the Rescue and Restructuring Aid Guidelines:

- what would happen to the firm's assets if no aid were granted?
- what would the social implications be for the locality of any sudden loss of jobs?

The firm must qualify as a '*firm in difficulty'*, and for that the firm's difficulties must be so severe that they "*almost certainly condemn it to going out of business in the short or medium term*".[27] A firm must have lost half its capital or more and at least a quarter of this must have been in the prior 12 months. Beneficiaries of this aid should be required to commit their own resources to the plan. The firm is only eligible if it has no access to alternatives to State aid. Attempts at private sale must have been unsuccessful. The firm must "*demonstrably*" be unable to "*recover through its own resources or with the funds it obtains from its owners/shareholders or from market sources*." A predetermined minimum threshold for private co-financing of the restructuring is introduced (the so-called significant own contribution). Firms that receive this aid also need to make compensatory moves to redress the distortion of competition such as reducing output or divesting assets etc. Effects on regional capital of the closure of high value manufacturing and its replacement with low value retailing can also be considered. With regard to employment, the EAGCP recommends: "*in as much as employment is expected to fall in a local area, it is necessary to identify re-employment and mobility prospects. All economic progress requires change, so the counterfactual should identify why this situation would be particularly inequitable. Evidence should include local unemployment rates, lack of success in local job creation and relative weakness of employment and regional policies*." Finally, the benefits flowing from survival should be greater than the distortion to competition.

To be provided with rescue aid the firm must show that it is unable to raise private funds or is without the resources to prevent going out of business in the short to medium term. Aid must be dependent on the level of unemployment that firm closure would bring. Aid must be accompanied by a restructuring or liquidation plan within six months of receiving the aid or the firm must fully pay back the loan in this time and the guarantee must be terminated. The aid given must not exceed the amount necessary to keep the firm operational for the period the aid is authorised for, which must not exceed six months. The '*One time, last time*' principle ensures a firm that has received rescue or restructuring aid cannot receive further aid within ten years under these programmes.

---

[26] European Commission, *Should aid be granted to firms in difficulty? A study on counterfactual scenarios to restructuring state aid*, December 2009, p.6
[27] European Commission 2004

What aid is permitted to promote exports?

Government-backed export credits are allowed under EU rules. However they have to conform to the OECD guidelines on officially supported export credits, which have been transposed into EU law. The European Commission has set out the rules on State involvement in short-term export credit insurance, in the form of a communication of the Commission to the Member States applying Articles 92 and 93 of the EC Treaty (the "Communication") established in 1997 and subsequently amended. If a risk is marketable, Member States cannot include it in the export credit guarantee insurance it offers through subsidised lenders. Export Credit Agencies are "*permitted to provide short-term export credit insurance facilities for SMEs (in effect such business can be regarded as non-marketable) where the export turnover is less than EUR 2m*."[28] Which risks qualify as marketable differs between Member States, partly depending on the range and quality of their financial institutions. Services offered by Member States differ widely. In France, Germany, the Netherlands and Spain, "*private companies underwrite some of their business on state of government account*," some provide political risk insurance alone while others include commercial risks, some provide financing services, some provide short term credit while others provide medium and long term credit. The Export Credit Agency is a government department in the UK, a government-owned bank in Austria and a private company with part government ownership in Belgium, Italy and Spain.

How does the notification process work?

Article 88 (3) stipulates the need for prior notification of the intention to award State aid. Notifications must be made through BIS. There is a '*standstill obligation*' which means that a country that feels it is taking economic action that could be contrary to the rules on State aid must alert the Commission and seek approval. Before the Commission will approve State aid the aid beneficiary must show how the aid contributes to the Community Objectives as contained in Article 87 (3). The Commission will review with regard to Article 87 and the Member State cannot award any aid until two months have passed. If there is no word from the Commission they can proceed and inform the Commission. In some cases the Commission will proceed to a fuller investigation and companies in competition with the entity receiving the State aid have the right to be consulted and can comment. If the Commission cannot approve aid under Article 88 (3) they can require the state to alter or abolish the aid within a set period of time under Article 88 (2) and if the state fails to comply, the Commission can refer the matter to the European Court of Justice under Articles 226/227.

BIS reveal that "*the Commission typically takes 4-6 months to make a decision and in especially tricky cases, it can take up to 2 years. The notification process is also*

[28] European Commission, *Study on short-term trade finance and credit insurance in the European Union*, Prepared by International Financial Consulting Ltd, February 2012, p.25

administratively burdensome, requiring authorities to draw up a notification and provide supporting evidence to justify its proposed action."[29] Member States can apply to the European Council directly under Article 88 (2), Paragraphs 3 and 4, which can in turn decide unilaterally that the aid awarded, or to be awarded, is permissible in derogation from Articles 87 and 89 due to "*exceptional circumstances*."

Can states introduce regulations to favour their domestic producers?

In theory this is illegal. Article 28 EC Treaty prohibits "*quantitative restrictions on imports and all measures having equivalent effect*" and Article 29 applies the same provisions to exports. The Dassonville formula defines measures having equivalent effect as: "*All trading rules enacted by member states which are capable of hindering, directly or indirectly, actually or potentially, intra-Community trade*." They "*are to be considered as measures having an effect equivalent to quantitative restrictions*." Measures taken by a Member State include, "*The activities of any public body, legislative, executive or judicial, or even a semi-public body, such as a quango, exercising powers derived from public law*." The state need not finance the body for it to be covered. Bodies formed by statutory instruments and funded by private individuals paying levies under a statutory obligation have been held by the ECJ to be subject to Article 28.[30]

Initially the courts applied a very broad interpretation of these rules. 'Buy British' campaigns may be covered whether or not they resulted in any change in consumer behaviour as long as they had the potential to do so. A 'Buy Irish' campaign which included government sponsorship of a 'Guaranteed Irish' symbol operated by the Irish Goods Council, a government sponsored body, was deemed illegal as the European Court ruled "*the potential effect of the campaign on imports from other Member States is comparable to that resulting from government measures of a binding nature*."[31] A rule can apply equally to both domestic firms and those from other EU states but can be found to have equivalent effect if it adversely affects the foreign firm. Fixing minimum prices is within Article 28's scope if the price is so high an importer cannot take advantage of fact their product is cheaper because it has lower production costs.[32] Rules that allow consumers to exercise a prejudice against imported goods can also be found illegal under Article 28 including requiring all items to be marked showing their national origin.[33] Inaction by a Member State against non state actors within their borders enforcing protectionist policies can also be punished. Producers in some European countries show a marked tendency to demonstrate against imports, with French farmers being particularly aggressive, sometimes blocking ports. France was found guilty of taking

[29] Department for Business, Innovation and Skills, *How the state aid rules impact upon funding for the delivery of Public Services including Services of General Economic Interest Guidance Notes*, October 2009, p.8

[30] Case 222/82 Apple and Pear Development Council v K J Lewis Ltd (1983)

[31] Case 249/81 Commission v Ireland (Buy Irish Campaign) (1982)

[32] Case 82/77 Openbaar Ministerie v van Tiggele (1978)

[33] Case 207/83 Commission v United Kingdom (re Origin Marking) (1985)

insufficient action to allow the free movement of agricultural products from other Member States in 1997.[34] States cannot informally sanction state aid through negligence.

More recently the European Court of Justice applied a stricter interpretation which allowed more national discretion. In Case C-145/88 Torfaen Borough Council v B&Q plc (1989), a two stage test was devised. Does the rule pursue an aim which is justifiable under Community law and is it proportionate to achieve that aim? In Case C-267, 268/91 Keck and Mithouard (1993), the Court acknowledged the need to "*re-examine and clarify its case law*" in light of the number of cases challenging national laws not aimed at affecting state trade. They decided that "*contrary to what has previously been decided Article 30 (now Article 28) will not be infringed by national rules relating to certain selling arrangements that apply in the same manner, both in law and in fact, to all traders within the territory*." For instance, EU members can now legislate to require private entities to purchase particular items without state resources being involved with the actions to be permissible under State aid rules. The ECJ has held that "*legislation forcing private regional electricity suppliers to purchase electricity produced from renewable energy producers in their area of supply at fixed (and therefore above-market) minimum prices did not constitute State aid. The Court found that the measure in question, while conferring an economic advantage on renewable energy producers, [did] not involve any direct or indirect transfer of State resources to undertakings which produce that type of electricity*."[35]

Article 28 (formerly 30) also contains specific derogations. These allow a nation to restrict exports, imports and goods in transit if the restrictions are of a non-economic nature and for the purpose of public morality, public policy or public security including the protection of health and life of humans, animals or plants, the protection of national treasures with artistic, historic or archaeological value and the protection of industrial and commercial property. These derogations are strictly policed. The action needs to be proportionate to the aim otherwise the Commission can order recovery of illegal aid.

What is the punishment for non compliance with State aid rules?

In 1973 the Court of Justice of the European Communities (ECJ) declared the Commission can order countries to recover unlawful State aid. However it was only after 1983 that this principle was enforced. Enforcement was still limited and the principle had to be reinforced in 1989. Since 1995 State aid laws are enforced by national courts. National courts have the power to interpret whether State aid has been given. National Competition Authorities are also expected to enforce State aid law. Failure to notify the Commission can mean the Commission can suspend such aid or require its recovery to prevent irreparable damage to a competitor. While appeals can be made under Article 230, the European Court of Justice will

---

[34] Case-265/95 Commission v France (1997)

[35] European State Aid Law Quarterly, *The interface between EU state aid control and the WTO Disciplines on subsidies*, Claus-Dieter Ehlermann and Martin Goyette, EStAL 4/2006, p.699

not usually challenge the Commission's policy decisions. 88 per cent of aid is not individually examined by the Commission, but is granted on the basis of previously approved aid schemes or block exemption regulations (BERs and GBERs). However, one third of aid granted under a Block Exemption was reviewed by the Commission in 2011/12.[36]

The Lisbon Agenda and the Europe 2020 Strategy

In March 2000 EU Member States agreed the Lisbon Agenda at a European Council meeting. This aimed to make the EU '*the most competitive and dynamic knowledge-based economy*' in the world. The aims of the Agenda included: increasing the average economic growth rate to three per cent per annum, raising the employment rate to 70 per cent by 2010 and the creation of a single market in services. The European Commission in its Lisbon Agenda revealed its preference for Horizontal as opposed to Vertical State aid. Member States were to "*further their efforts to … reduce the general level of State aid, shifting the emphasis from supporting individual companies or sectors towards tackling horizontal objectives of Community interest, such as employment, regional development, environment and training or research."*[37] State aid rules were to be used to "*encourage Member States to contribute to the Lisbon Strategy by focusing aid on improving the competitiveness of EU industry and creating sustainable jobs (more aid for R & D, innovation and risk capital for small firms), on ensuring social and regional cohesion and improving public services*."[38] A scorecard was launched by the Commission in July 2001 to benchmark EU Member States' progress in achieving the Lisbon Agenda. In 2005 the European Council rejected the Services Directive, a key component of the Lisbon Agenda. This aimed to create a free market in services for the EU. Controversy centered on the '*country of origin principle*' which would allow firms to compete in other EU Member States abiding by the rules of their home country, effectively undermining competitor firms in states with high regulatory barriers. The Directive was subsequently weakened and adopted in 2006 and came into affect in December 2009. In 2009 Swedish Prime Minister Fredrik Reinfeld declared that "*it must be said that the Lisbon Agenda, with only a year remaining before it is to be evaluated, has been a failure*" and that "*a review and new start to EU's Lisbon strategy is necessary*".[39].

The Europe 2020 strategy replaced the Lisbon Agenda in June 2010. This strategy aims to raise the EU employment rate from 69 per cent to 75 per cent, reduce school drop-out rates to less than 10 per cent, reduce the number of Europeans living in poverty by 25 per cent, reduce greenhouse gas emissions by 20 per cent compared to 1990 levels (or by 30 per cent if the conditions are right), ensure 20 per cent of total energy consumption is provided by renewable energy, increase energy efficiency by 20 per cent and ensure 3 per cent of the EU's GDP is invested in Research and Development by 2020. States must develop 'national reform

[36] European Commission, *Commission Staff Working Paper – Autumn 2012 Update*, December 2012
[37] European Commission, *European Commission Scorecard*
[38] European Commission, *Competition Aid: State Aid: Commission outlines comprehensive five year reform of state aid policy to promote growth, jobs and cohesion*, June 2005
[39] EurActiv.com, *Sweden admits Lisbon Agenda 'failure'*, June 2009

programmes' showing how they will meet these aims. These are submitted to the EU Commission, and evaluated by the European Council on an annual basis. Joaquín Almunia, Commissioner responsible for Competition, declared aid should "*actually change behaviour*" and not subsidise business as usual. He mentioned "*the car industry, for instance, where the public purse should support research and innovation*"[40] and stated "*it is this kind of aid that will help efficient companies grow stronger, inefficient ones be replaced and innovative businesses come to life. I want to encourage our member states to proceed along this road*." He also announced that State aid guidelines including "*the regional guidelines, the environmental guidelines, the risk capital guidelines, and the guidelines for research, development and innovation will be subject to review*" until the end of 2013.[41]

In December 2012 the European Commission launched '*Industrial Policy – a contribution to growth and economic recovery*', identifying four key pillars: investment in innovation, better market conditions, access to capital, and skills. It earmarks six priority action lines: "*clean production manufacturing technologies, sustainable construction, clean vehicles, bio-based product markets, key-enabling technologies and smart energy grids*." An innovation partnership for manufacturing technologies for clean production and an action plan for sustainable construction have been formed. The Commission aims to develop European Innovation Partnerships which will develop '*Key Enabling Technologies*' including micro- and nano- electronics going forward.[42]

What specific exemptions has the UK obtained?

The UK has gained prior clearance for certain expenditure to save individual authorities having to notify the Commission each time for the following activities:[43]

- **Speculative and bespoke gap-funding** to support private sector investment in land and property regeneration projects that would not happen without public support.
- **Housing Gap funding** can be used to support the development of new housing for sale or private rent where the costs of development exceed end use and to subsidise the purchase of property by lower income groups.
- **Heritage Aid** for repair and restoration to ensure heritage is maintained for future generations and public access.

The UK Government has also obtained State aid approval for a Green Investment Bank, a new Superfast Broadband Service and the extension of tax relief for films to include video game development and television drama.

---

[40] Pinsent Masons, *European Commission to propose changes to state aid rules by summer*, February 2012
[41] Global Competition Review, *EU State Aid: Recent Developments and the way forward*
[42] EurActiv.com, *After setbacks EU prepares to make new venture into industrial policy*, 24 September 2012, updated 7 November 2012
[43] Department for Business, Innovation & Skills, BIS Economics Paper Number 8, *UK trade performance: Patterns in UK and global trade growth*, November 2010

The Green Investment Bank was announced in the March 2011 budget with an initial investment of £3 billion composed of £1 billion direct from public funds and an additional £2 billion from public asset sales. The bank will be able to offer equity, debt and risk mitigation products. Priority areas for investment included "*offshore wind power generation, commercial and industrial waste processing and recycling, energy from waste generation, non-domestic energy efficiency and support for the Green Deal*." The European Community approved State aid for the bank in October 2012 and it was formally launched in November 2012.

In 2010 the UK Government set an aim for the UK to have the best broadband in Europe by 2015 which DCMS clarified as meaning the fastest. The Government committed to ensuring that 90 per cent of the country has access to superfast broadband, defined as offering download speeds of 24Mb per second or above, and a universal service commitment to have every household have access to a minimum of 2Mb per second by 2015. £530 million of government spending has been allocated to achieve this with an aim to leverage EU and local authority funding for total public investment of £1 billion. Policy Exchange explains how "*The government has allocated a further £150 million to support the development of super-connected cities across the UK. Birmingham, Bristol, Leeds & Bradford, Newcastle and Manchester, along with the four UK capital cities, will share funding to develop ultrafast fixed broadband access (download at 80Mbps or faster) and large areas of wireless connectivity*" and £150 million to improve mobile phone coverage in areas with poor or no coverage. In addition, "*Defra and Broadband Delivery UK (BDUK) have set up a Rural Community Broadband Fund (RCBF), which provides £20 million of support from the Rural Development Programme for England and BDUK's funding pot to superfast broadband projects in the last 10% of hard to reach areas.The RCBF provides up to half of the eligible costs to these areas if they can demonstrate a local need and demand for superfast broadband*."[44] This investment was approved by the European Commission as it met a key Europe 2020 Strategy aim set out in the Digital Agenda for Europe. This stated that EU members should seek "*to (i) bring basic broadband to all Europeans by 2013 and by 2020, [and for] (ii) all Europeans have access to much higher internet speeds of above 30 Mbps*."[45] Finland is undertaking a similar scheme, which is referenced in the country profiles section of this report.

The state aid extension to video game development is more complicated than it appears. In March 2012 the UK budget extended a tax credit, which had been in place for the film industry since 2007, to the creative industries including animation, video games and television drama. These proposals were allowed under EU state aid rules. However, the European Commission is seeking to introduce a cap on relief and to allow the entire amount

[44] Policy Exchange, *The Superfast and the Furious: Priorities for the future of UK Broadband policy*, Chris Yiu and Sarah Fink, 2012, p.28
[45] European Commission, *State aid SA.33671 (2012/N) – United Kingdom, National Broadband scheme for the UK - Broadband Delivery UK*, November 2012, p.3

spent on the production in the EU to qualify for the UK tax credit. The producers would only have to spend the proportion of their budget they derive from the UK tax credit in the UK. Whether the existing tax breaks, now extended, will benefit UK producers and leverage greater private investment or allow firms to divert expenditure to cheaper EU locations is as yet unknown.[46] The subsidy closely matches a prior French measure which gave game developers a 20 per cent tax credit for games with a cultural component which was approved by the European Commission.[47]

Are these rules the only ones affecting the administration of State aid payments?

No, the UK would also likely still be a member of the World Trade Organisation were it not a member of the European Union. Under the Subsidies and Countervailing Measures Agreement (SCM), if a measure constitutes a subsidy the affected states can impose countervailing duties and can challenge that subsidy under the WTO dispute settlement body. These rules are *ex post* rather than *ex ante*, which means Member States can challenge subsidies granted by other Member States before the WTO settlement body only after the aid has been granted. Compliance is limited, as "*only approximately one half of World Trade Organisation (WTO) Members report their subsidies to the WTO, as required under Article 25 of the Agreement on Subsidies and Countervailing Measures (ASCM)*."[48] The SCM agreement defines a subsidy as a measure that involves a financial contribution by the government, confers a benefit upon its recipients and is specific to a company, industry or group of industries.[49] There also exists a "*no 'cost to government' requirement…with the result that various government-mandated measures that do not impose a 'cost' on the granting government are nonetheless regarded as subsidies*."[50]

What are the EU rules on procurement?

