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ETI Committee - Stuttgart visit

1 Introduction

On the 25 and 26 of March 2015 Members of the Enterprise, Trade and Investment Committee visited the Stuttgart region. The visit, which was hosted by the Stuttgart Region Economic Development Corporation (WRS), formed part of the Committee's inquiry into Economic Growth and Job Creation in a Reduced Tax Environment. The purpose of the visit was to learn from *'good practice in economic growth and development and to look at how a fully integrated approach can support economic development'*.

The Committee attended meetings on a range of topics:

- Regional Governance and the Responsibilities of Verband Region Stuttgart;
- Economic Development for the Stuttgart Region;
- Creative Industries in the Stuttgart Region;
- Investor Services;
- Sustainable Mobility in the Stuttgart Region and in Baden Württemberg;
- The Welcome Service in the Stuttgart Region;
- The Competence Centre Initiative and the Virtual Dimension Centre.

This paper provides an overview of the presentations Committee Members received during their visit. The paper concludes by identifying points of learning which may feed-into the Committee's inquiry.

2 The Stuttgart Region in context

The Stuttgart Region is one of 12 Regional Associations within federal state of Baden-Württemberg^{1,2} It is comprised of 179 municipalities organised into five counties – Böblingen, Esslingen, Ludwigsburg, Göppingen and Rems-Murr – along with the city county of Stuttgart. The region is:

*In geographical, economic and political terms... is at the very centre of the federal state of Baden-Württemberg in the south-west of the Federal Republic of Germany.*³

Key figures on the region include:

- The region has an area of 3,654km² – 10% of Baden-Württemberg's total area;
- It is home to 2.7m inhabitants – 25% of Baden-Württemberg's total population;
- The region has a population of 733 inhabitants per km²; and
- Regional GDP is €100bn – 27% of Baden-Württemberg's total GDP.⁴

The Stuttgart Region has a strong industrial base. As Figure 1 outlines, industry and manufacturing accounts for 35.6% of total employment in the region, a larger proportion of employment than in other comparator regions.

To provide some context to these figures:

- Northern Ireland has a population of 1.830 million (30 June 2013) and a population density of 134.9 inhabitants per km² (2013).⁵
- Eurostat data estimates Northern Ireland's GDP to be €37,813m (2011).⁶
- The Quarterly Employment Survey (December 2014) shows that manufacturing accounted for 11% of total employment in Northern Ireland.⁷

¹ Alongside Karlsruhe, Tübingen and Freiburg

² Baden-Württemberg, State Administration, (accessed 31 March 2015) <http://www.baden-wuerttemberg.de/en/our-state/state-administration/>

³ Stuttgart Region in Europe (accessed 31 March 2015) http://eu.region-stuttgart.de/en/stuttgart_region/

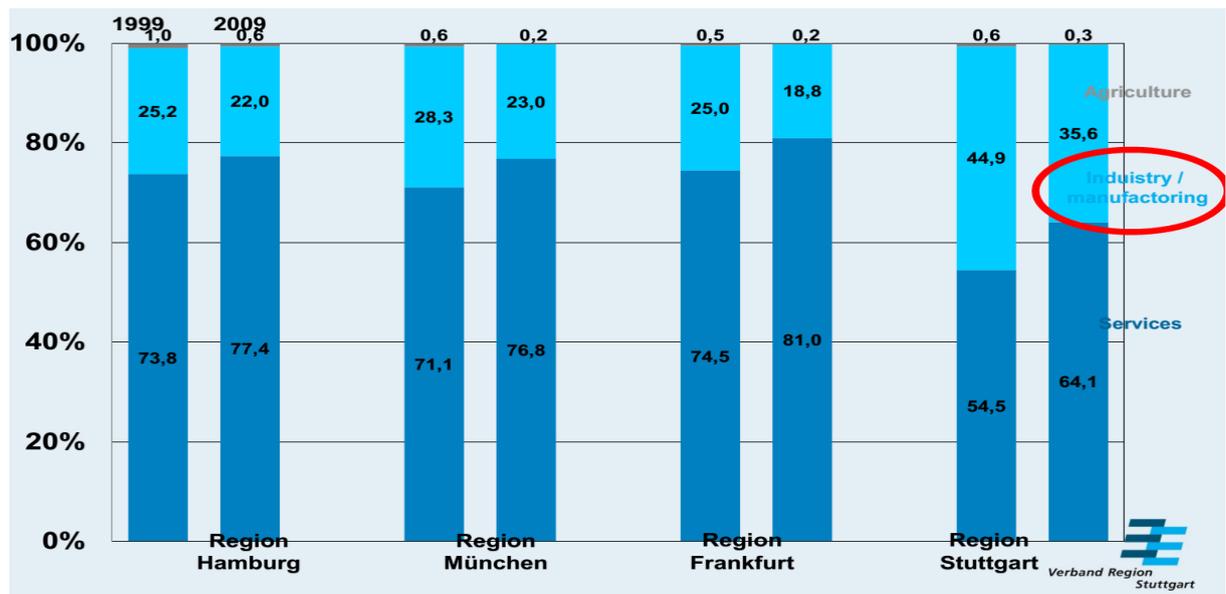
⁴ Verband Region Stuttgart (accessed 31 March 2015) <http://www.region-stuttgart.org/andere-laender/english/>

⁵ NIRSA, NINIS, population and demography

⁶ Eurostat, Gross domestic product (GDP) at current market prices by NUTS 2 regions (updated 03 March 2014) <http://ec.europa.eu/eurostat/data/database>

⁷ Department of Finance and Personnel, Quarterly Employment Survey (December 2014) http://www.detini.gov.uk/20144_table_5.8.xlsx

Figure 1: Employees by business sector



3 Regional Governance and the Responsibilities

Germany's federal structure has a number of tiers of administration. It consists of the Federal Government and 16 Federal States or Länder. The country's 'Basic Law' sets out which functions fall to the government and which are devolved to the Länder.

