



OECD Local Economic and Employment Development (LEED) Programme

**A Review of Local Economic and Employment
Development Policy Approaches in OECD Countries**

Executive Summary and Synthesis of Findings

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NOTE ON THE REPORT SERIES

This report forms part of a series of four reports from the project carried out by the OECD with collaboration from the Welsh Assembly Government (WAG) “A Review of Local Economic and Employment Development Policy Approaches in OECD countries”. The review has intended to provide WAG with a set of policy options and learning models to consider in the design of future development policies and strategies. The full set of reports is as follows:

- Executive Summary and Synthesis of Findings
- Part I: Policy Audits
- Part II: Policy Transferability to Wales
- Part III: Case Studies of Regional Economic Development Approaches

In this report, an executive summary of the whole review is firstly given. Conclusions and policy messages of relevance to Wales are then presented.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	8
Aims and contents of the review	8
Policy challenges in Wales	8
Methodology of the review	9
Policy audits: lessons and summary	10
Regional case studies: lessons	16
Regional case studies: summary	19
CONCLUSIONS AND POLICY MESSAGES	23
An overview of the Welsh economy	23
Main policy recommendations	24
Policy messages	29

EXECUTIVE SUMMARY

Aims and contents of the review

This Review of Local Economic and Employment Development Policy Approaches in OECD Countries has been carried out by the OECD LEED Programme in collaboration with the Welsh Assembly Government (WAG). The aim of the review is to identify successful and/or innovative policy initiatives that could be relevant to Wales and regional economic development models that could inspire Wales's future strategy-making. Given the large volume of material already available on Welsh economic challenges and policies, the focus was not on "looking in" but on "looking out" at initiatives that could inspire Wales from other OECD regions, based on existing understanding of the challenges. The two main objectives of the review have therefore been: a) identify and analyse innovative and/or successful single policy tools that could potentially be applied in Wales; b) identify and analyse some broader regional economic strategies and their delivery arrangements that could inspire the overall economic development approach of Wales.

The review consists of twenty audits of specific policy interventions and five case studies of regional development strategies. The selection of the audits and regional case studies written up in this review has been the result of a consultation process between the OECD secretariat and the WAG's project steering group from among a larger group of candidates. The main consideration for selecting these initiatives was the close fit with the policy challenges facing Wales.

Policy challenges in Wales

Existing literature and policy documents show that the two key challenges for Wales have been identified as follows:

- *Increase labour market participation.* Labour market participation has improved throughout the last decade in Wales, but still lags behind the UK average. Increasing economic activity must involve actions that target specific regions of Wales and specific segments of the Welsh population. This reflects the pattern of economic inactivity, which is particularly strong in west Wales and the Heads of the Valleys, which are also the regions with the highest shares of low-educated adult population. Increasing activity rates will require work both on the supply and demand side of the labour market. On the supply side, it will involve investments in skills and employability, especially among low-skilled people, as well as tackling other barriers to labour market participation (e.g. transport, childcare facilities, etc.). On the demand side, it will call for job-generation efforts, especially in localities with a large surplus of labour.
- *Improve productivity per worker.* Gross-value added (GVA) per job in Wales is below the UK average in part reflecting a relatively unfavourable occupation and industry mix. This has also been associated with the legacy of a "branch factory" economy, which suggests the need to develop policies to attract higher added-value inward investments to Wales and to

promote local high added-value sectors such as high-tech industries and financial or professional services. WAG has identified the following drivers of productivity growth: innovation, entrepreneurship, skills, investment, and trade. Policies and programmes must be developed to act on each of these drivers.

It was also felt that an additional challenge is represented by differences in local conditions within Wales. Whilst economic inactivity is somewhat high in west Wales, it is no worse than the UK average in east Wales, including the Cardiff region. In the east, the challenge falls more squarely on increasing labour productivity.

Methodology of the review

The review was divided into two main parts: policy audits and regional case studies.

In the case of policy audits, discussion between the OECD secretariat and WAG representatives led to the identification of six policy fields in which to look for initiatives of interest and relevance to Wales across the regions of the 30 OECD Member countries. The six identified policy areas were: a) *labour market participation* (e.g. wage subsidy programmes, self-employment programmes, job-search services, mobility programmes, etc.); b) *skills development* (e.g. training, skill need assessment, match between skill needs and training offer, etc.); c) *economic and physical regeneration* (e.g. fiscal incentives for property and business development, entrepreneurship promotion in distressed areas, brownfield remediation, etc.); d) *business productivity improvement* (e.g. business development services, innovation and internationalisation support, etc.); e) *knowledge transfers* (e.g. knowledge transfer programmes between industry and university); f) *sector development* (e.g. identification of strategic sectors, cluster development, business network programmes, etc.).

Thereafter, an international call for experts interested in analysing policy initiatives in these fields was launched. In order to identify the maximum number of relevant cases, the call for experts was publicised on the OECD website, through newsletters of the OECD and partners in Europe and North America and then personal contacts between the OECD secretariat and its large network of experts. The outcome was the submission of 120 detailed proposals, which were examined in a joint meeting by the OECD secretariat and the WAG steering group. This led to the identification of the 20 initiatives described in the “policy audit” section of the review, based on their perceived relevance for meeting Welsh challenges, their potential transferability and the quality of the evidence base for demonstrating success. Each audit followed the same structure: rationale; description; impact and evaluation evidence; strengths and weaknesses; potential for transferability to Wales.

With regard to the case studies of regional development strategies, the intended target has been regions in OECD Member countries which are perceived to have operated successful strategies associated with growth and which were broadly comparable to Wales in terms of governance framework, especially in the fields of local economic and employment development policy. Since WAG has devolved responsibilities for economic development, this steered the selection towards regions located either in federal countries (USA, Canada, Germany, Austria, etc.) or countries where regions enjoy significant legislative powers (e.g. Italy, Spain, etc.). A first short-list of 15 relevant regional strategies was narrowed down to the final five after further consultation between the OECD secretariat and the WAG steering group. The five identified regions were: Pennsylvania (USA), Schleswig-Holstein (Germany), Styria (Austria), Tuscany (Italy) and the Basque Country (Spain). All of them were perceived as relatively successful regions, broadly comparable to Wales and able to provide some lessons on development approaches and strategies. In each regional case study an expert undertook a desk review of existing material (policy evaluation reports, policy documents, academic papers, etc.) and carried out interviews with regional policymakers to understand the strategy pillars,

the strengths and weaknesses of the strategy and potential lessons. Regional case studies also followed a given structure: brief overview of the regional economic context; rationale, pillars and delivery arrangements of the regional development strategy; outcomes of the strategy; potential for transferability to Wales.

Policy audits: lessons and summary

The main finding of policy audits is that there are both complete programmes that could be considered for adoption and elements of programmes that could be incorporated into existing approaches. The following six programmes stood out as holding the most interesting lessons for Wales.

Perspective 50 Plus is a programme within Germany's wider labour market reform which targets older workers through a twofold approach. On the one hand, it provides incentives (e.g. training subsidies) to firms so that the latter are more motivated to retain older workers. On the other hand, it seeks to reduce barriers to labour market participation for older long-term unemployed. Since the launch of this programme thousands of older workers have been pulled back into the labour market, which shows the good success of the initiative. High inactivity in the over-50 segment of the population and current demographic trends highlighting an aging society make labour market participation of older workers a compelling issue in Wales too. There are already a number of programmes in Wales that try to deal with this problem, such as the UK-wide New Deal 50Plus and Wales-based "Prime Cymru" and "The Age Positive Initiative". However, there are two specific elements of Perspective 50Plus that could enhance these and other approaches. One is the formation of employment pacts, which have involved a large number of stakeholders and which have been managed very flexibly with regard to both activities and budget spending. The second is direct dialogue between job centres and SMEs to convince them about the benefits of hiring experienced aged workers. In considering how to apply this in Wales, it is clear that both Job Centre Plus and the Sector Skills Councils would have to play a major role. This measure would also need some high-profile co-ordination because it calls for awareness-raising campaigns, identification of best-practice initiatives and the establishment of local networks and local employment pacts. Being a multifaceted initiative which includes several activities (e.g. in-company training, coaching, health-care activities, mobility incentives, etc.), a similar programme is likely to be resource-intensive.

Lets Get Moving is one of the programmes with the greatest transferability potential to Wales. There are three distinctive projects under the "Lets Get Moving" Banner. *Neighbourhood Travel Teams* promote the use of public transport at local level and provide free face-to-face travel information advice and bespoke journey planning services to meet individuals' needs. *Work-wise* tackles both perceived and actual transport barriers to employment, education or training for those not currently engaged in such activities by providing financial and practical help for eligible residents. Schemes include subsidised public transport passes and bike/scooter rentals. Finally, *Dial-a-link* is an example of demand responsive transport (DRT) service, which provides links between residential and workplace locations where other public transport services are unsuitable. This component is more costly than the others and may need long-term subsidisation. "Lets Get Moving" has an important transferability potential to Wales because Welsh local authorities are due to produce integrated regional transport plans in 2008/2009. Whilst this intervention was originally implemented in the urban setting of Greater Liverpool, in the context of Wales it also holds great promise in rural areas where remoteness and limited public and private transportation can still represent a significant barrier to participation in the labour market. Here, welfare-to-work approaches based on mobility schemes can represent a possible solution to high economic inactivity. In an urban context, on the other hand, "Lets Get Moving" can be particularly relevant to young people, lone parents and minorities, who can be targeted if they live in deprived wards.

INOV Contacto is a programme that promotes internships abroad of Portuguese talented graduates with a view to fostering the internationalisation of the economy and links between local firms and multinational companies. The programme is structured in three distinct parts: i) a start-up one-week course on international management; ii) short-term internship in a Portuguese company; iii) long-term internship in a multinational company abroad. Rather than to support internationalisation, a similar programme could be adopted to provide internships in companies in Wales to retain graduate students in light of the strong out-migration of graduates from Welsh universities which negatively impacts on the nation's labour productivity. More specifically, this programme could be integrated into the "GO Wales" scheme to encourage graduates from Welsh universities to join Wales-based companies. "GO Wales" provides project-based work in both enterprises and charitable organisations, with recipients being paid a minimum of £230. In theory, large companies could be preferred due to greater exposure to skill acquisition and experience they provide to young workers. At the same time, though, SMEs could also be part of the scheme if they could be in parallel persuaded about the benefits of employing young high-skilled workers and trained to manage such human resources.

Austrian K-Plus competence centres and similar knowledge transfer programmes (KTPs) can go a long way in supporting basic and pre-competitive research in a region. Competence centres are collaborative research centres with a limited duration of time (7 years) that carry out pre-competitive research – i.e. research that stops at the prototype stage – fulfilling the needs of both industry and academia. K-plus centres were funded through a competitive tender process in which business and university partners were asked to come together and formulate a "competence centre" proposal to obtain government funding. Selection criteria included the scientific and industrial R&D quality of the proponents, as well as the projected contribution of the centre to regional competitiveness. In considering adaptability to Wales, local policymakers would need to ensure that they have some leverage over universities. This might involve attractive funding and research perspectives. The establishment of similar centres would therefore partly be a question of adjusting research and funding incentives currently available in the Welsh university system. Competence centres such as K-plus have also important spinout potential thanks to the exposure of academics to industry-relevant research. One potential criticality for Wales could consist in the relatively small number of locally technologically advanced SMEs, which might reduce the scope for similar centres. Finally, a choice is to be made between supporting pre-competitive or applied industrial research. The former has the merit of approaching more closely than the latter the nature of public good since it provides a base of semi-applied knowledge from which a larger number of firms can draw. Moreover, by stopping at the stage of prototype, pre-competitive research is more likely to attract the interest and collaboration of academia. By contrast, applied research is judged to have a greater direct impact on productivity growth, even though public support of this type of research can have significant deadweight costs if it replaces private industrial R&D.

Innovation vouchers aim to introduce small-sized firms to public research institutions and prompt long-term relationships. The programme works broadly as follows. After the programme being advertised in the media, SMEs submit an application using a very simple form where they are asked to describe the problem they would like to solve. Examples mentioned in the application are either solving minor technological problems or setting out possible solutions for a complex technological problem. Vouchers are then awarded to firms meeting eligibility criteria and if the number of applications exceeds the number of vouchers, the latter are simply accorded by lottery. Vouchers seek to cope with two major incentive problems. Firstly, they empower small firms to approach knowledge providers with their problems, something they might not do without this incentive. Secondly, they provide an incentive for public knowledge institutions to work together with small firms whereas their traditional tendency is to engage only with large firms or not to engage at all with industry. Given the small lump sum they provide, vouchers have been characterised by a very light-touch administration and mainly geared towards small-scale projects leading to product and process improvements rather

than real breakthrough product innovations. The fact that this policy has already been implemented in the Netherlands, Ireland and the West Midlands implies that transferability to Wales should be relatively straightforward. Nevertheless, the following points would need some strategic thinking. Firstly, should the policy only support technological innovation or also management and leadership innovation? The fact that the amount provided is relatively small would suggest not excluding the latter, even though a very large scope of the initiative could easily result into a ramp-up of resources. Secondly, there is a key need to articulate carefully the role of universities. Because the latter will more likely be the main knowledge providers, it would be best if the programme were managed by some other, possibly government-based, body. This would limit conflicts of interest which may arise when the organisation managing and delivering the programme is the same, would free the university from any programme-related administrative burden and would enable the policy to be integrated with other measures sharing similar goals. This indicates that the policy should be indeed administrated by a government-related organisation as part of a wider innovation policy framework, with universities only acting as knowledge providers.

