

Geoffrey Pugh:

Public Policy to Promote Innovation by SMEs in Traditional Manufacturing Industries

**Public Policy to Promote Innovation by SMEs
in Traditional Manufacturing Industries:
Policy Transfer from the EU to the Western Balkans**

Geoffrey Pugh

Abstract

In the EU, SMEs in traditional manufacturing industries/sectors account for a high – and in many regions an increasing - share of total employment in manufacturing. Yet SMEs in traditional sectors are relatively neglected by researchers and policy makers. This chapter argues that SME innovation in traditional sectors comprises multi-dimensional and interrelated product, process, organisational/managerial and marketing innovations, all of which are important in adding value and generating employment. In designing public policy to promote innovation by traditional sector SMEs, the market-failure rationale for subsidising R&D inputs is less relevant than an innovation systems approach informing a broad range of lower cost policy interventions, which include measures both to promote interactions with new partners (thereby accessing knowledge and opportunities) and to enhance SMEs' capabilities to learn and to innovate (i.e. to commercially exploit knowledge). The most effective policy instruments to promote SME innovation in traditional sectors are demand-led and relatively low cost. This chapter concludes with indicative conclusions for policy makers in the Western Balkans but cautions that further research is needed: to determine the extent to which policy transfer is possible; as well as the corresponding extent to which modifications of EU programmes will be needed to account for local circumstances.

Keywords: SMEs; traditional manufacturing industries; innovation; innovation-support programmes; policy transfer.

Introduction: Deindustrialisation and Reindustrialisationⁱ

Throughout the Western Balkans there is evidence that “extreme deindustrialisation has reduced the contribution of manufacturing output to levels which are not consistent with their degree of economic development” (Damiani and Uvalic, 2014). The necessary conditions in the business environment for increasing the competitiveness and size of manufacturing industries in the Western Balkans are well known and, to a greater or lesser extent, well advanced: macroeconomic stability; institutional reform; infrastructural improvements; and competition. Yet, so far, sufficient conditions for supply-side dynamism are still lacking, which is why trade liberalisation has led to burgeoning imports while exports lag behind, contributing to high and persistent current account deficits. For manufacturing to generate export-led growth, the sufficient conditions are that firms innovate, invest and, thereby, raise productivity.

Reindustrialisation is high on the EU policy agenda (European Commission, 2013) and is certainly not less of a priority for the Western Balkans. With respect to this Conference - THE EUROPE OF TOMORROW – reindustrialisation is the prerequisite of the final theme, an INTEGRATED future. It is the key to job creation, productivity growth and convergence towards the income levels of the EU. In turn, real convergence will allow accession of the Western Balkan states to the EU without adding excessively to migration pressure on the existing EU states as well as for the Western Balkan states to eventually participate fully in economic and monetary union by adopting the euro. Both of these issues are of paramount concern to both the EU and to the Western Balkans. In this chapter, we use the first theme of this Conference – a CREATIVE future – to contribute some ideas and evidence on how to support and stimulate innovation, which is the source of supply-side dynamism in market economies and thus part of the foundations of a reindustrialisation strategy.

This chapter introduces research on small and medium enterprise (SME) innovation in traditional manufacturing industry in the EU and how public policy may best support SMEs to innovate and invest.ⁱⁱ The extent to which research findings on innovation and public support measures may be transferred between traditional manufacturing sectors in the EU and their counterparts in the Western Balkans has not yet been researched. The intention of this chapter is to stimulate discussion and subsequent investigation into what may be transferred or easily adapted from EU practice.

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Traditional Manufacturing Industry: Definition and Enduring Importanceⁱⁱⁱ

Our definition of a traditional manufacturing sector is different from the OECD classification of “high”, “medium” and “low-tech” industries, which is based on the R&D intensity of the industries. Instead we define as “traditional” those manufacturing industries with the following characteristics: long established; once a main source of employment at the (sub-regional level); medium- to long-term decline, especially in the numbers employed; still a major source of wealth creation, employment and exports; and retention of capacity for innovation and productivity growth. Traditional industries include *inter alia* the manufacture of food products and beverages, textiles and textile products, leather and leather products, ceramics and other non-metallic mineral products, mechanical/metallurgy or basic metals and metal working and manufacturing, and automotive (motor vehicles etc).