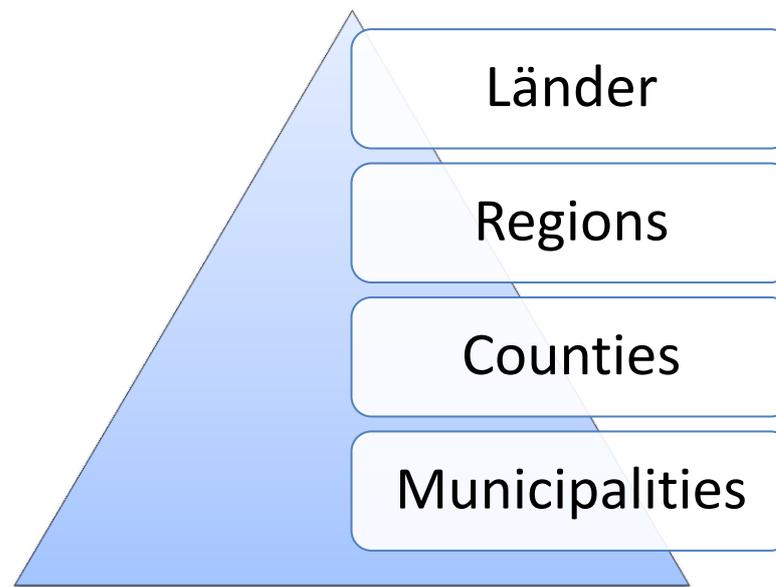
The Federal Government is responsible for 'all foreign policy issues, defence, including the protection of the civil population, citizenship, currency and money, the unity of the customs and trading area and cooperation between the Federation and the Länder concerning criminal police work'.⁸

The Länder are responsible for implementing federal legislation. They have the right to legislate in all areas which are not vested solely in the Federation by the Basic Law. Federal and regional powers sometimes overlap in areas such as justice, social welfare, civil law, criminal law, labour law and economic law. The Länder have exclusive legislative powers with regard to culture, education, universities, local authority matters and the police.⁹

The Stuttgart Region is one of 12 regions in Baden-Württemberg. It is further subdivided into counties and municipalities.

⁸ https://www.bundestag.de/htdocs_e/bundestag/function/legislation/competencies/245700

⁹ <http://extranet.cor.europa.eu/divisionpowers/countries/MembersLP/Germany/Pages/default.aspx>

Figure 2: Tiers of administration

Following an economic recession in the early 1990s the powers of the Stuttgart Region were strengthened. This saw a number of powers, previously held by other tiers of governments, transferred to the regional level and the creation of the Verband Region Stuttgart (a public corporation and the political and administrative authority in the Region). Regional transport was transferred from the Baden-Württemberg state administration and County to the Region. Economic promotion was transferred from the Municipalities.¹⁰ The region has other important powers:

- Co-funding of infrastructure of regional significance;
- Mandatory Planning;
- Open space development;
- Regional marketing; and
- Supporting Municipalities.¹¹

The strengthening of the region enabled a strategic approach to challenges that are not limited to one level, field of action, or municipality – such as adaption to climate change, renewable energy development and mobility.

The Stuttgart Region is also unique in a Baden-Württemberg context in being the only region in Baden-Württemberg to have an elected regional assembly. These developments have led to the Region becoming a significant political entity.

Despite the strengthening of the Region, Municipalities remain strong politically. Each has, for example, a politically strong mayor. Significantly, each Municipality sets its own

¹⁰ Thomas Kiwitt, Managing Director, Head of Planning, Verband Region Stuttgart, Stuttgart Region Governance, Spatial Development Local cooperation (presentation 25 March 2015)

¹¹ *Ibid*

rate of corporation tax and retains corporation tax revenues. This leads to competition amongst the municipalities, although it is in the municipality's interest to maximise corporation tax revenue. Furthermore, whilst the Region has the power to protect land for industrial development, decision on zoning and the granting of planning permission are within the remit of the municipalities.

The presentation ended by outlining some of the challenges facing the Verband Region Stuttgart and how they are being addressed.

- **Mobility:** mobility is important to Stuttgart's competitiveness. It ensures the region is accessible and connected internationally. It is viewed as a driver of prosperity. The region's transport infrastructure is at the limit of its capacity and there is no significant extension to the road network planned. This necessitates the efficient use of transport infrastructure and the promotion of public transport. To facilitate the first, the Verband Region Stuttgart engages in transport orientated land use planning – developments are situated along railway corridors; retail facilities are located close to housing; and the city is densely organised to minimise travel distance. To encourage public transport use the city has instigated a number of schemes. Decisions are based, not only on cost but on what they want to provide to make the region competitive and attractive. For example, the S-Bahn (the regional network), provides a night time service at weekends even though this is not cost effective. An electric-car scheme, Car2Go, has also been introduced. This scheme allows subscribers to pick-up and drop-off electric vehicles anywhere within a pre-defined area (further details below). It is being funded by €75m of regional running matched by €75m of Baden-Württemberg state funding.
- **Mandatory planning guidelines:** Verband Region Stuttgart has developed binding guidelines for local land use and planning. These guidelines demarcate specific areas for housing and for economic development. They also require development along railway corridors. As noted above, land use and zoning remains the responsibility of Municipalities. To encourage cooperation in planning master plans are drawn up with municipalities. These prioritise a bottom-up approach to decision making and encourage co-funding of projects.
- **Industrial development:** Stuttgart is keen to encourage greater industrial development and operates on the principal of '*more factories, fewer banks*'. This desire to grow is constrained by the limited availability that meets the needs of industrial development (land must be of sufficient size, accessible and close to suppliers and customers). One of the key areas of work of WRS (the region's economic development agency) is assisting investors to locate suitable site. This work is explored in Section 6 on investor services.
- **Attractive cities:** the region aims to maintain the attractiveness of its cities. This is achieved by ensuring the quality of infrastructure and public spaces. A key element of the Region's strategy in this area is to safeguard cities' function as market places. Retail is viewed as a key driver of a city's cultural and social life. The region places strict restrictions on retail development outside of city limits. For example: retail

development on brownfield sites is prevented as a rule; proposed shopping developments must fit the municipalities they seek to set-up in; and the sale of goods traditionally sold in the city centre is prohibited or limited outside city limits (in practice, this means stores such as Ikea are prevented from selling smaller goods, but can sell larger items, when located beyond city limits).