Hothouse is a Dublin-based incubator programme that can help fine-tune the Welsh incubation network of *Technium* centres. Hothouse helps entrepreneurs of knowledge-intensive businesses to start up and build firms with global potential. Located in the Docklands Innovation Park (and not in a university campus), this programme provides incubation space and gives participants the opportunity to work alongside fellow entrepreneurs, business mentors and experts who understand the start-up and early development stage process. It offers full training, mentoring and counselling and, more generally, an environment of ideas and support services from which businesses can thrive. Two main lessons arise from the Irish experience. Firstly, the provision of a grant corresponding to part of the last salary (50% in the case of Hothouse) can help soothe the concerns associated with a move from wage employment to an entrepreneurial career. Secondly, a gradual phase-out from the programme can smooth and facilitate the transition of participants to open-market conditions. An option, for instance, would be that at the end of their tenure participants leave the incubator space but are still allowed for a period of time to benefit at preferential rates from the incubator's business development services (e.g. legal services, marketing, business consulting, etc.). Issues also remain in terms of whether these kinds of activities are better provided, as they appear to be in Ireland, in programmes linked to technical colleges or newer universities whose missions are broader than that of more traditional universities. Related to this, there is also the issue of the extent to which higher education institutions (HEIs) should have control of the objectives of these programmes, relative to industry. It should be finally recognised that a policy such as Hothouse would require networking with successful firms and alumni, as well as the willingness of universities to assist those from outside their own staff and previous students. The fact that participants were chosen on a competitive basis allowed Hothouse to pick higher-profile participants and thereby generate higher returns.

The remaining fourteen policy audits relate to initiatives that are considered to be less relevant to Wales, either because similar initiatives have been implemented in Wales in the past or because they were not judged to have been as successful as the others in their own contexts.

Micro-enterprise Welfare to Work has been a US initiative departing from traditional welfare interventions by helping welfare recipients to become self-employed. The programme has primarily targeted disadvantaged social groups in rural areas, screening individuals with an interest in self-employment, providing the most apt with business advice and training, assisting those choosing to reverse to wage employment, etc. The programme's figures seem to be encouraging: the number of participants who run a small business has more than doubled, while the number of people in welfare assistance has dropped by three quarters. One of the sectors with the highest concentration of start-ups has been childcare support and facilities, which suggests potential further trickle-down effects as a result of more women being able to join the labour market. The key lesson from this programme is

that self-employment initiatives can be successful in providing a viable way out of poverty and welfare assistance. Interestingly, the rise in household income was stronger for those participants who were able to combine self-employment with wage employment, suggesting the need for flexibility in supported outcomes.

One of the goals of the WAG 2005 Skills and Employment Action Plan (SEAP) is to improve the mechanism for workforce development. The *Training Cheque Programme* in North-Rhine Westphalia, Germany, can give inspiration insofar as it has been able to reach workers who had long been out of training. More specifically, the programme targeted SMEs employees who had not been receiving training for the last two years. The grant of the cheque was preceded by counselling carried out by a different set of centres such as regional agencies, trade and industry associations, adult education centres, etc. These centres did not receive any direct funding from the regional government, but they charged the NRW state for each counselling given. The main factor underlying the success of this programme has been the differentiation in the offer of training vouchers. The possibility of using vouchers both through company-access and individual-access has *de facto* allowed the programme to target two different groups of workers: the more qualified ones through the former and the less skilled ones through the latter. The key lesson from this programme is that, depending on its strategic priority, WAG might consider either the implementation of the whole package or only of one of the two components: company-access coupons if the priority is the skills upgrading of qualified workers or individual-access coupons if the priority is to be given to low-skilled workers.

Another important objective of Wales's SEAP is to work with employers to improve worker skills and supply new entrants in the labour market with the required competences. *The Dexter Institute* (Nova Scotia, Canada) is the result of a partnership between a community college and a large employer in the building sector which has been able to reverse declining employment trends by offering better career prospects to students. This initiative is strongly employer-driven. It is the employer (usually, a large employer) who first realises the risk of a vocational crisis in its industry and takes action to remedy through collaboration with the local college system. The key policy message is that skills upgrading can revive flagging industrial sectors and that large companies can be mobilised to this end by favouring their co-operation with the vocational school and training system.

Still in the field of workforce development, another initiative from the United States concerns the *Jane Addams Resource Corporation (JARC) Manufacturing Skills Programme (MSP)* in Chicago, Illinois. The JARC MSP is a training programme framed within a wider community development intervention that has enabled participants (*i.e.* incumbent workers from disadvantaged communities) to work more uninterruptedly, obtain better jobs and improve their income. The main feature of this programme is that it targets a particular occupation or set of occupations within an industry. While new sectors have recently been included (e.g. electronics and electrical wiring), the programme keeps a strong focus on metalworking. Courses fall mainly within the areas of technical skills, quality improvement and worker health and safety. The highly focused sector-based approach and the high flexibility with regard to the language, contents, and venue of the courses have underpinned the success of this initiative, which has proven strongly demand-driven and tailored to company needs. The key learning point is that the provision of training in the native language can speed up the integration process of ethnic minority workers, although in the long run the mastering of the local language remains crucial to full integration in the labour market and, more generally, in the society.

There is growing belief that the regeneration of inner cities and urban suburbs can contribute to local economic development. The first intervention proposed in this policy domain concerns the *North Massachusetts Avenue (No.Ma) Initiative* in Washington, DC. This urban regeneration project saw the construction of an additional metro-rail station as the cornerstone of the economic and social revival of a declining urban area in the US federal capital. The most interesting aspect of this project

has been the ability to leverage private finance for the construction of a public metro-rail station thanks to very active local leadership, which has eventually spurred the commitment of further funds from both the federal and city governments. Whilst Wales does not have any city of the size of Washington DC, the lessons this case conveys on leveraging private finance for economic development are meaningful for smaller contexts as well. Cardiff hosts, for instance, both national and regional political entities and one of the key stratagems to attract funding from the federal government in the No.Ma project was the refurbishment and subsequent provision of a large office-building to a federal government agency. The cautionary tale from this initiative is that policymakers should be aware that urban regeneration projects may come with the risk of displacement for low-income groups living in the area being revived. The key policy message is, therefore, that leveraging private finance has an important role to play in fuelling urban regeneration and local economic development. Also, during interventions of urban regeneration it is important to be aware of possible displacement effects due to increased housing costs.

Kensenzones in the Netherlands provides a more traditional example of urban regeneration. This project seeks to revive a number of suburbs in Rotterdam by giving fiscal incentives to entrepreneurs willing to invest in disadvantaged neighbourhoods. However, the initiative was not as successful as it could have been because it lacked complementary social mechanisms. The main message of the audit is therefore that entrepreneurship promotion is more likely to contribute to urban regeneration if coupled with other equally important measures such as physical regeneration, anti school-dropout measures and vocational training schemes.

Finally, considering that Wales was dominated in the 20th century by heavy industry and mining, urban regeneration can sometimes involve brownfield remediation. The **Downtown Oshawa Regeneration Project** started from the acknowledgement that previous attempts of attracting large single investments in the downtown of Oshawa had not proved successful. As a result, the municipality decided to focus on a step-by-step clean-up of brownfield sites for either future public use or private sale, thus developing a gradual strategy that would create an appropriate environment for future small-scale and medium-scale investments. This programme shows that, taken as a long-term strategy, brownfield remediation can succeed in attracting private sector investments and thereby act as a catalyst for urban regeneration and local development. The main message is that, given the public-good nature of brownfield redevelopment, this type of initiative calls for strong leadership by the public sector, as well as a long-term political and financial commitment regardless of possible local government changes or cabinet reshuffles. In short, there needs to be a broad and shared consensus at the local level about the sense and importance of similar interventions.

Moving to measures boosting business productivity, the **Appalachian Regional Commission (ARC) Entrepreneurship Initiative** has taken an encompassing approach to entrepreneurship development (*i.e.* education, capital access, technical assistance, business incubation, etc.), succeeding in facilitating the start-up of nearly 2 000 businesses and the creation of approximately 10 000 jobs. The public cost-per-job of this initiative is estimated at less than USD 5 000, which is much lower than most public job-creation programmes. The flexibility in the design and management of the several components of the initiative and the involvement in many of them of community-based organisations (CBOs) are the two main features underpinning the success of this ARC programme. The latter is also the main policy learning from this audit: *i.e.* CBOs have a role to play in attaining hard-to-reach social groups not only in employment programmes but also in entrepreneurship-related initiatives.

Still in the United States the **No Wrong Door Model** is a programme that intends to facilitate the match between the demand and supply of business development services (BDS). The underlying rationale is that one-stop shops are not the only solution to improve the efficiency of BDS provision

but that a system of cross-referrals among regional BDS organisations may serve equally well the purpose. All in all, it is essentially a matter of a trade-off between the time-saving of one-stop shops versus the likely higher quality of bespoke business services delivered through a cross-referral system. The key policy message from this audit is therefore that cross-referral systems and one-stop shops are two alternative solutions to the same challenge of BDS efficiency. However, the success of the former will depend on some important requirements such as a common intake procedure of requests, the setting-up of a clear regional referral system, and regular collaboration between the involved BDS providers.

A full-fledged regional development strategy is summarised in the audit on the *Västra Götaland Regional Growth Agreement (VG-RGA)*. The RGA was a three year (2000-2003) development contract that provided a strategic analysis of regional development and established regional priorities through stakeholder dialogue and consensus. More specifically, the Swedish initiative focused on themes such as entrepreneurship, skills enhancement, attractive living environment and IT and infrastructure. Overall, VG-RGA is a good example of a partnership process for the design and delivery of a regional strategy and underscores the importance of a partnership-based approach to local development. It also points to the propelling role that capital cities even of relatively modest size can play for the overall growth of the region. Thanks to the fact of being an important transport hub and R&D centre with well-respected universities, Goteborg has played a key role in fostering links between the regional knowledge base and both new and existing businesses. Even if of smaller size comparative to the UK context, Cardiff can play a similar role too.

The topic of innovation is also tackled by the Portuguese *NITEC programme*, which aims to foster the establishment of R&D units within SMEs by chiefly providing a three-year wage subsidy for the recruitment of scientists and technicians. The intervention has reached more than 18% of the approximately 1 000 SMEs carrying out R&D in Portugal and has generated nearly 500 R&D jobs. The strengthening of SMEs' in-house R&D capacities is something WAG may want to reflect on, considering that total R&D investment as a proportion of Gross Value Added (GVA) is lower in Wales than in many parts of the UK and that this is essentially the consequence of lower R&D expenditure from the business sector rather than from the government or higher education institutions (HEIs). Initiatives similar to NITEC may help bridge this gap. The key lesson from this programme is that temporary wage subsidisation can boost the R&D in-house capacities of SMEs, as opposed to knowledge transfer programmes (KTPs) which try to achieve the same goal of increased business innovation by strengthening cooperation between industry and public knowledge providers.

An example of KTP, other than the K-plus Centres and Innovation Vouchers previously examined, comes from the Finnish *University Filial Centres*. This initiative intends to link Finland's more peripheral regions to the national knowledge system by setting up branches of national universities in the rural regions of the country. The goal is to expand the collaboration network of universities with public institutions and private enterprises located in rural regions, as well as to enlarge the student recruitment area of main national universities. The key learning point is that through a similar approach enterprises from rural regions can also benefit from the competencies of national universities and that, indeed, the development of rural areas can occur through better links with the country's main universities.

Turning to sector development initiatives, Wales has witnessed over the last decades a rising share of jobs in the service sectors and a declining share in manufacturing. However, manufacturing still remains a vital part of the Welsh economy. The *FATEC Initiative* in the Portuguese footwear industry is of interest to WAG because it relates to the way Northern Portugal's footwear industry has coped with fierce competition from lower-cost emerging countries by introducing new cutting-edge technologies. Such technologies have made possible the production of higher-quality products and

thereby the targeting of higher-end market segments. The key policy message from the audit is that synergies and co-operation between the relevant industry actors (*i.e.* footwear enterprises, machine and equipment producers, and technological institutes) are crucial to the technology upgrading of an industry, as well as the leadership role played by one actor (*i.e.* a technical institution, in this case) and recognised by all others.

A more general approach to sector development is represented by the *Hokkaido New Industrial Cluster Policy*. As with the Västra Götaland RGA, this is a comprehensive intervention that consists of several different initiatives. The focus is on the IT and biotechnology sectors and the goal is to develop networks within the two clusters and between the clusters and external operators (*e.g.* large multinationals), as well as to implement more traditional measures such as financial and BDS support. The key policy message is that in knowledge-intensive sectors such as IT and biotech, a strong university and research basis is crucial to the success of clusters. The strength of a shared vision among cluster stakeholders has also had an impact on the different extent to which the two initiatives have succeeded.

Regional case studies: lessons

The five case studies of regional economic development models provide lessons and guidelines with regard to both strategy design and policy contents. The main messages for policy development in Wales are as follows:

Strategies should be signalling documents about government priorities

Strategy documents should be used to signal the regional government's policy priorities. Sometimes, strategy frameworks are overly comprehensive documents that try to cover most of the topics at the core of the development debate and achieve too many, in some cases even conflicting, goals. However, the prime objective of a strategy should be to set a clear vision about the future development of the region and to address the community of local stakeholders (*e.g.* business associations, unions, NGOs, CBOs, etc.) on what the development priorities are and where public funding will be accordingly available. This is more likely to happen by narrowing down priorities and objectives and by setting up a clear and transparent system of public policy funding. So, for instance, the main strategic document in Schleswig-Holstein (*i.e.* Future Programme Economy) rested on the four pillars of: a) knowledge and innovation, b) firm competitiveness; c) infrastructure upgrading; d) development of regional potentials. Since the beginning, however, it was evident that the first two pillars accounted for the largest share of public funding (over 70%) and that consequently it was the regional government's intention to support technology transfer programmes and workforce skills upgrading more than, for instance, business-oriented infrastructures such as business parks.