SMEs excite great interest from both researchers and policy makers. However, most of this interest is focussed on higher-tech sectors – especially on “start-ups” and “gazelles” (i.e. SMEs with sustained and very high growth rates). While the world’s policy makers mainly yearn for their very own “Silicon Valley”, SMEs in traditional sectors have proved less of a priority for policy makers. Even so, throughout the European Union, there are around 400 public innovation support programmes for small and medium enterprises (SMEs) in traditional manufacturing industries. Yet, in the absence of best practice evaluation, they are of unknown effectiveness, which precludes identification and the spreading of best practice. Responding to this knowledge gap and to better informed policy, the European Commission’s DG-Research commissioned the multi-methods GPrix project to evaluate the effectiveness of public innovation support programmes for small and medium enterprises (SMEs) in traditional manufacturing industries.

The GPrix project took place over 27 months: November 2009 – February 2012 – and investigated seven EU regions noted for concentrations of traditional manufacturing industry: West Midlands (UK); North Brabant (Netherlands); Saxony-Anhalt (Germany); Emilia-Romagne (Italy); Comunidad Valenciana (Spain); North/Central (Portugal); and Limousin (France). In each of these, traditional manufacturing industries continue to be important in the regional employment structure. Figure 1 shows that upwards of 40 per cent of all manufacturing jobs in these regions are accounted for by the six manufacturing industries given as examples of traditional sectors.

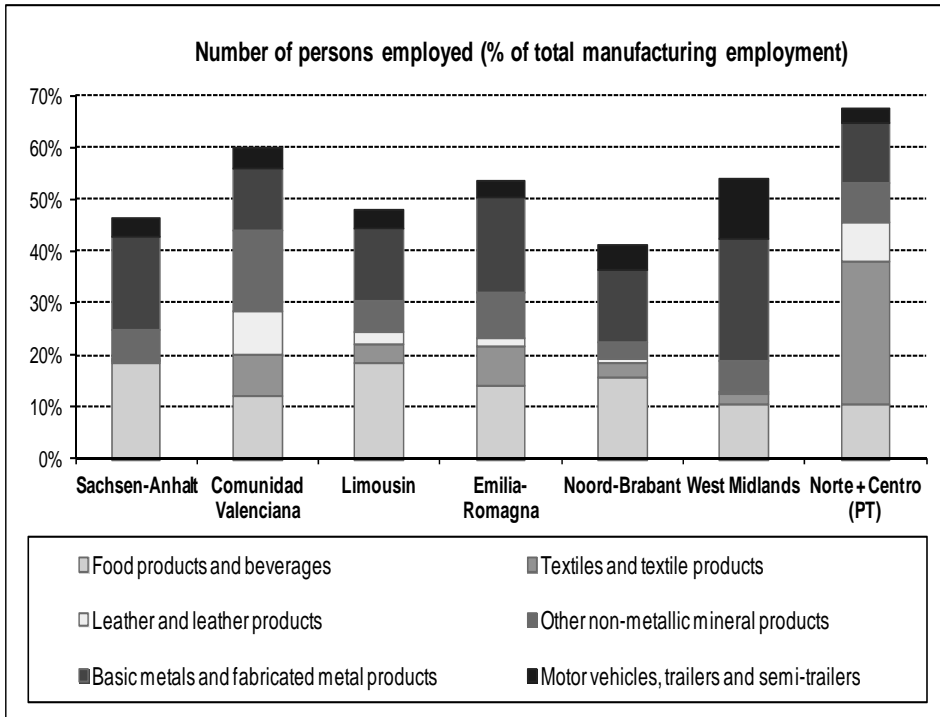


Figure 1. Employment in traditional industries in the GPrx regions. Data source: Eurostat, data for 2007.

The importance of traditional manufacturing industry is not confined to these seven regions but is common throughout the EU. Figure 2 charts the change in European regions' employment share of traditional industries from 1995 to 2009. It reveals that in around half of EU regions the share of traditional industries in manufacturing employment increased over these 15 years; and that, moreover, in 78 EU regions the increase exceeded 4.5%.