- **Mandatory protection of open spaces:** development on open spaces is prohibited as a rule. The exception to this is the development of renewable energy.
- **Sustainable mobility:** Stuttgart bills itself as the 'birthplace of the automobile'. The car industry is a significant contributor to GDP and job creation. The industry is going through a period of change as it adapts to climate change. To encourage this adaptation the Region is promoting research and development in sustainable transport and pilot projects such as the e-mobility scheme. Development in this area is viewed as advantageous as it enhances the region's reputation for innovation.¹²

4 Economic development for the Stuttgart Region

WRS is responsible for economic development within the Stuttgart Region. Their presentation on economic development in the region began by outlining some facts and figures:

- The region is home to 160,000 registered companies and 1.5m economically active people.
- The Region's GDP was €110bn in 2011.
- Business Expenditure on R&D equates to 7.5% of GDP.
- The region is internationally competitive, with over 60% of manufacturing revenue generated abroad.
- It has a low unemployment rate, 4.2%.
- It is a manufacturing 'dominated' region. The sector contributes 39.4% of the region's gross value added. Many of the region's service sector enterprises are reliant on the manufacturing sector.
- It has a 'high research density'. Baden-Württemberg topped the European Union's Innovation Index of regions and countries in 2012, while Stuttgart tops the Baden-Württemberg's own innovation index. The region is home to numerous research institutes and universities. It has a student population of 78,707 (winter semester 2013/14).
- The region has a 'sound sectoral mix', comprising of multinational enterprises and innovative SMEs.¹³

The region's key industries are:

¹² *Ibid*

¹³ Stephanie Fleischmann, Head of Strategy and International Relations, Wirtschaftsförderung Region Stuttgart GmbH, Economic Development in the Stuttgart Region (presentation 25 March 2015)

- The automotive industry;
- Mechanical engineering;
- Environmental technology;
- ICT; and
- The creative industries.¹⁴

WRS was founded in 1995. It has a budget of €8m and a staff of 50 full-time employees. Verband Region Stuttgart is a major shareholder in the organisation. It fulfils the following roles in the region:

- **Marketing for the Stuttgart Region:** WRS marketing work seeks to increase the recognition of the region on the national and international scale. Promotional activities are targeted toward companies, investors, skilled labour and the press. Promotional material takes the form of publications, online PR, trade fairs, press campaigns and advertising. WRS also has a representative office in the US and a European office in Brussels.
- **Investor Support:** WRS' investors support companies who want to locate in the Stuttgart Region and companies from within the region who are seeking to expand or relocate. A key element of their work is to help companies find appropriate sites for their needs. This is delivered through an online real estate market place and real estate market reports. Investor services also work closely with municipalities. They participate in knowledge and experience exchanges with municipal business developers. In addition, WRS consults cities and municipalities on commercial development needs. (WRS' investor services presentation is summarised in Section 6)
- **Regional cluster policy and network management:** WRS' cluster policy seeks to improve regional economic structures through networks, technology development and start-up support. Clusters and networks stimulate cooperation amongst businesses and between businesses and research institutions. Cluster policy focuses on growth sectors and 'future-orientated' topics – mobility in the automotive sector, mechanical engineering and production technology, energy and environmental technology, creative industry and ICT. The Region's clusters are supported by competence centres, which are business and academic networks focussing on a technological sub-division within a specific industry sector. For example the ICT cluster has a corresponding competence centre focussed on software development (Section 9 looks at the competence centre in more detail). Both clusters and competence centres are supported by horizontal measures such as start-up support, business angel support and recruitment support.
- **Innovation support:** WRS' approach to innovation is to develop it within existing sectors. In this respect they are not seeking to develop new sectors, but to exploit technological development with established industries. To encourage this WRS

¹⁴ *Ibid*

informs businesses of developments and shares best practice guidance. One example of support in this area is EXPLORE, a WRS project to exploit results of EU-funded research projects. A second aspect of the project is to improve SME access to existing EU research projects.

- **Labour market support:** WRS supports SMEs in the areas of staff recruitment, retention and training. For example, in the area of recruitment WRS will operate trade walls and facilitate company stands at trade fairs. To assist SMEs in retaining staff WRS will assist companies in developing work-life balance and company health strategies. In the area of training WRS awards a Development Innovation Training Award to companies demonstrating best practice in training. The award is organised in conjunction with the regional Chamber of Commerce and Chamber of Crafts.
- **Knowledge based start-up support:** a range of support for knowledge intensive start-ups was outlined. This included: Push a scheme that provides information, advice and supervision for university spin-off companies; Business Angel Support which is tailored toward young knowledge-based companies; and 'HiTURS Region Stuttgart' which connects young technology and experience companies.¹⁵

Committee Members discussed a number of additional areas, including:

- Access to finance – WRS officials were asked if, in the wake of the financial crisis, firms had experienced any difficulty in accessing finance from banks. It was noted that there is no particular problem in this respect. Although it was added that firms who may find accessing bank finance difficult usually experienced problems with other sources of finance. Business angel financing has been an important source of funding for business. A business angel's forum, an angel network that focuses on high-tech start-ups, was started ten years ago and has proven to be a success. The University of Stuttgart has shown successes in accessing Framework Programme 7 funding. The European Regional Development Fund is not available in the region.
- The role of apprenticeships and vocational education was discussed. Vocational training within Germany is afforded the same status as university education and there is a formalised approach to apprenticeships. Dual learning programmes offer young people integrated work-based and school based learning, with the student spending part of their time in the classroom and part of their time in the workplace. The system is designed to prepare students for the working environment and to match skills with demand. There is also a high-degree of employer buy-in to the system. The system allows for flexibility, enabling course to be tailored to the changes in labour market demand. One of the strengths of the vocational system is that it helps develop a workforce skilled in specialised engineering areas, giving Germany a unique selling point and allowing it to with lower wage economies globally.
- Discussing the education system more generally, Members were informed that there is often business input into education syllabi. For example, the Chamber of

¹⁵ *Ibid*

Commerce is responsible for course content in some cases. Universities in the Stuttgart region are led by two committees. Company members sit on one of these committees and can influence university policy.