Bottom-up approaches have many pros and some cons

Basically each of the five regions has adopted a bottom-up approach to strategy design that has involved the participation of the main local stakeholders in strategic debates about priorities and policies for future economic development. This approach has generally enabled regional governments to craft demand-driven policies and be informed about the real needs of policy targets, be they enterprises or people. In addition, bottom-up approaches have the merit of making stakeholders more participative of the policymaking process and thereby create more easily consensus on the policies being implemented. Through political dialogue and convergence, bottom-up approaches can also smooth out potential conflicts of interest between different stakeholders. For instance, Schleswig-Holstein's regional councils have consisted of a very broad range of stakeholders such as municipalities, universities, chambers of commerce and trade unions. They have acted as regional

advisory committees on the different infrastructure projects undertaken by the regional government and have made possible the implementation of projects that did not mirror only the interests of single municipalities but rather those of the whole region. In Tuscany, where there is a longstanding tradition of social dialogue between the regional government and the social partners, the main policymaking counterparts of the regional government have been industry associations and trade unions. Whilst similar participative approaches have clear advantages, one possible drawback consists in the fact that if the involved stakeholders do not include representatives of the most vulnerable social groups, the design of demand-driven policies will end up overlooking the needs of these groups. Related to this is also the risk that the strongest stakeholders may be able to exert greater pressure than others on the policies being discussed and decided, thus acting as real lobbies.

Policy coordination and political leadership are crucial

There is always a tension between policy design and implementation which makes policy coherence and coordination difficult to achieve. Political leadership can help achieve the objective of policy coordination by catalysing initial attention and resources to launch the policy/strategy. High-level political leadership will not have to be necessarily long-lasting since it is understood that politics and policy have different timeframes, but shown at the beginning political leadership will help gather momentum around the objective and distribute tasks and responsibilities for which policymakers will remain accountable. Pennsylvania's workforce development strategy is a case in point. Here, the new elected governor acted quickly on the results of a research report on the state of health of Pennsylvania's economy and labour market and established the Economic Development Committee (EDC) within his cabinet's office. The very location of the EDC proved the importance of its role as the body coordinating the whole set of state development policies, as well as the direct commitment of the highest state political figure to the success of the development strategy. More specifically, the EDC was set with the mission to coordinate all policies and programmes that affected economic growth, job creation and workforce development; craft new policies and programmes for business development and job creation; establish metrics for assessing the performance of state policies; etc. The set-up of an integrated information management system can also help strengthen policy coordination by providing data and indicators that describe current conditions and recent trends, statistical information on policy outcomes and an assessment of the extent to which programmes are addressing the region's needs.

Local innovation systems are at the core of development strategies

The strengthening of local innovation systems has been one of the prime goals in the examined regions. This has included financial support of industrial R&D, the creation of public research organisations and, above all, knowledge transfer programmes (KTPs) fostering industry-university partnerships. In general, the success of local innovation systems has partly depended on the extent to which regional governments have been able to expand the base of local innovative firms so as to avoid that few technology leaders grew apart from the rest of the local economy. The region analysed as part of the review which has gone further off in supporting local innovation systems has been Styria. The Austrian region has expanded the base of local innovative firms mainly through "competence centres" (e.g. the K-plus experience examined in the audit part of the review), which have put together scientific and technical staff from the university and industry worlds to carry out pre-competitive research. Eleven centres were set up in Austria as a whole, six of which in Styria. In addition to competence centres, Styria has also public applied-research organisations (e.g. Joanneum centre) and has tried to promote co-operation between firms with similar research orientations. Local innovation systems also call for special attention to the university system through policies such as graduate placement programmes, training grants for researchers, post-doctoral grants and mobility programmes

encouraging the hiring of researchers in the industry. The Basque Country is the region which has worked more intensively in this domain.

Sector-based approaches are common and methods exist to counter certain problems

Each of the five regions has had some sectoral component in its development strategy. These policies have received attention in light of the positive externalities (knowledge spillovers, pooling of skilled labour, product specialisation, etc.) regional policy can encourage at the industry level. Sectoral strategies have either focused on industries which have traditionally been large provider of regional employment or on knowledge-intensive sectors in light of their prospected contribution to the growth of the local economy. There are at least three different types of sectoral approaches: a) cluster development programmes which mainly try to encourage business networks in the belief they will generate economies of scale (e.g. joint purchases) and scope (i.e. product specialisation); b) technology upgrading programmes which support the shift of local producers from broad unspecified markets to market niches through higher-quality production; c) workforce development programmes, which chiefly seek to increase industrial productivity by upgrading worker skills.

Sector-based approaches have sometimes been charged with a “pick-the-winner” bias typical of old-fashion industrial policy. However, some regions have been able to stave off this problem by setting up competitive tender processes in which it was up to industry stakeholders to come together and formulate sector development proposals for funding approval by the regional government. This methodology, which has been adopted both in Pennsylvania’s industry partnerships and Styria’s competence centres, should reduce pick-the-winner concerns. Another aspect that should be taken into consideration when supporting specific sectors is that there is always a varying lapse of time between the given policy support and the eventual concrete development of the sector, a gap that policymakers tend to underestimate. Finally, especially in the case of emerging knowledge-intensive sectors regional governments should be aware that while the demand for these sectors might be sizeable in the future, the supply from other regions could be significant as well. Competition is therefore fierce in these industries, which also call for a well-developed research infrastructure.

Workforce development can be addressed through industry partnerships

The upgrading of worker skills has also been a core issue in a number of regional development strategies. This is particularly true for Pennsylvania, where workforce development has indeed dovetailed with sector development through the design of industry partnerships focused on workforce development. Pennsylvania’s industry partnerships have been struck between training providers, employer associations and other stakeholders to design demand-driven sector-based training courses. Industries have not been chosen a priori by the state government, but they have been the outcome of a process in which different stakeholders have come together with joint requests for high-level skill training. Indeed, one of the requirements for a partnership to be approved and funded by the state government was that the industry’s employers be surveyed with regard to their skill needs. Such partnerships have enabled Pennsylvania to achieve economies of scale in the provision of training, align the curricula of training providers with industry needs, promote communication among firms, and disseminate best practices in the field of vocational training.

Corporate social responsibility is becoming a public policy issue

In a number of regions the urge for economic competitiveness is increasingly coupled with that for social and environmental sustainability. In Tuscany this has taken the form of public support for corporate social responsibility (CSR). In 2002 the regional government launched *Fabrica Ethica*, a programme that provides financial incentives to those firms working towards meeting internationally

recognised CSR standards. A CSR committee has also been established with a view to identifying and monitoring CSR practices in the region. Another project, *Felafip*, supports the diffusion of CSR practices in firms and network of firms in the leather sector, which is prone to pollution and worker health hazards. To sum up, Tuscany's CSR policies consist in a set of financial incentives, concrete business development services and dissemination of knowledge and best practices on the theme. The approach does not only involve large firms, but is rather pursued along the whole supply chain within the region.

Internationalisation is increasingly seen as a by-product of innovation

Business internationalisation is also in the agenda of many regional governments, even though increasingly, especially in advanced economies, it is seen as a by-product of business innovation, the latter being a precondition for the former. An interesting experience comes from Styria, which throughout the last decades has been able to tap the opening-up of new markets on its eastern border. In this context, the RIST programme has specifically helped those Styrian firms interested in south-east European markets by assisting them with local administrative requirements, providing coaching and mentoring during the first steps of the internationalisation process and encouraging partnerships between Styrian and south-Eastern European businesses. The peculiarity of this programme has therefore been to focus on a very specific target market which was considered to hold a big potential for the exports and outward FDI of local firms.

Regional case studies: summary

In more detail, the main characteristics of the examined economic development strategies are set out below:

Pennsylvania, USA

In 2003, the Commonwealth of Pennsylvania, under the leadership of its newly elected Governor, set forth to reform its workforce and economic development system into a network of industry-linked partnerships that focuses on training workers to meet the needs of targeted industries. The goal of the workforce system is to enhance employer competitiveness and innovation, while preparing Pennsylvanians for new careers in higher-wage jobs. The system was built upon existing industry partnerships and vertical relationships within the system of the state and local workforce investment boards (WIBs), which were created in 1998 under the federal Workforce Investment Act. The initiative was not merely a set of programs, but more importantly it established a structure by which new and existing programs were knitted together into an integrated system through performance accountability mechanisms.

The Pennsylvania reform had a firm basis upon which to build, and it had the leadership at the state level to get it started. Several recommendations come out of the Pennsylvania experience: a) workforce development, economic development, and education must be aligned to meet the current and future needs of businesses and to provide a continuum of opportunities for workers to improve their skills; b) leadership at the state and local level is critical to forge a true integrated system among separate state agencies, regional organisations, and private sector entities; c) a culture of trust, collaboration, and partnerships is essential; d) a sustained commitment to the vision of an integrated system is important for long-run sustainability, through both continued and unwavering leadership and reliable funding; e) designating a top cabinet-level official to be responsible for coordinating the key state agencies and to be held accountable for achieving proper alignment of programmes and services is strongly advised.

Schleswig-Holstein, Germany

Schleswig-Holstein shares a number of similarities with Wales. Both regions are relatively peripheral and thinly populated with only few urban centres (Cardiff, Swansea, Wrexham in Wales and Kiel, Lübeck, Flensburg in Schleswig-Holstein); both have a history of restructuring traditional industries (coal-mining in Wales, shipbuilding in Schleswig-Holstein); and both have a coastal location, with similar endogenous potential in maritime-related industries, renewable energies (e.g. wind energy) and tourism.

One positive lesson from Schleswig-Holstein's strategy concerns the good functioning of consultative bodies "regional councils" and the bottom-up approach to the design and implementation of the strategy programmes. This system raised motivation and enthusiasm among regional stakeholders and also avoided counterproductive competition between municipalities for infrastructure support and financing. Thanks to this approach, different regions within the *lând* also learned from each others' best practices in terms of project implementation. On the other hand, a less successful example comes from Schleswig-Holstein's cluster policies. First of all, the definition of "cluster" was overly broad in the German region: the number of industries represented in each cluster was too large and, with regard to geography, it was enough to be located in the *lând* for a firm to be considered part of a cluster. Schleswig-Holstein's policymakers also tended to minimise political risks by selecting industries that had proven successful in other regions and found difficult to stop injecting public funds into the management of clusters even after years from the outset of the programme. The strong influence of politics in the management of the supported clusters and the consequent difficulty in getting businesses and other private stakeholders involved were additional problems with cluster policy in Schleswig-Holstein.

On the whole, the Schleswig-Holstein case highlights the benefits of a bottom-up approach to policymaking and, in particular, the consensus that this approach can generate on the local strategy and the mutual learning that can derive from the exchange of experiences between stakeholders. At the same time, the flawed cluster strategy provides useful insights on typical mistakes to avoid when policymakers devise similar policies.

Styria, Austria

The focus of Styria's regional development strategy has been primarily on innovation, with the other two pillars of internationalisation and entrepreneurship instrumental to the former. In particular, the Styrian government has supported industrial niches in sectors related to the traditionally strong steelmaking industry (e.g. mechanical engineering, machinery and automotive) through policy tools such as technology centres and public research organisations. Two "Technology Concept" papers have provided a comprehensive innovation strategy over the last decade. While the first insisted on inter-firm cooperation, absorptive capacity and the set-up of public research organisations, the second has sought to preserve long-term economic growth and employment by further supporting the most innovative firms, broadening the base of local innovative enterprises and investing in new technology fields. The rationale has been to foster the emergence of a regional innovation system by enlarging the base of firms able to undertake innovation processes and improve the links between the latter and the firms at the technology frontier. Supply-chain management and cluster promotion have been part of the strategy, which has also involved "harder factors" such as knowledge-transfer cooperative centres and public applied-research organisations (e.g. Joanneum Centres). As to internationalisation, Styria has benefited from the fall of the Iron Curtain which has opened up new markets on the east side and placed the region in a much more central position than it was before. Special relationships have therefore been sought-after and nurtured with transition economies from south-Eastern Europe. Finally, entrepreneurship has been backed through a range of traditional policies such as information

provision, awareness-raising campaigns, business advice and financing. On the whole, this strategy highly focused on innovation promotion has enabled Styria to emerge from its previous lagging condition and become the most R&D-intensive region of Austria.

The key policy message coming from the Styrian experience is that successful local innovation systems do not only need leaders - i.e. companies at the technology frontier - but also a large base of local SMEs able to interact with them. Such a base will also be instrumental in achieving other objectives, such as the attraction and embedding of high-quality foreign direct investments. In addition to this, another important point is that the internationalisation of the local economy can be propped by targeting specific foreign markets which are considered to hold greater promise than others.

Tuscany, Italy

The Tuscan regional government has a longstanding tradition of public intervention in the local economy and its regional strategy has consisted of providing “collective resources” for local stakeholders. The two main instruments of policy-coordination have been the Regional development Plan (RDP) and the Regional Economic Development Plan (REDP). The former has rested on four pillars, each of which covered specific integrated projects: a) economic competitiveness (R&D, internationalisation and inter-firm cooperation, regional integrated district, regional mobility, etc.); b) employment and social cohesion (lifelong learning, health and safety, immigration, etc.); c) environmental sustainability (energy and water resources); d) governance (participation and governance, information society, etc.). The latter insisted on four axes, which were namely: i) regional integrated districts; ii) regional space for innovation and research; iii) internationalisation and territorial marketing; iv) innovation and development of tourism and commerce.

It is possible to summarise the main features of the strategy by making a distinction between structure and contents. As for the structure, the strategy has strived to improve policy coordination and policy coherence, as well as to monitor the impact and outcome of policies. This task was facilitated by a multi-year planning with clear allocation of funding for each policy pillar. This institutional structure was also characterised by a method of inclusive policymaking that favoured the participation of regional and local stakeholders in the definition of regional development priorities. With regard to the contents, regional policies have focused on bolstering the emergence of external economies by supporting inter-firm cooperation and the provision of real business development services (BDS). The goal of the regional government has been to come up with tangible and intangible resources to trigger the competitiveness of local firms. Internationalisation, innovation and the support of new and traditional sectors have been among the main priorities of this strategy. In addition, Tuscany has devoted special attention to social and environmental sustainability, especially through the promotion of corporate social responsibility (CSR) practices among local businesses.