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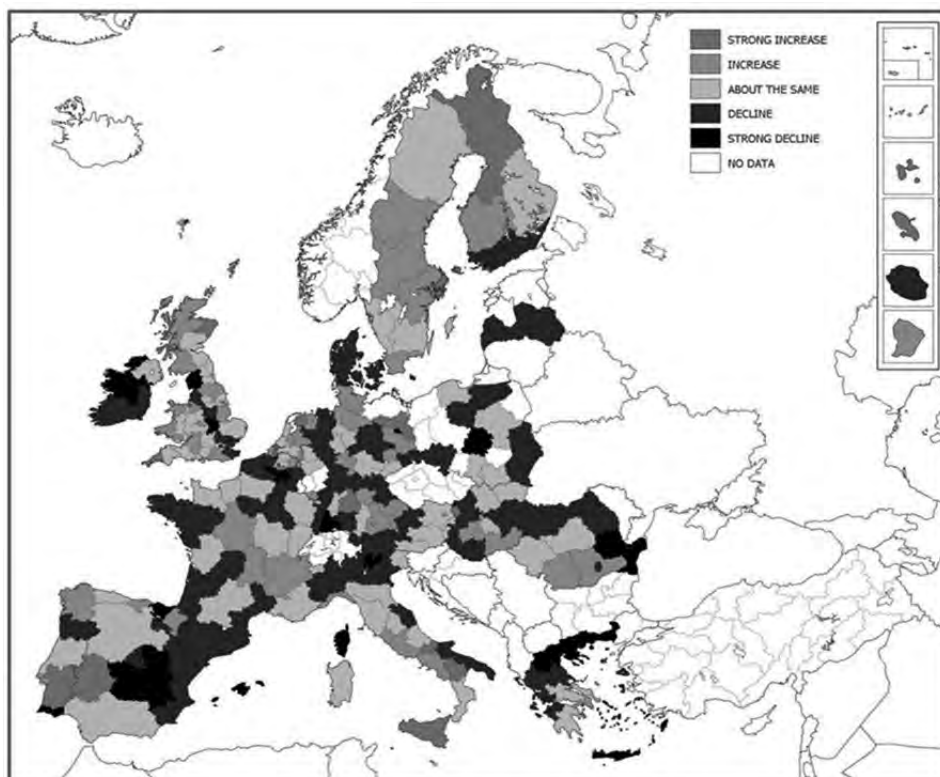


Figure 2. Change in European regions' employment share of traditional industries, 1995-2009. Map created with Region Map Generator. Data source: Eurostat. Data for 2009 and 1995 (or closest years available). The groups were identified using hierarchical clustering and Ward's method.

In spite of the continued and even growing importance of traditional manufacturing industries in the EU, these sectors are often overlooked by policy makers. Even the EU policy focus reflects mainly the more “sexy” priorities of research and development (R&D) and high-tech SMEs. In particular, the Lisbon agenda and the Barcelona target of spending 3% of GDP on R&D is rooted in the idea that lagging EU productivity growth caused by a failure to bring about structural change towards R&D intensive high-tech sectors. Yet high-growth firms are not overrepresented in high-tech sectors: for example, in the UK high-growth firms are almost equally present in high-tech and low-tech sectors. Nor are high-growth firms necessarily R&D intensive. Moreover, SME innovation in traditional-sectors is in the main not driven by in-house R&D. In the next section we look more closely at SME innovation in traditional manufacturing industries.

Innovation in Traditional Sector SMEs

SMEs in traditional manufacturing industries have their existing knowledge embodied in “know how” rather than codified in R&D and patents. Along with tacit knowledge, the GPrix project found that SMEs in traditional manufacturing industries display a common approach to augmenting and commercialising their knowledge, so that we can talk of an “innovation model” in traditional manufacturing. Innovation by SMEs in traditional manufacturing industries mainly corresponds to the broad concept of innovation proposed in the *Oslo Manual* (OECD, 2005). This embraces both technological and non-technological innovation and includes four main and inter-dependent categories.

1. **Product innovation**, which includes design – in particular, technical design, which in the UK (for example) is far more typical of SME innovation in traditional manufacturing industries than is R&D. Design innovation is often driven by customers who approach a firm with known expertise and ask “can you make this” (cheaper, smaller/lighter, to fit this new product ... and so forth). New and/or improved products often require SMEs to provide services – known to be a major part of current innovation across the manufacturing sector – which, in turn, requires organisational innovation (e.g. to manage new relationships required by service provision). In addition, product innovation through design has major implications for process implication.

2. **Process innovation**, which typically requires technology acquisition for product development (e.g. Computer Aided Design and manufacturing) as well as for production (e.g. use of advanced machinery for new products; Computer Numerical Control; etc). Process innovation by SMEs in traditional manufacturing sectors is strongly related to product innovation and is often driven by suppliers.