- The concept of Mittelstand was discussed. These are medium to large sized family owned firms that are embedded in their local communities. The local connection encourages active participation in corporate social responsibility. Also, because they are not focussed on short-term gains to shareholders, their strategic thinking is often long-term which can benefit to innovation, which often requires significant up-front costs to secure longer-term benefits.
- The role of trade unions was discussed. The strength of German trade unions and their integration within industry (union representatives sit on company boards) was highlighted as one of the central reason why Germany did not experience the same levels of deindustrialisation as other western countries. It was also noted that trade unions were supportive and accommodating of innovative practices.¹⁶

5 Creative Industries in the Stuttgart Region

The Stuttgart Region is home to 10,000 creative industry enterprises. These businesses have a combined turnover of €7bn and employ 60,000 people. Creative industries in the region provide a significant number of services to industry, forming part of the supply chain to manufacturing. For example, it is the creative industries that serve the advertising and design needs of the manufacturing industry.¹⁷

The role of the WRS' Creative Industries Unit is to promote the sector within the region. They assist the sector in a number of ways:

- By initial consultation on and supporting business in foundation, financing and cooperation with other businesses.
- Through marketing and communication – WRS' Creative Industries Unit produces a range of online and print marketing products which highlight the region's creative industries.
- Creative spaces – As noted above office space is at a premium in the Stuttgart area. Part of the work undertaken WRS' Creative Unit is to assist creative industries in identifying spaces in which to operate.
- Cluster management, the Creative Industries Unit initially help in the formation of a Media Initiative Region Stuttgart cluster in 1997. It also represented the cluster in its early stages. The creative cluster has become self-sustaining with over 400 members and now operates without WRS input;
- WRS encourages cross-over projects to highlight the importance of the creative industries to the wider economy. For example, in 2012 it ran a competition to

¹⁶ From discussion with Stephanie Fleischmann following presentation

¹⁷ Margit Wolf, Project Manager Creative Industries Unit, Stuttgart Region Economic Development Corporation, Creative Industries in the Stuttgart Region (presentation 25 March 2015)

develop a sound for electric-cars (e-cars), in conjunction with the region's Popbüro. The purpose was to address a real safety need, that e-cars are much quieter than combustion engine cars. The competition also demonstrated how different industry the utility of the creative sectors to other industries.

- Internationalisation and EU funding – the Creative Industries Unit show cases Stuttgart's creative industries at international trade shows and events. They take part in EU wide networks and are responsible for the management of EU funding.
- Skilled personnel – the Creative Industries Unit supports creatives seeking jobs through job walls at trade fairs, 'Career Walks' (guided tours for students at trade fairs in which companies outline employment options), bonding events, and orientation and consulting for young people.¹⁸

As well as the work of the Creative Industries Unit, Committee Members were also briefed on the work of two related agencies – the Stuttgart Region Film Commission and the Stuttgart Region Popbüro:

- The Stuttgart Region Film Commission is an advisory body for film production within the region. It will assist production companies in finding filming locations, obtain permits, and provides information on professionals within the region.
- The Stuttgart Region Popbüro is the regional body for promoting popular music within Stuttgart. It is responsible for raising awareness of the region's popular music industry. It promotes musicians, groups, companies and start-ups. The Popbüro combines economic and cultural development with youth work.¹⁹

6 Investor Strategy and Investor Services

WRS' discussion of the Stuttgart Region's investor strategy and investor services began by outlining their key message to investors, namely that the region is '*one of Europe's strongest and most innovative regions*'. This was evidence by the following statistics:

- Manufacturing's share of regional exports is 63%, this compares to 45% in Germany as a whole;
- Private sector expenditure on R&D represents 7% of GDP, compared to 2% in Germany as a whole; and
- The regions unemployment rate is 4%, compared to 7% nationally.²⁰

Baden-Württemberg's innovation performance was also highlighted. Data shared with the Committee (outlined in Figure 3) show that Baden-Württemberg's innovation capacity was the highest in Europe in 2014. This placed the region above countries such as Denmark, Finland and Sweden. Additional information (also in Figure 3) shows that within Baden-Württemberg two of the Stuttgart Region's constituent counties –

¹⁸ *Ibid*

¹⁹ <http://bw-in-austin.de/team-view/wrs/>

²⁰ Wolfgang Küstner, Investor Support Services, Wirtschaftsförderung Region Stuttgart GmbH, Investor Strategy and Investor Support Services (presentation 26 March 2015)

Böblingen and Stuttgart – ranked first and second for innovation capacity within Baden-Württemberg. A third county, Ludwigsburg, was ranked sixth.

Figure 3: Innovation index countries and regions within Europe and within the state of Baden-Württemberg²¹

1	71,3	Baden-Württemberg (Deutschland)	1	67,2	Böblingen, (LKR)
2	56,7	Bayern (Deutschland)	2	61,1	Stuttgart, (SKR)
3	55,3	Île de France (Frankreich)	3	57,8	Heidelberg, (SKR)
4	54,6	Berlin (Deutschland)	4	55,2	Ulm, (SKR)
5	53,8	Dänemark	5	51,7	Bodenseekreis, (LKR)
6	53,6	Finnland	6	49,3	Ludwigsburg, (LKR)
7	52,7	Hessen (Deutschland)	7	46,3	Biberach, (LKR)
8	51,2	Schweden	8	43,3	Karlsruhe, (SKR)
9	50,9	Hamburg (Deutschland)	9	42,9	Freiburg, (SKR)
10	49,9	Luxemburg	10	41,8	Heilbronn, (LKR)

The Stuttgart Region's high-standing in the area of innovation capacity is due to it being a location for high-tech industries, including: automotive; mechanical; environment technology; ICT; business to business services; and the creative industries. The Global headquarters of companies such as Daimler, Porsche, Bosch and Trumpf. A number of other global companies, such as IBM, Hewlett-Packard, Ernst and Young, Thales, Sony, Samsung and Lenovo, have located their European or German headquarters in the region. In addition the region is home to a number of research centres – including two Max-Planck Centres; Five Fraunhofer institutes; four institutes of the German Federation of Industrial Cooperative Research Associations; a large-scale German Aerospace Centre research centre; over 100 Steinbeis transfer centres; Universities of Applied Sciences; and academies.^{22 23}