The UK public sector spends around £240 billion on public procurement per year.[51] Combined with supplier liabilities this represents 20 per cent of UK GDP and between 30 and 40 per cent of UK public expenditure.[52] Procurement rules govern how public money is spent, not what it is spent on. For State aid to be legal if it exceeds the relevant financial

[46] OLSWANG, *Proposed changes to State aid rules could undermine UK tax credit*, April 2012
[47] Gamepolitics.com, *French Video Game Subsidies Win Approval – With Conditions*, December 2007
[48] World Trade Organisation, *WTO Subsidy Notifications, Assessing German subsidies under the GSI notification template proposed for the WTO*, April 2008, p.v
[49] OECD, *Policy Roundtables: Competition, State Aids and Subsidies 2010*
[50] European State Aid Law Quarterly, *The interface between EU state aid control and the WTO Disciplines on subsidies*, Claus-Dieter Ehlermann and Martin Goyette, EStAL 4/2006, p.699
[51] Department for Business, Innovation & Skills, *Strengthening UK Supply Chains: Public Procurement, Tunnelling: A Capability Analysis*, April 2012, p.3
[52] Future Purchasing, Cost reduction, secured, *Public Sector Procurement Transformation and Reform*

thresholds, it needs to comply with state procurement law and the relevant EU Directives. The main Directives are listed in the table below:[53]

Directive Number	**Purpose**
Directive 2004/18/EC	Which regulates the co-ordination of public works contracts, public service contracts and public supply contracts
Directive 2004/17/EC	Which regulates the co-ordination of procurement procedures of entities operating in the water, energy, transport and postal services sectors

The Directives have direct effect in UK law and must be incorporated into national procurement policy. The Public Contracts Regulations Act 2006 combined regulation on goods, works and services. It implemented the EU Consolidated Directive on public procurement (2004/18/EC). The Office of Government Commerce was established in 1999 as "*a one-stop shop central procurement organisation*." Public bodies are advised by HM Treasury to seek value for money, which they define as "*securing the best mix of quality and effectiveness for the least outlay over the period of use of the goods or services bought."*[54] They clarify that *"it is not about minimising upfront prices*" and urge contractors not to "*retreat to the lowest price solution simply because it appears at first sight to be the most easily defensible. Government needs people who properly understand, and can apply, the principles of value for money on a whole-life costing basis*."[55] The Treasury defines the purpose of procurement processes according to the aims set out on the next page.[56]

[53] European Commission, *EU public procurement legislation: Delivering Results Summary of evaluation report*, 2011, p.6
[54] HM Treasury, Managing Public Money, 2009
[55] HM Treasury, *Transforming Government Procurement*, January 2007, p.3
[56] *Ibid*

	Aim of procurement process	How to achieve
1	Ensure transparency	Publish notices in the Official Journal (OJEU), normally both before and after award procedures.
		Apply pre-announced criteria (in particular concerning the requirements to be met in order to participate as well as the award criteria that will be used to designate the "winner").
		Award the contract on the basis of objective criteria (linked to the subject-matter of the procurement).
2	Regulate the conduct of the procurement procedure so as to give interested tenderers a fair chance.	The Directives establish a menu of common procedures. This was enlarged through the introduction of competitive dialogue and provisions on other procurement techniques such as electronic auctions, dynamic purchasing systems, central purchasing bodies etc.
3	Clarity	Define the subject-matter of the purchase through non-discriminatory technical specifications, thereby limiting foreclosure of markets by reference to proprietary or idiosyncratic specifications.

How can a public entity put contracts out to tender?

There are four main types of tender as outlined in the table below.

	Type of Tender	Description
1	Open	Ideal for the purchase of commodity products. All interested parties can submit a tender.
2	Restricted	Involve a prior selection procedure before inviting firms and other bodies to tender. A minimum of five contractors can be invited to tender. There are no restrictions as to when the procedure can be used. After firms are selected to tender the contractor cannot then negotiate further.
3	Competitive Dialogue	Involves inviting firms and other bodies to tender, who then negotiate with the contractor during the tender process. This method is favoured for a "*particularly complex contract*" which EU procurement regulations define as where the contractor "*can't objectively define the*

		technical means...capable of satisfying its needs or objectives; or specify either the legal or financial make up of a project."[57]
4	Negotiated	Allows the tenderer to negotiate with the contractor, restricted to particular circumstances. In both Competitive Dialogue and Negotiated tenders a minimum of three entities must be invited to tender. Candidates can be excluded from a tender based on their financial capacity and technical expertise. The awarding authority must either choose the lowest priced tender OR the most economically advantageous tender (MEAT). The latter allows authorities to consider technical merit, quality, and running costs in addition to the stated price.

What factors should a contractor consider when choosing how to procure goods or services?

The Office of Government Commerce suggested public contractors consider four main factors in considering which procurement approach to apply, these are described below. [58]

	Factor	**Description**
1	Repeatability	Is the procurement going to be repeated – i.e. is there an ongoing requirement (e.g. personal computers) or is it a 'one-off', such as a bespoke software development project?
2	Complexity	How complex is the procurement; perhaps in terms of a technical specification (a warship) or the range of services required (a major property outsource across a varied estate)?
3	Value and risk	The value of the procurement or the risk to the authority – a procurement may be low in value but may still carry significant reputational risk.
4	Commonality	Is the authority the only one that requires the item (e.g. warships again for MOD) or is it something many authorities require, such as temporary labour or furniture?

Do these Directives cover all public procurement?

These Directives do not cover all public procurement throughout the EU – certain thresholds and service concessions are excluded but these are still subject to the general principles of the EC Treaty requiring transparency, equal treatment, proportionality, non-discrimination and mutual recognition. A specific exemption applies to the purchase of items of a 'warlike' nature as states may want to preserve a domestic military capability. Services are divided into two groups: those of interest to bidders from other Member States and those primarily of interest to bidders within a Member State. The latter do not usually require competitive

[57] Office of Government Commerce, *An introduction to public procurement*, 2011, p.6
[58] *Ibid*

tendering or prior advertising and include educational, recreational, cultural and sporting services.

To fall under the requirements, the procuring body must be a contracting body as defined in the rules. The definition "*includes central government, local authorities, associations formed by one or more contracting authorities and other bodies governed by public law (e.g. registered social landlords and fire authorities)*." Public bodies covered by the regulations include "*central government; local government; fire and police authorities; and others including corporations mainly funded by the public sector or subject to its management supervision or mainly appointed by the public sector and not having an industrial or commercial character public authorities. Where a private body acts as an agent for the public sector or where more than 50% of funding is provided by the public sector in relation to certain contracts connected with some building works, the Regulations will also apply*."[59]

What are the relevant thresholds beyond which procurement law must apply?

The European Commission updates the Europe-wide threshold values every two years. They were last updated in January 2012. They are altered to make them compliant with the thresholds under the World Trade Organisation's Government Procurement Agreement. Where contracts are for a variety of services, the authority needs to determine the proportions for each and whether they meet the required thresholds. If the financial value of the contract exceeds the relevant financial threshold, public procurement laws apply. It is forbidden to subdivide contracts to get below the threshold. MOD contracts are given more flexibility. The relevant thresholds are contained in the table on the next page:

[59] Martineau, *A Guide to the European Public Procurement Rules*, James Dilley, Partner, Head of Competition Law, State Aid & Public Procurement, p.3

Public Procurement Thresholds			
	Contract type	**Value threshold**	**Applies to**
1	Non utilities procurement of supply and services (excluding research and development, telecommunications services and Part B services e.g. health services, recreational, cultural, education and sporting services – thought to be of interest only to bidders from the host Member State.)	€130,000 or £113,057	Central government departments and agencies
2	Non utilities procurement of supply and services (excluding research and development, telecommunications services and Part B services)	€200,000 or £173,934	Local government
3	Works contracts	€500,000 or £434,835	Any public body

What are the penalties for failing to apply the rules and how well are they enforced?

A tenderer can seek the intervention of the European Commission and "c*ompetitors of a company which is the recipient of aid can go to a national court to stop the grant of that aid unless and until it has been notified to, and approved by, the Commission*"[60] and then to reopen the process or seek damages. Technically "*any aid unlawfully paid must be repaid and if the government granting it is held to have flouted the rules, then damages may be claimed by disadvantaged businesses in accordance with the principles in Case C-49/93 R v Secretary of State for Transport ex p Factortame Ltd*."[61] However, even in cases where aid is declared illegal and recovery is ordered, "*Experience shows that there is practically not a single case in which recovery was completed within the deadline set out in the recovery decision. Recent editions of the State aid Scoreboard also show that 45 % of all recovery decisions adopted in 2000-2001 had still not been implemented by June 2006*."[62] Phillip Hammond MP in his response to the Thameslink case declared, "*There is a case for looking at the way in which some of our neighbours and competitors operate the EU procurement directive, because it seems quite astonishing that, complying with that directive as we do,*

[60] R v Attorney General ex p ICI – Articles 87 and 88 of the EC Treaty

[61] Oxford University Press, *European Community: Law of State Aid*, Barrister, Brick Court Chambers, Kelyn Bacon, 2009

[62] European Commission, *Enforcement of EU State aid law by national courts: The enforcement notice and other relevant materials*, Brussels 2010, p.34

they have managed to achieve very high percentage penetrations of French-built trains on the French railway and of German-built trains on the German railway."[63]

Both the UK Government and the European Commission have investigated public procurement in the EU to consider if there is a bias against UK producers or towards native producers respectively. In 2003 the UK Government established a review, chaired by Alan Wood, then Chair of the Economic Policy Committee of the Engineering Employers' Federation and Chief Executive of Siemens in the UK, into the apparent lack of UK success in winning public procurement contracts in other EU Member States. Choosing the Chief Executive of a German company's British operations to investigate other nations' bias in their procurement practices does not seem ideal. Nevertheless, Mr Wood found there were "*Grey areas…situations where EU public procurement rules are complied with and yet there remains a strong belief that local firms have been favoured*." However, he found that "*direct discrimination is infrequent, anecdotal and difficult to prove.*"[64]

In June 2011 a European Commission Review found, "*Discrimination in public procurement is very difficult to detect or prove. While the number of cross-border awards can be measured relatively easily it is much more difficult to say whether the number or percentage is lower than it should be a result of discrimination by contracting authorities or entities*." Nevertheless, "*There is a widespread perception of discrimination against foreigners that is shared by the vast majority of firms, which frequently participate in public procurement*." The Commission noted, "*There are many administrative barriers to market access that in practice act as discrimination against foreign bidders, such as requirements to submit additional certificates or permits which can be required from non-national bidders. These are perceived as an obstacle*."[65] Bureaucratic complexity in tender documents can cover for protectionist sentiment as "*the risk lies with a bidder to make sure that the right documents are submitted with its tender and that contracting authorities can apply strict rules preventing the correction of even simple and obvious errors*."[66] The European Commission has noted that in Germany, "*Public procurement processes seem to be well organised but often remain complex. On average, companies have to invest slightly more time than on EU average when participating in a public tender*."[67]

---

[63] House of Commons, Deb 23 June 2011, cc466-467.
[64] Wood Review: *Investigating UK business experiences of competing for public contracts in other EU countries*, November 2004, p.31
[65] European Commission, *Staff Working Paper, Evaluation Report: Impact and Effectiveness of EU Public Procurement Legislation*, 2011, pp.143-144
[66] Morrison & Foerster (UK) LLP, *UK Public Procurement Law Digest*, *Volume 3*, December 2012, p.1
[67] European Commission, Staff working document, *Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012, p.84

Are the public procurement rules under review or fixed?

The European Commission launched a review of procurement rules in 2011 to determine how to make the process simpler for SMEs, to consider whether contracts between public authorities should not be subject to procurement rules, to decide if factors such as environmental sustainability and innovation could be considered in the procurement process and how to avoid bid rigging. Following media criticism of the application of the EU Procurement Laws in the Thameslink case, the UK Business Secretary Dr Vince Cable required consideration of how EU Procurement Laws were being applied in the UK in the next stage of the UK Growth Review. The results of this Review have not yet been released.

Before the domestic procurement rules can be reformed or analysed, public procurement must first be made more transparent. Sir Phillip Green in his report on central government procurement suggested, "*Procurement data is shocking: it is both inconsistent and hard to get at. There is inefficient buying by individual departments, with significant price variations across departments for common items*."[68] Jesse Norman MP has urged the government to renegotiate the stock of PFI deals, partly due to perceived procurement weaknesses. Other options for reform include requiring contractors to factor in the costs of UK-specific legislation on matters such energy costs in considering the costing of UK bids. The *Rebuilding Britain* campaign, launched by the British Constructional Steelwork Association (BCSA) urges the government to consider the economic and social benefits of buying from UK producers as part of the Best Value Framework.[69] The Public Services (Social Value) 2012 Act effective from March 2012 requires public authorities about to procure goods or services to consider: "*How the procurement might improve the economic, social and environmental well-being of the relevant area; how the procurement process might secure that improvement; and whether to undertake any consultation with the public as to the economic, social and environmental well-being and how that might be improved*." This would seem to answer some of the BCSA's concerns. However, Public Procurement Law Digest reveals how the government does not define what "*economic, social and environmental wellbeing*" means and requires merely consideration with "*no obligation actually to do anything*."[70]

[68] *Efficiency Review by Sir Phillip Green, Key Findings and Recommendations*, October 2010, p.7
[69] The Construction Index, *Steelwork contractors launch Buy British (and Irish) Campaign*, February 2013
[70] Morrison & Foerster (UK) LLP, *UK Public Procurement Law Digest*, *Volume 3*, December 2012, p.9

Chapter Two: European Union Member States' approach to State aid

Now we will review the state aid policies followed by five EU Member States, including Finland, France, Germany, the Netherlands and Sweden. Contained at the top of each country profile I have included a summary of the lessons that the UK can learn from each. Not all of these schemes can be imported into the UK. The European Commission has made it clear that State aid approved in one EU Member State may not necessarily be approved in another. However, the schemes outlined here do reveal the type of measures our European partners are undertaking. They highlight what is possible and undermine the comments of UK Government Ministers that action cannot be taken to support UK firms because it is illegal under EU rules.

FINLAND

	Lessons from Finland
1	Conduct a mapping exercise to identify industrial clusters to be developed further
2	Increase public expenditure on R&D and use this funding to encourage strengthened cluster development in key sectors
3	Provide senior executive backing for the industrial policy – the PM or a senior Cabinet Minister to chair the co-ordinating body
4	Ensure entities compete for funding under the cluster initiative and expect private and/or regional co-financing to secure their involvement

Michael E. Porter, Professor at Harvard Business School, defines clusters as "*geographically close groups of interconnected companies and associated institutions in a particular field, linked by common technologies and skills. They normally exist within a geographic area where ease of communication, logistics and personal interaction is possible. Clusters are normally concentrated in regions and sometimes in a single town.*" He believes they increase innovation, encourage new business and increase the productivity of firms in the cluster. Economist Alfred Marshall describes the contribution of a cluster approach to firm productivity including "*labour market pooling, knowledge spillovers and supplier specialisation*."[71] The effects are similar to those of urbanisation, which is known to create "*economies of scale*" which "*reduce transaction costs*." High population densities "*allow both workers with differentiated skills and firms with specific needs to reduce their search*

[71] OECD, *Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, 2007, p.25

cost and mismatch of skills and jobs". In addition, "*Urbanization enhances the flow of ideas and knowledge due to agglomeration effect. By bringing together large numbers of people, cities facilitate interactions needed to generate, diffuse, and accumulate knowledge*."[72]

The European Commission in its Framework for Research, Development and Innovation (FRDI) states, "*Aid for innovation clusters aims at tackling market failures linked with coordination problems hampering the development of clusters, or limiting the interaction and knowledge flows within clusters. State aid could contribute in two ways to this problem: first by supporting the investment in open and shared infrastructures for innovation clusters, and secondly by supporting cluster animation, so that collaboration, networking and learning is enhanced*."[73] Expenses of creating an industrial cluster include the "*marketing of the cluster to recruit new companies to take part in the cluster, management of the cluster's open-access facilities, and the organisation of training programmes, workshops and conferences to support knowledge sharing and networking between the members of the cluster*."[74] The UK suffers from low business investment and low productivity compared to other EU nations and needs to boost both to succeed economically. A cluster approach to industrial policy could address this and Finland provides a useful model to learn from.

In the early 1990s Finland was in a deep recession. They experienced a 10 per cent decline in GDP between 1991 and 1993 and had an unemployment rate of 20 per cent in 1994. R&D funding was 1.2 per cent of GDP in 1982.[75] Increasing R&D expenditure alone would not spur growth; the OECD recognises that "*diffusion and spillovers are the mechanisms that link R&D with growth, not simply levels of R&D investment*". In the 1990s the Finnish Government sought to "*create an environment which would encourage investment in knowledge-based industries, especially those linked to information and communications technology. The government focused on education, R & D and innovation with the overall aim of making Finland an attractive location for internationally competitive firms. This involved an increase in public spending on R & D and an enhanced role for the National Technology Agency (an arm of the Ministry of Trade and Industry) in setting up technology programmes in government laboratories and in industry*."[76] The 1994 Regional Development Act "*focused on access to basic services, infrastructure, improving firm operating environments, and strengthening regional economies and skills*". The Confederation for British Industry identifies Finland's "*systems level approach to encouraging knowledge-intensive industries*" and her "*consistent action targeting market failures in R&D and skills over several decades*". This included a "*central role for government in facilitating*

[72] University of Victoria, British Columbia, *Urbanization, Human Capital, and Cross-Country Productivity Differences*, Alok Kumar and Brianne Kober, April 2012, p.1
[73] OECD, *Policy Roundtables: Competition, State Aids and Subsidies*, 2010, p.43
[74] *Ibid*, p.44
[75] Centre For Business Research Judge Business School, University of Cambridge, *Nordic Approaches to R&D policy*, Graham Gudgin
[76] ECIPE Occasional Paper No.1/2012, *INDUSTRIAL POLICY IN EUROPE SINCE THE SECOND WORLD WAR: What Has Been Learnt?* Geoffrey Owen, Department of Management London School of Economics, p.47

collaboration across the national innovation system by integrating science and innovation policies and using funding to encourage clusters in key sectors".[77]

Cluster approaches can be co-ordinated either by a mapping exercise to identify where the basis for a cluster already exists or a call for proposals. Finland conducted a mapping exercise. "*Advantage Finland*", the Finnish cluster study co-ordinated by The Research Institute of the Finnish Economy (ETLA) and the Finnish National Fund for Research and Development (SITRA), examined what the prospects were for Finnish industry and contributed to the development of the National Industrial Strategy (Ministry of Trade, 1993).[78] "*Advantage Finland"* published their results in 1995, identifying nine clusters. The Cabinet Economic Policy Committee decided to apportion some of the R&D funding to develop eight clusters. Clusters were subsequently established under six different ministries. The Cluster Programmes were allocated funds by the Science and Technology Policy Council but the respective ministries organised programmes to nurture their clusters while TEKES (the Finnish Funding Agency for Technology and Innovation) and the Academy of Finland provided additional funding. Despite numerous agencies participating, the bodies were collocated, aiding co-operation. The OECD recognise that "*the Centres of Expertise are often housed within a local science park*" and "*TEKEL* [the Finnish Science Park Association] *serves as a network connecting 23 science parks and technology centres in university cities. TEKEL co-ordinates national programmes and networks with these science parks as well as serves as an intermediary between policy makers and science parks*." The Regional Employment and Economic Development Centres "*serve as regional offices that combine several ministry representatives in one location, and TEKES now has offices co-located in these centres*." Collocation helps the provision of services to business including "*project management, business development and marketing, technology transfer, incubator, patenting/licensing/funding and business premises*".