3. **Organisational and managerial innovation**, which includes workplace organisation (e.g. the “new management practices”, including human resource strategies) and external relations (e.g. supply-chain management, relationships with trade associations, colleges and universities, and with other – possibly unrelated - firms).

4. **Marketing innovation**, including marketing strategies and, in particular, exporting.

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In all of these inter-dependent types of innovation, interactive learning is of central importance. For SMEs in traditional sectors, a successful innovation system embraces some, or all, of other SMEs, suppliers, customers, colleges and universities, government and regulatory bodies, and unrelated firms (e.g. through trade associations).

One important area in which the GPrix project departed from the innovation concept in the *Oslo Manual* is in this document's neglect of exporting. Exporting is excluded from the broad innovation concept and is not even mentioned in association with marketing innovation. Similarly, the vast academic literature on innovation typically does not consider exporting, but rather reports models in which exporting is treated as an independent determinant of some measure of innovation. However, exporting is considered by an older literature devoted to "diversification". We argue that in the context of SMEs in traditional manufacturing industry, diversification – into new products and new markets - belongs entirely within the scope of innovation, with new products corresponding to product innovation and new markets (exporting) fitting comfortably within marketing innovation. Our reasons for this modification of the *Oslo Manual* framework are as follows.

1. In theory, exporting may be regarded as a species of innovation. This view goes back at least to Schumpeter (1942) who identified 'new markets' as one of the main forms of innovation giving rise to the 'process of Creative Destruction':
The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organisation that capitalist enterprise creates ... that incessantly revolutionises the economic structure from within ...
2. In the respective empirical research literatures, models of SME innovation and of SME exporting behaviour typically have determinants in common: for example, firm size and dummies for industry and region.
3. Both case study interviews and survey data from the GPrix project suggest that SMEs in traditional manufacturing regard exporting as innovatory activity. In the GPrix survey all the examples for respondents of types of innovation followed the *Oslo Manual*, in which marketing innovation is restricted to varieties of marketing techniques but excludes entry into new markets. Yet, when asked to name the most useful innovation support measures in which they had participated, more than 10 per cent or respondents named export promotion programmes.^{iv}

This distinction matters. Resources are wasted and opportunities lost because separate public institutions have grown up dedicated on the one side to promoting exports and on the other side to promoting innovation. Yet theory, a joint reading of the empirical research literature on innovation and exports, and SME owners and managers themselves all regard innovation and exporting as cognate activities.

The Importance of Innovation for SMEs in Traditional Manufacturing Industries

Nobody doubts the first-order importance of innovation: innovative firms survive and grow; and regional and national economies thrive as innovative firms create employment. However, the case needs to be made for traditional manufacturing industries in particular.

The GPrix database includes detailed survey responses from 312 SMEs in the six traditional manufacturing industries in seven EU regions. (The survey was conducted in 2010.) Table 1 shows respondents' self-assessed improvement in capabilities for the four main types of "broad innovation" (relative to their industry, between 2005 and 2009) and the associated positive effects on the share of new products in sales. For example, the statistically significant Chi-square test statistic of 21.2 suggests a strong positive association between SMEs reporting "Improved capabilities relative to industry for" product innovation and their shares of new products in sales (greater than 6% compared to 6% or less). Similar results are reported for the other forms of innovation, in particular for process and marketing innovation for which the positive effect refers to a share of new products in sales greater than 15% compared to 15% or less. Table 1 also displays a significant positive relation between having achieved a new product innovation or organisational innovation and creating new jobs, which is a primary policy objective.

Table 1. Effect of improved innovation capabilities and introduced innovations on (a) innovative and (b) economic output (Chi-square test statistics)

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	Share innovative sales (<6% vs ≥ 6%)	Growth in turnover (≤ 15% vs >15%)	Growth in employment (≤5% vs > 5%)
<i>Improved capabilities' relative to industry for:</i>			
product innovation	21.2**		
process innovation	22.4**	6.9*	
organisational innovation	17.6**		
marketing innovation	16.8**	7.9*	
<i>Realized 1 or more²:</i>			
product innovation	23.4**		
process innovation			6.9**
organisational innovation	23.3**		20.5**
marketing innovation	18.0**		

Note: Pearson Chi-square is shown; *p≤0.05, **p≤0.01; 1= improved vs same, or less (df=2); 2= realized an innovation versus not realized an innovation (df=1)