The key message originating from Tuscany is therefore that the long-term planning of policies, together with clear budget allocation, will facilitate policy co-ordination and prioritisation. As with the case of Schleswig-Holstein, policymaking which is inclusive of stakeholders will ease the emergence of consensus on the implemented strategies and policies. Finally, in the case of Tuscany, the regional government has also engaged in the delivery of concrete business services. Generally speaking, this is probably not the most efficient and less expensive way of encouraging business advisory services. Publicly-provided BDS may crowd out private BDS organisations and the quality of public BDS tend to be lower than that offered by private BDS providers. A more efficient and less expensive BDS system can generally be fostered by offering public subsidies to small firms for the purchase of services from private BDS companies and consultancies.

Basque Country, Spain

The Basque Country has experienced significant growth during the past three decades. This process of development is partly due to a well-planned strategy consisting of three main stages: the first going from the early 1980s to the mid-1990s, the second from the mid-1990s to the early 2000s, while the third from mid-2000s up to date. The experience illustrates the importance of developing a long-term approach that adapt over time to respond to the changing global and regional economic scenario.

When the Basque Country was given political autonomy in 1979, the region was in economic and social turmoil. Local manufacturing was in crisis and unemployment was high. The Basque government therefore first started by supporting traditional manufacturing industries through supply-driven policies. At this time, the foundations of the still existing technology centres were laid out with a view to providing industrial R&D services that could help traditional sectors to improve productivity. Later on, in the second stage, the focus shifted to the promotion of inter-firm co-operation and cluster development. Both were seen as inherently linked to the emergence of a strong regional innovation system. Today, in the third and final stage, the goal is to strengthen the Basque innovation system. The five pillars of today's strategy are: a) cultural change promotion; b) science policy; c) traditional sectors; d) emerging sectors; e) entrepreneurship. *Etortek* and *Euskadi+Innova* are two examples of how the strategy is delivered upon these pillars. The former bolsters knowledge creation and commercialisation in emerging industries such as biosciences and alternative energies. The latter has a greater focus on traditional businesses and provides a range of innovation-related support services (e.g. training, design and review of innovation/business plans, etc.).

The Basque experience is interesting because it highlights the long and difficult shift from a supply-driven to a demand-driven approach to policymaking and the role cluster programmes and industry-university partnerships have had in this change. The Basque strategy also provides insights into supporting emerging sectors such as biotechnologies and nanotechnologies that have recently received a great deal of attention due to their potential contribution to the growth of the local economy. Finally, this strategy also emphasises the important role that university policy (e.g. graduate placement programmes, post-doc grants, etc.) plays in supporting the strengthening of regional innovation systems.

CONCLUSIONS AND POLICY MESSAGES

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This chapter highlights the main policy messages of relevance to Wales, based on the contents of the other three parts of the review (policy audits, policy transferability, regional case studies), and is structured as follows. Firstly, the chapter gives an overview of labour market and business productivity trends in Wales, which provides the background for the analysis of policy lessons and messages for Wales. Secondly, the main policy recommendations for Wales are formulated synthetically. Finally, lessons and messages are expanded and discussed under three categories: i) overarching messages; ii) labour market policy messages; iii) business productivity policy messages

An overview of the Welsh economy

With regard to labour market conditions, Wales has caught up with the rest of the UK in many performance indicators. Unemployment has fallen by 3% in West Wales and the Valleys (from 7.8% to 4.8%) and by 0.7% in richer East Wales (from 6.6% to 5.9%), while long-term unemployment has been slashed by nearly 8% in the former (from 19.9% to 12%) and 11.5% in the latter (from 19.6% to 8.1%). Similarly, improvements have taken place with regard to the skills of the Welsh labour force both at the levels 3 and 4 of National Vocational Qualifications (NVQ), even though this improvement has been more geographically concentrated in the region of Cardiff. Unemployment reduction has been accompanied by a decline in product market performance, which could indicate deterioration in the quality of jobs and the substitution of full-time with part-time jobs. Moreover, whilst the unemployment performance and the levels of qualifications have improved, labour market participation has increased only in the West but not in the East.

Economic inactivity is particularly strong among specific social groups, such as people with work-limiting health conditions, people aged over 50, people with no or low qualifications and ethnic minorities, which might indicate there is a need in the future to pursue a more targeted approach to reach out to those groups who are currently not benefiting from the relatively good performance of the Welsh labour market. There is also evidence of an inter-generational transmission of economic inactivity, which means that people who grow up in a household with economically inactive members are more likely to become inactive at some stage of their life. This points to the importance of early interventions at the pre-school and primary school stages to make sure children from deprived households do not build up a skill deficit since the early steps of their lives. Given the sizeable share of older people among the inactive population of Wales, special attention needs to be paid to measures encouraging workers either to remain or come back to employment, with the former being an easier option than the latter. Finally, there are remote areas of Wales where activity rates could be increased through better links with workplace locations.

Together with reducing inactivity another priority for WAG is to increase labour productivity, which measured as GVA per capita fell from 84% to 78% relative to the UK

during the period between 1996 and 2004.¹ The causes behind this productivity gap are several, with some holding greater influence than others. In a recent paper prepared for the WAG Economic Advisory Research Panel (ERAP), Boddy (2006)² explains the 42% productivity gap (measured as output per employee) of Wales as compared to London as the result of the following factors: i) difference in technological progress; ii) full-time/part-time mix differences; iii) lower capital levels per worker; iv) less advantageous industry framework; v) peripheral location; vi) a combination of public-private sector ownership, skill levels and population density. Geographic and historical reasons are therefore partly behind Wales's productivity gap. With regard to the former, Wales is a relatively remote region in the European context that only neighbours with England. As a result, one common development option available to small open economies – i.e. trading with larger neighbouring countries – is only partly available to Wales.³ Historically, then, the industrialisation of Wales has largely been exogenous and brought initially by the UK through the coalmining and steelmaking industries and later by FDI which though only delocalised in Wales low value-added stages of production. Wales also lags behind most of the UK when it comes to innovation performance. Total R&D investment as a proportion of GVA is only higher than in Northern Ireland, West Midlands and Yorkshire. When R&D investment is broken down by public and private investment, it emerges that the real problem concerns low levels of business enterprise R&D investments.

In Wales, there is therefore both an inactivity and productivity issue. This poses a significant challenge to WAG because tackling the two problems at the same time is made difficult by inactive people having lower-than-average productivity, which implies that their entry into the labour market could result into a productivity fall if it is not coupled with other policies. This points out the importance of skills-related policies, which are among the few able to address together both the inactivity and productivity agenda of Wales.

Main policy recommendations

Wales features an economic strategy and a comprehensive policy framework which is in many ways similar to other OECD countries. Nevertheless, both the overall strategy and specific policies could be improved, based on the information gathered in the frame of this review. The main recommendations are presented below and divided in generic and programme-specific:

- *The regional development strategy should become an ongoing and signalling exercise about priorities.* Firstly, this means that the Welsh development strategy should be updated every half a decade or so and that the community of regional stakeholders should be given the opportunity to discuss and contribute to its design. Secondly, and most importantly, the strategy should be clear about its objectives and priorities. A good strategy should be consistent, but not necessarily comprehensive from the point of view of policies. It should say what the regional government is going to do and is going to financially support, but also what it is not a priority in the coming years. The strategy should be a clear document able to address and orientate local businesses and stakeholders, possibly also through a transparent public policy budgeting.

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- 1 . These figures, however, do not disclose that Wales's productivity gap has a strong spatial dimension, with Cardiff and the surrounding regions showing a better performance than the UK average while the Welsh authorities in the West lagging much behind.
 - 2 . Boddy M. (2006), *Understanding Productivity Variations between Wales and the Rest of the UK*, Report to the ERAP, WAG, Cardiff.
 - 3 . This was, for instance, the development path followed by Styria in Austria when after the fall of the Iron Curtain it started intense trade relationships with the transition economies of south-eastern Europe.

- *Relevant local stakeholders should be involved in the design of the strategy.* The involvement of local stakeholders through social dialogue or through the creation of consultative bodies should enable the design of strategies and policies that are better informed of local territorial needs. A similar approach will also make local actors feel participative of the policymaking process and, in doing so, will more likely generate consensus on the implemented policies. An example comes from the region of Schleswig-Holstein where regional councils have contributed to the design of a more demand-driven strategy. To make similar organisations more effective, WAG should be selective about what makes a regional stakeholder “relevant” and thereby entitled to be listened when entering into a specific domain of policies (e.g. number of people represented, turnover of the associated businesses, number and/or funding for community projects implemented, etc.).
- *Community-based organisations (CBOs) can help attain hard-to-reach social groups.* This is mostly relevant to the WAG inactivity agenda, especially considering that labour market participation is particularly low in specific regions and social groups of the population such as older workers, people with work-limiting health conditions and ethnic minorities. At the same time, CBOs can also become useful in entrepreneurship programmes that target the abovementioned or other disadvantaged groups. In the United States, for instance, CBOs have been actively involved in the provision of both training and self-employment programmes to ethnic minorities and other deprived groups (e.g. long-term unemployed). It is, however, suggested that when involving CBOs in the delivery of policies for disadvantaged groups, WAG should also make sure that businesses from these communities continue to have access to mainstream support so that a pro-active policy does not turn into an instrument of further marginalisation.
- *Sector-based approaches can be implemented through a competitive tender process.* Sector development approaches have sometimes been associated with traditional industrial policies biased by pick-the-winner biases. Some also argue that sector policies can easily get trapped into lobbying pressures by the most influential industry stakeholders, to the detriment for example of SME development. Both concerns can partly be appeased by setting up competitive bidding processes which require industry stakeholders to come together and formulate sector development proposals to be approved for funding by the regional government. The selection process can be made more independent of the regional government through the establishment of independent committees assessing the proposals on the basis of different criteria such as scientific quality and prospected contribution to the growth of the local economy. When following sector-based approaches, policymakers should also be aware of the time lapse between the given support and the eventual development of the supported sector. Furthermore, they should take into consideration not only the projected demand, but also future supply in the industry by other regions following similar industrial specialisations. They should be aware that competition can be extremely fierce, especially in emerging sectors such as biotechnologies and nanotechnologies, and that the development of these sectors also requires a sound research infrastructure.
- *Expand the base of potentially innovative firms.* To set up effective local innovation systems, there is a need to enlarge the local base of firms able to undertake innovative process so as to avoid that too large a gap originates between a few cutting-edge companies and the rest of the local economy. Such an approach also chimes with FDI policies as the presence of a large number of high-profile firms is more likely to embed the FDI in the local economy. Currently, WAG innovation policy seems to privilege mainly technology-intensive enterprises through programmes such as the incubator network of “Technium Centres” and the “Knowledge Bank for Business”

(KB4B).⁴ Policies such as vouchers for small-scale innovation projects and wage subsidies aimed at the hiring of technical and scientific staff – two of the options examined in the “policy audit” part of the review – could help WAG expand its innovation policy to a larger pool of businesses and strengthen its local innovation system.

- *Continue to invest in entrepreneurship promotion.* The report on “policy transferability” makes the point that in Wales there is currently more focus on supporting the growth of existing businesses than on fostering new start-ups. However, entrepreneurship rates remain very low in some regions of Wales and there is a feeling that the recent good entrepreneurship performance of Wales is mainly due to UK business start-up rates going down than the Welsh ones really going up. An update of the Entrepreneurship Action Plan is therefore suggested, which might include awareness-raising campaigns, entrepreneurship fairs, business idea competitions, entrepreneurship education programmes, etc. This is important because in advanced economies such as Wales the impact of entrepreneurship on economic growth is particularly relevant.

Together with main general recommendations, the report has highlighted some specific policies that deserve attention because of their potential to inspire future policy developments in Wales. In particular, there are both complete programmes that could be considered for adoption and elements of programmes that could be incorporated into existing approaches.

- *Perspective 50 Plus* is a programme within Germany’s wider labour market reform which targets older workers through a twofold approach. On the one hand, it provides incentives (e.g. training subsidies) to firms so that the latter are more motivated to retain older workers. On the other hand, it seeks to reduce barriers to labour market participation for older long-term unemployed. Since the launch of this programme thousands of older workers have been pulled back into the labour market, which shows the good success of the initiative. High inactivity in the over-50 segment of the population and current demographic trends highlighting an aging society make labour market participation of older workers a compelling issue in Wales too. There are already a number of programmes in Wales that try to deal with this problem, such as the UK-wide New Deal 50Plus and Wales-based “Prime Cymru” and “The Age Positive Initiative”. However, there are two specific elements of Perspective 50Plus that could enhance these and other approaches. One is the formation of employment pacts, which have involved a large number of stakeholders and which have been managed very flexibly with regard to both activities and budget spending. The second is direct dialogue between job centres and SMEs to convince them about the benefits of hiring experienced aged workers. In considering how to apply this in Wales, it is clear that both Job Centre Plus and the Sector Skills Councils would have to play a major role. This measure would also need some high-profile co-ordination because it calls for awareness-raising campaigns, identification of best-practice initiatives and the establishment of local networks and local employment pacts. Being a multifaceted initiative which includes several activities (e.g. in-company training, coaching, health-care activities, mobility incentives, etc.), a similar programme is likely to be resource-intensive.
- *Lets Get Moving* is one of the programmes with the greatest transferability potential to Wales. There are three distinctive projects under the “Lets Get Moving” Banner. *Neighbourhood Travel Teams* promote the use of public transport at local level and

4 . The first is a programme that provides high-tech incubator space and linkages with academic expertise and high-profile consultancy services, while the latter aims to provide tailored finance and business development solutions for growth-oriented firms.

provide free face-to-face travel information advice and bespoke journey planning services to meet individuals' needs. *Work-wise* tackles both perceived and actual transport barriers to employment, education or training for those not currently engaged in such activities by providing financial and practical help for eligible residents. Schemes include subsidised public transport passes and bike/scooter rentals. Finally, *Dial-a-link* is an example of demand responsive transport (DRT) service, which provides links between residential and workplace locations where other public transport services are unsuitable. This component is more costly than the others and may need long-term subsidisation. "Lets Get Moving" has an important transferability potential to Wales because Welsh local authorities are due to produce integrated regional transport plans in 2008/2009. Whilst this intervention was originally implemented in the urban setting of Greater Liverpool, in the context of Wales it also holds great promise in rural areas where remoteness and limited public and private transportation can still represent a significant barrier to participation in the labour market. Here, welfare-to-work approaches based on mobility schemes can represent a possible solution to high economic inactivity. In an urban context, on the other hand, "Lets Get Moving" can be particularly relevant to young people, lone parents and minorities, who can be targeted if they live in deprived wards.