Despite these strengths, WRS Investor Services identified a number of issues. These issues arise from what was referred to as a 'big fish-small bowl' syndrome; that is the Stuttgart Region is a strong economy but further growth constrained by physical and geographical restrictions – particularly transport infrastructure, traffic congestion, office space and the housing market. Overcoming these constraints shape WRS' investor strategy.²⁴

²¹ *Ibid*

²² http://eu.region-stuttgart.de/en/stuttgart_region/research_technology.html

²³ Further information on research centres: the Max-Planck Centres are part of the Max-Planck Society, established in 1948, which operates 82 research institutes (the majority of which are in Germany, although the Society has a global presence). The Fraunhofer Institute is Europe's largest application-oriented research organization. The German Federation of Industrial Cooperative Research Associations is a German national organisation responsible for promoting R&D among SMEs. The German Aerospace Centre in Stuttgart consists of six research institutes conducting research into the areas of aeronautics, space, energy, transport and security. Steinbeis centres operate throughout Germany and focus on the transfer of knowledge and technology between science, academia, trade and industry.

²⁴ Wolfgang Küstner, Investor Support Services, Wirtschaftsförderung Region Stuttgart GmbH, Investor Strategy and Investor Support Services (presentation 26 March 2015)

WRS' strategic approach is also shaped by a desire to focus on the region's strengths. They are not, for example, keen to develop the biotech sector in the region. At the same time, they will encourage businesses to maximise opportunities presented by technological changes in existing sectors.

The strategy itself is based on a four pronged approach, with action in each area seeking to maximise strengths and/or mitigate weaknesses:

- **Their sectoral approach** – as already mentioned this approach seeks to develop existing industry by encourage investment in technological enhancements within the sector. This is achieved in part by demonstrating learning from best practice to companies.
- **A regional approach** – approximately 60% of new investment comes from within the Stuttgart Region from existing companies seeking growth opportunities (for example Bosch are planning to employ a further 1,200 engineers in the coming years). As such the work of WRS Investor Services will assist indigenous companies seeking to expand or relocate their businesses within the region. This, and similar work to assist inward investment into the region, feeds into the organisation's real estate approach outlined below. A key point raised during this discussion was that global companies entering the region are often customers of local companies. In addition to real estate solutions, WRS will offer investors detailed data and information on the region or specific industries within the region.
- **A services approach** – this approach relates to the services offered to investors by WRS. Work here includes the briefing of investors on legal, tax and recruitment issues. Such work is carried out in tandem with experts in each field. WRS will facilitate company to company, and company to research institution networking. The agency will also offer companies a bespoke welcome package to foreign investors.
- **A real estate approach** – the scarcity of real estate within the region necessitates a strategic approach to real estate management, which is a key area of WRS' activities. Achieving this effectively requires working closely with the planning department. The agency is not involved in real estate negotiations, this take place at local level and with the involvement of owners of private land. Such is the importance of WRS' real estate approach agency officials devoted much of the latter part of their presentation to outlining the process they engage in. As such this is laid out in more detail below.²⁵

One area of investment promotion that WRS does not engage in is offering financial assistance to investors. This is due to the region's economic strength. Some state credit programmes are available, but are currently unattractive due to low interest rates.

Regional investment promotion does not operate in a vacuum; rather WRS is a partner within a cooperative national and regional structure. At national level German Trade

²⁵ *Ibid*

and Industry operates internationally engaging in investment an acquisition and marketing. Baden-Württemberg International, the Federal investment agency, also has an international reach and will engage in similar activity as the national investment agency, albeit with a more specific, state focus.

WRS also cooperates with entities at a sub-regional level, working in closely with municipal and county administrations. For example, County economic promotion officers are co-financed by region, counties, and local banks.

All cooperation is based on the principal of subsidiarity with each level of administration doing *'what it can at its level, within its means'*.²⁶

WRS' investor services works across four 'fields of action': market research; support for cities; investor support; and investor acquisition. Figure 4 outlines the process engaged in in each field and how the fields of action interact with each other. For example, market reports on the real estate market feed into WRS' support for cities and the work the undertake to find suitable sites for new and regional companies.

Figure 4: WRS Investor Services – Fields of Action²⁷



Supporting companies through site location is the main area of work for WRS Investor Support Services. The service employs real estate experts who can guide clients through the range of available sites and make specific recommendations that meet client needs. As noted above, lands is constrained and whilst the region has the power to protect land for industrial development, decision on zoning and the granting of planning permission are within the remit of the municipalities.

²⁶ Ibid

²⁷ IBid

When WRS receive an investment lead, these are passed to cities and counties with each given an opportunity provide a site solution. Companies do, however, retain control of where they set-up. For example, WRS would not pass on a lead to the northern part of Stuttgart if a company is specifically looking for a location in the southern part of the region.

A key development in WRS support to companies in this area has been the development of its Regional Real Estate Database. This database has been online since 1997 and has recently been developed to allow smart phone access. The database allows businesses to search for information on more than 1,000 sites and buildings within the Region's 179 municipalities.

Whilst WRS Investor Support Services will assist business in their site selection. They do not become involved in contract negotiation. This is left to local authorities in the case of communal land and land owners in the case of private land.²⁸

7 The Automotive Cluster in Baden-Württemberg

The Automotive Cluster in Baden-Württemberg is managed by Automotive-BW. The agency fulfils a number of roles, it:

- Acts as the main point of contact for the cluster;
- Organises conferences, seminars and workshops;
- Leads subject-specific groups;
- Mediates in and facilitates cooperative action;
- Provides education and training opportunities;
- Promotes the cluster in trade fairs and congresses;
- Share information on trends, technology and support; and
- Operates an internet platform for marketing and communication.²⁹

The cluster is a significant driver of Baden-Württemberg economy. Despite the emergence of other sectors, the wealth of the state is dependent on its automotive and engineering industries. The presentation on the state's automotive cluster focussed on the cluster itself and on how the industry was changing.