Public Policy to Promote Innovation in Traditional Sector SMEs

Mainstream economics provides a market failure rationale for the public subsidy of innovation that has influenced policy since the 1960s. In brief, private sector investment in innovation will be less than the social optimum for a number of related reasons: the commitment is long term; the returns are uncertain; and the returns may be only partially appropriable by the innovating firm. These obstacles to innovation have strongly influenced public policy in favour of science-based firms innovating by in-house R&D, with the consequence that most public funding for innovation support is “supply side” – meaning programmes with narrowly restricted eligibility and prescriptive outcomes such as R&D subsidies or R&D tax credits. However, because relatively few SMEs in traditional manufacturing industries innovate in ways that satisfy typically narrow legal definitions of R&D – which, for example, preclude technical design – these policy instruments are of little help to most of these firms.^v

More relevant for traditional-sector SMEs are support measures influenced by theories of “systems of innovation” at industry, regional and/or national levels. Innovation systems theories emphasise the importance of environments that promote or discourage innovation. Moreover, policy makers need to influence not only the business environment but also SME behaviour, which can be self-limiting with respect to innovation. A strong ethos of self-sufficiency can foster insularity, which limits both access to external sources of knowledge, while the typically limited managerial capabilities of SMEs limits their ability to recognise and exploit new

knowledge. Accordingly, public policies to create an environment favourable to innovation and to promote innovative behaviour by SMEs in traditional manufacturing industries typically include:

1. promoting networks and interactions with new partners that facilitate knowledge acquisition (e.g. from design specialists, consultants, other firms, universities and so on); and
2. enhancing firms' capabilities to innovate - i.e. to absorb and to commercialise knowledge – through management development, workforce training and help to discover new opportunities (e.g. export opportunities).

Conventional support tends to be narrowly focussed, mainly relevant to large firms in science-based industries, and costly, as in the case of R&D subsidies or tax credits. In contrast, the type of public policy most relevant to SMEs in traditional sectors is intended not only to lower the price of inputs into innovation but also – and especially - to change firms' behaviour across the spectrum of innovation activity, in particular by improving SME learning and, thereby, enhancing SME capabilities to innovate.

Based on analysis of regional innovation policies for SMEs in traditional manufacturing industries, survey evidence and case studies of individual firms, the GPrix project recommended increased use of "demand-led" programmes to achieve customised projects for SMEs. Demand-led programmes are more generic than specific and can be characterized as follows:

1. covering the overall innovation life cycle from the first idea to market entry;
2. broad focus on different innovation types (product, process, organisation and marketing - i.e. both technological and non-technological innovation);
3. wide eligibility of different costs; and
4. flexibility in using the applied budget (internal budget shifts).

This is consistent with a trend within the EU towards innovation oriented policy rather than R&D policy. Although policies remain heavily focused on the supply-side, over the past few years the rate of implementing demand-side innovation policies at regional level has increased. Moreover, the traditional "supply-side" measures have changed and often incorporate more

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demand-oriented aspects, e.g. by adopting a broader concept of innovation, also supporting marketing, internationalisation and design activities.

The *Innobarometer* 2007 shows that firms in traditional industries have received less support for R&D activities than have firms in other manufacturing sectors, while receiving more support than firms in other manufacturing sectors from the following measures:

- subsidies and loans for acquiring machinery, equipment or software;
- support for internationalisation, e.g. by providing financial assistance for attending or participating in trade fairs or trade missions;
- networking with other companies;
- brokering collaborations – e.g. with outside experts, with universities or with large firms' supply chains; and
- providing information on market needs, market conditions, new regulations, etc.

All of these are examples of public support consistent with demand-led, customised assistance to help SMEs respond to practical problems and changes in customer demand. Together with innovative public procurement, these types of programmes promote SME innovation in traditional manufacturing industries.

To illustrate these trends, we conclude this section with two examples of best practice in innovation support relevant to SMEs in traditional manufacturing: innovation vouchers, which are the most widely implemented type of demand-side policy; and a representative export-support programme.^{vi}

a. Innovation Vouchers

There are now dozens of voucher schemes implemented in EU countries. Most of them are very recent and there is an increasing difference among them, but we mention here the original, oldest regional scheme that has existed for almost 15 years, and has served as an example for many of the more recent regional as well as national voucher schemes.