- *INOV Contacto* is a programme that promotes internships abroad of Portuguese talented graduates with a view to fostering the internationalisation of the economy and links between local firms and multinational companies. The programme is structure in three distinct parts: i) a start-up one-week course on international management; ii) short-term internship in a Portuguese company; iii) long-term internship in a multinational company abroad. Rather than to support internationalisation, a similar programme could be adopted to provide internships in companies in Wales to retain graduate students in light of the strong out-migration of graduates from Welsh universities which negatively impacts on the nation's labour productivity. More specifically, this programme could be integrated into the "GO Wales" scheme to encourage graduates from Welsh universities to join Wales-based companies. "GO Wales" provides project-based work in both enterprises and charitable organisations, with recipients being paid a minimum of £230. In theory, large companies could be preferred due to greater exposure to skill acquisition and experience they provide to young workers. At the same time, though, SMEs could also be part of the scheme if they could be in parallel persuaded about the benefits of employing young high-skilled workers and trained to manage such human resources.
- *Industry partnerships*, implemented in the state of Pennsylvania, are an example of an industry-based approach complying with the abovementioned guidelines about sector policies. This programme has also had the merit of keeping a focused approach on the specific issue of workforce development, which has been co-ordinated with the other state-wide economic development strategies thanks to the political leadership provided by the Governor's cabinet. Industry partnerships are relevant to WAG because "skills and education" is one of the policy fields where more powers have been devolved To Wales by the UK government. In Pennsylvania, industry partnerships have put together industry associations, training providers, unions and other stakeholders to design demand-driven vocational training courses. This approach has been able to achieve economies of scale and critical mass in training provision by combining training needs, reducing course duplication and aligning training curricula to industry demand.
- *Austrian K-Plus competence centres* and similar knowledge transfer programmes (KTPs) can go a long way in supporting basic and pre-competitive research in a region. Competence centres are collaborative research centres with a limited duration of time (7 years) that carry out pre-competitive research – i.e. research that stops at the

prototype stage – fulfilling the needs of both industry and academia. K-plus centres were funded through a competitive tender process in which business and university partners were asked to come together and formulate a “competence centre” proposal to obtain government funding. Selection criteria included the scientific and industrial R&D quality of the proponents, as well as the projected contribution of the centre to regional competitiveness. In considering adaptability to Wales, local policymakers would need to ensure that they have some leverage over universities. This might involve attractive funding and research perspectives. The establishment of similar centres would therefore partly be a question of adjusting research and funding incentives currently available in the Welsh university system. Competence centres such as K-plus have also important spinout potential thanks to the exposure of academics to industry-relevant research. One potential criticality for Wales could consist in the relatively small number of locally technologically advanced SMEs, which might reduce the scope for similar centres. Finally, a choice is to be made between supporting pre-competitive or applied industrial research. The former has the merit of approaching more closely than the latter the nature of public good since it provides a base of semi-applied knowledge from which a larger number of firms can draw. Moreover, by stopping at the stage of prototype, pre-competitive research is more likely to attract the interest and collaboration of academia. By contrast, applied research is judged to have a greater direct impact on productivity growth, even though public support of this type of research can have significant deadweight costs if it replaces private industrial R&D.

- *Innovation vouchers* aim to introduce small-sized firms to public research institutions and prompt long-term relationships. The programme works broadly as follows. After the programme being advertised in the media, SMEs submit an application using a very simple form where they are asked to describe the problem they would like to solve. Examples mentioned in the application are either solving minor technological problems or setting out possible solutions for a complex technological problem. Vouchers are then awarded to firms meeting eligibility criteria and if the number of applications exceeds the number of vouchers, the latter are simply accorded by lottery. Vouchers seek to cope with two major incentive problems. Firstly, they empower small firms to approach knowledge providers with their problems, something they might not do without this incentive. Secondly, they provide an incentive for public knowledge institutions to work together with small firms whereas their traditional tendency is to engage only with large firms or not to engage at all with industry. Given the small lump sum they provide, vouchers have been characterised by a very light-touch administration and mainly geared towards small-scale projects leading to product and process improvements rather than real breakthrough product innovations. The fact that this policy has already been implemented in the Netherlands, Ireland and the West Midlands implies that transferability to Wales should be relatively straightforward. Nevertheless, the following points would need some strategic thinking. Firstly, should the policy only support technological innovation or also management and leadership innovation? The fact that the amount provided is relatively small would suggest not excluding the latter, even though a very large scope of the initiative could easily result into a ramp-up of resources. Secondly, there is a key need to articulate carefully the role of universities. Because the latter will more likely be the main knowledge providers, it would be best if the programme were managed by some other, possibly government-based, body. This would limit conflicts of interest which may arise when the organisation managing and delivering the programme is the same, would free the university from any programme-related administrative burden and would enable the policy to be integrated with other measures sharing similar goals. This indicates that the policy should be indeed administrated by a government-related organisation as part of a wider innovation policy framework, with universities only acting as knowledge providers.

- *Hothouse* is a Dublin-based incubator programme that can help fine-tune the Welsh incubation network of *Technium* centres. Hothouse helps entrepreneurs of knowledge-intensive businesses to start up and build firms with global potential. Located in the Docklands Innovation Park (and not in a university campus), this programme provides incubation space and gives participants the opportunity to work alongside fellow entrepreneurs, business mentors and experts who understand the start-up and early development stage process. It offers full training, mentoring and counselling and, more generally, an environment of ideas and support services from which businesses can thrive. Two main lessons arise from the Irish experience. Firstly, the provision of a grant corresponding to part of the last salary (50% in the case of Hothouse) can help soothe the concerns associated with a move from wage employment to an entrepreneurial career. Secondly, a gradual phase-out from the programme can smooth and facilitate the transition of participants to open-market conditions. An option, for instance, would be that at the end of their tenure participants leave the incubator space but are still allowed for a period of time to benefit at preferential rates from the incubator's business development services (e.g. legal services, marketing, business consulting, etc.). Issues also remain in terms of whether these kinds of activities are better provided, as they appear to be in Ireland, in programmes linked to technical colleges or newer universities whose missions are broader than that of more traditional universities. Related to this, there is also the issue of the extent to which higher education institutions (HEIs) should have control of the objectives of these programmes, relative to industry. It should be finally recognised that a policy such as Hothouse would require networking with successful firms and alumni, as well as the willingness of universities to assist those from outside their own staff and previous students. The fact that participants were chosen on a competitive basis allowed Hothouse to pick higher-profile participants and thereby generate higher returns.

Policy messages

In this section, policy messages of relevance to Wales are expanded and divided into three categories: overarching messages; labour market policy messages; and business productivity policy messages.

Overarching messages

Adjust local policies based on international policy learning

Wales has already a wide array of policies in place. In the field of economic inactivity, the “Want2Work” initiative aims to bring back in the labour market people claiming incapacity benefits through a package of counselling, training, and financial incentives under the form of return-to-work credits. Additional initiatives (e.g. free training, improved transportation and childcare provision, etc.) are unfolded in the Heads of the Valley to root out inactivity where it is most pressing. Similarly, in the field of business productivity, WAG intends to target high-growth firms through the “Knowledge Bank for Business” (KB4B), which “aims to provide tailored solutions to individual businesses to help them grow more rapidly” (WAG, 2005, p. 50)⁵. The business incubation network of “Technium Centres” also seeks to address the birth and emergence of growth-oriented knowledge-intensive enterprises in Wales.

As a result, rather than implementing new “stand-alone” policies, WAG should mainly use the findings of this report to adjust and improve the current set of programmes. Three possible examples are the following. Firstly, “Want2Work” might learn from the German programme “Perspective 50 Plus” about how to target the specific group of older inactive workers who feature peculiar challenges as compared to their younger counterparts. In a snapshot,

5 . WAG (2005), *Wales: A Vibrant Economy*, WAG, Cardiff.

“Perspective 50Plus” is a programme that works on both the demand and supply side of the labour market. On the one hand, inactive people aged over 50 have been “activated” through personal interviews, mentoring, training, etc. On the other hand, firms and especially SMEs have been “talked into” giving an employment chance to older inactive workers. Through this two-pronged strategy the programme has achieved remarkable results, including a new job for 22 000 older workers. Whilst the activities of Wales’s “Want2Work” are relatively similar to those of “Perspective 50Plus”, the Welsh initiative might derive useful insights from the German one about the peculiar challenges and strategies to reach out to this group of workers.

Another initiative with the potential to address Wales’s future policymaking is the “Lets Get Moving Initiative” in the UK Merseyside region, as this could inspire the upcoming Regional Transport Plan of Wales. The goal of “Lets Get Moving” is not to let transport barriers become a reason to forsake a job or training opportunity. Three different programmes make up the Merseyside initiative. Firstly, “Neighbourhood Travel Teams” promote the use of public transport and give information, advice and bespoke journey planning. Secondly, “Work-wise” gives financial and practical help to encourage eligible resident to take up distant jobs (e.g. free pass for public transport, six-month free loan of bikes or scooters, etc.). Thirdly, “Dial a Link” delivers demand responsive transport (DRT) services such as new bus services connecting industrial areas with residential ones. By improving the transport links between economically disadvantaged areas and others with jobs, similar policies are particularly relevant to the WAG inactivity agenda and seem to be suited for rural areas, as well as for disadvantaged social groups living in urban suburbs or deprived wards.

A third example comes from INOV Contacto, an internship programme funded by the Portuguese government that intends to foster the internationalisation of the Portuguese economy by financing the internship of Portuguese graduates in multinational companies abroad. If adjusted to the needs of Wales by, for instance, offering paid internships only at Wales-based companies, a similar policy could help the retention of Welsh graduates, this being one of the elements with the potential to bridge the productivity gap of Wales relative to the UK.

Develop a partnership-based approach to policymaking

The main benefit of a partnership-based approach to policymaking based on the involvement of local stakeholders lies in the emergence of a consensus-based strategy able to identify the real needs and priorities of a region. Regional stakeholders have been successfully engaged in many of the regional development strategies analysed in this report. In the Italian region of Tuscany, for instance, the economic development plan has seen the active involvement and contribution of employer associations and trade unions, which reflects the longstanding tradition of social dialogue and agreed policymaking in this region between the regional government and social partners. In Schleswig-Holstein, Germany, “regional councils” made up of a heterogeneous set of organisations (e.g. universities, chambers of commerce, trade unions, NGOs, etc.) have functioned as advisory committees, transmitting their views and preferences on regional development projects to the government of the *Länd*.

Partnerships have also been at the heart of some of the initiatives described in the “policy audit” part of the review. The Regional Growth Agreement (RGA) has been a “growth pact” between local stakeholders and the new devolved regional government of Västra Götaland (Sweden), which has set the priority objectives for the economic growth of the region based on the results of previous economic analysis and strategic planning. Similarly, as any cluster development approach, Hokkaido cluster policy has been hinged on partnerships, in this case between the regional government and the main institutions of the local innovation system (i.e. universities, research institutes, etc.).

The main actors of a policy partnership can change, clearly depending on the nature of the initiative. So, when targeting socially disadvantaged groups, the role of community-based

organisations (CBOs) can turn out very useful. This was the case in the JARC Metalworking Skills Programme in the United States, where Jane Addams Resource Corporation (JARC), a Chicago-based community development association, was able to upgrade the skills and income of immigrant workers through a sectoral approach to workforce development organised in collaboration with local employers. CBOs also played an important role in the delivery of many of the interventions comprising the Appalachian Regional Commission (ARC) Entrepreneurship Initiative. If anything, a cautionary tale is that, whilst CBOs are certainly useful to make hard-to-reach social groups aware of economic development initiatives such as entrepreneurship or training programmes, it is important that a channel to mainstream business support organisations is always maintained so that those business and workers who come from disadvantaged communities but have the potential to grow can still receive adequate support.

When working on specific industries, the contribution of trade unions and employer associations will be crucial. It has already been mentioned how they have been actively involved in the regional development strategy of Tuscany in Italy. But they have perhaps performed an even more important role in Pennsylvania's Industry Partnerships. Through the collaboration and active involvement of labour unions and above all employer associations, the state government of Pennsylvania has been able to deliver demand-driven training programmes that did not meet just the needs of few important and/or large employers, but rather those of the whole industry.

In the context of Wales, the engagement of unions, business associations and other relevant stakeholders will be crucial to advancing sectoral policies in the identified key local industries (e.g. automotive, aerospace, pharmaceuticals, etc.). Likewise, the involvement of CBOs and volunteer associations could contribute to reducing economic inactivity in disadvantaged areas through local regeneration action plans or vocational training and self-employment programmes in the guise of JARC Metalworking Skills Programme and ARC Entrepreneurship Initiative. At the same time, it should be noted that keeping the momentum in policy partnerships is not easy. Stakeholders, especially those from the business world, need a real motivation to be involved, which is normally the prospect of achieving a gain or a positive outcome in the short or medium term. They also need to feel engaged over time, with the setting of new goals once the previous ones are attained. However, government funding is typically only short-term and political priorities are not always steady or consistent over time. This tension can disrupt partnership-based policies in the long run, something of which policymakers should be aware.