The specific projects funded under each cluster were chosen in a competitive process based on scientific criteria. Around €12.5 million was granted for each cluster for a period of two to three years. Each cluster operated between ten and 113 projects in 1999. Around 40 firms participated in each cluster. Educational bodies and research institutions also took part. Within the Telecommunications Cluster (ICT) the public sector took "*an active role in setting standards and acting as a demanding customer, as well as creating and improving framework conditions by investing in R&D and Education*". The government provided "R&D support" and "Prototype orders" and was "*active in promoting international standards (NMT, GSM, etc)*".[79] High tech exports grew from just six per cent of total exports to over 20 per cent of exports between 1990 and 2000. Within the Energy Cluster the government provided "*R&D support*," a "*competitive environment*" and "*public utilities as demanding customers*".

---

[77] Confederation of British Industry, *Creating Confidence: A New Approach to Industrial Policy*, p.5
[78] OECD, *OECD Proceedings: Boosting Innovation – The Cluster Approach, 1999, Chapter 15 FINNISH CLUSTER STUDIES AND NEW INDUSTRIAL POLICY MAKING*, Petri Rouvinen and Pekka Ylä-Anttila, The Research Institute of the Finnish Economy (ETLA), Helsinki
[79] *Ibid*, p.371

The Forestry Cluster supported "*the pulp and paper industry* [which] *was the single most important industry in the country for decades, its competitiveness was backed by an occasional devaluation*" to move into higher value products. This has meant "*today, strength in the core products of the cluster, i.e. pulp, paper, paperboard and sawn wood, is accompanied by perhaps even stronger Finnish presence in virtually all related machinery and equipment segments".* Now *"Finnish companies frequently provide related inputs, such as consulting, power generation, automation, etc*".

The OECD highlights the "*random nature of cluster development*". Finland benefitted from the creation of Nokia and the decision of private investors to back its development. However, "*The public sector can play a role in guaranteeing the pre-conditions for entrepreneurial activity, thus increasing the likelihood that these 'accidents' will happen*." From 1980 onwards the Prime Minister and key Ministers had been involved in the Research and Innovation Council highlighting the official backing for industrial policy. In 1983 TEKES, was created. This agency aimed to provide "*financial and other incentives that reduce the economic risks of innovation activities and increase companies' ability to assess them. This is especially important for smaller and younger firms that cannot afford much risk*."[80] TEKES funding was restricted to a proportion of expenditure to ensure private co-financing. Regional science parks were created to facilitate knowledge transfer- TEKEL now co-ordinates a nationwide network of 23 science parks and technology centres in Finland's university cities. Centres of Expertise also served to "*create jobs, prevent job loss, create companies, develop innovations and train people in selected knowledge-based sectors*". The Centres compete annually for funding. The Centres of Expertise are judged on the basis of "*the number of jobs created, innovations developed, participants and persons trained*."

The Centres of Excellence Programme "*focused on supporting research environments for internationally recognised research and is managed by the Academy with support from TEKES*". Between 1994 and 2006 this programme grew from eight to 22 Centres encompassing 45 areas of expertise with 5,000 participating firms. Regional co-financing of 50 per cent was required but not private funding. Its aim is to create cross cluster linkages. European Social Fund finance paid towards the training of 80,000 people 1999-2005. The programme is managed by "*an inter-ministerial Committee administrated by the Ministry of Interior's Department for the Development of Regions. The purpose of the multi-disciplinary committee is to help co-ordinate and align efforts across different national ministries*."[81] Each of these structures combines to constitute the national innovation system which is evaluated every three years by the Science and Technology Policy Council, a key body chaired by the Prime Minister. The Centres of Excellence Programme was renewed for the 2007-2013 period.

---

[80] Finnish Ministry of Employment and the Economy, *Evaluation of Tekes: Final Report*, June 2012, p.28

[81] OECD, *OECD Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, OECD 2007, p.172

The new cluster approach was a successful industrial strategy. It replaced an unsuccessful industrial policy. All State aid is not equal. In the 1990s there was "*a clear shift in policy thinking away from old-style policies – subsidising ailing industries, restricting competition, sheltering strategic industries, and/or backing national champions – towards new policies providing favourable framework conditions and promoting the better functioning of markets*".[82] The OECD summarises, "*Industrial policies are becoming competitiveness policies. Governments are trying to create attractive locations for internationally competitive firms by developing high-level technological infrastructures and advanced factors of production*."[83] The OECD note that cluster approaches can experience problems such as "*insufficient economic diversification, lock-in (in the sense of being tied by long-term investment strategies to supporting specific sectors and being unable subsequently to change track) or over-reliance on key firms*". The Finnish economy has had to adapt to the business problems experienced by Nokia, a firm which dominated the research and development scene. Since 2008 TEKES funding has invested more in the services sector than the manufacturing sector. In 2010 Finland began to implement "*an ambitious national broadband strategy 'Broadband for all 2015', which pledges to connect everyone to a 100 Mbps connection by 2015*". In 2012 the government set up "*a high-level task force, Finnish ICT Cluster 2015*".[84] Finland's industrial strategy is adapting well to the move towards a service economy.

The World Intellectual Property Organisation ranks Finland fourth in the Global Innovation Index 2012, one place above the UK.[85] The Bloomberg Rankings also place Finland as the fourth most innovative country.[86] Finland is *"the top performer in the EU27 in terms of business R&D spending (2.69 % of GDP, 2010). Total R&D expenditure (BERD and public R&D spending combined) reached 3.87 % of GDP, which is well above the EU average and close to Finland's national target for 2020 at 4 %*." This did not happen by accident. The Sfinno database on Finnish innovation reveals the importance of TEKES, whose funding "*significantly aided 51% of innovations recorded in the period 1985-2007*". Project successes are listed on the TEKES website.[87] Sample projects include a scheme to increase the thermal conductivity of in plastic components used in consumer electronics. A company called Carbodeon is developing this technology which will expand the life of electrical equipment. Ruukki Metals developed a new form of steel manufacture using TEKES support to co-ordinate with universities and has expanded to export this product to China, South America, Australia and South Africa.

---

[82] OECD, *OECD Proceedings: Boosting Innovation – The Cluster Approach, 1999, Chapter 15 FINNISH CLUSTER STUDIES AND NEW INDUSTRIAL POLICY MAKING*, Petri Rouvinen and Pekka Ylä-Anttila, The Research Institute of the Finnish Economy (ETLA), Helsinki, p.361

[83] *Ibid*, p.364

[84] European Commission, *Commission staff working document, Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012, p.203

[85] World Intellectual Property Organisation, *Global Innovation Index 2012*

[86] Finnish-British Chamber of Commerce, *Finland ranked as one of the most innovative countries in the world*, February 2013

[87] TEKES, *Success Stories*

FRANCE

	Lessons from France
1	Provide state subsidy for programmes aimed at emerging research sectors including smaller firms.
2	Protect strategic sectors from foreign investment and foreign purchases by requiring potential bidders to make binding commitments with reference to maintaining jobs or industrial capacity.
3	Establish a national investment fund to purchase segments of national industry to protect them from foreign takeover.
4	Subsidise trade fair costs and the purchase of goods and services needed for SMEs to expand internationally.
5	Shield high energy producers from the effects of renewable energy costs which might adversely affect them.

Former President Nicholas Sarkozy stated while still in office in 2012, "*The United Kingdom has no industry anymore*."[88] French manufacturing exports as a percentage of GDP overtook the UK in 1996/1997 and have maintained their lead over the last 15 years. France has an industrial policy designed to protect French workers and maintain French industrial capacity. The downside to this was revealed in the Blanc report 2004, "*Ecosystems of Growth*". It suggested that France needed to move away from a reliance on planning and imitation and instead promote innovation through regional actors, encouraging inter-sectoral collaboration in their areas. The 2005 Jean-Louis Beffa report "*Towards a New Industrial Policy*" claimed that France was too concentrated on low-technology industries. Government needed to encourage the growth of high technology industries.

To achieve this, the report recommended formation of the Agency for Industrial Innovation. This provided "*substantial funding for research projects designed for large firms in 10-15 major projects in high-technology sectors. The budget from late 2005 through 2007 is EUR 2 billion in public funds, which must be complemented with private funds*." Each of these projects was led by a large industrial company. In 2007 "*this approach was reversed as this agency was merged with another one providing 100% of its support to small and medium-size companies, reflecting the view that industrial policy should rather focus on the development of small, innovative companies.*"[89] The Agency was charged with detecting which high technology sectors should be targeted.

The Confederation of British Industry suggests that since the Beffa Report, "*France has been re-angling its strategic approach towards high-tech sectors and innovation, an economic space in which it has the potential to be competitive*." They recognise the "*risk-sharing*

---

[88] The Telegraph, *Nicholas Sarkozy says Britain has "no industry"*, Henry Samuel, London, January 2012

[89] OECD, *OECD: Policy Roundtables: Competition Policy, Industrial Policy and National Champions* 2009, p.31

public-private partnership programmes" which *"mobilise industrial innovation in key future technologies*", providing funding for five to ten years and sums of €30-50m a year, the €35bn "*Grand Loan*" scheme which *"supports research infrastructure, focused on priority sectors including digital economy, nano and bio-tech, renewables and low-carbon vehicles"* and the *"€20bn Strategic Investment Fund"* which "*invests for 8-10 years in supply chains, as well as growth businesses, to maximise growth in those areas of the economy already deemed to be 'winners'."*[90] Two programmes, the Pôles de Compétitivité programme and the earlier created *Systèmes Productifs Locaux* (SPL) have been central to the French government's industrial policy.

The Pôles de Compétitivité programme began in 2005. Its purpose was to *"support clusters (*pôles) *with a critical mass in terms of innovation or industrial base to be competitive internationally*" and "*to develop or strengthen the triple helix relationship between firms, research centres and higher education institutions through joint projects*." The focus was on developing existing firms rather than encouraging start-ups. Special research and development zones were created in the Pôles. France's regions pledged co-financing and submitted proposals. 67 Pôles were chosen after a publicised call for proposals, of which 15 were internationally focused, 15 inter-regional and 37 regional. The selection process was overseen by three public sector bodies including the Inter-ministerial Committee on Territorial Planning and Competitiveness (CIACT) Secretariat DIACT, the Agency for Regional Competitiveness and Development, and the Business Division of the Ministry of Economy, Finance and Industry. Central government financing of €1.5 billion was planned over three years of which €300 million is in the form of tax and social charges foregone. 80 per cent of this funding was targeted for the 15 international clusters. Public or quasi-public bodies contributing to this funding included the OSEO Financing Agency (a public body which provides funding to SMEs), the *Caisse des Dépôts (French State Bank)*, the Agency for Industrial Innovation and the National Agency for Research. Financing came in the form of loans, guarantees and investments. This programme complements other research and development budgets including the Defence R&D budget, the Agency for Industrial Innovation and regional development through contracts co-funded by DIACT.

The *Systèmes Productifs Locaux* (SPL) have existed since 1998 and been aided by central government since 2002. The programme aims to build SME clusters among firms in peripheral areas with low technology. Based on a mapping exercise to determine eligibility, the programme built on existing SPLs, providing services such as marketing and industry monitoring. The average SPL contains 100 members of which 30 to 40 may engage in collaborative projects. Employment growth in SPLs between 1993 and 2001 was 9.0 per cent compared to 5.7 per cent in similar sectors. DIACT provides limited funding; leveraging four Euros for every one Euro it contributes from other public funding sources.

Regionalism is a key part of the French industrial strategy. In 2006 a research law

[90] CBI: Industrial Strategy: *France*

encouraged the creation of regional concentrations of research. Multi-level governance agreements for regional development (CPERs) were created to co-ordinate research. In the 2007-13 CPER agreement, both the SPL and *Pôles* were key parts of these contracts.[91] Research Tax Credits contributed to ensuring that business R&D levels were maintained in 2009 and increased in 2010 despite the recession. The NANO 2012 Programme initiated in 2008 supports R&D consortia to develop nanotechnology with co-financing by industry. Three quarters of the €457 million funding went to ST Microelectronics but the scheme included smaller firms and was aimed at emerging research so was not ruled illegal by the EU Commission.[92]

In a December 2005 Decree the French Government identified a number of strategic sectors that were to be protected from foreign investment. "*The list includes seven sectors if the investment stems from an EU country (private security, communications interception equipment, data security, dual-use goods and technologies, etc.) and eleven sectors if the investment stems from a third country (cryptology, research into and production of weapons and explosives, studies and procurement for the defence ministry, etc.)*" This Decree still stands as no case has been brought to the ECJ. Under this Decree the Minister of the Economy can also require guarantees from foreign investors in companies in the sensitive sectors about the long term future of their activities. Article L. 430-7-1 II of France's Commercial Code stipulates that the Minister of the Economy can include industrial policy criteria in merger decisions and decide other than on the basis of competition. These general interest grounds include industrial development, the creation or preservation of jobs and the competitiveness of the existing operations on the world market.

The French Government has been willing to encourage mergers between French firms to fend off foreign bids, such as when "*GDF merged with Suez in order to form a national champion in energy, thereby fending off a bid from an Italian company*." In 2004 Aventis, a Franco-German pharmaceutical group, was subject to takeover speculation. Sanofi, a French company, initiated a takeover offer. Novartis, a Swiss company, indicated it could make a higher bid, "*prompting the French government to make it clear to all the parties that it would not permit control of Aventis to pass into non-French hands*."[93] The OECD note that "*it is sometimes alleged that when the Swiss pharmaceutical company Novartis and the French pharmaceutical company Sanofi competed for the acquisition of Aventis, the French government leveraged its influence over drug price negotiations in order to favour a merger between two French firms*."[94] The report '*A European Strategy for Globalisation'* by the

---

[91] OECD, *OECD Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, 2007

[92] European Commission, *Innovation and Industrial Policy for key enabling technologies in Europe – Findings for micro-/nanoelectronics and industrial biotechnology,* Sven Wydra, October 2011

[93] ECIPE Occasional Paper No.1/2012, *INDUSTRIAL POLICY IN EUROPE SINCE THE SECOND WORLD WAR: What Has Been Learnt?* Geoffrey Owen, Department of Management London School of Economics, p.32

[94] OECD, *Policy Roundtables: Competition, State Aids and Subsidies*, 2010, p.25

"*Europe and Globalisation*" mission published in April 2008 for the French presidency of the Council of the European Union, said that the Commission "*had prevented only about thirty European mergers and acquisitions in the last twenty years (out of over 3,000 notified transactions), allowing for […] the creation of a large number of European and national champions*."[95]

The French Government has established an investment fund to protect French industry by selectively buying equity shares. President Sarkozy said in 2008, "*I will not be the French President who wakes up in six months' time to see that French industrial groups have passed into other hands*." The Strategic Investment Fund was established to buy minority stakes in French companies with high growth potential which needed additional capital. Professor Geoffrey Owen, Department of Management, LSE says "*its operations were for the most part similar to those of a private equity group, but with a strong orientation towards preserving French ownership; in at least one case, when one of the companies in which it had invested was put up for sale, the Fund used its votes to ensure that the buyer was French, despite higher offers from non-French companies*."[96]

The Economist highlights some questionable investment decisions made by the fund "*such as [that in] Valeo, an 87-year-old car-parts firm recently targeted by foreign activist shareholders for poor performance. It plans to invest in the remains of Pechiney, a former aluminium champion bought by Canada's Alcan some years ago. One of the main risks of state investment in companies—to allocate money for political reasons—is already apparent. The FSI has come under pressure to rescue Heuliez, a bankrupt maker of car parts based in the home region of Ségolène Royale, a former presidential candidate*."[97] However, the Investment Fund invested €2.2 million in Meccano, a maker of toys, to keep it afloat in July 2009. Afterwards the firm said it would repatriate manufacturing jobs from China to its headquarters in Calais. The French Government's part-ownership of French industry is also used to support the wider French economy.

The US International Trade Commission in *Small and Medium Sized Enterprises: US and EU Export Activities* recognises the role of trade finance organisation UbiFrance in providing export development loans to French industry. These loans provide between €20,000 and €80,000 for up to six years to subsidise French SMEs to purchase the goods and services needed to expand internationally. The Sidex programme provides short term financial support for French firms based in France to allow SME export project finalisation. The 'Label France' programme subsidises reduced costs for eligible SMEs to go to international trade fairs. The French Government also pays for 18 to 24 year olds to work abroad for six months

[95] OECD, *Policy Roundtables: Competition Policy, Industrial Policy and National Champions*, 2009, p.94
[96] ECIPE Occasional Paper No.1/2012, *INDUSTRIAL POLICY IN EUROPE SINCE THE SECOND WORLD WAR: What Has Been Learnt?* Geoffrey Owen, Department of Management London School of Economics, p.43
[97] The Economist, *The Global Revival of Industrial Policy: Picking Winners, Saving Losers: Industrial Policy is back in fashion. Have governments learned from past failures?* August 5th 2010

to two years on export projects aiding French SMEs to create local distribution networks or a local presence. Volunteers receive a stipend; the SMEs pay nothing.[98]

The OECD reveal that "*on the consumption side, the persistence of a complex scheme of regulated electricity prices in France, well below the true marginal costs of electricity generation, is another case of tampering with price signals*."[99] In *Industrial Masochism*, Matthew Sinclair, Chief Executive of the TaxPayers' Alliance, explains how France operates an energy pricing policy which protects domestic energy intensive industries. He writes, "*The largest energy consumers [UK] already pay up to 10 to 25 per cent more than in Germany, and 60 to 75 per cent more than in France, where industry often gets rebates or more substantial discounts on its energy costs. The carbon price floor alone will add another 10 per cent to their energy costs by 2020, while reducing costs for competitors*." He believes the Government will "*need to introduce measures to mitigate the impact on energy intensive industries. In France that mitigation takes the form of an industrial consortium buying heavily discounted energy from the largely state-owned EDF*." The French Government has a significant shareholding in EDF, an energy company which "*signed a memorandum of understanding for at least fifteen years in 2007, with the Exeltium consortium, to supply power to a number of energy intensive users – including Air Liquide, Arcelor Mittal, Arkema, Rhodia, Rio Tinto Alcan and Solvay – at discounted rates. The European Commission opened anti-trust proceedings against EDF over the deal – and Belgian generator Electrabel over a similar deal there – on the grounds that the long term contracts, and the substantial share of the market they accounted for, might mean new electricity suppliers could not enter the market. But the introduction of an opt-out for members of the consortium wishing to contract with other suppliers appears to have largely addressed those concerns*."[100] The European Commission has conditionally approved these regulated tariffs for large energy users but France has been urged to review these subsidies every year and reduce them until they are eliminated in 2015.[101]

France has some of the lowest energy costs for industrial consumers of any major European Union Member State.[102] France also has one of the highest levels of R&D funded by government - of the 21 OECD countries offering R&D tax credits France along with Spain provided the highest subsidy rate. French Industrial Policy aims to create National Champions, and in the Fortune 500 list of the world's largest companies for 2012 France comes in joint fourth place with 32 companies in the top 500. However, France has not been successful at preventing foreign takeovers of French firms beyond the strategic sectors; the proportion of foreign owned French firms on the CAC 40 stock market index of leading French based companies is around a third. Her emphasis on maintaining the industrial base

---

[98] US International Trade Commission, *Small and Medium Sized Enterprises: U.S. and EU Export Activities*, July 2010, p.39
[99] OECD, *Policy Roundtables: Competition, State Aids and Subsidies* 2010, p.31
[100] TaxPayers' Alliance, *Industrial Masochism*, November 2011, p.37
[101] Bloomberg, *EU approves French Subsidies for Regulated Electricity Tariffs*, June 2012
[102] European Commission, *Composition of Electricity Prices for industrial customers*, 2011

seems to be working with a fifth of foreign investments in France in the industrial sector, a higher proportion than that in the UK or Germany.[103]

GERMANY

	Lessons from Germany
1	All political parties committed to ensuring a large and internationally competitive industrial sector which gives manufacturers the confidence to invest.
2	Investigate and if necessary refuse on public policy grounds the purchase of domestic industries by a non-EU Member State.
3	Approve anti-competitive mergers if necessary to preserve a national champion's competitive position even after the introduction of competition, circumventing EU Directives on open markets.
4	Government agencies alert SMEs to new commercial opportunities in foreign markets and sponsor their participation in trade fairs. Senior politicians should participate in trade missions which should occur frequently with the participation of a broad spread of businesses.
5	Create and support bodies that conduct research and serve as an intermediary between the research sector and the commercial sector to aid the transmission of knowledge from the former to the latter e.g. the Fraunhofer Society.