The innovation voucher is a credit note that entitles SMEs to establish a contact point with knowledge-intensive organisations, called knowledge providers (e.g. research and educational institutions, large companies, etc.) in order to 'buy' R&D and/or innovation expertise or knowledge. The innovation voucher was first presented in 1995 by the Limburg Development and Investment Company (LIOF) of the Dutch province of Limburg. The rationale behind its development was to improve the competitiveness of SMEs by

enhancing their knowledge level, broadening their innovative capacities and improving the knowledge transfer between SMEs and knowledge providers.

The rationale behind the development of innovation vouchers addresses three key problems:

- SMEs by their nature (and especially those from traditional sectors) are not sufficiently innovative;
- insufficient public-private interaction between demand and supply of knowledge; and
- an incentive structure for knowledge institutes that is insufficiently oriented towards demand.

The voucher scheme, if properly organised, is definitively a demanded, customised measure. Firstly, it enables the SME to assess and choose a knowledge-related problem which hampers the accomplishment of an innovation project. Secondly, and more relevant, it allows SMEs to search and identify the knowledge providers with suitable know-how specifically related to that problem. Finally, the knowledge provider must be able to execute a project to address the problem and quickly deliver tangible knowledge results to the SME. The innovation voucher, being a coupon which can be spent on an R&D institution, provides financial support to start the cooperation.

The specific target of innovation vouchers is micro-, small- and medium-sized enterprises, often from low-tech or traditional sectors. In a few instances, only small enterprises are admitted, whereas exceptionally, as in the Lombardy region of Italy, the scheme is addressed specifically to spin-offs and start-ups. The knowledge-providing institution has to be either authorised by the voucher programme or has to be located within a specific region of the country/region funding the voucher scheme. However, some schemes (i.e. the Netherlands and Benelux schemes) also admit on their list of registered organisations those based in other EU countries, thus stimulating innovation through transnational cooperation. SMEs are also assisted in the identification of the most suitable external knowledge provider, in the cross-border information exchange and in follow-up projects. This mechanism ensures that innovation vouchers do not simply fulfil the objective of stimulating innovation, but more importantly broaden the basis on which SMEs approach innovation.

If the candidates outnumber the number of available vouchers, they are usually awarded by means of a lottery. As for the size of funding, each voucher ranges from €2,500 (the “small voucher” in the Netherlands) to

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€25,000. The trend is towards increasing the funding size as well as the number of vouchers annually allocated in each scheme.

The efficiency of the innovation voucher scheme is attributed to the very limited administrative burden the scheme entails with respect to the benefits it appears to offer. As an example, SMEs applying for an innovation voucher generally are not requested to submit a project proposal, but a simple “knowledge question”. The success of the scheme can certainly be attributed to its customisation. When the scheme is organised in such a way as to let SMEs identify the knowledge provider most appropriate to solve its innovation-related problem, the innovation voucher leads to successful results.

b. Support for SME Internationalisation

The Lower Austrian support measure for SME internationalisation is aimed at the strengthening of the regional economy through the support for measures that increase regional firms' access to international markets. Like many other measures it is sourced from the Lower Austrian Fund for the Economy and Tourism (Niederösterreichischer Wirtschafts- und Tourismusfonds).

By means of support for internationalisation activities in the business sector the larger objective behind the support measure is the intention to increase the competitiveness of individual firms as well as the regional economy, to increase the strategic and target group specific orientation of recipient firms; increase of the presence on and penetration of foreign markets, and to introduce specific products and services in a new international market.

SMEs that put efforts into opening up a new market or that conduct international projects with similar objectives are eligible for funding. This applies to firms from both the industrial as well as the service sector as long as a large share of their value added is generated and at least a subsidiary located in Lower Austria. The firms in question have to develop products with an above average technology orientation or to deliver high-quality services. Projects are eligible when they have relevance for the regional economy. Support is provided in the form of grants. Projects may only be applied for once and may not be mainly oriented towards the performance of already existing export activities. Projects are supported with up to 50% of eligible project cost up to a total of €20,000. Eligible project costs involve project-specific external services and external consultancy which would not normally be required by the firm. Likewise, the cost for participation in trade fairs can be covered as long as they

do not mainly concern the maintenance of existing business relationships. Trade fair projects are supported with up to 50% of eligible project cost up to a total of €5,000.

Lessons for the Western Balkans?

Until we have more systematic evidence, I am assuming that traditional manufacturing industries in the EU have sufficient characteristics in common with manufacturing industry in the Western Balkans to draw some indicative conclusions for policy makers.