The presentation provided some statistics on the automotive cluster:

- 20% of jobs in Baden-Württemberg are in the automotive jobs (and 28% of all German 'autojobs' are located in the state);
- 19% of all German cars are produced in the Baden-Württemberg;
- The cluster comprises of 300 companies, employing 200,000 people; and

²⁸ *Ibid*

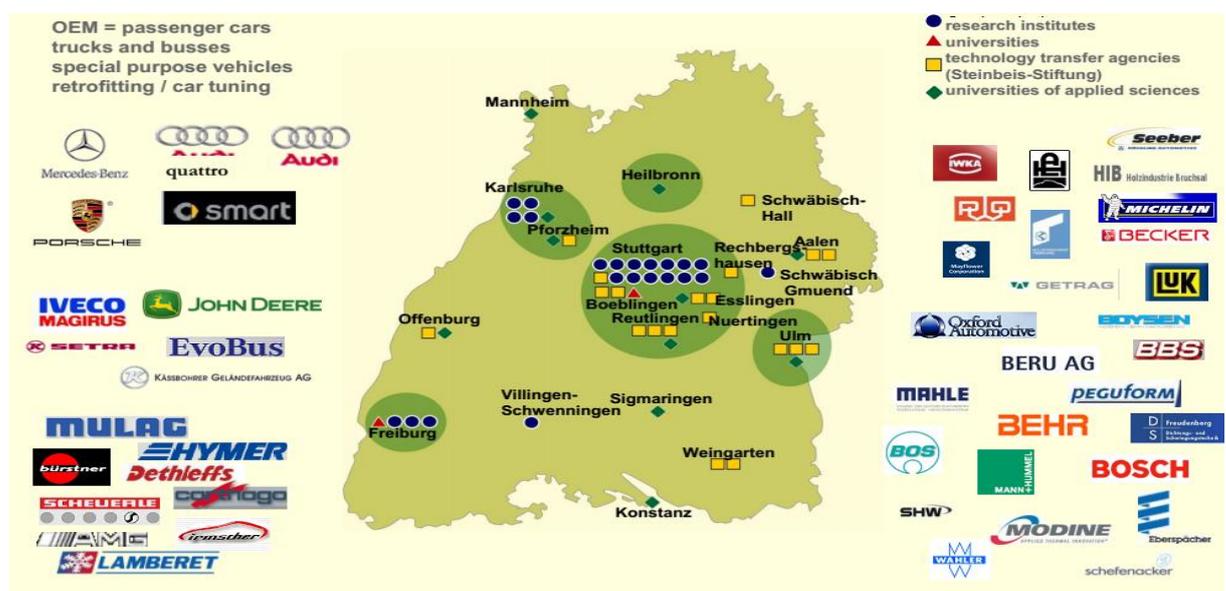
²⁹ <http://automotive-bw.de/de/unternehmensbereich/index.php>

- Vehicles account for 26% of turnover, 34% of exports and 33% of investments in Baden-Württemberg.³⁰

Figure 5 provides an illustration of some of the key players within Baden-Württemberg's automotive cluster. Some points were raised regarding the operation of the cluster:

- Automotive manufactures are the central component the cluster, it is they who encourage the growth of supply chains and R&D in the university sector;
- For example, the concentration of large companies in the sector has led to suppliers to these companies headquartering in the area;
- Cooperation between companies within the cluster does take place, but not in competitive areas;
- One example of cooperation is resource sharing to secure cheaper supplies, this is especially true of battery technologies; and
- The cooperation at EU level is essential for Europe to remain competitive with other regions, particularly Asia.³¹

Figure 5: Baden-Württemberg's automotive cluster³²



The industry is facing challenges and opportunities:

- A raw material shortfall, particularly finite fossil fuel – which presents an opportunity for the development sustainable products and processes;

³⁰ Dr. Rolf Reiner, Cluster Manager automotive-bw / CARS, The Automotive Cluster in Baden-Württemberg (presentation 26 March 2015)

³¹ *Ibid*

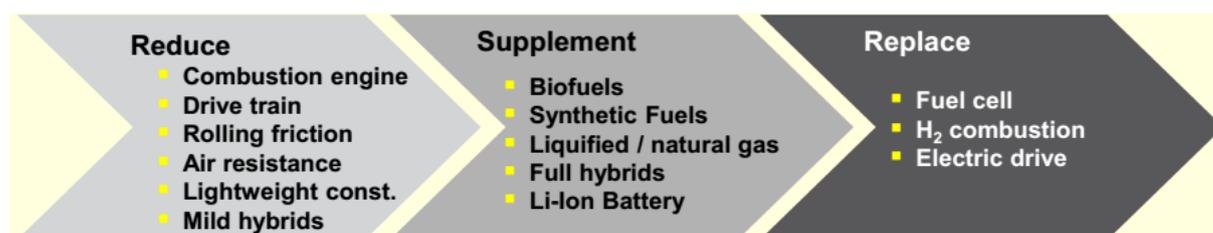
³² *Ibid*

- A tightening of regulations – in which the social and environmental impact of products will impact future success;
- Environmental and climate change (and government reaction to both) – which restrict future CO₂ emissions;
- The emergence of megacities – which is leading to reimagining on the concept of mobility; and
- A change in values – where sustainability is viewed as part of a modern urban lifestyle.³³

The conclusion drawn from this assessment is that the industry must adapt to a '*clear trend for increased sustainability*'.³⁴ Importantly, these challenges are not only viewed as obstacles to overcome, but also potential areas in which the sector may innovate to secure competitive advantages in the market.

To capitalise on the challenges faced by the sector, the German Association of the Automotive Industry (VDA) has developed a broad based strategy. This is underpinned by three principles as illustrated in Figure 6 – reduce, supplement and replace.

Figure 6: VDA strategy – Meeting the challenges of the automotive industry³⁵



To encourage the realignment of the industry towards sustainability and innovation Automotive-BW has launched TecNet an 'ideas platform' which seeks to address the challenges faced by the industry. Participants take part in three to five meetings per year during which solutions to challenges (E-mobility, energy efficiencies, and light-weight construction) are shared by small companies (intellectual protection is available) and rated the larger companies. The platform enables the matching of skills of SMEs to the technological requirements on the large manufacturers and suppliers.