The UK Government aims to double exports to one trillion pounds by 2020. The Confederation of British Industry (CBI) explain how "*German and British exports formed similar proportions of GDP in the 1990s but by 2010 German exports were up to 46% of GDP, while in the UK the figure was 29%*."[104] Germany increased its exports by 33 per cent of GDP from 2000 to 2009.[105] In 1994 both the UK and Germany were in a position of roughly balanced trading with the rest of the world, but "*Germany has moved to a trade surplus while the UK has moved to a large and persistent trade deficit*." Part of this relates to Germanys greater success at constraining labour costs, thereby ensuring that "*Labour productivity per hour worked is about 24 percentage points above the EU27 average and about 10 percentage points above the Euro area average*."[106]

The CBI recognises Germany's unique strength, its "*long-term consistent approach*" to which "*all parties [political] subscribe. Content may vary, but the goal remains: creating the right conditions for industrial competitiveness across the board. This gives business the confidence to invest – something crucial in high-tech manufacturing industries with long*

---

[103] Wall Street Journal, *A unique array of attractions entice foreign firms*, Jonathan Gregson, July 2010

[104] CBI, Industrial Strategy: *Germany*
[105] Department for Business, Innovation & Skills, BIS Economics Paper Number 8, *UK trade performance: Patterns in UK and global trade growth*, November 2010, p.4
[106] European Commission, *Staff working document, Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012, p.83

R&D lead times." The government provides "*tailored support*" including "*cutting red tape to encourage investment and targeting exports and green tech*."[107] The "*full commercialisation of R&D is encouraged through tax breaks and collaborative public-private partnerships such as those found in Fraunhofer Institutes*" and "*German infrastructure for hosting trade shows is extensive, ensuring the world comes to Germany to buy and sell, while state-backed export finance ensures that even where credit becomes difficult to obtain on the private market, the state is able to step in*." The German approach is not *laissez faire.*

The German Government intervenes in the market to protect German jobs and German industrial capacity. Of EU members only Germany increased aid to the steel industry during 2009-2011,[108] and "o*ver the decade 1994 to 2005 over €80 billion in state aid for the coal industry was approved. In Germany the operating aid in 2004 was equivalent to over €86 per tonne suggesting that the cost of German coal production was more than twice the world market price*."[109] Der Spiegel reports that, "*The Germans allegedly forced current Opel owner General Motors to favor potential buyers Magna and the Russian Sberbank rather than the other bidders, Italian Fiat among them, because Magna gave stronger guarantees about saving jobs in Germany*." After the deal with Magna was signed, "*German Chancellor Angela Merkel promised Opel €4.5 billion in state aid*."[110] The Commission reviewed the case that "*Germany distorted the level playing field of the EU's single market by offering state aid to Opel to save jobs in Germany*." European Commission President Jose Manuel Barroso said, "*We are going to implement the rules … to protect the integrity of the internal market*."[111] No action was taken by the Commission.

Germany protects domestic industry from predatory purchases from foreign sovereign wealth funds by reviewing purchases and encouraging domestic mergers. Article 56 of the Treaty establishing the European Community allows for freedom of capital movement between EU members. However, for non-EU members the German Parliament has considered an amendment to their foreign trade act to "*allow the Ministry for Economics and Technology to investigate whether the acquisition of interests in 'resident undertakings' amounting to at least 25% of the voting rights would endanger the 'public policy or public security' of the Federal Republic of Germany*."[112] Section 42 of the German Act against Restraints against Competition allows the Federal Government to authorise mergers prohibited by the competition authority on non-competition grounds "*if, in a specific case, the restraint of*

---

[107] Confederation of British Industry, *Creating Confidence A New Approach to Industrial Policy*, June 2012, p.4
[108] European Commission, *Autumn Working Paper 2012*, p.21
[109] OECD, *Policy Roundtables: Competition, State Aids and Subsidies*, 2010, p.31
[110] Spiegel Online International, *State Aid for Opel: EU lets Germany off the hook*, Caroline de Gruyter, Brussels, October 23rd 2009
[111] Reuters, *EU to strictly apply state aid competition rules – Barroso*, 9 October 2009
[112] OECD, *Policy Roundtables: Competition Policy, Industrial Policy and National Champions*, 2009, p.114

competition is outweighed by advantages to the economy as a whole following from the concentration, or if the concentration is justified by an overriding public interest."

In the merger of E.ON and Ruhrgas, the *Bundeskartellamt* (Federal Cartel Office) found the merger would cement Ruhrgas' dominant position in the gas market and reduce competition. The Federal Government authorised the deal on the basis that it "*would strengthen the international competitiveness of Ruhrgas on the supply as well as the demand side. Furthermore, the merger would improve security of energy supply through the long-term supply of well-priced gas, in particular from Russia*."[113] European Directives requiring an opening of the services sector can be circumvented. The OECD reveals that whereas "*Germany has formally opened up the market with the discontinuation, from January 2008, of the last exclusivity rights of the incumbent Deutsche Post*," in fact, "*Deutsche Post still enjoys considerable advantages such as the exemption from value added tax obligations. Further to this, a rather high minimum wage was introduced for the postal sector in 2007 that has rendered the offer of postal services in competition with the incumbent Deutsche Post uneconomic for many newer competitors in the market*."[114]

The German Federal Government produces a tri-annual report on domestic subsidies. It identified subsidies of €22.6 billion in 2012 of which 52 per cent went to trade and industry. Key areas of expenditure included "*subsidies for the sale of German coal for electricity generation and to compensate impacts of capacity adjustment*" and "*an adjustment benefit*" for coal miners, a high tech start-up fund, interest subsidies under an equity capital assistance programme, assistance for "*improvement of Regional Economic Structure*," tax reliefs "*for business enterprises most severely affected by the tax on electricity*," a "*reduced rate of energy tax for specific processes*" and "*measures to promote very low-emission commercial vehicles to reduce the burden on German freight transport in the context of toll harmonization*". Subsidies are classified as sector support, adjustment assistance or productivity and growth assistance. Sector support amounted to "*the largest portion at approximately 46 percent. Examples include tax benefits for electricity-intensive businesses as lasting compensation for disadvantages under the ecological tax reform*."[115] These measures show how the Federal Government is acutely aware of the effects of domestic policy on key domestic producers and takes steps to prevent damaging them.

Germany also "*has one of the poorest records among large Organisation for Economic Co-operation and Development (OECD) economies of notifying specific subsidies to the WTO*." The Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD), in 2006, found 180 subsidy schemes were being operated by the German Federal Government and the sixteen Länder (state governments). Only 11 had been

[113] *Ibid*, p.115
[114] OECD, *Policy Roundtables: Competition Policy, Industrial Policy and National Champions*, 2009, p.57
[115] German Federal Ministry of Finance, *23rd subsidy report of the Federal Government for the years 2009 to 2012 (Summary): Trade and industry continues to be the largest subsidy category*, 2012, p.28

notified to the WTO.[116] The German Ministry of Economics and Technology is the lead German trade promotion agency. The KfW Bankengruppe (KfW), a German government-owned development bank, provides low interest subsidised loans to German SME firms to invest overseas. Hermes is a Federal Government trade body which provides credit and investment guarantees to German firms operating overseas.

Trade promotion starts at the top - Chancellor Angela Merkel led five trade missions to China between 2005 and 2010 - but it is broad based. Germany "*funds an impressive international network of offices that provide its companies with invaluable market entry advice and assistance. Germany also addresses the special challenges faced by small and medium companies by funding attendance at international trade fairs, a particularly cost-effective means of promoting exports*."[117] Industry analysts at Germany Trade and Invest (the foreign trade and inward investment agency of the German Federal Republic) assist the German Chambers of Industry and Commerce to provide market information about calls for proposals from foreign countries, investment and development projects and foreign legal and customs regulations to German SMEs. AHK, the German Chambers Abroad, has 120 offices in 80 locations.[118] It is partly funded on a consultancy basis but provides basic information free to business, paid for by the state. Services include making German firms aware of "*foreign business opportunities, potential partners, foreign business practices, export procedures, import regulations, standards and product specifications, law and regulations and marketing requirements*."[119] Three government programmes - Foreign Trade Fair Programme, the Fair Programme for Innovative Companies and Trade Fair Programme of the Federal States - provide funding for German companies that manufacture under German licence abroad or in Germany to participate in international trade fairs. These are the product of the "Active Worldwide" Foreign Trade Promotion Programme launched by the Ministry of Economics in 2003 which aimed to improve the services offered by German Chambers of Commerce, increase the number of Chambers worldwide and increase German firms' participation at trade fairs. German Länder also support export promotion through their development banks, which are limited to lending to local business. These regional governments can establish trade offices overseas e.g. Bavaria's office in New York.[120]

Semi-autonomous research agencies co-ordinate German research and development with government funding support and involvement. The Fraunhofer Society is one of four non-university research organisations. It was founded in 1946 and received funding from the Marshall Plan/European Recovery Programme. Early funding was also provided by the

---

[116] World Trade Organisation, *WTO Subsidy Notifications, Assessing German subsidies under the GSI notification template proposed for the WTO*, April 2008, p.23
[117] Wall Street Journal, *Guest Contribution: Five lessons from Germany about winning on exports*, 14 October 2010, Ed Gerwin, Senior Fellow for Trade and Global Economic Policy at Third Way
[118] German Chambers of Commerce, *Worldwide Network*
[119] US International Trade Commission, *Small and Medium Sized Enterprises: U.S. and EU Export Activities*, July 2010, p.49
[120] *Idem*

Bavarian and Wurttemburg Länder and the German Defence budget. "*For many years, military funding accounted for more than half of the Fraunhofer-Gesellschaft's total research budget*" and this "*shared use of defense resources for civilian projects helped assure the financial future of the Fraunhofer-Gesellschaft*."[121] In 1968 Government Research Minister Gerhard Stoltenberg formed a "*committee to promote the expansion of Fraunhofer-Gesellschaft*." In 1970 the Committee proposed "*a scheme to coordinate preliminary research, contract research and research projects, a balanced regional distribution of institutes, the creation of focal activities based on their geographic and thematic proximity and the introduction of performance-based remuneration*." A joint *Fraunhofer-Gesellschaft (FG)* research ministry was formed and from 1969 FG received government base funding.

Hans-Jörg Bullinger, President of the Fraunhofer-Gesellschaft describes how "*after a checkered history marred by a systemic lack of funding, the breakthrough came in the 1970s with institutional funding from central government and the Länder. The key milestone saw the introduction of a new form of research financing: The "Fraunhofer model" essentially states that for every euro Fraunhofer earns from contract research, the Federal Government will match with a euro of base funding*."[122] In 1977 the government's framework agreement on research funding declared that the research and defence ministries "*were to share political responsibility for Fraunhofer, and funding support for civilian research was to be provided by the federal government and the* Länder *in a ratio of 9:1*."

The first Institute opened in 1954. The Institutes undertake "*contract research for the public sector, government, and industry, including small and medium-sized enterprises (SMEs), which lack the critical mass to carry out their own R&D*". They also advise government and industry on the commercialisation of new technologies. Representatives from industry, science and government sit on its Senate and set its research objectives. The Fraunhofer Venture Group (established in 1999) supports spin-offs by counseling on start-up funding and business plan design. Five offices have been established in South East Asia to facilitate marketing and expansion and there are subsidiary operations in America, Austria and Portugal. The Fraunhofer Society, in co-operation with universities, has set up a Technology Academy to offer Master's Degrees in technology, logistics and environmental sciences. Patent services are provided to SMEs and universities to provide additional revenue. The Institute awards the Joseph von Fraunhofer Prize for those that solve application-oriented problems. In 2009, on its sixtieth birthday, the FG had 15,000 employees in 57 institutes and generated business of €1.4 billion.[123]

Government expenditure on R&D "*has increased by 4.7% a year in constant prices between 2005 and 2010, despite the recession and fiscal consolidation. Recent efforts to strengthen the science base include increases of up to 20% in the funding mechanisms for university*

[121] Fraunhofer-Gesellschaft, *60 Years of Fraunhofer-Gesellschaft – A Success Story*, p.9
[122] *Ibid*, p.10
[123] *Ibid*, p.50

research by both the German Research Foundation (DFG) and BMBF. The 2010 Pact for Research and Innovation is a joint effort of the government and the states to increase R&D funding to the Fraunhofer Society, the Helmholtz Association, the German Research Laboratories, the Leibniz Association, the Max-Planck Society and the German Research Foundation from 3% to 5% a year."[124]

The Max Planck Society for the Advancement of Science was founded in 1911, consisting of 80 research institutes and publically funded by the Federal Government and sixteen Länder. The Gottfried Wilhelm Leibniz Scientific Community is a union of 87 non-university research institutes which receives public funding. The Helmholtz Association of German Research Centres is divided into 18 centres with 34,000 staff and receives two thirds of its funding from public sources, including base funding. The Helmholtz Association describes how it "*transfers scientific knowledge into innovation and on into the market and so contributes to creating the technological basis for a competitive society*."[125] Its work is divided into six research fields including: Energy; Earth and Environment; Health; Key Technologies; Structure of Matter; and Aeronautics, Space and Transport. It had 350 patents pending in 2011 and created 55 spin-offs between 2007 and 2011.

The Federal Government *Central Innovation Programme for SMEs* helps firms enhance their research and innovation, providing €500 million funding to "*finance an estimated 5 000 new applications and 8 000 on-going projects*" in 2013.[126] Access to Venture capital (VC) is being improved through tax relief for holding companies that invest in young technology companies and the high tech start-up fund.[127] The Federal Government set up an expert commission on science and innovation to assess German progress. Its report, published in 2008, highlighted the German economy's poor performance in new technology. In response came the '*High-Tech Strategy 2020.*" Professor Geoffrey Owen, London School of Economics, describes this as "*the first national strategy to show how Germany can become and remain a global leader in the most important cutting-edge technologies*."[128] It "*concentrates public R&D resources for scientific and technological research into areas that face particular global challenges*" including "*energy and climate protection, health and nutrition, mobility, as well as security and communication.*"[129] The Federal Government and Länder "*target spending 10% of GDP on education and research by 2015*."[130] This should help Germany maintain their strong R&D position.