Be flexible in policy design and policy implementation

Flexibility in design, management and delivery has underpinned the success of many of the policies described in the report. Flexibility was shown, for instance, in “Perspective 50Plus” with regard to both budget management and policy delivery. Job centres were allowed to use the budget quite freely throughout the whole period of the intervention and programme delivery varied depending on the target: workers mainly received counselling and training, while small firms were individually persuaded about the benefits of hiring experienced workers. Flexibility was also the hallmark of the “Training Cheque” programme, which allowed workers, both individually and through their companies, to access training vouchers. In doing so, this programme was able to reach two different groups of workers: less qualified workers with an interest in upgrading their skills through the individual-based approach and more qualified employees through the company-based modality. The optional counselling before the issue of the training cheque and the very “light-touch” administration involved were two additional factors of flexibility that undergirded the success of this programme.

Flexibility is particularly important in small-budget programmes that do not grant large amounts of subsidies. In this case, rules and administrative procedures should be as light as possible not to discourage potential participants. A good example comes from the “innovation vouchers” used in the Netherlands and West Midlands. Being a measure based on lump sums of

only EUR 7 500 for small-scale innovation projects, eligibility criteria, application procedures and reporting requirements were minimal. This helps explain the large number of applicants to this programme, which, at least from the additionality point of view, was also quite successful (only 20% of the recipients said they would have undertaken the project without the grant of the voucher).

Policy flexibility is of relevance both to the inactivity and productivity agenda of Wales. As shown in many of the policy audits scrutinised in the first part of this review, people can be out of the labour market for very different reasons: inadequate skills, work-limiting health conditions, household duties, lack of transportation, etc. Therefore, policies tackling inactivity must deal with what are essentially individual needs, which are clearly better addressed by flexible policies. Similarly, at the firm level, improved skills and new technologies are the two main elements boosting productivity and both can be fostered by a wide array of policies.

Give attention to policy coordination

Co-ordination is key to improving the management and productivity of government policies by avoiding the design and implementation of overlapping or conflicting policies. However, policy coordination requires strong political leadership and commitment. Ideally there should be one institution, possibly located in one of the main government ministries or councillor's offices, tasked with the coordination of the overall regional development strategy. A similar body should be in charge with the overall design and implementation of the strategy, the identification of the criteria for measuring policy performance (i.e. effectiveness, efficiency, etc.), the evaluation of the policies and the redirection of the strategy depending on the evaluative results. The set-up of consultative bodies made up of local stakeholders such as chambers of commerce, business associations and unions would also be helpful insofar as it could make regional policies more informed of the real needs of prospected beneficiaries.

Two regions where policy coordination has been remarkable have been Pennsylvania and Tuscany. In the former, policies have been coordinated by the Economic Development Committee (EDC), which was established at the Governor's cabinet to stress the importance given by the Governor to this agency. The EDC was given tasks similar to those exposed above and its members were leaders of state programmes dealing with either workforce or business development. As a result, the EDC strongly contributed to the effective coordination of state policies. In Tuscany, the design of the regional strategy followed a structured methodology in which the regional government, with the main collaboration of employer associations and labour unions, identified the main strategy pillars based on the previous analysis of the development challenges facing the region. In turn, every strategic pillar (i.e. competitiveness, employment and social cohesion, environmental sustainability; governance) encompassed a small number of important policies (e.g. within the competitiveness pillar, policies included R&D, internationalisation, clusters and business networks, etc.), each of which was given an allocated budget. In this way, a multilayered system of coordination with well-highlighted policy priorities was put in place.

The set-up of a government coordinating body in the fashion of Pennsylvania's EDC and the design of a strategy with an attached budget highlighting for each policy the earmarked funds would contribute to the coordination and coherence of WAG's overall development strategy.

Build evidence-based strategies and policies

Recent OECD work (Potter, 2008)⁶ underscores the importance of the appropriate assessment of local needs, policy objectives, and expected impacts to build successful local economic development strategies and programmes. In particular, six steps are highlighted to build sound evidence-based strategies: i) defining the strategic objectives; ii) identifying the options for intervention; iii) assessing the expected impact; iv) making use of strategic assessment results; v) implementing the local strategy; vi) setting up an information system.

The definition of the objectives calls first of all for the understanding of the growth obstacles that the strategy or policy is to tackle, the definition of the right scale of intervention and the identification of the prospected beneficiaries. The same objective can then be achieved through different policy options, which is the second stage of the process. It is important, but often overlooked, to figure out what the alternatives into play are and which one has more chances to achieve the objective. To give an example from the report, innovation in SMEs can be supported through specifically designed vouchers, as done in the Netherlands and West Midlands, or by subsidising the hiring of researchers and skilled workers in SMEs, as the NITEC programme did in Portugal. Depending on the goal of the programme – in the example, introducing as many firms as possible to the concept and practice of innovation in the first case as against supporting R&D and product innovation in few technologically more advanced SMEs in the second case – the suited policy option will change. The third stage consists in assessing the expected impacts of the strategy or policy. This will be crucial not only for the phase of monitoring and evaluation (M&E), but also as *a priori* exercise to assess which, among the identified options, is more likely to have the greatest impact and which, if any, presents drawbacks or potential difficulties. Clearly, this is a stage where many methodological issues will have to be tackled and sorted out. The fourth stage refers to the use of the collected evaluation evidence and strategic assessment results. This may look relatively obvious, but in fact there is often a hiatus at the government level between the departments in charge of research and those of policy design which prevents policy being informed by in-house research. The fifth step is implementation, which is the stage where all the previous phases are finally tested. Transparent delivery systems, clear management methods and inclusive leadership underlie a good implementation process. Finally, “information systems” are key for the M&E phase. Information systems should be designed to feed into key strategy assessment activities, capable of identifying problems promptly, and support strategy design and delivery.

These six steps cast light on a “road to heaven” for the layout of evidence-based strategies, whose full actual implementation presents a number of challenges. Nevertheless, there have been regions among those analysed in the report that have been more able than others to approach a similar methodology. For instance, the state government of Pennsylvania enforced a Performance Management Plan that set rigorous standards for the monitoring of all state workforce development programmes. This meant selecting economic, workforce and education indicators that could initially compare Pennsylvania’s performance with the rest of the U.S., give information on the outcome of specific programmes and assess how well public investments were addressing the state’s challenges. Pennsylvania’s industry partnerships were also an example of an informed policy, not only because the sectors were selected based on previous empirical economic analysis, but also because training funds were only available for those partnerships in which employers had identified the high-skill needs of their industry based on previous surveys. Finally, Pennsylvania also overhauled the entire management information system in order to integrate information about individual customers from the many state agencies, which strongly improved the integration and coordination of state policies and programmes.

6. Potter, J. (ed.), 2008, *Making Local Strategies Work: Building the Evidence Base*, OECD, Paris.

Develop strategies that are focused and adjustable over time

Strategies should be adjusted to the changing challenges with which a region is progressively faced. This does not imply that a new regional strategy will have to be re-discussed every other year, but a time frame of 5-10 years is probably realistic. This will help policymakers draft a strategy that not only addresses the new development needs and growth prospects of the region, but it is also better framed into the new global scenario. The re-elaboration of the strategy will also be a good opportunity to assess the outcome of past policies and verify the extent to which the previous strategy has achieved its objectives. Development strategies should also be seen as a “signalling exercise” with which the regional government points to local stakeholders its priorities for the next half a decade or decade and where, consequently, public funding is going to be available and where not. Therefore, it would be beneficial if the main strategy documents could indicate, together with the planned policies, the government funds earmarked in each case, like in the case of Tuscany’s Regional Development Plan. This also means that regional strategies should not be “catch-all” documents, the risk being that they could otherwise be bent to the lobbying and private interests of the strongest stakeholder groups as the strategy gets implemented.

Among the regions analysed in the report, the Basque Country is probably the one that best fits this policy message. In the late 1970s, the Basque Country was suffering the consequences of the international economic crisis with a diffused downturn in many of its traditional manufacturing industries. As a result, the first innovation strategy at the beginning of the 1980s merely aimed at setting up an adequate R&D infrastructure, which could become the base of the Basque science and technology system. In the 1990s, the emphasis of the strategy shifted to strengthening integration and cooperation among the actors involved in the regional innovation system (i.e. universities, research centres, businesses and regional government). Finally, over the last years the focus has been on industry diversification through the support of new added-value sectors such as biotechnologies and nanotechnologies.

Styria, too, has been able to design a strategy which has been a continuum throughout the decade 1995-2005. The first “Technology Concept” (1995) stressed the importance of business networks, industry-university partnerships and new applied-science colleges to boost the competitiveness of the region, while “Technology Concept II” (2005), which was to a certain extent also an evaluation of the first strategy, saw long-term growth and competitiveness as the result of further support to the most innovative firms, the enlargement of the base of innovative firms, and the investment in new technology fields other than Styria’s traditional strong sector (i.e. mechanical engineering).

Labour market policy messages*Older workers and people with work-limiting health conditions need to be targeted by specific activation policies*

The participation of older workers in the labour market has traditionally been hindered by factors such as compensation structures causing labour costs to rise faster with age than productivity; subsidised early retirement schemes being used as a socially acceptable way of dismissing older workers; policy focus on youth unemployment provoking the exclusion of older workers from active labour market policies (ALMPs); etc. This has caused workers aged over 50 or 55 years to be left at the margins of the labour market, something which is no longer financially sustainable in a time in which life expectancy continues to increase.

Aged workers have therefore become a sensible target group of activation strategies in many countries and Wales is no exception. In Wales, over the next twenty years, the overall population will only grow by 3%, while the segment of the population in the current retirement age will rise by 11%. There is also a net out-migration in the age bracket between 16 and 24

years old, whereas a net immigration in the one between 45 and 64 years. Finally, there is still a gap of six percentage points between Wales and the UK as a whole in the employment rate of the over-50. Wales has indeed taken action to assist the employment of older workers and some initiatives have been implemented. “Prime Cymru” supports people over 50 into self-employment and “The Age Positive Initiative” has the goal of attracting back into the labour market 20 000 older workers. Nevertheless, considering Wales’s demographic challenge, there is still room for further action into this area and an option would be tweaking the “Want2Work Initiative” to target more specifically older workers, something which has been mentioned above. Alternatively, older workers could be employed in non-traditional capacities such as downshifting, move from full-time to part-time work arrangements, or receive training to update their skills. This last option would probably require government subsidies, for employers are less willing to invest in workers who have a shorter prospect of stay in the firm. Policies should also take into consideration that it is easier to encourage older workers to remain in employment than bring them back into the labour market after they leave.

One interesting initiative in this area is the German programme “Perspective 50Plus”, which is detailed in the policy audit section of the report. This policy has been designed at the federal level, managed at the regional, and delivered at both the regional and local levels. The German federal government launched a call for proposals in 2005 in which it asked the over 450 jobcentres in Germany to conceive programmes and private-public partnerships to attract older workers back into the labour market. Since then, over 60 “employment pacts” have been struck between the job centres, employer associations, large companies, unions, and NGOs. Many of them have included activities such as regional awareness campaigns; identification and profiling of the unemployed older workers to be included in the programme; financial incentives for both companies and workers (e.g. wage subsidies, vouchers, return-to-work credits, etc.); matching between companies and workers; skills upgrading and training activities; preventive health-care programmes; etc. Job centres have been given a large degree of freedom with regard to the decision of the activities to implement and the spending of the allocated budget. This flexibility, together with the ability of jobcentres to draw on the expertise of external organisations, has underpinned the success of the initiative, which has involved approximately 80 000 older long-term unemployed and helped 22 500 of them to secure a job.

With regard to people with work-limiting health conditions, Wales is the UK region with the highest incidence of the disabled apart from the North and the region in absolute with the highest share of inactive people in the disabled group. Statistics from the Welsh section of the UK New Deal Programme show that only 11 800 of the 38 800 disabled participants found a job (30%), which points to clear difficulties by policy to attain this target group. The main WAG programme implemented to this end has been “Want2Work”, an initiative that through a combination of counselling, mentoring and one-year return-to-work subsidies strives to persuade benefit recipients to take up a new job when offered. An early evaluation brings evidence to the success of this programme, with participating individuals being 8.4% more likely to have moved into employment than a statistically relevant control group not touched by the programme.

None of the policies discussed in the report specifically deals with the inactivity of the disabled. However, it can be argued that both Perspective 50Plus (36% of the participants in this programme had some health problems) by improving employability and the Lets Get Moving Programme by pulling down physical barriers to entry in the labour market could inspire the design of more disabled-oriented labour market policies. More generally, previous work by the OECD indicates that return to the labour market of people with incapacity benefits is rare. As a result, controls on the grant of such benefits should be tight at the very beginning. This would imply, for instance, a clampdown on long-term sickness leaves, which are often the precursor of disability benefits. The possibility to combine the concession of a partial allowance with flexible work arrangements (e.g. part-time) should also be explored.

Design two-pronged immigration policies

The current out-migration of people in working age and immigration of people close to retirement age implies that Wales needs to develop sound immigration policies if it is to make strides in its inactivity agenda. Although immigration has recently increased, Wales still attracts only a very small share of migrants in the UK context and to date it only counts 55 000 migrants. In addition, migrant workers are faced with serious difficulties in the Welsh labour market and the fact that only 14% of ethnic minority participants in the Welsh chapter of the UK New Deal Programme have secured a job is evidence of these difficulties. Immigration policies can be divided in two branches: a) integration policies for current migrants; b) attraction policies targeting new, often high-skilled, migrants.

With regard to the first group, host-country language courses can clearly facilitate and speed up the integration of migrant workers, even though the duration of courses is an issue not to be overlooked. Because employers tend to value host-country work experience, prolonged language training can have the unintended consequence of postponing entry in permanent work. The combination of language training with vocational training can ease this constraint and contribute to more favourable outcomes. At least in the very short term the provision of training in the language of migrant workers can also further their integration in the local labour market, especially in the case of low-skilled jobs. The JARC Metalworking Skills Programme in the United States, for instance, started from the assumption that becoming fluent in a foreign language (i.e. English) may take even years for low-qualified workers and accordingly purveyed training in the native language of workers. It should be noted, however, that in the case of JARC recipients were incumbent workers, who were therefore somehow already partly integrated in the local economy.