1. Do not neglect traditional manufacturing industry; it has potential to be innovative and to create employment.
2. The innovation “model” for SMEs in traditional sectors is different and broader than in new, high-tech sectors. Accordingly:
 - a. public policy instruments for promoting SME innovation in traditional sectors need to be broad and “demand-led”; and
 - b. there is no single, “best practice” policy instrument for SMEs in traditional manufacturing industries, although innovation “vouchers” are emerging as an increasingly popular instrument.
3. Treat exporting as a type of innovation and, accordingly, design programmes to support them together; do not, therefore, fragment business support among separate institutions for “export promotion” and “innovation promotion”.

Yet, while there is no need for policy makers in the Western Balkans to “reinvent the wheel” with respect to policy development, context is important. Differing contexts could lead to disappointment with the outcomes of programmes “copy-pasted” from the EU. Further research is needed to determine

1. the extent to which policy transfer is possible as well as
2. the corresponding extent to which modifications will be needed to account for local circumstances.

Such further research would include, but not be limited to:

1. comparison of the “innovation models” of SMEs in traditional manufacturing industries in the EU and of SMEs in the corresponding sectors in the Western Balkans;
2. identification of the obstacles to innovation by manufacturing SMEs in the Western Balkans;

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3. identification of the best practice EU innovation support programmes most suitable for transfer to the Western Balkans, taking account in particular of successful policy transfer within the EU (e.g. the diffusion of voucher schemes across regions and countries);
4. investigation of the financial and institutional capacity of public authorities in the Western Balkans to deliver innovation support programmes (including those with a transnational element); and
5. identification of the development needs required to implement innovation support programmes for manufacturing SMEs in the countries of the Western Balkans.

Such a research agenda would also have to take account of factors that may be far more important in the Western Balkans than in the EU: for example, the potential of micro-finance, especially to support business start-ups and the development of micro businesses. In addition, there may well be potential for policy transfer in both directions: e.g. public policies to assist in restoring business links and innovative potential destroyed by war and ethnic conflicts in the Western Balkans could yield evidence relevant to promoting transnational collaborations within the EU.

Endnotes

ⁱ This paper accompanies a keynote address for the 2014 UACS 9th annual international conference on European integration: The Europe of Tomorrow: Creative, Digital, Integrated.

ⁱⁱ Following the conventional EU definitions by employment: micro, 1-9 employees; small, 10-49; and medium 50-249. See: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

ⁱⁱⁱ This talk draws extensively from: René Wintjes, David Douglas, Jon Fairburn, Hugo Hollanders & Geoffrey Pugh (2014). Beyond product innovation; improving innovation policy support for SMEs in traditional industries. This is available from the website of the United Nations University and Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT): UNU-MERIT Working Paper Series, 2014-032: http://www.merit.unu.edu/publications/working-papers/?year_id=2014 In turn, this Working Paper derives from the GPrix project, commissioned by the European Commission, DG-Research FP7-SME-2009-1; Grant Number: 245459. The project research and corresponding policy recommendations are all described and available from the project website: <http://www.gprix.eu/> (under the "Reports" tab). For the

extent and variety of innovation support programmes, see the GPrix homepage. Extensive discussion and definition of the concept of “traditional manufacturing industry” is provided in GPrix Deliverables 1.1 and 1.2 (2010a & 2010b). For the continued importance of traditional manufacturing industry in most EU regions, see GPrix Deliverable 2.2 (2012a).

^{iv} According to *Innobarometer 2007*, a larger share of firms in traditional industries (34%) receive support for attending or participating in trade fairs or trade missions than of firms in other manufacturing industries (19%) or services (25%). (See <http://www.gprix.eu/>: D2.2 - Final report on Benchmark analysis of effectiveness of SME support measures in Europe, p. 30.)

^v According to *Innobarometer 2007*, fewer firms in traditional industries (6%) receive direct support to finance R&D based innovation projects than firms in other manufacturing industries (10%) or services (8%). In the traditional industries direct support to finance R&D based innovation projects is used most in the food and automotive industries. Likewise, fewer firms in traditional industries (5%) receive tax reductions for R&D expenditures than do firms in other manufacturing industries (7%). (See <http://www.gprix.eu/>: D2.2 - Final report on Benchmark analysis of effectiveness of SME support measures in Europe, pp.24 and 28.)

^{vi} Abridged from <http://www.gprix.eu/>: D2.2 - Final report on Benchmark analysis of effectiveness of SME support measures in Europe, pp.49-53 and 55.

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