---

[124] OECD, *Science, Technology and Industry Outlook 2012: Germany*, p.35
[125] Helmholtz Association of German Research Centres, *About us*
[126] European Commission, *Staff working document, Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012, p.84
[127] OECD, *OECD Science, Technology and Industry Outlook 2012: Germany*
[128] ECIPE Occasional Paper No.1/2012, *INDUSTRIAL POLICY IN EUROPE SINCE THE SECOND WORLD WAR: What Has Been Learnt?* Geoffrey Owen, Department of Management London School of Economics, p.36
[129] European Commission, *Staff working document, Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012, p.83
[130] OECD, *Science, Technology and Industry Outlook 2012: Germany*, p.296

The German Government is willing to identify the industries of the future and develop domestic strength in these sectors through the targeted use of public funding. The German Government has identified 17 areas of technology expected to provide a strong impetus for the economy.[131] An example is Germany's biotechnology industry. The BioRegio programme was based on "*a competitive selection to identify the regions with the most promising potential in biotechnology research and commercialisation."* Selection criteria included *"a critical mass of competitive enterprises, high profile research institutions, supporting services, networking between research labs, research commercialisation strategies, and appropriate finance sources*." The initiative provided a "*range of instruments* [including] *financing, consulting, knowledge and public relations*." Four regions were selected to receive preferential R&D support to develop a biotech industry. A follow-up programme, Bioprofile, was launched in 1999. The European Commission recognises that "*Germany has quite a considerable number of specific R&D programs for industrial biotechnology in place*."[132] Bioindustry 2021 was launched in 2008 by the German Federal Ministry of Education and Research (BMBF) and "*Its aim is to support the development of industrial biotechnology on a national as well as on an international level and to ensure Germany's leading position even beyond the five year funding period of BioIndustry 2021*."[133]

Schemes designed to increase innovation and cluster development in eastern Germany and depressed regions include the InnoRegio programme which sought to encourage "*innovation in eastern Germany*", particularly among SMEs. Its objective was "*to develop self-supporting innovation networks and create locations with long-term competitive ability. The jury selected 23 networks (out of 50 pre-selected candidates from a total of 444 applicants) which were partnerships or consortia of companies, educational and research institutions and local governments*." Since 1969 the Joint Task for the Improvement of Regional Economic Structures (GA) has decided regional policy in a Framework agreed by both the Länder and Central Government. The GA-networking programme targeted the "*states that face the most serious structural problems*" in both the East and West of Germany. The initiative sponsors "*outlays on the establishment of supra-enterprise structures and network management (expenditure for staff and material)"* but *"spending by the enterprises involved is not eligible for assistance*." The clusters are independently managed rather than by a firm or the government and must offer open access to additional partners. Other cluster initiatives include the Leading Edge Cluster Competition which was launched in 2007 and aimed to support five clusters over up to five years,[134] Excellence Clusters, Research Campus, Research Bonus and the German Centres for Health Research Initiative. The German state's industrial policy has built an export-led and research-driven economy that now ranks the

[131] Fraunhofer-Gesellschaft, *60 Years of Fraunhofer-Gesellschaft – A Success Story*, p.31
[132] European Commission, *Innovation and Industrial Policy for key enabling technologies in Europe – Findings for micro-/nanoelectronics and industrial biotechnology*, Sven Wydra, October 2011
[133] BioIndustry 2021, *German Clusters in Joint Action for Industrial Biotechnology*
[134] Federal Ministry of Education and Research, *The Leading Cluster Competition*

strongest in Europe but a severe economic divide between East and West Germany persists.[135] Gross domestic product per capita in eastern Germany in 2010 was 71 per cent of the level in western Germany. Unemployment in eastern Germany in 2012 was 10.3 per cent compared to 6 per cent in the rest of Germany. East Germans' productivity rate was 79 per cent of the West German rate. Clearly regional policy has not eliminated the economic differences between East and West Germany.[136]

In *Industrial Masochism*, Matthew Sinclairreveals how Germany protects its energy intensive industries from the higher energy costs its renewables policy inflicts on ordinary citizens. He writes, "*In Germany there are extensive rebates for energy intensive firms which exempt them from 98.5 per cent of the renewables fee, for example, and substantial parts of the cost of other policies*" including "*an up to 90 per cent rebate against the ―Ecotax; and a 61.5 per cent rebate against the CHP Financing Surcharge. The Engineering Employers' Federation estimates that the total taxes before rebates are around €52 /MWh but less than €3 /MWh after the rebates*." The Ecologist shows how this means that "*The result is that German citizens pay among the highest prices in Europe for electricity (according to EU figures only the Slovakians, Austrians, Italians and Maltese pay more – the UK's bills are actually below average)*."[137] This fact makes the policy potentially unsustainable. An appeal with the European Commission by Bund der Energieverbraucher, a pressure group that represents small energy users, who claim that it discriminates against households and small businesses, is in progress. The European Commission has requested more information.[138]

Germany's policy of approving anti-competitive mergers where they preserve German industrial capacity may have been influential in ensuring that in the Fortune 500 list of the world's largest companies for 2012 Germany came joint fourth with 32 companies. German export promotion has been successful in allowing the country to overtake the United States to become the world's largest merchandise exporter in 2003. They were only overtaken by China in 2009.[139] Given that Germany's population is much smaller than that of America or China, this record outperforms those countries. The state support for the research base appears to have been a success, with Germany having the largest number of patent applications at the European Patent Office, 21,724 in total, amounting to almost 40 per cent (39.9 per cent) of the total number of applications made by all 27 EU Member States (2010 figures).

Efforts to expand the Biotech sector in Germany have been a success. The state-backed initiative led to a "*more than a 300% increase in the number of dedicated biotech companies creating more than 9 000 jobs in new biotech firms. These results served to close the gap*

[135] Financial Times, *East and west German differences remain*, Chris Bryant, November 2009
[136] Deutsche Welle, *Demographics, economic powers split Germany*, September 2012
[137] The Ecologist, *The German Energy Gamble*, Bibi van der Zee, February 2013
[138] Wall Street Journal, *German Energy Policy Sparks Consumer Ire*, November 2012
[139] Congressional Research Service, *Boosting U.S. Exports: Selected Issues for Congress*, November 2011, p.3

between the United Kingdom and Germany (in terms of number of companies). The programme also mobilized large sums of private investment (more than EUR 750 million) and inspired many new promotion programs in different technology fields."[140] German energy prices are more problematic. They remain above UK prices despite the German Government's efforts to shield high energy users from the costs of the German Government's renewable energy policy. These costs may increase further if the country continues to refuse to invest in nuclear technology.

THE NETHERLANDS

	Lessons from the Netherlands
1	Leverage public pension capital to finance continued investment in infrastructure and allow charging for infrastructure use to provide an income stream.
2	Provide an export finance subsidy-matching service through government finance institutions to prevent foreign firms unfairly competing with domestic firms due to their government's subsidy policy.
3	Sponsor technological upgrades in shipbuilding and target new product lines to enhance productivity of existing firms and preserve this industry in the Netherlands.
4	Operate an offset policy to ensure foreign firms from which the government makes defence purchases must purchase an equivalent value of domestic goods or services – this must be demonstrably new business.
5	Provide innovation vouchers to allow SMEs to purchase technology to allow commercialisation of existing research and increased productivity of the wider economy through its dissemination.
6	Establish an Innovation Platform with Senior Ministerial leadership to target funds at key innovation sectors using funds from temporary revenue boosts e.g. the gas reserve revenues.

The Netherlands ranks fifth in the global competitiveness index according to the World Economic Forum [WEF], up two places from its seventh position in 2011-12. Among other factors the WEF report declares "*the quality of its infrastructure is among the best in the world, reflecting excellent facilities for maritime, air, and railroad transport, ranked 1st, 4th, and 9th, respectively*."[141] The United States State Department describes how the Dutch Government "*has taken strategic measures to make sure that key infrastructure remains in public hands*" while introducing some competition.[142] Monopolies operate in the Dutch Railways, Schiphol Airport and the operators of the electricity and gas grids. The Ministry of Finance is responsible for the government's ownership stake in all state-owned industries.

[140] OECD, *Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, 2007, p.172
[141] World Economic Forum, *The Global Competitiveness Index 2012-2013*, p.21
[142] US Department of State, *2012 Investment Climate Statement – Netherlands*

Schipol airport did not pay corporate taxes and real estate taxes until the European Commission intervened. The airport has a zero-tariff ground lease arrangement with the government.[143] Companies in close proximity to Amsterdam airport and port received subsidies to recruit and train unskilled workers in logistics, production and assembly operations.[144] To maintain investment in the road network, the Netherlands offered low interest-rate loans to leverage investment by the civil service pension fund (ABF) and the health sector's fund (Zorg en Welzijn) in road infrastructure in 2012. The Dutch Infrastructure Fund includes the European Investment Bank and Dutch state employee pension programmes among its investors. A road-user charging system is to be rolled out across all roads.[145] This will provide the funding to provide the revenue to justify private investment.

The Dutch Government matches foreign subsidies to protect its shipbuilding capacity. In 2007 the Ministry of Economic Affairs "*announced a research, development and innovation subsidy for the shipbuilding sector allocating 20M EUR annually over 3-years*." The Netherlands have used "*procurement and R&D [to] support a national champion in shipbuilding*."[146] The Shipbuilder Guarantee provides credit for domestic manufacturers, and interest rate subsidies are given to domestic shipbuilders up to 80 per cent of the vessel's cost with a maximum repayment period of around eight years. The Subsidy Scheme for Innovative Shipbuilding (for seagoing vessels) allows domestic shipbuilders to "*request a subsidy for industrial applications of technologically new, or appreciably improved, products or processes in the building or refitting of a ship*."[147] It came into force on 1st January 2010. The Maritime sector is one of nine innovation sectors identified by the Ministry of Economic Affairs for subsidy. This sector includes "*niche markets"* including *"dredgers, short-sea ships, mega-yachts, seagoing law enforcement vessels, offshore service vessels, and process innovation in design and production.*"[148]

The Netherlands operates an offset policy with relation to defence purchases over five million Euros. The Ministry of Economic Affairs state this is "*to contribute to the industrial base of the Netherlands through technological advancement*."[149] The foreign supplier must offset 100 per cent of the contract value. The Ministry of Economic Affairs identifies potential suppliers to meet the obligations and the foreign supplier must agree the offset deal

---

143 ENVIRONMENTAL RESEARCH OF THE FEDERAL MINISTRY OF THE ENVIRONMENT, NATURE CONSERVATION AND NUCLEAR SAFETY, *Financial Support to the Aviation Sector*, June 2003

144 Holland Pioneers in International Business, *New Amsterdam Companies Will Receive 50% Subsidy*, January 2007

145 UK Parliament, *Road Pricing in Germany and the Netherlands*, November 2008

146 Aerospace Review, *Defence Industrial Policy Approaches and Instruments*, July 2012, p.28

147 Ministry of Economic Affairs Policy Tools, *Our range of schemes and subsidies for companies*, May 2010

148 Ministry of Economic Affairs Policy Tools, *Our range of schemes and subsidies for companies*, May 2010

149 Ministry of Economic Affairs, *Guidelines to an Industrial Benefits and Offsets Program in the Netherlands*

prior to signing the defence deal. If the offset is not related to the production of the item purchased by the Dutch Government then the offset deal must be new to the Netherlands or increase existing business levels. It must be the case that the order would not have been placed but for the offset deal. The technology should be of equivalent technological level to the defence items purchased by the Dutch Government.

The Dutch operate an Export Matching Facility which provides subsidies to domestic firms to eliminate the interest rate gap between domestic firms and their foreign competitors in insuring exports. The Netherlands Export Insurance Company has a 70 per cent local content requirement to insure export transactions through the company, ensuring these subsidies work only for Dutch firms. The Emerging Markets Facility provides financing up to five million Euros for a period of three to twelve years for local subsidiaries of Dutch firms overseas and/or agrees partnerships with foreign firms, guaranteeing up to 85 per cent of the financing. The Package 4 Growth scheme offers specific subsidies for Dutch firms looking to enter the Chinese or Indian markets. You can "*apply for a subsidy for the costs of the direct production process of your investment: sustainable capital equipment and related services. You can also apply for a subsidy if you wish to seal an order with a customer based in China or India*."[150] The 2Explore Programme subsidises Dutch firms that are considering investing in emerging markets to conduct feasibility studies. The markets covered include "*all countries in Asia (except of Japan); Central and Eastern European countries (other than EU member states); Africa; Latin America; and the Middle East*."

Innovation vouchers allowed SMEs to access research from knowledge suppliers increasing the competitiveness of Dutch firms. These vouchers could be claimed for purchasing knowledge needed to enhance a service or product. The vouchers came in two amounts; a €2,500 voucher and a larger voucher of €7,500. With the latter the firm had to provide co-financing up to a third the total cost for a public voucher or half in terms of a private voucher. Vouchers were distributed by a public agency Agentschap NL. Users could also use a public voucher against the costs of registering a patent. This pilot scheme was closed in 2011 due to budget cuts. The OECD suggests that a key problem with the scheme is that it did not facilitate an ongoing relationship between research organizations and businesses but it did have "*positive effects on production processes*".[151] Tax certainty is an essential element in investing. Tax collectors give guarantees in the form of Advanced Tax Rulings and Advanced Pricing Arrangements for firms wishing to invest in land or infrastructure, and tax credits in the form of grants or corporate tax rebates are used to encourage private investment to achieve horizontal aid goals. The Microcredit Association of the Netherlands provides a guarantee up to €35,000 for entrepreneur loans.[152] The Bank for Netherlands Municipalities

[150] Ministry of Economic Affairs Policy Tools, *Our range of schemes and subsidies for companies*, May 2010, p.16
[151] OECD, *Business Innovation Policies: Selected Countries Comparisons*, 2011
[152] Ministry of Economic Affairs Policy Tools, *Our range of schemes and subsidies for companies*, May 2010, p.3

(BNG) provides local authorities with low interest rates on long term loans and credit facilities guaranteed by the government.

In 2004 the Ministry of the Economy published a Memorandum, "*Heart for Industry*", which advocated "*moving beyond a generic innovation policy*" to identify "*bottlenecks for economic growth*" and to "*focus on groups of firms and sectors to identify how policy can address obstacles to economic growth*". Key bottlenecks identified included: "*Capital market access and facilities from the government*." Two programmes were created to encompass the new approach; 'Peaks in the Delta' and 'Key Innovation Areas'. The Peaks in the Delta Programme had a total budget of €216 million from 2007-2010, and was followed up by a successor programme, 'Strong Regions.' It was led by the Ministry of Economic Affairs. It represented a shift from "*a focus on supporting the lagging northern regions to supporting the economic strengths of regions that serve as national drivers of growth*." The goal of regional equality was abandoned. Selection was "*based on quantitative criteria and a SWOT analysis (at the national and regional level)*." Six regions were chosen. The aim was to build on "*region-specific opportunities of national significance*" to make them internationally significant through a spatial economic development strategy. A Regional Programme Committee was set up to make the selections. 244 projects were funded. Companies, knowledge institutions and local authorities were included.

An Innovation Platform was created in 2003 with the Prime Minister as Chairman. This advisory group included corporate, government and science representatives. Funding of one billion Euros was allocated, €200 million per annum from 2006-2010. This body selected projects for the Key Innovation Areas. This programme began in 2005 and sponsored projects with industry support and the potential for international superior performance involving innovation. Private sector contributions were required. A Fund Enhancing Economic Structure (FES) part-financed this innovation; it is funded from the country's national gas reserves. Selected industries included: "*1) water and civil engineering; 2) high-technology systems and materials; 3) flower and food; 4) creative industries; and 5) chemistry*."[153] Over 30 companies participated making a financial contribution in the first pilot programme, which specialised in nanoelectronics. A Venture Capital Fund of 50 million was created to support investment in nanoelectronics. The Netherlands, like the UK, favours open markets. They also support their industry to compete.

The Dutch Ministry of the Economy recognises that the dissemination of research among Dutch firms is low. Innovation policy is attempting to address this problem. While Innovation Vouchers did not endure in the Netherlands due to budget cuts, they have been replicated throughout Europe including in Austria, France, Denmark, Greece, Ireland, Poland, Portugal, Slovenia and Sweden. Aston University operates an innovation voucher scheme in the Midlands. Public investment in nanotechnology has helped the country become

---

[153] OECD, *Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, 2007, p.262

the seventh globally in terms of number of patents and the number of nano-related projects in industry grew by around 10 per cent per year between 2007 and 2010.[154] In defence procurement, US weapons systems sales to the Netherlands have been balanced with offset agreements worth up to 119.3 per cent of the value of the contracts,[155] and a range of products have been subject to offset agreements.[156] Offset agreements to the value of $2.5 billion have been agreed on contracts of $2.1 billion from 1993 to 2007.[157] Targeted state support to the shipbuilding sector increased the Dutch proportion of EU shipbuilding from 7 per cent in 2000 to 12 per cent in 2008.[158]

SWEDEN

	Lessons from Sweden
1	Base innovation policy on the involvement of the University Sector which serves as a basis of skilled labour widely dispersed across the country, and establish a triple helix model for innovation funding in which industry, academia and government must participate to ensure wider involvement.
2	Use export credit policy to preserve domestic industry in key strategic sectors by sponsoring deals which allow foreign purchasers to pay to maintain domestic industrial capacity e.g. arms sales.
3	Create public companies that operate on a commercial basis to fulfill strategic economic goals, responding to market failures such as those in Sweden by offering finance to SMEs to expand, innovate and protect their intellectual property.
4	Create a government agency to make domestic firms aware of the commercial opportunities available with international governments and inter governmental bodies looking to procure services – an alert service combined with the funding and training necessary to compile competitive bids.

Ed Miliband recently celebrated the Swedish model, recognising that, "*There's a Swedish idea of the People's Home, which is all about a country coming together, and a country operating on the basis of solidarity, and people taking their fair share of responsibility*."[159] David Cameron agrees that the model of Nordic countries offers "*pause for thought*".[160] Sweden reduced their national debt from 84 per cent of GDP in 1996 to 49 per cent in 2011. Public expenditure reduced from 67 per cent of GDP in 1993 to 49 per cent

[154] Nanotechnology Industries Association, *Nanotechnology and Dutch opportunities*, January 2012
[155] US Bureau of Industry and Security, *Offsets in Defense Trade*, Tenth Study, December 2005, p.15
[156] Nedinsco, *Industrial participation defence products*
[157] The Disam Journal of International Security Cooperation Management, *Technology Acquisition Policy and Value Efficiency Analysis on Offsets in Defense Trade*, Korea Institute of Industrial Economics and Trade, 2012
[158] Statistics Netherlands, *Dutch shipbuilding industry increasingly important in Europe*, October 2009

[159] Bloomberg, *Miliband sees vision for Labour U.K. in Scandinavian Snow*, 21 February 2013
[160] The Economist, Bagehot, *Nice up north; Why David Cameron is fascinated by Sweden and its neighbours*, January 27th 2011

now through a combination of government budget restraint and GDP growth. In the 2012/13 Global Competitiveness Index, Sweden scores highly in technological readiness (1st), is one of the world's leading innovators (4th), and overall is the 4th most competitive nation in the world.[161] Sweden, like the UK, retained its currency rather than join the Euro.

Government regional policy aims to wean North and Central Sweden off its dependence on capital-intensive old industries. The Swedish Government compensates for the costs of investing in the sparsely populated North with an employment grant for new enterprises, a transport grant to reduce the costs of getting goods to market and a reduction in social security contributions for firms. Regional Growth Programmes were launched in 2001 as voluntary agreements funded by both the public and private sectors to plan transport development and deliver EU structural programmes. All regions were later required to develop a Regional Development Programme which explained each region's plan for growth. National government has developed regional policy to stimulate local growth in partnership with regional government. Sub-national government spends up to 45 per cent of government expenditure, one of the higher levels in the OECD, and is an important partner for both business and central government. The central government has sought to create "*well functioning and sustainable labour market regions with a good level of services in all parts of the country*" since 2001.[162]

Sweden operates three industrial national cluster programmes; VINNVÄXT, VISANU and the Regional Cluster Program. VINNVÄXT "*seeks to support regional innovation systems to make them internationally competitive*." It "*provides grant funding to recipients over a ten-year period (initial round 2003 to 2013, second round 2004 to 2014, third round 2005-08/2006 to 2016)*," with matched funding from regional government. A minimum of half the project spending must be on R&D and every project must include academia, business and regional policy makers. A sample project is the 'robot valley' which is a project designed to increase the use of robots in SMEs and aims to achieve "*30 new products, 30 new companies and about 1 000 new jobs in a ten-year period*." VINNVÄXT is directed by the Swedish Agency for Innovation Systems, VINNOVA, which was created in 2001 to direct research funding to serve Swedish economic aims. VINNOVA conducts "*yearly assessments (monitoring) made by VINNOVA and three-year evaluations made by an international panel*."