The second sphere of immigration policies concerns the attraction of additional, possibly talented, workforce. This essentially depends on the local business and people climate. The main motivation for high-skilled professionals to move is not only to obtain a first rewarding job, but also the possibility to develop a career in the new place. This implies that the main mechanism for the attraction of talents consists in a sizeable demand for high-skilled labour from a large base of local businesses. Policy can impact on the building-up of this critical mass through support to innovative and highly productive sectors, knowledge institutions, business networks, etc., all policies that will be more closely analysed in the “business productivity” section of this chapter.

Increasingly, though, there has been a consensus that good business climate is not sufficient to appeal the most creative and productive pool of workers and that people climate is equally important. Broadly speaking, this term refers to a local society that is open-minded and tolerant and reflects the lifestyle preferences of high-skilled workers. From the policy point of view it is not easy to intervene at this level, even though an interesting cultural and entertainment life as well as the availability of open spaces for recreational and sport activities are reckoned to have a positive impact on people’s choice about where to live. At a more specific level, depending on the desired group of workers to attract, it will be possible to design more tailored policies. So, for instance, academics will be more easily allured by the presence of top-notch research laboratories and a generous research support system, whereas entrepreneurs will probably look first at the availability of specialist finance and market opportunities.

Given the broad concept of people climate, several are the policies described in the report that could contribute to this goal. Internship programmes in the fashion of Portugal’s *INOV Contacto* can help both retain graduate students and attract talented ones in the Welsh labour market. Rather than promoting internships abroad as done by the Portuguese Programme, it would make sense in this case to assist Wales-based companies to hire high-skilled (foreign) interns by partly subsidising their wages. On the other hand, programme such as the Hothouse Business Incubator (Ireland) can attract new high-profile start-ups in Wales or entrepreneurs

that are interested in setting up a Welsh branch of their company by providing them with a mix of office space and business advice. Both policies are examined more closely later on.

Shortages of labour can make the attraction of foreign workers needed also for those jobs that natives may not want to do because of their unpleasant nature or low pay. However, it should be noted that alluring migrants for low-pay unqualified jobs in remote areas of Wales is not going to be easy, especially considering the competition exerted on this front by the relatively close regions of London and South-east England where low-skilled manual jobs are available at a better pay and in a less peripheral location.

Assist workers in disadvantaged regions through a mix of employment and regeneration policies

Economic inactivity is not homogenous within Wales but rather concentrated in some regions such as the Heads of the Valleys in the South, where more people with work-limiting conditions and/or low qualifications live. Similarly, labour productivity has also a spatial dimension, with the unitary authorities in the west side of Wales having a GVA per worker well below the UK benchmark. As a result, it makes sense to think of bespoke policies for some disadvantaged regions of Wales. One of the main initiatives WAG has undertaken so far has been “The Heads of the Valley” Programme, which is a 15-year regeneration strategy addressing the causes of economic inactivity in this region of Wales. Among other things, the programme provides business incentives to encourage the hiring of economically inactive people, better transportation to reduce physical barriers to work, special help for people with disabilities, etc.

The main option to advance this agenda will probably consist in a stronger decentralisation of employment policies which will enable local authorities to design policies that better meet local needs. Evidence suggests that this should be done as part of an agreed framework between central, regional and local governments setting clear objectives so that funding can be made dependent on the achievement of the agreed goals. The most prominent example in the report comes from the above-examined German Perspective 50Plus Programme, where a multi-level approach involving the three layers of government (i.e. federal, regional and local) led to 62 employment pacts.

Housing policy can also have a role to play by removing barriers to worker mobility. In many OECD countries housing policies tend to favour home ownership over rental, which reduces worker mobility due to higher transaction costs faced by owners as compared to renters. Similarly, the functioning of the social housing market can significantly reduce the incentive for low-skilled workers to relocate if this means losing the right to subsidised home ownership. The shift from direct social housing supply to housing allowances can partly help solve this problem, as can waivers on residency and queuing requirements for the unemployed who take up a job in a new region.

The use of social housing tools, especially allowances covering partially or totally the rental cost, are also particularly useful in urban regeneration projects that, if successful, can bring about an increase in the neighbourhood’s housing costs causing the replacement of low-income residents. This problem arose, for instance, in the regeneration of North Massachusetts (No.Ma.) Avenue in Washington, DC. One of the goals of this initiative was to increase job opportunities for local low-income black communities by better connecting the area with the rest of the city through a new metro-rail station, the creation of a media district, the foundation of a new high-school in the neighbourhood addressing the skill needs of this industry and the relocation of some federal government offices in the ward. The initiative was indeed successful, but to the detriment of the local low-income communities, who were soon unable to keep up with the soaring price of rents. In this context, social housing allowances would have helped disadvantaged communities to meet the increased costs of living in an economically more active

neighbourhood, which is indeed one of the most common objectives of regeneration programmes.

“Enterprise zones” have also often been used to attract investments and jobs in both depressed regions and deprived suburbs, but so far they have not proven the most efficient policy. Evidence shows that they tend to have high deadweight costs (i.e. jobs would have been created anyway) and replacement effects (i.e. new subsidised jobs or businesses are not “new” but only replacing old ones) and the Rotterdam Kensenzones Programme outlined in the report is no exception. The programme proved to have high operational costs and created only a very small number of jobs, which were mostly filled by people not living in the suburbs interested by the programme. Moreover, additionality only corresponded to the 25% of the overall investments subsidised by the programme.

Improve transportation to strengthen labour market participation

Although lack of transport is rarely the main obstacle to labour market participation, improved transportation, especially in rural areas, can dent inactivity. Better transportation also helps local areas to become integrated into a wider regional economy and thereby benefit from economies of agglomeration such as a larger pool of skilled workers and qualified suppliers. WAG has recently elaborated the Wales Transport Strategy, which has the objective of enhancing access to education, training and employment opportunities. In particular, transport is regarded as key to integrating the jobless into the labour market especially in the Valleys and other rural areas of Wales. As part of the Wales Transport Strategy, Welsh local authorities must design in the near future integrated Regional Transport Plans. The Merseyside “Lets Get Moving” programme could provide inspiration to tackle the access problems of the inactive and unemployed.

“Let’s Get Moving” consists of three parts: a) Neighbourhood Travel Teams; b) Work-wise; c) Dial-a-Link. Neighbourhood Travel Teams essentially provide face-to-face travel information and bespoke home-to-work journey planning. If needed, they can also give travel training, which concretises in a member of the team accompanying for the first times in the work journey the person in need of assistance. Whilst Travel Teams concentrates on information provision, the focus of Work-wise is on financial assistance. This component of “Lets Get Moving” subsidises the transport costs of eligible residents who have an offer of employment or training through one-month free public transport pass, six-month loans of bikes or scooters, etc. Finally, Dial-a-link offers new bus routes connecting depressed residential areas with workplace locations where other public transport services are unsuitable or unavailable. All the three strands of the “Lets Get Moving” programme have proven quite successful (e.g. 80% of clients of Neighbourhood Travel Teams were still in either employment or training three months after the assistance), even though the set-up of demand-responsive transport programmes such as Dial-a-Link has proven to be costly.

Upgrade worker skills to advance both the inactivity and productivity agendas

Skills upgrading is an issue that overarches both the inactivity and productivity agenda of Wales. The latest National Learning and Skills Assessment highlights that there are significant skill shortages in Wales and emphasises a number of points. At the basic skill levels, it prioritises three social groups: a) the economically inactive and the unemployed; b) people in employment who need further support to reach level 2 in the Graduate Certificate of Secondary Education (GCSE); c) groups on the brink of social exclusion such as young people who are neither in employment nor in education. The same document also recognises the importance of higher skills (e.g. one-quarter of the Welsh workforce has an IT skill gap), including management and leadership training. In this respect, only 40% of managers and senior officials have a NVQ 4+ level. Bespoke management and leadership training could therefore help managers, especially in knowledge-intensive work and in utilising more effectively graduates. A

similar training could be framed into the “GO Wales” programme to help match graduates looking for a job with small employers without any previous experience in hiring graduates.

In the context of the review, the two most interesting initiatives in the field of skills upgrading are the “training voucher” scheme implemented in North-Rhine Westphalia (NRW), Germany, and Pennsylvania’s Industry Partnerships. Training vouchers have been made available to NRW employees of SMEs that had not received any training over the last two years and were accessible to both workers individually (i.e. individual access) and through the company they worked for (i.e. company access). Over 200 state-wide centres have been involved in the programme with the role of providing training counselling. Whilst these centres did not charge workers for their counselling, they did receive flat-rate reimbursements by the regional government of NRW. Most training courses were eligible in the frame of this policy, with the exception of those already made mandatory by law. Interestingly, there has been a diversification in the use of the two different types of voucher, with company-access coupons devoted more often to higher-skilled workers and individual-access coupons rather used by less qualified employees. This very simple initiative has proven successful in reaching out to workers who had long not received training: i.e. 40% of company-access vouchers and 50% of individual-access vouchers were granted to workers who had not received any training throughout the last five years. Deadweight effects have also been very low, which adds to the success of the initiative.

WAG might consider the implementation of the measure as a whole or of only one of the two components depending on its prime objective: company-access vouchers if the goal is to upgrade the skills of more qualified employees or individual-access vouchers if the primary target are lower-skilled workers. In any case, it should be noted that training subsidies are more efficient when taking the form of matched contributions reducing the marginal costs of training for all subsidy recipients. Vouchers are unlikely to be consistent with this principle, even though they can still be adopted in light of social welfare considerations (e.g. targeting workers who are unlikely to be given any training).

Industry Partnerships in Pennsylvania represent a totally different approach to the promotion of skills upgrading. They are essentially a collaborative effort bringing together the main actors of the workforce development system with a view to improving the competitiveness of a cluster of companies in the same industry. The main function of these partnerships is to identify the main skills needs of an industry and implement training policies and programmes that meet these needs. Industry partnerships present several advantages. First of all, they enable economies of scale and scope in the provision of training. By focusing on the skill needs of specific industries, partnerships can help training institutions align curriculum and programs to industry demand and help develop new industry credentials that give companies confidence in the skills of the new recruited people. Partnerships also promote communication among firms, managers, and workers that can stimulate innovation and dissemination of best practices. Such an approach also presents strong synergies with sector development, something WAG may want to consider in light of its commitment to boosting some key strategic sectors (e.g. automotive, aerospace, agri-food, etc.).

Improve graduate retention through high-level internship and wage-subsidisation programmes

Wales is currently a net importer of undergraduate students but an exporter of graduates. That is, many graduates leave Wales once they complete their studies. As with attracting talented workers, the retention of graduates from Welsh universities holds the promise to bolster labour productivity. This will chiefly depend on the presence of a large base of local businesses able to offer competitive salaries, something that in turn depends on business productivity and innovation policies that will be more closely analysed in the following section of this chapter. Nevertheless, programmes such as the Portuguese INOV Contacto and NITEC can smooth the

school-to-work transition of graduates from the viewpoint of education and labour market policies.

The first policy has already been presented and is essentially an internship programme covering the hiring costs of Portuguese graduates working for 9 months in multinationals abroad. The programme could be easily adjusted to Welsh priorities by changing the target in graduates from Welsh universities accepting to undertake an internship at Wales-based companies. The focus could be primarily on large multinational companies due to the broader experience they offer to graduates. Such an initiative could be easily integrated into the “GO Wales” programme, which offers a range of services aimed at facilitating the match between demand and supply in the student and graduate labour market (e.g. work placement, training funding, online database of jobs, etc.).

NITEC, on the other hand, has been a policy promoting SME innovation mainly through wage subsidies aimed at the hiring of researchers and postgraduates. In doing so, the main aim of NITEC has been to contribute to the formation of R&D internal departments in SMEs. In its first four years of existence nearly 200 NITEC projects have been approved and approximately 500 R&D jobs have been created. In the context of Wales, a similar policy could contribute to the retention of graduates in Wales, especially those coming from scientific departments, as well as to the consolidation of science-based high value-added sectors and the modernisation of traditional industries.

Business productivity policy messages

Universities can be helped to become centres of excellence

Universities can have a triple mission: education, research, or technology transfers. Through the involvement of WAG, they should get engaged in a strategic discussion on which of these goals has the priority. The choice of each of these roles should influence the way the regional government supports and uses the university system. In particular, the regional government should try and identify few university centres of excellence with the greatest potential for the commercialisation of innovation in few industries considered strategic for future development. Especially for small economies such as Wales, being internationally competitive in a large number of high added-value industries is hardly possible. As a result, a choice should be made on which sectors have the greatest future potential in light of consolidated academic tradition and possible collaboration with the private sector. Whilst this might look like a “pick-the-winner” approach, the choice could be made on the basis of the research and commercialisation plans produced by university research centres and be the result of a consultation or competition process in which the university system interacts with the regional government. One of the main benefits of a similar approach is that it would avoid the fragmentation of public funding in too many streams.

The regions of Schleswig-Holstein and Basque Country have followed two different but equally interesting approaches. In the German *lând*, the regional government has privileged research in few areas related to the local maritime and wind-energy clusters. As an example, six regional universities have joined the efforts to set up “Cewind”, a centre for excellence for wind energy, and organise a Master’s degree programme in Wind Engineering. Likewise, inter-university research groups have been established on maritime-oriented topics such as “ocean monitoring system” and “research vessels”. In the Basque Country, on the other hand, the regional government has founded Basic and Excellence Research Centres (BERC) through a competitive process in which universities have been asked to come up with research proposals that have subsequently been assessed by an international review panel. The highest-profile and most interesting proposals for business development in the region have been short listed and the research group requested to formulate a detailed plan. The best plans have been finally

approved, with funding made dependent on research excellence measured as number of publication and other scientific outputs.

Both approaches could be of interest to WAG, which should go through some strategic thinking aimed at how to identify those fields where it has either a scientific or industrial competitive advantage and how to support them once they have been identified.