WRS and e-mobil Baden-Württemberg have also been involved in the development of e-mobility. Baden-Württemberg is one of four German regions selected for a large-scale e-mobility pilot project. The rationale behind all four pilot projects is to:

- Increase the visibility of electric vehicles;
- Increase the number of electric vehicles on roads;
- Develop knowledge and experience; and
- Improve cross-sectoral cooperation.³⁶

³³ *Ibid*

³⁴ *Ibid*

³⁵ *Ibid*

Baden-Württemberg's project, Living-Lab, consist of 34 projects in a range of areas:

- Intermodality;
- Fleets and distributors;
- Energy, infrastructure and ICT;
- Housing and e-mobility;
- Urban and traffic planning;
- Vehicle technologies;
- Communication and participation;
- Education and training; and
- Impact research and evaluation³⁷.

An example of the project in action is Car2go launched in 2012. It is a scheme that allows subscribers to access electric cars from throughout the Stuttgart city (the 'home area'), use the vehicle temporarily and when finished, drop the vehicle off at any point within the home area. Users pay a one-off administration fee of €19.00 to sign up to the scheme and €0.29 per minute of driving (with a maximum of €14.90 per hour or €59.00 per day).³⁸ The scheme was launched with a fleet of 300 cars. To support its development 500 charging points have been installed throughout the region.³⁹

The Car2Go scheme is just one aspect of the intermodality concept that the regional authorities are seeking to promote. Residents of Stuttgart are encouraged to use different modes of transport depending on the journey they are undertaking. For example, a commuter might use the S-Bahn to enter the city and then use the car2Go scheme or one of the City's electric bikes to move around within the city. The intermodality concept is seen to have two main advantages. It increases the sustainability of the city's transport infrastructure and helps alleviate congestion.

8 The Stuttgart Region Welcome Service

The Stuttgart Welcome Service is one of ten Welcome Centres in the Baden-Württemberg area. It is a joint project of the WRS and Skilled Specialist Alliance Stuttgart that aims to:

*...attract international skilled specialists and students to the Stuttgart Region for the long term and to assist them in the integration process.*⁴⁰

The project was originally funded by the European Social Fund. It is currently financed (for the 2015/16) by the Baden-Württemberg's Ministry of Finance and the WRS.

³⁶ *Ibid*

³⁷ *Ibid*

³⁸ <https://www.car2go.com/en/stuttgart/what-does-car2go-cost/>

³⁹ <http://www.livinglab-bwe.de/projekt/alis/>

⁴⁰ Dr. Verena Andrei (Project Manager), Stuttgart Region Economic Development Corporation (WRS)/ Wirtschaftsförderung Region Stuttgart GmbH, Stuttgart Region Welcome Service (presentation 26 March 2015)

The Welcome Service, which has a full-time equivalent staff of 3.5, operates as a one-stop-shop for new entrants to the Stuttgart Region offering advice on:

- Right of residence;
- Learning German;
- Working;
- Training / studying;
- Recognition of degrees from foreign universities;
- Living;
- Nursery school places and school;
- Associations;
- Culture; and
- Contacts.⁴¹

The Welcome Centre will also direct users towards sources of further advice. The Centre works with the immigration advice services and regional welfare organisations, as well as other regional partners and advisory services.

Between opening in October 2014 and February 2015 the Centre dealt with 1,294 requests for advice. The majority (75%) of these were face-to-face requests; the service also operates via email and telephone. In addition to one-to-one advice the Centre hosts information evenings and events at its premises.⁴²

The breakdown of advice offered during this period was as follows:

- 33% on language;
- 30% on working;
- 19% on housing;
- 10% on entry requirements; and
- 8% on studies.⁴³

Those seeking advice came from within the EU (53%), from third-countries (countries outside the EU – 43%) and from Germany (4%). To accommodate the different backgrounds of those seeking advice it is offered in 12 languages.⁴⁴

9 The Competence Centre Initiative and Virtual Dimension Centre

The Stuttgart Region's Competence Centres (CCs) are thematic regional networks consisting of companies, universities and research centres that seek to provide 'a suitable basis for know-how exchange, innovative cooperation and project approaches

⁴¹ *Ibid*

⁴² *Ibid*

⁴³ *Ibid*

⁴⁴ *Ibid*

among the partner institutions'. To achieve this CCs link together actors across the supply chain, while the centre itself operates as a 'one-stop shop' for member organisations providing a range of services:

- Guidance on technological solutions;
- Fostering open innovation process;
- Promoting joint learning on both technology and business approach - for example, on how to enter new markets; and
- Exploiting scale effect – such as joint marketing material or joint trade stalls at trade fairs.⁴⁵

They are part of the region's wider approach to cluster and network management, which also includes cluster initiatives (the automotive and creative industries, for example) and horizontal networks (in areas such as finance and education).

In contrast to clusters, which tend to foster cooperation across broad industry sectors, CCs are more specific in their focus. For example, whilst a cluster may form around the automotive industry, a CC would support network formation within a particular sub-division of an industry sector, such as mechatronics. Each CC is a formalised network of 40 to 100 member companies (a membership fee is charged) focussed on a specific technology and integrating regional companies and research bodies working within that technological field.

The region's CC programme began in 1999 with the aim of promoting economic development and to assist SMEs in meeting the challenges of global competition. Regional funding (€2m) was provided to municipalities to establish CCs during an initial implementation phase (2000-2002). This initial funding has leveraged significant private investment.

Since 2003 funding has been provided on a project-orientated basis. This funding is competitive, with CCs applying for funding for specific innovation projects. Project funding in the region €25,000 is provided over a one or two year period to successful applicants.

Currently 11 CCs operate in the Stuttgart Region (see Figure 4). In total 500 companies (80% of which are SMEs) and 50 universities and research institutes participate in a CC.

Demand exists for new CCs from within the Stuttgart region and from outside. CCs can be established with a critical mass of companies, between 10 to 15 companies. New CCs will not, however, receive financial support during their implementation.