VISANU ran from 2002-2005 and concentrated on developing 'soft infrastructure' such as marketing, financial processing and knowledge development to problem solve in regions identified in "*a quantitative study on clusters in Sweden, using a methodology developed by Michael Porter*," a regional dialogue and an open application process. It follows the triple helix approach of requiring industry, business and academic co-operation. It is run by three

[161] World Economic Forum, *The Global Competitiveness Index 2012-2013*, p.334
[162] Nordregio - Nordic Centre for Spatial Development, North Central Sweden – *Universities and Clusters as Regional Drivers*

public bodies, Tillvaxtverket (formerly Nutek), VINNOVA and the Invest in Sweden Agency. Invest in Sweden supported firms in brand development to attract foreign investment. The majority of firms receiving aid with process support were SMEs (52 per cent), and over 1,200 firms took part in the first 30 initiatives. One third of the financing came from VISANU, 23 per cent from private financing and around 40 per cent from regional government. The total funds were small, €7.5 million for three years 2002-05, from the national government to fund process support, knowledge development including the development of new products and processes, inward investment, and support activities such as networking.

The Regional Cluster Program was "*based on a proposition from the Ministry of Industry, Employment and Education in late 2001, a national program for development of cluster and innovation systems was proposed to address this fragmentation. The three agencies ISA, Nutek and VINNOVA were asked to develop a joint program from 2002-05*."[163] It launched in 2005 and is managed by Nutek. The regions provide 50 per cent of the funding. 80 per cent of the funds went to initiatives that had been part of VISANU, the remainder is to develop new or young initiatives. The scheme sponsors business plan creation and competitive analysis and access to EU programmes. Sweden also developed Centres of Expertise which delivered funding in ten year rounds from 1995 to 2005 to almost 30 centres located in eight universities. Universities were the focus of the programme serving as a hub for wider regional innovation.

In 2010 Sweden outlined an objective to double exports by 2015 and devised 40 measures to achieve this objective.[164] Exports of goods constitute 70 per cent of Swedish exports.[165] The government created Svensk Exportkredit (SEK), which provides "*export credits, lending, structured finance, project finance, leasing facilities, capital market products and financial advisory services*." This entity is owned by the Swedish Government. It finances purchases of Swedish goods by foreign companies, investment by Swedish companies overseas, and lends to Swedish companies looking to export that have been approved by the Swedish export credit guarantee board (EKN). The Swedish Government "*heavily increased SEK's lending capacity during the financial crisis*."[166] Export credit policy considers how to retain industrial capacity within Sweden in key strategic sectors. EKN has provided around 11 per cent of its funding to the Swedish arms trade since 2000.[167] Swedish defence firms receive aid from the Swedish Defence and Security Export Agency, which promotes exports because Sweden "*like most other countries' defence, can not alone maintain a defence industry.*

[163] OECD, *Reviews of Regional Integration, Competitive Regional Clusters, National Policy Approaches*, 2007, p.297

[164] Government Offices of Sweden, *Double Exports!*
Government Offices of Sweden, *40 measures for the export vision*

[165] Riksbank Monetary Policy Report, *The emerging economies and Sweden's exports*, February 2012, p.70

[166] SEK, *Investor Presentation*, 2011, p.15

[167] European Network Against the Arms Trade, *Financing misery with public money: European Export Credit Agencies and the financing of the arms trade*, p.3

Trade and exports are prerequisites to preserving the ability of Swedish expertise and jobs."[168] 'Invest in Sweden' and the Swedish Trade Council operations have been merged to create 'Business Sweden'.[169] Launched in January 2013, it aims to boost private funding for its activities. It has offices in every Swedish region and in 57 countries abroad. Swedfund also exists and lends small sums to Swedish firms to "*initiate business collaborations with companies in emerging markets in Africa, Asia, Latin America and Eastern Europe (non EU)*."[170]

ALMI Foretägspartner AB, a state-owned body, exists as a last-stop provider of finance and business counseling services to firms refused elsewhere. It exists to invest in Swedish industry because they declare "*the market on its own is not capable of creating all the conditions required for good and stable economic growth*." There are 16 subsidiaries, which are part-owned by county councils, regional authorities and municipal co-operative councils that provide services tailored to regional markets. Funds are extended to start-ups and small firms up to 250 employees and can be provided in a foreign currency where appropriate to reduce currency risk. Innovation credits aim to encourage product development, intellectual property protection and market research. Almi Invest is the group's venture capital arm and aims to help SMEs beginning to expand. Support services include corporate coaching and market development.[171] This is one of 58 state-owned/part state-owned companies.[172] Sweden is willing to create public companies that operate on a commercial basis to fulfill strategic economic goals responding to market failure.

Public procurement supports Swedish industrial development. Sweden scores highly on payment time, low default rate on payments and "*relatively easy access to venture capital*."[173] Given SMEs' reluctance to bid for cross-border contracts, policies that help smaller firms to bid for state contracts are a means of increasing the chance of domestic firms winning such tenders. Evidence of SMEs' reluctance to consider cross-border contracts is found in the unwillingness of SME trade associations to take part in the Wood Review into European Procurement Practices because it was deemed not to be a high priority for their members.[174] Small firms are unable to bid for large contracts if they are unsure whether contractors will pay on time as cashflow is a major constraint on small and growing firms. Ensuring prompt payment and easy access to capital gives smaller firms the confidence to bid for public contracts. There is also an Office for Project Exports. This exists to make Swedish firms aware of the opportunities in international procurement to "*increase the share held by Swedish project exports and Swedish companies in procurements of projects financed by the*

---

[168] Swedish Defence and Security Agency, *Frequently asked questions*
[169] The Local, Swedish News in English, *Sweden Lanuches New Trade Promotion Agency*, January 2013
[170] Embassy of Sweden, Sarajevo, *Swedfund increases grant to Swedish SME TO 1.7 MSEK*, February 2013
[171] ALMI, *About Almi Foretägspartner*
[172] Swedish Ministry of Finance, *Annual Report State- Owned Companies*, 2011, p.2
[173] European Commission, *Enterprise and Industry, SBA Fact Sheet 2008, Sweden*, p.2
[174] House of Commons Trade and Industry Committee, *The Future of UK Manufacturing: Public Procurement*, Thirteenth Report, London, 2007, p.10

EU, the UN system and international financial institutions. The Office is able to co-finance expert seminars, targeted conferences and pre-technical studies etc." Sweden nurtures domestic firms with its own procurement policy and supports them to win contracts overseas.

Sweden is one of the largest arms exporters in the world per capita, indicating that it has been able to maintain a large defence sector relative to its small internal market. The aim of reducing the disparity between poor regions and the more wealthy areas appears to be working as Sweden has the second highest level of economic and demographic concentration in the OECD but one of the lowest levels of regional inequality in GDP per capita.[175] Sweden also scores highly, compared to the EU average, in awarding its own public procurement contracts to Swedish SMEs (47 per cent compared to 38 per cent respectively).[176] The World Intellectual Property Organisation ranks Sweden second in the Global Innovation Index 2012, three places above the UK, showing the nation's innovation policy is a success. Swedish cluster-based approaches to development have expanded to include Sweden's Baltic neighbours, highlighting how European countries can co-operate on innovation policy.

[175] OECD, *Regional Development Programmes in OECD Countries*, 2010
[176] European Commission, *Enterprise and industry: SBA Fact Sheet 2012*, Sweden, p.7

Chapter Three: The Challenge for Britain

The European Commission has stated that the fact that State aid is approved in one state does not automatically mean it will be approved in another. So it is not simply a case of urging that the UK adopt measures applied in other EU Member States wholesale. The Europe 2020 Strategy sets out a specific preference for horizontal aid to improve the overall competitiveness of the European economy. Readers should consult my discussion of the government's growth review, *Growing Pains: How to restore economic growth and rebalance the UK economy* for a thorough analysis of proposals – this chapter highlights specific economic areas that could benefit from attention**.**

The Law

Phillip Hammond MP highlighted that the United Kingdom may be adhering to the spirit of EU procurement law when other nations are not. Between 2000 and 2010 the UK had only one negative State aid ruling made against her compared to 32 for Germany, 10 for France, 26 for Italy and 11 for Spain.[177] This may be because the UK does not attempt to get decisions that benefit domestic suppliers through, but instead procures with little consideration of the domicile of the bidding companies, and provides its State aid under one of the block exemptions. This presents potential problems in the area of public procurement.

The EU "*estimates that approximately €420 billion in contracts is open to public tender each year. This corresponds to approximately 19% of GDP across all 27 EU Member states*."[178] It is essential that the UK competes effectively for such contracts. European Commission Spokeswoman for the Internal Market Chantal Hughes, as reported in the Financial Times, argues that the UK does so, explaining that "*UK companies won 17 per cent of contracts that public bodies awarded to companies from other member states…Only Germany, whose companies won 26 per cent, was more successful*."[179] What was not revealed was the percentage of public procurement contracts which go to non-native companies. The UK's position as the third largest economy in the EU would also suggest the UK would be naturally high up the scale in winning foreign procurement contracts when ranked alongside small economies such as Estonia, Latvia and Croatia. Whether there is discrimination in public procurement remains unclear - both the Wood Review in the UK and the European Commission investigation into this subject identified the perception of protectionist practices but said the evidence was inconclusive.

---

[177] Department for Business, Innovation and Skills, *State aid: Frequently asked questions*, May 2012, p.9
[178] Morrison & Foerster UK (LLP), *Public Procurement Law* Digest Volume 3, 2011, p.11
[179] Financial Times, "*EU rulebending would hurt taxpayers*", Robert Wright and Elizabeth Rigby, 5 July 2011

The Growth Review aims to increase trade but trade is now a net negative for UK GDP growth. The Confederation of British Industry reveals that whereas "*twenty-one per cent of growth in the 1970s* [was] *driven by Trade and Investment. From 1997- 07 this fell to -0.1 per cent. In other words, trade and investment made a net negative contribution to growth*."[180] The UK market is one of the most open in the world. The Department for Business, Innovation and Skills stated that "*the UK had the lowest trade and investment barriers among all OECD member countries in 1998, and has reduced barriers further since then*."[181] The trade deficit relates to Britain's huge trade goods deficit. BIS note that "*the UK trade in services account has been in surplus every year since 1966, and this surplus has increased since 1990. Meanwhile, the UK trade in goods account has been in deficit since 1983*" and "*until 1987, the surplus on trade in services broadly offset the deficit on trade in goods, but since then, the goods trade deficit has outweighed the service trade surplus, and the trade account has been in deficit*." The Global Competitiveness Report 2012-2013 ranks the UK 107th out of 144 nations for "imports as a percentage of GDP".

Increasing trade will not improve the UK's economic position unless the UK either reduces its consumption of imported goods or increases its exports of goods and/or services faster than imports grow. The UK exports a similar range of goods to our larger EU partners but in smaller quantities and in higher value products.[182] The single market is insufficiently developed in services but developed and enforced in goods. The UK's strength lies in exporting services rather than goods. European nations can achieve a trade surplus with the UK by refusing to harmonise regulation and thereby preventing market access in their services sectors. The UK, under governments of all political persuasions, has sought to remedy this problem, but increasing services exports even faster is not an easy task because "*Services are also strongly affected by market entry barriers, with highly differentiated services facing the highest market entry costs*" and Britain is already the second largest exporter of services.[183] This matters because the UK's goods trade deficit relates largely to its European trade.[184]

EU Protectionism

The Chief Economist of the Directorate General for Competition said, "*The implementation of a rigorous economic assessment is hampered by limited powers of investigation: obtaining much of the necessary information hinges on a sufficient level of cooperation by member States and the provision of information by third parties*." He concluded, "*It seems to us that*

---

[180] Confederation of British Industry, *Creating Confidence A New Approach to Industrial Policy*, p.2
[181] Department for Business, Innovation and Skills, *BIS Economics Paper Number 8: UK trade performance: Patterns in UK and global trade growth*, November 2010, p.30
[182] *Ibid*, p.11
[183] *Ibid*, p.31
[184] Open Europe, *Trading Places: Is EU membership still the best option for UK trade?* June 2012

further improvements in the investigative powers of the Commission are hard to dispense with."[185]

Both the Wood Review and the European Commission suggest there is the perception that there is a bias in procurement. The Wood Review notes that few nations or companies currently challenge decisions because of "*the drain on resources such action would represent, for an uncertain outcome*". There is a view among UK suppliers that "*the UK is not as 'aggressive' as its EU counterparts at defending British interests*". The most suspicious member state practices are included in the Wood Review. These include: public bodies instructing bidders on the location of manufacturing, shaping the contractual terms to meet the characteristics of a domestic firm bidding for the contract, and splitting contracts into smaller contracts which the report suggests "*is enshrined in German law*" and can serve to achieve both the legitimate aim to encourage smaller firms to bid and the ulterior aim of preventing a contract exceeding the threshold for public procurement rules. There may also be cases of overzealous enforcement of minor errors or infringements which may infringe upon the expectation of equality of treatment between companies from EU countries bidding for the contract. The Wood Review explains how procuring authorities are required to respond to requests for information on how a decision was reached where these requests come from firms that submitted a tender.

Investigation is needed into the "*excessively close relationships between procuring authorities and national suppliers*" and cases of '*price squeezing*' where procuring authorities give contracts to part state-owned firms who are cross-subsidising their bid using profits from their work in monopoly or quasi monopoly sectors. In some cases, regulatory barriers are applied to make it unprofitable for foreign firms to bid.[186] Procuring entities can give undue weighting to factors other than the pricing of the bid by different bidders. They can also interfere in subcontracting arrangements to favour local firms. Firms can be explicitly asked to use a supplier from the country of the procuring entity rather than a supplier from the main foreign firm's own country. UK suppliers report that "*many other countries pursue offset requirements aggressively through contract conditions: these require a certain percentage of a contract's value to be invested in local goods and services and often include requirements for local sub-contracting or manufacturing in-country*". However the evidence base for infringements is currently anecdotal.

The Wood Review mentions that "*works carried out in Italy under PFI-type contracts have sometimes been required to award 30 percent of the work to local sub-contractors*" and for contracts in the transport sector, "*it is said to be a pre-qualification requirement that firms must already be operating in the area where the service they are tendering for will take place*". It also suggests that "*some German local authorities were said to have applied*

---

[185] Oxford University Press, *European Community: Law of State Aid*, Kelyn Bacon, Brick Court Chambers, 2009, p.21

[186] *Price Squeeze and Monopoly Maintenance in Regulated Industries*, Germain Gaudain, May 2012

political pressure so that local firms won bids and contributed to local employment". Domestic firms are more encouraged to bid in countries such as France because "*French firms can have their bid costs reimbursed in certain cases, or that they can compete on a 'no-fee' basis because of the support they receive from their trade associations*". There are also cases of EU Member States altering domestic pricing policy for key goods to favour domestic producers, e.g. France and drug pricing (see country profile of France in Chapter Two). The exemption from procurement rules for the purchase of goods of a 'warlike' nature can be applied very broadly with "*the UK said to be the only EU country not to classify military apparel as 'warlike'*". Companies may also be pressured to produce bid documents in a national or regional language increasing their costs. Some of these conditions may be explicit breaches of EU Procurement rules.

Room for improvement

The 2012 QS World University Rankings recorded 30 UK Universities in the top 200 in the world, with four UK Universities in the top ten.[187] Any attempt to support industrial clusters in the UK should be based on these 30 world class universities. Nesta, in their report, *The Connected University: Driving Recovery and Growth in the UK Economy*, profiled eight industrial clusters which have already emerged around UK universities.[188] The clusters featured are Cambridge, Newcastle, Manchester, Southampton, Dundee, Sheffield Hallam, Daresbury and the microelectronics industry in South-West England. Some of these universities collaborated with each other on initiatives such as the Cockcroft Institute for accelerator science, a joint initiative between the Universities of Lancaster, Liverpool, Manchester and the Science and Technology Facilities Council (STFC).

The Cambridge high tech development required "*the availability of finance, as Barclays Bank (in particular the local manager, Walter Herriot) took an enlightened, and at that time unusual, view to providing start-up finance and advice for high-tech firms*" and the fact the university "*adopted a laissez-faire approach, in that staff contracts did not prescribe what an academic could or should do and there was a relaxed view on intellectual property rights*."

University of Manchester Intellectual Property Limited aids technology transfer and the university's collaboration with technology investment managers MTI, led to the creation of Europe's largest institutional fund focused on one university. Southampton University is ranked third in the world for creating spin-offs. It operates a "*range of business support services based on an ethos of 'structured serendipity'. This means that rather than a prescriptive pipeline of activity, Southampton offers consultancy services, knowledge exchange schemes and business incubation designed to support any and all types of*

[187] The Guardian Professional, *The Top 200 QS World University Rankings 2012*, 11 September 2012
[188] NESTA, *The Connected University: Driving Recovery and Growth in the UK Economy*, Michael Kitson, Jeremy Howells, Richard Braham and Stian Westlake, April 2009

commercialisation opportunity, delivered through the right mix of academic and industry-skilled people."

The report advocates "*recruiting, developing and promoting more 'boundary spanners': people whose experience encompasses both public and private sectors who can build links between them*" and "*recognising the importance of building networks with local firms, nurturing local clusters, creating national and international connections, and putting this at the heart of their strategy*." Universities can develop new industries but also can up-skill old economic sectors by building networks and transferring technological knowledge. The National Endowment for Science, Technology and the Arts (Nesta) recommended changes to better quantify the impact of university collaboration with business and the need for planning systems to allow the construction of spaces which share ideas through co-location between universities and private businesses.

Nicholas Boles, Planning Minister, has proposed building on 2-3 per cent of the available land in the UK. 9.1 per cent is currently developed. In the 2012 Macmillan Lecture to the Tory Reform Group, Mr Boles MP said, "*In a high wage economy like ours, competitive advantage cannot survive for long without constant innovation. And there is lots of evidence that this is much more likely to happen if the people working in a particular sector are also part of physically connected community, in which they, and the organisations they work for, can spark off each other, as rivals, partners, suppliers, customers and friends*." He declares that "*it is essential that we press on with our planning reforms and do not allow the hysterical scare-mongering of latterday Luddites like Simon Jenkins to strangle developments that will boost living standards*."[189]

Simon Wolfson, Chief Executive of Next PLC, proposes building a new city between Cambridge and Oxford. All three cities would be linked by a new motorway via Bedford and Milton Keynes. This would reduce the three hour journey between Cambridge and Oxford, which are 75 miles apart, by half. The railway line between Oxford and Cambridge was closed in 1967. Mr Boles MP believes it could be "*financed by a Docklands-style development corporation*." The government could use compulsory purchasing to acquire the necessary agricultural land and sell it to developers to provide housing along the route. Linking the two universities would help further develop the pharmaceutical and IT sectors. To bypass existing planning laws a new Act of Parliament was suggested. The idea is to create a British version of the 'Silicon Valley', even if the 50 year history and 140 square mile expanse of that area makes emulation of their success difficult to achieve. The Silicon Valley was originally based, in part, on the area's proximity to Stanford University, among other factors including defence expenditure.