Industry-university partnerships will strengthen innovation but require careful design

Industry-university partnerships are a useful tool to promote knowledge transfers. However, due to the limited absorptive capacity of firms in most economic sectors, partnerships should be limited to those regional industries that hold growth prospects and should not become the main priority and role of universities in the regional innovation system.

Cooperative research centres are an option and they have been established, for instance, both in the Basque Country and Austria. Austrian K-Plus Centres, to which a chapter in the “policy audit” report is devoted, are collaborative research centres of limited duration of time (max. 7 years) geared towards high-quality pre-competitive research. Centres have been normally set up in the form of private limited company with both a chief executive officer (CEO) from the industry world and a science executive officer (CSO) from the academic world. Each centre manages a number of research programmes divided by scientific field, each of which is led by a research manager who has a scientific counterpart in a university and who acts as a technology consultant. Especially at the beginning when centres did not have enough scientific track records, university-based technology consultants have been particularly important in providing the necessary know-how by guaranteeing the link and information flow between the centre and the corresponding university. The legal set-up of K-Plus centres, which clearly includes many IPR-related issues, also obliges the centre to stop research activities once the prototype is achieved, mainly with the goal of ensuring that research remains of pre-competitive nature.

K-plus centres have been formed after a competition process where the two key selection criteria have been the scientific quality of the proposal and the prospected contribution of the centres to Austria’s competitiveness. There was not any initial preference toward any sector in particular and the 18 centres which have arisen from this process have indeed interested both scientific fields with a consolidated tradition in Austria and others where Austrian policymakers were not aware there could be a critical mass of research. In addition to strengthening the links between university and private sector research, these centres have therefore contributed to creating the critical mass necessary to perform first-class research in different scientific fields.

For this policy to be feasible in Wales, WAG should first be able to exert an influence on the research agenda of Welsh universities through funding and other incentives. It is significant, in fact, that 60% of the K-plus budget came from public resources. Moreover, whilst K-plus centres came out of a bidding process, another option for WAG to consider could be to focus on sectors that have higher multiplier effects on the local economy since the very beginning, even though a similar choice presents “pick-the-winner” hazards.

Expand the base of innovative firms

Two of the main WAG innovation policies – the Knowledge Bank for Business and the network of Technium Centres – are both designed for growth-oriented enterprises. However, to avoid that technological forerunners grow apart from the rest of the local economy, it is important that regional governments also make strides in enlarging the local base of innovative firms. This will boost the absorptive capacity of the region and reinforce the integration of the most technologically advanced firms with the rest of the economy. Of course, most of the local small firms will never experiment breakthrough innovations, but they will still benefit from first

exposure to innovation training through the improvement of products and processes. For this to occur, it will be important that small firms are helped to look at innovation not as an effort limited in time, but as a continuous process that calls for a different approach to business. Two policies described in the report could assist WAG to enlarge the base of innovative firms in Wales: a) innovation vouchers, which have been introduced by now in the Netherlands, Ireland and West Midlands; b) Portugal's NITEC, which was intended to support the creation of R&D departments in SMEs.

Innovation vouchers were intended as pump-priming funding through which an initial relationship between small firms and public knowledge providers (mainly universities) could be established. The granted sum was quite small (EUR 7 500 in the case of The Netherlands), so the intention was clearly to encourage small-scale innovation projects that could trigger longer-term relationships between the firm and the knowledge provider. The outcomes of this programme have not been all unequivocally positive. Good additionality has been one of the advantages, with 80% of the projects which would not have taken place without the policy back-up. In some instance, the policy has generated inter-firm cooperation, with some firms pooling together the single vouchers to carry out larger joint projects. The red-tape involved in the administration of the policy has also been minimal, which is somehow reasonable given the very small sum involved. On the drawback side, however, three quarters of the users have not integrated the given lump sum with one's own funds, which raise concerns on the real attitude of the voucher recipients toward the policy and innovation in general. Moreover, there is no concrete evidence on whether or not the policy has really succeeded in its goal of stimulating long-term relationship between SMEs and knowledge providers.

For WAG to think of this policy, therefore, a number of considerations are necessary. Firstly, matched contributions toward SMEs' innovation investments are probably a better solution than lump sums given for the same purpose. Secondly, it would be probably better if the scheme were designed and managed independently of knowledge providers, especially if these are universities. This will have several benefits. It will not overburden the universities, which have manifold roles and are hardly in a position to manage a large volume of voucher applications. It will also avoid any potential conflicts of interest between the university as the programme manager and knowledge provider at the same time. Finally, if the scheme were managed by a regional development agency or any other government body, it would allow a more focused approach to the management of the programme and its potential integration with other development programmes.

The second programme of interest to enlarge the base of innovative firms is Portugal's NITEC, which should be seen as a policy more complementary than alternative to innovation vouchers. If vouchers are to be thought for firms that look at innovation for the first time, NITEC is to be considered for those firms which have already some experience in the field of innovation and want to consolidate their efforts in this field. This measure has already been mentioned as a possible option to retain graduate students and appeal talented labour. However, it is clear that the main outcome of this policy will be a strengthening of the R&D base of the local economy through the provisions of public subsidies to the labour costs of young researchers and technicians. NITEC, in fact, essentially gave wage subsidies to small firms to boost in-house research and technology capacities through the setting up of internal R&D departments. In particular, NITEC subsidised the wage of up to three scientific staff members for a maximum period of five years. An early evaluation of this programme suggested that NITEC proved especially beneficial to companies with a medium level of skills where the hiring of skilled workers could have spill-over effects on the rest of the staff as well.

WAG might take this policy into consideration mostly to support firms which seem to have a greater potential for growth. Obviously, to avoid deadweight effects, such a policy should exclude high-tech sectors such as biotechnologies or materials science where R&D departments are normally part of the firm structure and do not need any subsidisation. Based on the

Portuguese experience, it could also be possible to exclude those firms which already have a formalised R&D department. Some potential issues arising from similar policies are, on the other hand, the possible fragmentation of funding into too many small R&D departments and the possibility that policy simply formalises processes already informally ongoing in the supported enterprise.

Links with public research organisations can help attract company headquarters and R&D departments

The attraction of company headquarters and R&D departments – i.e. high added-value company functions – is one of the channels envisaged by WAG to raise productivity and earnings in Wales. In the context of Wales where the use of tax breaks is not possible because it goes beyond devolved powers, this will chiefly mean focusing on strategies that provide aftercare and embedding services to the companies weighing the decision to locate in Wales. This will imply, for instance, projects that engage the incoming company with local training and technology institutions, as well as the technological upgrading of local suppliers and the promotion of supply linkages between the latter and the incoming company. The main advantage of such an approach is that not only will it root the “external” company in the local context, but in doing so it will also strengthen the base of local enterprises.

Different policies could work toward the achievement of this objective, many of which have been analysed in previous parts of this chapter. So, knowledge-transfer programmes such as K-Plus centres can strengthen the links between the R&D departments of the incoming company and the local network of universities. Similarly, programmes focusing on the upgrading of local firms through worker training or first exposure to innovation will increase their likelihood to become large company suppliers.

One additional tool that can contribute to the attraction of company headquarters and R&D departments consists in the set-up of public applied-research organisations in the fashion of German Fraunhofer institutes, one of which is in the examined region of Schleswig-Holstein. The Fraunhofer institution consists of research centres that are, at the same time, publicly subsidised and industry-funded and are geared towards pre-competitive and applied research with a potential for commercial exploitation. These centres seem to work better in a context where innovation is path-dependent rather than disruptive and where business and research institutions have grown incrementally to meet the needs of an evolving but well-understood innovation system. A version of Fraunhofer adapted to the UK context has been represented by Scotland’s Intermediary Technology Institutes (ITIs), which have been established in the fields of energy research, life sciences and communications technology and are managed by an executive board made up of industry representatives with the assistance of a scientific board including leading academics. The prime goal of ITIs is to invest resources in pre-competitive research that is of interest and can commercially be exploited by companies based in Scotland. One difference from the Fraunhofer experience is that ITIs do not require new major research laboratories, but rather exploit existing research infrastructure.

WAG could consider the establishment of research centres similar to German Fraunhofer or Scottish ITIs, bearing in mind that budget-wise the latter is a cheaper alternative than the former and that similar centres should be established in fields where there is some local consolidated tradition at the industry and academic level so that co-operation between the two worlds is possible. The presence of even a limited network of these centres could go a long way in persuading companies locating in the UK to think of Wales as a concrete investment option. The building of these centres could also be linked up to the potential design of sector-development approaches.

Consider sector development approaches, whilst being aware of potential pitfalls

Sector-based development strategies have recently received a great deal of attention in light of the positive externalities regional policies can encourage at the industry level. Knowledge spillovers, common pool of factors of production (especially labour), product specialisation are only some of the externalities policy can try to promote at the sectoral level. Sectoral strategies have normally focused both on traditional industries that have been large providers of regional employment and on new sectors in light of their expected added-value contribution to the regional economy. The underlying logic has therefore been to diversify the local economy while keeping on fuelling traditional core sectors.

Basically, all the five regions analysed in the “regional case study” part of the review have undertaken at different stages sector development strategies. So, for instance, the Basque Country and Schleswig-Holstein have primarily bet on emerging sectors (biotechnologies and nanotechnologies for the former, maritime and wind-energy for the latter), while Styria has chiefly invested in niche sectors that built on the know-how of the locally consolidated industry of metal engineering. Tuscany has mainly taken care of its traditional manufacturing core sectors of textile and leather, while Pennsylvania’s industry partnerships have finally focused on the more specific issue of worker training. Sector-based approaches have also characterised some of the more specific interventions investigated in the first part of the review (policy audits). FATEC, for instance, has supported the technology upgrading of Northern Portugal’s footwear industry by promoting collaboration between local producers and technology providers (i.e. machine-tool manufacturers). On the whole, it is therefore possible to identify at least three different types of sectoral strategies: a) cluster-based strategies that mainly promote business linkages within the cluster and between the cluster and other main external actors in order to foster economies of agglomeration; b) workforce development programmes, which focus on analysing the industry’s skill needs and try to come up with demand-driven solutions; c) technology upgrading programmes, which aim to improve the technological competencies and value-added of local firms.

There is therefore scope for WAG to consider if and how to adopt sectoral policies. Thus far, WAG has singled out some industries considered of relevance to the future development of Wales but other than Sector Skills Councils and, in some cases, Sector Fora which have limited their role to data gathering, no further specific policy has been implemented to support determined sectors. This is probably related to some of the risks associated with industry-based approaches. First of all, sectoral strategies can easily be accused of a “pick-the-winner” bias, even though it has been observed that competitive tender processes in which it is up to the industry stakeholders to get together and submit a sector-development proposal for funding approval by the regional government should alleviate similar concerns. For instance, this has been the approach followed by both industry partnerships in Pennsylvania and K-Plus centres in Austria. Secondly, there is the possibility that industry lobbies pressure for government support and funding, but again a transparent bidding process should partly contrast these tendencies. Thirdly, policymakers may underestimate the timeframe that elapses between the given policy support and the first outcomes of the policy, which may lead them to an early retreat. Fourthly, especially when supporting new “emerging” sectors, policymakers are often inclined to overemphasise the demand and underestimate the supply, which means they may understate the fierce competition that characterises new sectors such as those based on bio- or nanotechnologies. Furthermore, similar sectors require a significant research infrastructure and are therefore not suited for every region. Being aware of these challenges will help policymakers keep a more rational approach to sector development policies and adjust their expectations.

Continue to invest in new firm creation

From the “transferability” part of the review, it emerges that WAG’s current development strategy seem to place more emphasis on the growth of existing businesses (through for instance the “Knowledge Bank for Business”) than on the support of additional start-ups. However, the fact that the main problem of Wales is business growth rather than business creation is challenged by some factors. Firstly, entrepreneurship rates in some regions of Wales like the Valleys are still considerably low. Secondly, Wales’s good recent performance in entrepreneurship has been seen as more linked to UK rates going down than those of Wales going up. Thirdly, estimates suggest that one-third of Wales’s total entrepreneurship activity is the result of government policy, thus pointing to the need of continued policy support.

In the context of this review, two initiatives seem to have the greatest potential to re-animate and drive the entrepreneurship agenda of Wales. The first is the Appalachian Regional Commission Entrepreneurship Initiative (ARC-EI), which seems to be more suited for rural Wales. ARC-EI, which has been implemented in the US region along the spine of Appalachian Mountains, has supported a large number of business start-up and development projects in the five fields of entrepreneurship education, business incubation, capital access, technical assistance and network promotion. A concrete and quaint example is the use of ARC funds to create and publicise the Virginia “Crooked Road Music Heritage Trail”, a route that brings tourists to the historic heart of American country music and that has sparked the birth of many tourist-related business activities (e.g. craft shops, music venues, restaurants, etc.). In six years, ARC-EI has led to the creation of nearly 10 000 jobs and the retention of another 3 000, with a public cost per job created of approximately USD 4 700 that compares favourably with other local economic development initiatives. Regional partnerships between different stakeholders and demand-driven programmes have been at the core of this initiative, which might give ideas for an eventual new Entrepreneurship Action Plan in Wales.

The second programme is the Irish business incubator “Hothouse”. Like most incubation programmes Hothouse combines the provision of office space with training, mentoring and business advice. Hothouse mainly targets knowledge-intensive start-ups, with nearly 70% of the incubated businesses in the sectors of ICT, software and engineering. One of the most important factors underlying the success of the initiative has been the wage subsidy corresponding to 50% of the last salary granted to the participants with the most promising business plans. This feature has enabled to draw in the programme better talents by soothing the typical concerns associated with quitting a job to start an entrepreneurial career. On the other hand, Hothouse’s main criticality has been represented by the fact that participants were asked to leave the incubator scheme exactly one year after the start of the programme, whereas a phased-out, less abrupt discontinuation from the incubator would have made the shift to open market conditions less traumatic, thus boosting the chances of business survival and success. Both points – a wage subsidy for the most promising participants and a phase-out approach to the replacement of participants in the programme – could be taken into consideration to improve the Welsh incubation network of *Technium* Centres.