Factors influencing the success of CCs include:

⁴⁵ Dr. Andreas Findeis, Stuttgart Region Economic Development Corporation, Competence Center Programme Stuttgart Region (presentation 26 March 2015)

- The Network Manager: each CC is managed by a Network Manager who is responsible for the set-up and development of the CC. The Network Manager will ideally have knowledge of all companies and people within the network, and will maintain the participation and commitment of these members. The role of the Network Manager in maintaining the network will relieve this from the members themselves allowing them to concentrate of their business activities;
- Communication: communication amongst network partners is key to a successful CC. Where possible this communication should be face-to-face, through physical meetings in order to build up trust and develop a permanent forum for exchange. Face-to-face communication is supported by modern technology.
- The CC's institutional status: the legitimacy of CCs and the commitment of members is encouraged by the CC being a registered legal entity. Membership fees (which range from €1,000 to €7,000) also encourage commitment and participation from CC partners.
- Demonstrating benefit: the benefits of participating within a CC network may not always be material. However, it is viewed as necessary to initiate *'concrete projects to ensure the partners' perception of the (net-)work advantages'*.
- The structural mix: a successful CC networks are comprised of a mix of SMEs, large companies, public bodies and research bodies covering all aspects of the process-chain. They encourage bottom-up, rather top-down, development, and public-private partnerships through the strong involvement of the local municipality.

CCs are supported by WRS' Coordination Unit. The role of the Coordination Unit is to:

- Initiate and promote regional innovation projects including competitive regional funding for innovation;
- Provide marketing, communication and public relation support;
- Assist in the organisation of events;
- Provide links to other regional, national and international networks; and
- Provide information and support to help CCs and members to access national and international funding. For example, CCs will assist members who are seeking funding through Horizon 2020.

Committee Members were also briefed the work of the Virtual Dimension Competence Centre (VDC) and given a hands on demonstration of its outputs. The VDC was formed in 2002 and is a network of 100 members and partners. It focuses on virtual engineering, virtual reality, 3d visualisation and content creation.

The VDC Competence Centre operates on a not for profit basis, employing five people in its core business of network management and technology transfer. The Centre engages in:

- Information processing – updating members on important news, facilitating the exchange of information and assisting members in technology assessment;

- Public relations and marketing;
- Matching making – the VDC facilitates research cooperation and business contact;
- Technology transfer – supporting SMEs through information events and demonstrations (the facility has a demonstration centre);
- Funding management – the VDC team researches funding programmes, assist members to form consortia and helps with project management.

10 Learning

The sections above provide an overview of the presentations Committee Members received when visiting the Stuttgart Region. This section uses the information presented to identify points of learning which may provide a useful input into the Committee's inquiry into Economic Growth and Job Creation in a Reduced Tax Environment.

The Stuttgart Region does not offer direct financial assistance to companies. One of Northern Ireland's key tools in attracting investment has been Selective Financial Assistance. This is unlikely to always be the case. In evidence to the Committee, in November 2014, Invest NI stated that they are working with *'the knowledge that selective financial assistance (SFA) will disappear'*.⁴⁶

As such the work of Stuttgart's WRS provides an example of the types of activities Invest NI may choose to engage in, in a post-SFA environment:

- Marketing Northern Ireland;
- Supporting investors in their location decisions;
- Managing clusters and networks;
- Support and encouraging innovation;
- Supporting companies to recruit;
- Assisting knowledge-based or high-growth potential start-ups.

The Stuttgart Region provides a number of examples of an integrated approach to economic development. This integration is evident on both a vertical and a horizontal basis. Vertical integration takes the form of cooperation between the various tiers of government. This can be seen in the interaction between German Trade and Industry and Baden-Württemberg International, where the former works internationally to attract investment in to the country and the latter seeks to attract investment into Baden-Württemberg.

It can also be witnessed in the cooperation between the regional economic development agency, WRS, and the municipalities and counties. Examples of this

⁴⁶ Official Report: Minutes of Evidence Report, Committee for Enterprise, Trade and Investment, meeting on Tuesday, 11 November 2014, Half-yearly Progress Report 2014-15: Invest NI
<http://aims.niassembly.gov.uk/officialreport/minutesofevidencereport.aspx?AgendaId=10534&evidID=6647>

include the interaction between the region and municipalities in finding locations for investors and the joint region and county funding of County economic promotion officers.

Horizontal integration is also evident. This is evident in the way policy levers available to regional government are generally targeted towards enhancing economic development. For example, planning policy is geared towards facilitating investors and maximising the attractiveness of cities (the guidelines restricting out of town shopping centres or requiring development along rail corridors). Transport policy, whilst chiefly aimed at alleviating congestion, also serves to increase the attractiveness of the city by improving connectivity or by enhancing the travel experience.

The Stuttgart Region's approach to innovation is also of note. They are not aiming for what might be described as 'big bang' moment. That is, they do not wish develop a completely new sector within their economy. Instead they are more focussed on encouraging innovation in already existing sectors by exploiting technological developments and addressing challenges.

The automotive sector is a notable example of this approach. The sector is a significant driver of the Baden-Württemberg's economy (accounting for 20% of all jobs for example). Yet is a sector that faces challenges, most significantly the challenge of increasing the sustainability of its products. Importantly, these challenges are not only viewed as obstacles to overcome, but also potential areas where the sector may innovate to secure a competitive advantage in the market.

The work carried out by the Region's Competence Centres also illustrates this targeted approach to innovation. The Competence Centres have been designed to focus on sub-sectors or specific technologies within already successful cluster. They allow for knowledge exchange and cooperation in these relatively 'niche' areas, enabling growth in these areas and developing specialisms that are of value to the 'parent' cluster.

The discussion on education demonstrated the integration of the business sector within the education system. Business buy-in is essential to the success of the vocational education programme. There is also a degree of business input into university syllabi. Both approaches may help to match the skills developed in education to the needs to industry.

The discussion on Creative industries demonstrated that the sectors importance to the wider economy. The importance of the creative industries in providing support services, such as advertising and design, to the region's manufacturing industry highlighted.

The service provide by Stuttgart's Welcome Service was also of note. The service provides a means of integration for new arrivals to the city. It operates as a one-stop-shop for new entrants, providing information on range of topic such as rights of residence, German language, and school places. It is viewed as an important factor in attracting, integrating, and retaining skilled specialists and students to the region.