---

[189] Tory Reform Group, *Macmillan Lecture*, Nicholas Boles MP, 30 January 2012, p.5

The government has already backed one new industrial cluster. The Tech City Investment Corporation has received £100 million to regenerate an area surrounding the Old Street Roundabout, £50 million from the Treasury (announced in December 2012), £25 million from Transport for London and £25 million from the Greater London Authority. Dubbed the Silicon Roundabout, the area actually stretches from "*King's Cross in the west to Stratford in the east and then all the way down to Greenwich in the south. We've never really picked a northern border. It's roughly nine square miles*" says Benjamin Southworth, Deputy of the Tech City Investment Corporation.[190] Facilities are to include a 400-seat auditorium with workspaces and 3D printing services, equipped with T4 broadband for visiting start-ups. The initiative aims to aid up to 200 start-up companies per annum. Building on the civic space is to start in 2014 and be completed in 2017. Over 1,300 tech companies currently reside in the area as included in the Tech City Map. This is similar to the Finnish model which aims to strengthen and build up clusters which have already arisen organically and to map the presence of particular firms in the designated cluster area.

A Northern Manufacturing Future

Both industrial clusters above relate to further development of London and the southern English economy. No substantial rebalancing of the UK economy away from financial services and over reliance on economic growth in the South of England will occur without a revival of manufacturing and private sector growth in the North of England. No equivalent cluster is being suggested for the Midlands or the North. The coalition government's plan to build a high speed rail line to link northern cities with London could merely reinforce the UK dependence on the London hub, with cities such as Manchester and Leeds reduced to being spokes and other northern cities such as Liverpool and Newcastle excluded from the network.[191] Opinion polling by ComRes shows that voters in Northern England agreed most with the statement "*the Government should invest in a series of large-scale infrastructure projects to boost UK employment*" with 69 per cent agreeing.[192]

Despite 13 years of Labour government with an aim of closing the North-South gap, Neil O'Brien, former Chief Executive of Policy Exchange highlights how "*Looked at in terms of Gross Value Added (GVA) per capita, my home county of Yorkshire went from being 10 per cent behind the UK average in 1997, to being 17 per cent behind in 2010. The North West went from being 11 per cent behind to 15 percent behind. The decline in the North East was smaller, but from a worse starting point, going from 22 to 23 per cent behind*."[193] 20 per cent of the North West region's economy derives from manufacturing, compared to 13 per cent

[190] ZDNet, *The Magic Roundabout: Can Tech City Build a Start-Up Paradise?* Sam Shead, 20 February 2013
[191] The Telegraph, *Interactive Map: HS2 high speed rail route in detail*, Conrad Quilty-Harper and Mark Oliver, 28 January 2013
[192] ComRes, *Cuts Index Survey, Online Fieldwork* 7-9 September 2011, p.7
[193] The Telegraph, *The north's economy needs a radical new approach if it's going to catch up with the south*, Neil O'Brien, 13 November 2012

for the country as a whole and the UK needs to boost its goods exports.[194] Preston provides an example of how this can work; it "*enjoyed the third fastest rate of private sector job creation of any town in England between 1998 and 2008. And transport and land use explains a lot of it. The failed plans for Central Lancashire New Town left behind great roads and loads of land with planning permission already agreed. So it was the ideal place to locate*."

Clusters are co-ordinated in Finland and France by specific state sponsored entities. The UK Government created Local Enterprise Partnerships (LEPs) in 2010 to replace regional development agencies and co-ordinate local growth policy. 39 currently exist. They are voluntary bodies led by local business personnel with local authority participation. In addition, 24 Enterprise Zones have been created in the LEPs, equipped with tax reliefs on business rates and simplified planning regulations. LEPs currently lack a precise role.

The Work Foundation, which is skeptical of the value of Enterprise Zones, supports the efficiency of "*the relaxation of planning regulations offered by Enterprise Zones*" which they believe to be "*much more cost effective than tax breaks*".[195] An Institute of Directors Member Survey highlights their preference for improving existing rail and roads rather than constructing new ones, and for increased aviation capacity rather than rail capacity.[196] Additional airport capacity seems difficult given the government's hostility. Public funds for road construction are scarce but the government has signalled that new roads and enhancements to existing roads, such as extra lanes, can be funded by private investment and financed by user tolls. The Centre for Cities in its study on Preston stated that "*commuting links between Preston and the wider county need to be made stronger in order to allow residents from other local authorities to access the job opportunities that exist within Preston*". This is an area that has excellent transport links with the broader UK and there are still transport improvements to be made that can help it spread growth in the wider county.[197]

Britain's Energy Situation

Security of energy supply and low energy costs are essential to rebuilding the UK's manufacturing capacity. Both the French and German industrial policies serve to lower energy costs for energy intensive domestic industrial concerns. However, both of their policies are subject to EU review or reform and therefore cannot serve as a model for UK policy. The UK will need to devise its own approach to securing reliable and cheap energy.

---

194 Financial Times, *Special Report, Manufacturing in North West England*, Andrew Bounds, 2 March 2010, p.1

195 The Work Foundation, *Do Enterprise Zones Work?* Andrew Sissions with Chris Brown, February 2011, p.3

196 Institute Of Directors, *Big Picture, Transport investment – what do business leaders think?* Spring 2012

197 Centre for Cities, *Strength from within: Supporting economic growth in Preston*, Paul Swinney & Zach Wilcox, December 2011, p.8

The Department of Energy and Climate Change estimate the impact of their existing policies on medium sized business users represents 18 per cent of 2011 current energy costs, rising to 19 per cent by 2020 and 38 per cent by 2030. Large energy intensive industrial users estimate the impact of existing policies range from three to 12 per cent in 2011, two to 20 per cent by 2020 and 11 to 34 per cent by 2030.[198] Research by the Trade Union Congress (TUC) and Energy Intensive Users Group (EIUG) "*estimates that for the employers* [in energy intensive industries] *surveyed the increase in overall energy bills as result of UK and European climate change policies will be between 18 per cent and 141 per cent in the period to 2020*." These costs render certain activities uneconomic to pursue in the UK, as explained by Kaveh Pourvand in Civitas' *Ideas for Economic Growth: Are our carbon reduction targets self-defeating?* We need a state-backed action plan to secure stable, safe and cheap energy.[199]

The Trade Union Congress estimate that 800,000 people work in energy intensive industries and supply chains. They include "*Iron and steelmaking, cement and lime manufacture, chemicals, ceramics, glass, non-ferrous metals (such as aluminium, zinc and lead), pulp and paper, coke and refined petroleum product industries*" and "*account for roughly half of UK industrial energy consumption*."[200] These industries account for 20 per cent of UK manufacturing and three per cent of UK GDP. The TUC declare that "*unless immediate steps are taken, these policies will have a corrosive effect on the viability of individual businesses and entire industry sectors within the UK. As witness to these concerns, the closure of the UK's last remaining aluminium smelter in the north-east and the announced closure of a steel plant in north Kent are just two current examples of industries under intense pressure*." If these industries close due to high UK energy costs, the UK's trade deficit will increase, carbon emissions will increase as production moves to less energy efficient suppliers, and well-paid jobs in depressed parts of the UK will be lost.

A significant and growing source of the UK's trade deficit derives from energy imports. Between 1981 and 2005 the UK had been a net energy exporter.[201] In 2005 the UK became a net importer of energy with imports growing to £19.1 billion in 2011. In 2011 imports accounted for 36.5 per cent of UK primary energy consumption. Currently the UK has the fifth worst level of energy import dependency in the EU, where only Denmark was a net energy exporter of all EU Member States. Without corrective action the situation will deteriorate further as North Sea oil production declines. In 2011 energy industries contributed 4.4 per cent to UK GDP, significantly below the peak level of 10.4 per cent of GDP achieved in 1982.[202]

Tidal Power – the Severn Fence

---

[198] Department of Energy and Climate Change, *Policy impacts on prices and bills*, 22 January 2013

[199] CIVITAS, Civitas Review, *Are our carbon-reduction targets self defeating?* Kaveh Pourvand, December 2012

[200] Trades Union Congress in association with the Energy Intensive Users Group, *Building our low-carbon industries: The benefits of securing the energy-intensive industries in the UK*, June 2012, p.3

[201] Department of Energy and Climate Change, *UK Energy Sector Indicators 2012*, p.13

[202] *Ibid*, p.10

The Severn Barrage was a scheme that, if delivered, was forecast to deliver roughly five per cent of the UK's energy supply. Estimated costs ranged from £15 billion (2006 estimate) to £30 billion (2010 estimate). It would run for ten miles from Cardiff to Weston-super-Mare.[203] The Severn has the second highest tidal wave range in the world at up to 14 metres. In October 2010, then Energy Secretary Chris Huhne dropped the scheme, saying there was "*no strategic case*" for the dam.

The Severn Fence is a smaller scheme. It was suggested by the Severn Tidal Power Group, who estimated the scheme would take six years to build. This group contains Edinburgh University and engineering groups such as Amec and BMT. It would cost around £3.5 billion and generate between one and two per cent of the UK's energy needs, equivalent to one nuclear power station. Their model would allow ships to pass through to the ports of Bristol and Cardiff. It would generate power by combining a line of underwater tidal current turbines, forcing water through them with a small barrage or tidal lagoons. The former generates most power at the middle of the tidal cycle while the lagoons would generate most power when the tide was low or high. This would ensure power generation would be continuous. By comparison, Imperial College London estimates that nuclear power stations take on average eight years to build with a pre construction period of five to six years (in addition to the construction period). The Government predicts UK nuclear plants will take six years to construct. EDF estimated the costs of building two reactors in the UK at £9 billion.[204]

Nuclear Energy

Between 2012 and 2023, of the current ten nuclear power stations which generate a fifth of Britain's energy needs, all but one will be decommissioned. "*Nuclear electricity contributed 7% to the UK's primary energy supply and accounted for 19% of electricity generated and 17% of Major Power Producers (MPPs) generation capacity in 2011*."[205] Chris Huhne, Energy Secretary in October 2010, announced eight potential sites for nuclear plants by 2025. These are: Bradwell in Essex; Hartlepool, Tees; Heysham, Lancashire; Hinkley Point, Somerset; Oldbury, Gloucestershire; Sellafield, Cumbria; Sizewell, Suffolk and Wylfa, in Anglesey. The government ruled out subsidy to nuclear power generation in the coalition agreement. Reports in April 2012 indicate they were considering a u-turn on this policy by allowing subsidy of the plants through energy bills.[206] EDF are now reported to be in talks with the government to conclude 40-year contracts to provide nuclear power. These

---

[203] BBC News, *Severn estuary dam proposals are shelved*, 18 October 2010
[204] Imperial College London, ICEPT Working Paper, *Cost estimates for nuclear power in the UK*, August 2012
[205] Department of Energy and Climate Change, *UK Energy Sector Indicators 2012*, p.17
[206] The Guardian, *Ministers Planning 'hidden subsidies' for nuclear power*, Fiona Harvey and Terry Macalister, 20 April 2012

'contracts for difference' would grant operators a minimum price for energy and make investment in nuclear plants profitable.[207]

The nuclear sector also highlights the dangers of allowing skills to be lost. Martin Freer, Professor of Nuclear Physics at Birmingham University, writes "*The UK was once a world-leader in the development of fission technologies. In the 1980s, we had a research and development workforce of more than 8,000 and an annual budget beyond £300m a year. Now the R&D workforce stands at fewer than 600, while funding has fallen to less than 10 per cent of the historical level*."[208] Tim Yeo MP, chairman of the House of Commons Energy and Climate Change Select Committee, says we "*know where we need to be; the truth is that the longer we take to get there the more expensive it's going to be*." Hitachi agreed to purchase Horizon Nuclear Power in a £700 million deal with EON and RWE npower in October 2012.

Shale gas

Ed Davey, Liberal Democrat Minister for Energy and Climate Change, removed a ban on fracking in the UK in December 2012. Hydraulic fracking involves making fractures in underground rock formations to extract oil or gas. Tests are being undertaken subject to seismic monitoring. Mr Davey declared, "*Shale gas could contribute significantly to our energy security, and reduce imports of gas as we move to a low-carbon economy. It could substitute for imports, which are increasing as North Sea gas is decreasing*."[209]

UK gas production declined by 21 per cent in 2011 compared to 2010, with a combined 58 per cent drop on the level of production in 2000. The Department for Energy and Climate Change estimate a seven per cent per annum long term decline rate in UK gas production. Estimates of the UK's shale gas reserves range between 200 trillion cubic feet (similar to Brazil) and 1,000 trillion cubic feet (similar to China, the United States and Argentina). Between ten and 20 per cent of these reserves are currently commercially recoverable.[210] Seismic testing is currently being undertaken should to inform a national energy policy.

UK Infrastructure

Two deficiencies the UK needs to rectify are our transport infrastructure and our skills base. The Global Competitiveness Report 2012-13, compiled by the World Economic Forum, ranks the UK 22nd for its airports, 24th for its roads, 16th for its railroads and 12th for its ports, out of 144 countries. For staff training the UK ranked 14th and for Maths and Science

---

[207] The Guardian, Guardian Sustainable Business, *EDF in talks with Ministers about 40 year contracts for nuclear*, Juliette Jowit and Fiona Harvey, February 2013

[208] Public Service Europe, *Nuclear power in the UK: from drift to shift*, Martin Freer, July 2012

[209] The Guardian, *Fracking for shale gas gets green light in UK*, Fiona Harvey and Adam Vaughan, December 2012

[210] Reuters, Exclusive – *UK has vast shale gas reserves, geologists say*, April 2012

education the UK ranked 42nd.[211] Inadequate infrastructure and an inadequately-educated workforce were cited among the most problematic factors for doing business behind access to finance, tax rates and regulations, government bureaucracy and an insufficient capacity to innovate. Each of these factors acts as a drag on UK competitiveness.

UK investment in roads and airport capacity is falling behind our competitors. In 2010 the Highways Agency had a 35 per cent cut to its capital expenditure. The Confederation of British Industry (CBI) estimates congestion costs could increase to £22 billion per annum by 2025 on existing trends (from £8 billion per annum currently). Local road maintenance is underfunded by an estimated £1 billion per annum and the maintenance backlog is around £10 billion, which, given existing capacity, would take 11 years to eliminate even if funds are provided.[212] An Infrastructure UK study comparing road construction costs in the UK and the Netherlands found the latter to be ten per cent less per kilometer. With airport capacity, Schiphol, Amsterdam and Charles de Gaulle, Paris has grown at three times the rate of Heathrow in the last twenty years.[213] The CBI estimates that for every £1 invested in construction £2.84 is generated.[214] The Independent Airports Commission final report is delayed till 2015.

Workforce Skills

Employers complain of the skills deficit in England. The British Chambers of Commerce in its 2011 Survey of Members found that one in five firms believed they lacked the knowledge, in-house skills or managerial capacity to export. 61 per cent of non-exporting firms '*likely to consider'* exporting thought that language skills were a barrier. Around 96 per cent of employers had no foreign language ability for the countries they served.[215] Many firms are unwilling to allocate business time to developing the skills of their staff. Research by the UK Commission for Employment and Skills revealed that "*the smaller the firm the less likely it is to be engaged in training, and that 36% of UK small firms undertake no training at all*."[216] Training time does not generate immediate revenue for the firm. Small firms may lack the finance to fund staff during periods of training and the capacity to source appropriately skilled staff to cover them during their absence. Skilled staff are more in demand and more likely to move between jobs because "*larger firms often pay higher wage rates, so formal qualifications are perceived by many small employers as more valuable to employees than the business itself*." Firms prefer to buy already skilled workers rather than invest in training,

[211] World Economic Forum, *Global Competitiveness Report 2012-2013*, p.359

[212] RAC Foundation, *Local Road Maintenance: Recent Trends and Prospects*, David Bayliss, November 2012, p.9

[213] CBI, *We must boost direct flights to emerging markets – not just expand hub capacity*, 31 January 2013

[214] CBI, *Bold thinking a model to fund our future roads*, October 2012 , p.8

[215] British Chambers of Commerce, *Exporting is good for Britain and exporters need skills*, 2012

[216] UK Commission for Employment and Skills, *Praxis: Encouraging Small Firms to invest in training: learning from overseas*, Professor Ian Stone, June 2010, p.8

if necessary importing them from abroad. Employees change jobs frequently and are unlikely to stay at a single firm for their working life.

The European Commission has approved State aid for training as this "*usually has positive externalities for society as a whole since it increases the pool of skilled workers from which other firms may draw, improves the competitiveness of Community industry and plays an important role in the Community employment strategy*." Also because "*undertakings in the Community generally under-invest in the training of their workers, especially when this training is general in nature and does not lead to an immediate and concrete advantage for the undertaking concerned, State aid can help to correct this market failure*." Aid to improve female entrepreneurship through easier access to finance, and wage subsidies for disabled workers is permitted.[217] Government subsidisation of employee training continues to be subcontracted to employers and to autonomous grant making bodies.

Unstable Export Finance

The British Chambers of Commerce have highlighted the 'accidental' approach UK firms take to exporting. 63 per cent of firms surveyed said that lack of access to finance would stop them exporting. 70 per cent cited fears over cash flow and worries about getting paid. There are also issues of political and currency risk to consider. UK trade is largely with developed and slow growth markets. Reorienting UK trade to greater emphasis on growth markets is a worthy aim of the government's trade policy. In our previous report we cited the danger of applying the Bribery Act too extensively in countries with high rates of corruption as it would disadvantage UK exporters. In the British Chambers of Commerce Survey only three per cent of firms had accessed the services of UK Export Finance, the UK Department of Trade and Industry's provider of export finance services.

Weak R&D Investment

The "*UK R&D intensity (R&D/GDP) is steady at 1.8% but others are well ahead and growing: Germany 2.8%, South Korea 3.4%, Sweden 3.7% and Finland 4%.*"[218] The Organisation for Economic Co-operation and Development revealed that UK SMEs received the lowest level of R&D support of all 27 members of the group. The data was based on figures from 2008/09. The coalition has taken measures to address the gap. However, the OECD warned that "*there are concerns that the failure to maintain and expand the research capacity over this period at the same rate as elsewhere may have eroded the United Kingdom's competitive edge*." And therefore "*the United Kingdom may find it more difficult*

---

[217] European Commission, *Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation) (Text with EEA relevance)*, August 2008, p.214/12

[218] Confederation of British Industry, *Creating Confidence A New Approach to Industrial Policy*, June 2012, p.2

to take a leading role in the next product innovation cycle."[219] In contrast "*around 54 % of total R&D&I state aid [in the EU] in 2010 was granted by three Member States: Germany (€ 2.8 billion), France (€ 1.8 billion) and Spain (€ 1.1 billion)*."[220] In 2011 the top three's proportion grew further with "*Almost 60 % of total State aid for R&D&I in 2011 was granted by three Member States: Germany (around € 3 billion), France (€ 1.9 billion) and Spain (€ 0.9 billion)*."[221]

Both Finland and Sweden have achieved high levels of R&D expenditure creating innovative, high growth, high skilled economies based on new technology. The UK in contrast has a low level of business investment.

Competing for Tourists

The Commission has declared that "*the tourism sector plays an important role in national economies and in general has a particularly positive effect on regional development. Regional aid schemes aimed at tourism activities should therefore be exempt from the notification requirement*."[222] Foreign tourism is the third largest foreign income earner for the UK, worth £18 billion to the UK economy. Tourism creates a series of job opportunities for low skilled Britons and is recognised as a key growth sector in the Growth Review. This identified tourism as a sector which could secure five per cent per annum growth in value over the next decade, a key aim of the current Strategic Framework for Tourism. The UK had a tourism deficit of £13.2 billion in 2009 with Britons spending more abroad than foreign citizens spent in the UK.

Leading European countries have more success than Britain at attracting foreign visitors. France has eight times the number of Chinese tourists the UK receives; Germany has six times the number.[223] Spain had 56.7 million foreign visitors in 2011 and was the fourth largest destination globally for arrivals and the second largest in terms of receipts in 2010.[224] The Spanish Government has a national plan for tourism entitled *The Tourism Plan Horizon 2020*. The Spanish Tourism Institute co-ordinates the promotion of Spain as a place to visit to foreign citizens, and has 33 offices overseas. The Institute for Tourism collects data on the factors affecting tourism in Spain to inform the Spanish Tourism Institute's plans. An Inter Ministerial Committee for Tourism co-ordinates the work of the various central government

---

[219] The Telegraph, *OECD: UK receives lowest level of R&D than any other economy*, Louisa Peacock, February 2013

[220] European Commission, *Commission Staff Working Paper, Autumn 2011 Update*, p.20

[221] European Commission, *Commission Staff Working Paper, Autumn 2012 Update*, pp.17-18

[222] European Commission, *Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation) (Text with EEA relevance)*, August 2008, p.213/4

[223] BBC News, *Tougher tourist visa application process 'costs UK £2.8bn'* Face the Facts, BBC Radio 4, July 2012

[224] OECD, *Country profiles: Tourism trends and policies: Spain*, 2012

bodies with tourism responsibilities and the Sectoral Tourism Conference which co-ordinates the work of the regional governments who have responsibility for tourism activities in their areas and the central government. A Tourism Infrastructure Modernisation Fund worth 400 million Euros is available for municipalities to update infrastructure and tourism accommodation.

Visitors to the Schengen area fill out a single four page visa form granting them access to all member countries. The UK requires a separate nine page form. A report by Frontier Economics for BAA, the airport operator estimated the cost to the UK from lost business over the next decade to be £14 billion.[225] Rhian Kelly, CBI's Director of Business Environment, reveals that "*the UK has captured just 14% of new flights from the EU to China in the last twenty years. This compares to 34% by Germany, 22% in France and 18% in the Netherlands – and the picture is similar for routes to other emerging markets*." The British Chambers of Commerce conducted research among emerging market business leaders which revealed that 92 per cent of them view direct flights as important to inward investment decisions, 62 per cent "*will only invest in the UK if flight connections are improved*" and "*67% of business leaders in Brazil, China, India, South Korea, and Mexico say that better air connections from their home country to France, Germany and Holland mean they are more likely to do business with those countries rather than the UK*."[226]

Regional Inequality

Regional policy in the UK has centered on trying to move jobs to where people currently are. Significant funds have been invested in depressed northern areas to reduce wealth disparities, leading to regions with dependency ratios on public sector jobs and welfare of approaching 70 per cent of local economic activity in some areas. The Dutch and Swedish models show a better regional economic policy is to incorporate depressed regions into a regional economic growth strategy which builds on region-specific private sector strengths. Neil O'Brien, Special Advisor to the Chancellor highlights how public sector jobs are evenly spread between the North and South of England but private sector jobs are not. Areas of the North including "*Cheshire, North East Scotland, Lincolnshire and North Yorkshire have a smaller proportion of jobs in the public sector than the national average"* and *"Manchester is pretty much smack on the national average.*"[227] The problem is the low private sector employment rate and the higher level of unemployment in northern areas of the country.

Firms seeking to invest in the North of England need employees to be able to travel or move to areas where there is a demand for labour within that region. In the UK the length of residence varies according to housing tenure with social housing tenants residing in their

---

[225] Financial Times, *Aviation shortfall expected to cost UK £14 billion*, Andrew Parker, 22 September 2011
[226] British Chambers of Commerce, *"UK will miss out on investment because of poor air connections" say emerging market business leaders*, 26 January 2012
[227] The Telegraph, *Is the north really dependent on public sector jobs? Actually it's not so simple*, Neil O'Brien, 17th May 2012

properties longer than the average for the private rented sector. The Office for National Statistics revealed that "*40.6 per cent of social renters lived in their homes for 10 years or more*" by contrast "*Only one in ten (10.7 per cent) private renters had lived in their home 10 years or more*."[228] Residents with lifelong tenure in council housing or allocated a social rent on the basis of a determined 'need' have obtained their position through participation on a waiting list. There is no incentive for them to move. If they did so they would be placed at the bottom of the list in the new area and unable to guarantee a home of equal size. During the transition period they would need to be put up in temporary accommodation. This is if the authorities overlooked the fact that the citizen could be said to be making themselves voluntarily homeless by giving up their existing council property. Residents paying their mortgage or rent with private funds have an incentive to move to areas where there is work and the flexibility to do so. Social tenants have no such incentives. This system only worked when individuals could be expected to work in a nearby mine or steel works for life.

EU State aid Reform

European Commissioners have announced their intention to reform EU State aid rules to allow the development of an EU industrial policy with more investment by EU Member States in horizontal aid to make their economies more competitive. Both the EU Commission and the Wood Review in the UK acknowledged the perception of discrimination in public procurement practices and the latter suggested there were some 'grey areas'. Neither found conclusive proof of discrimination. The Wood Review includes comments from a series of directors of UK trade bodies stating that discrimination exists. One states that foreign ministers declare "*the attitude that it doesn't matter about all these EU regulations, our role [that of Government Ministers in other EU states] is to ensure that all these contracts go to local contractors*".

The European Commission has declared that "*Member States are invited to co-operate and where appropriate coordinate their industrial policies."*[229] Airbus is an example of how EU members can co-operate to build an industry spanning different EU members that can compete with leading American industrial producers. Institutions such as the Fraunhofer Institute are expanding abroad.

---

[228] Office for National Statistics, *Housing, Social Trends 41*, Chris Randall, 2011

[229] European Commission, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, *An Integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Centre Stage*, 2010, p.33

Conclusion

The European Commission has signalled its preference for EU nations to invest in horizontal State aid. This means investment in energy and transport infrastructure, training, regional development and research and development. Each of these areas represents areas of UK weakness which require investment. The UK Government should develop a comprehensive plan to invest in these areas and build a more balanced UK economy that provides for all its citizens. We hope our research will inform the debate and any plan the UK government develops.

Bibliography

Aerospace Review, *Defence Industrial Policy Approaches and Instruments*, July 2012
ALMI, *From ideas to successful businesses*
BBC News, *Tougher tourist visa application process 'costs UK £2.8bn'* Face the Facts, BBC Radio 4, July 2012
BBC News, *Severn estuary dam proposals are shelved*, 18 October 2010
Bloomberg, *Miliband sees vision for Labour U.K. in Scandinavian Snow*, 21 February 2013
British Chambers of Commerce, *Exporting is good for Britain and exporters need Skills*, 2012
British Chambers of Commerce, *"UK will miss out on investment because of poor air connections" say emerging market business leaders*, 26 January 2012
British Embassy Berlin, *UK IN GERMANY*, *The Fraunhofer Society*, 26 August 2011
Butterworths Core Text Series: *European Union Law*: Margot Horspool, third edition, LexisNexis Butterworths, Reprinted 2004
ComRes, *Cuts Index Survey, Online Fieldwork* 7-9 September 2011
EU Competition Policy Newsletter Articles, *Public Procurement and State aid control – the issue of economic advantage*, Number 3 – 2007, Nóra TOSICS and Norbert GAÁL
Cameron May Limited, *The EC State Aid Regime: Distortive Effects of State Aid on Competition Trade*, 2006
Chartered Accountants Ireland, *EU flexes its muscles on State Aid rules*, March 2010
CBI, *Bold thinking a model to fund our future roads*, October 2012
CBI: *Creating confidence: A New Approach to Industrial Policy*, June 2012
CBI, *Industrial Strategy: France*
CBI, *Industrial Strategy: Germany*
CBI, *We must boost direct flights to emerging markets – not just expand hub capacity*, 31 January 2013
Centre for Business Research Judge Business School, University of Cambridge, *Nordic Approaches to R&D policy*, Graham Gudgin
Congressional Research Service, *Boosting U.S. Exports: Selected Issues for Congress*, November 2011
ConservativeHome, Tory Diary, *Nick Boles proposes that non-EU migrants pay a surety deposit, that some EU migrants should be told to leave Britain and that no immigrants should be eligible for social housing until five years after arrival*, Paul Goodman, 2010 Department for Business, Innovation and Skills (BIS), *How the state aid rules impact upon funding for the delivery of public services including services of general economic interest*, Guidance Notes, October 2009
Department for Business, Innovation and Skills (UK), *State aid: Frequently asked questions*, May 2012
Department for Business, Innovation and Skills (UK), BIS Economics Paper Number 8: *UK trade performance: Patterns in UK and global trade growth*, November 2010

Department of Energy and Climate Change, *Policy impacts on prices and bills*, 22 January 2013

Department of Energy and Climate Change (UK), *UK Energy Sector Indicators 2012*

Dutch ENVIRONMENTAL RESEARCH OF THE FEDERAL MINISTRY OF THE ENVIRONMENT, NATURE CONSERVATION AND NUCLEAR SAFETY, *Financial Support to the Aviation Sector*, June 2003

Dutch Ministry of Economic Affairs, *Guidelines to an Industrial Benefits and Offsets Program in the Netherlands*

Dutch Ministry of Economic Affairs Policy Tools, *Our range of schemes and subsidies for companies*, May 2010

Embassy of Sweden, Sarajevo, *Swedfund increases grant to Swedish SME TO 1.7 MSEK*, February 2013

EurActiv.com, *After setbacks EU prepares to make new venture into industrial policy*, 24 September 2012 updated 7 November 2012

EurActiv.com, *EU industry chiefs urge return to open markets*, competition, 11 March 2010

European Centre for International Political Economy (ECIPE) Occasional Paper No.1/2012, *INDUSTRIAL POLICY IN EUROPE SINCE THE SECOND WORLD WAR: What Has Been Learnt?* Geoffrey Owen, Department of Management London School of Economics

European Commission, *Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation) (Text with EEA relevance)*, August 2008

European Commission, *Commission staff working document, Industrial Performance Scoreboard and Member States' Competitiveness Performance and Policies*, 2012

European Commission, *Commission Staff Working Paper*, Autumn 2011 Update

European Commission, *Commission Staff Working Paper*, Autumn 2012 Update

European Commission, *Competition: Legislation: Block Exemptions*

European Commission, *Competition - Services of General Economic Interest (public services)*

European Commission, Competition, State Aid Control, *Scoreboard, reports and studies*, 2012

European Commission, *Competition, State Aid Control, State Aid Modernisation (SAM)*

European Commission, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, *An Integrated Industrial Policy for the Globalisation Era Putting Competitiveness and Sustainability at Centre Stage*, 2010

European Commission, *Enforcement of EU State aid law by national courts: The enforcement notice and other relevant materials*, Brussels 2010

European Commission, *Innovation and Industrial Policy for key enabling technologies in Europe – Findings for micro-/nanoelectronics and industrial biotechnology*, Sven Wydra, October 2011

European Commission, *Should aid be granted to firms in difficulty? A study on counterfactual scenarios to restructuring state aid*, December 2009

European Commission, *State Aid: Commission outlines comprehensive five year reform of state aid policy to promote growth, jobs and cohesion*, June 2005

European Commission: Study on short-term trade finance and credit insurance in the European Union, Prepared by International Financial Consulting Ltd, February 2012

European Commission, *Municipal Wireless Networks and State Aid rules: Insights from "Wireless Prague"* European Competition Policy Newsletter Number 3 2007, By Norbert GAÁL, Lambros PAPADIAS and Alexander RIEDL

European Commission, *The New State Aid rules for Services of General Economic Interest (sgei)*

European Commission, *State aid N 673/2006 – United Kingdom Regional aid map 2007-2013*, 2006

European Commission: Directorate General Competition: *Vademecum: Community law on state aid*, 30 September 2008:

EU Law Text, Cases and Materials, Third Edition, Oxford University Press, Paul Craig and Grainne De Burca

European State Aid Law Quarterly, *The interface between EU state aid control and the WTO Disciplines on subsidies*, Claus-Dieter Ehlermann and Martin Goyette, EStAL 4/2006

European Network Against the Arms Trade, *Financing misery with public money: European Export Credit Agencies and the financing of the arms trade*

Europedia.moussis.Eu, *EU state aid policy in the crisis situation*

Financial Times, *Aviation shortfall expected to cost UK £14 billion*, Andrew Parker, 22 September 2011

Financial Times, *Special Report, Manufacturing in North West England*, Tuesday March 2 2010

Fraunhofer-Gesellschaft, *60 Years of Fraunhofer-Gesellschaft – A Success Story*, 2009

German Federal Ministry of Education and Research, *The Leading Cluster Competition*

German Federal Ministry of Finance, *23rd subsidy report of the Federal Government for the years 2009 to 2012 (Summary): Trade and industry continues to be the largest subsidy category*, 2012

Global Competition Review, *The European Anti Trust Review 2013, Chapter Two, EU Substantive Areas, EU State Aid: Recent Developments and the way forward*,

Government Offices of Sweden, *Double Exports*

Government Offices of Sweden, *40 measures for the export vision*

HM Treasury, *Transforming Government Procurement*, January 2007

House of Commons Library Note, Public Procurement, Lucinda Maer, 20 January 2012

Imperial College London, ICEPT Working Paper, *Cost estimates for nuclear power in the UK*, August 2012

Institute Of Directors, *Big Picture, Transport investment – what do business leaders think?* Spring 2012

Martineau, *A Guide to the European Public Procurement Rules*, James Dilley, Partner, Head of Competition Law, State Aid & Public Procurement, May 2010
Morrison Foerster (UK) LLP, *UK Public Procurement Law Digest Volume 3*, 2011
National Council Voluntary Organisations, *Briefing on state aid and procurement issues in the Small Business Initiative*, 24 July 2012
Nordregio - Nordic Centre for Spatial Development, North Central Sweden – *Universities and Clusters as Regional Drivers*
OECD: Policy Roundtables: *Competition, State Aids and Subsidies 2010*
OECD: Policy Roundtables: *Competition Policy, Industrial Policy and National Champions 2009*
OECD Proceedings: *Boosting Innovation – The Cluster Approach, 1999, Chapter 15 FINNISH CLUSTER STUDIES AND NEW INDUSTRIAL POLICY MAKING*, *By* Petri Rouvinen and Pekka Ylä-Anttila, The Research Institute of the Finnish Economy (ETLA), Helsinki
OECD, *Regional Development Programmes in OECD Countries*, 2010
OECD Reviews of Regional Integration, *Competitive Regional Clusters, National Policy Approaches*, OECD 2007
OECD, *Science, Technology and Industry Outlook 2012*, September 2012
Office of Government Commerce, *An introduction to public procurement*, 2008
Office for National Statistics, *Housing, Social Trends 41*, Chris Randall, 2011
Official Journal of the European Union, *Guidelines on National Regional Aid for 2007-2013*, C54/13
Oxford University Press, *European Community: Law of State Aid*: Barrister, Brick Court Chambers: Kelyn Bacon, 2009
Pinsent Masons, *European Commission to propose changes to state aid rules by summer*, February 2012
Pinsent Mason, *Public Procurement law*
Public Service Europe, *Nuclear power in the UK: from drift to shift*, Martin Freer, 3 July 2012
RAC Foundation, *Local Road Maintenance: Recent Trends and Prospects,* David Bayliss, November 2012
Reuters, *EU to strictly apply state aid competition rules – Barroso*, 9 October 2009
Riksbank Monetary Policy Report, *The emerging economies and Sweden's exports*, February 2012
SEK, *Investor Presentation*, 2011
Spiegel Online International: *State Aid for Opel: EU lets Germany off the hook*
By Caroline de Gruyter, Brussels, October 23rd 2009
Swedish Defence and Security Agency, *Frequently asked questions*
Swedish Ministry of Finance, *Annual Report State- Owned Companies*, 2011
The Economist: *The Global Revival of Industrial Policy: Picking Winners, Saving Losers: Industrial Policy is back in fashion. Have governments learned from past failures?* August 5th 2010

The Economist, Bagehot, *Nice up north; Why David Cameron is fascinated by Sweden and its neighbours*, January 27th 2011
The Guardian, *Fracking for shale gas gets green light in UK*, Fiona Harvey and Adam Vaughan, 13 December 2012
The Guardian, Guardian Sustainable Business, *EDF in talks with Ministers about 40 year contracts for nuclear*, Juliette Jowit and Fiona Harvey, 19 February 2013
The Guardian, *Ministers Planning 'hidden subsidies' for nuclear power*, 20 April 2012
The Local, Swedish News in English, *Sweden Lanuches New Trade Promotion Agency*, January 2013
The Telegraph, *Interactive Map: HS2 high speed rail route in detail*
The Telegraph, *Is the north really dependent on public sector jobs? Actually it's not so simple*, Neil O'Brien, 17th May 2012
The Telegraph, *OECD: UK receives lowest level of R&D than any other economy*, Louisa Peacock, February 2013
The Telegraph, *The north's economy needs a radical new approach if it's going to catch up with the south*, Neil O'Brien, 13 November 2012
Tory Reform Group, *Macmillan Lecture*, Nicholas Boles MP, 30 January 2012
Trades Union Congress in association with the Energy Intensive Users Group, *Building our low-carbon industries: The benefits of securing the energy-intensive industries in the UK*, June 2012
UK Commission for Employment and Skills, *Praxis: Encouraging Small Firms to invest in training: learning from overseas*, Professor Ian Stone, June 2010
UK Parliament, *Road Pricing in Germany and the Netherlands*, November 2008
US Department of State, *2012 Investment Climate Statement – Netherlands*
US International Trade Commission, *Small and Medium Sized Enterprises: U.S. and EU Export Activities, and Barriers and Opportunities Experienced by U.S. Firms*, July 2010
Wall Street Journal: Guest Contribution: *Five lessons from Germany about winning on exports*, 14 October 2010, Ed Gerwin, Senior Fellow for Trade and Global Economic Policy at Third Way
World Economic Forum Insight Report, *The Global Competitiveness Index 2012-2013: Full Data Edition*, Klaus Schwab, 2012
World Trade Organisation, *WTO Subsidy Notifications, Assessing German subsidies under the GSI notification template proposed for the WTO*, April 2008
ZDNet, *The Magic Roundabout: Can Tech City Build a Start-Up Paradise?* Sam Shead, 20 February 2013