

### 3.16.1 Introduction and performance

Manufacturing industries in Luxembourg account for less than 10 % of value added or employment. The economy remains strongly specialised in services and depends particularly on financial services. Cost competitiveness of industry has deteriorated, particularly in the last five years, and the economy needs to diversify by fostering knowledge-based, innovative industries.

The new coalition government has agreed on a government programme, <sup>(1)</sup> and Prime Minister Xavier Bettel gave his first speech in front of Parliament last December, with some indications of future political priorities.

### 3.16.2 Access to finance and investment

Luxembourg's position as an important financial centre favours good financing conditions for enterprises, including SMEs. Smaller loans under EUR 1 million, which are taken out almost exclusively by SMEs, are less expensive in Luxembourg than elsewhere in the EU. Venture capital remains more accessible in Luxembourg than in the EU overall, as the country has a venture capital industry nucleus. Apart from some private initiatives in seed investing, the Chamber of Commerce has revitalised the Luxembourg Business Angel Network (LBAN), which gives SMEs the opportunity to pitch their project to experienced business angels. Other equity financing instruments include the joint venture of the Luxembourg National Credit and Investment Company (SNCI).

The government programme of December 2013 announced the creation of an agency for the promotion of financing and investment (*Agence de financement et d'investissement*). This agency will facilitate contacts between innovative enterprises and potential investors. It will detect and evaluate projects with high growth potential, monitor them and relay them towards equity funds, banks, business angels or other investors. The agency will work in close cooperation with Luxinnovation, <sup>(2)</sup> the innovation agency.

Shortcomings in the area of access to finance relate to the legal and administrative framework as perceived by the World Bank's Doing Business report: information on credit continues to be regarded as relatively unclear and legal rights are also rated as less strong than elsewhere in the EU. Luxembourg also ranks much lower than the EU average in terms of use of European structural funds programmes for entrepreneurship and business creation.

### 3.16.3 Innovation and skills

The new government has confirmed the Luxembourg's commitment raising R&D expenditures to 2.3-2.6 % of GDP by 2020 (1.46 % in 2012), about 1 % of which is to be public research (0.46 % in 2012). Research and innovation remain a priority and the country specifically needs to strengthen its areas of specialisation and competence to spur innovation-driven growth. In spite of considerable efforts to build up public research capacities over the past 15 years, reaching the R&D intensity target requires higher business investment in R&D. The latter has fallen sharply (from 1.53 % of GDP in 2000 to 1.00 % in 2012). The low scores of Luxembourg on the indicators on cooperation between public research institutions and firms reflect the current disconnect between the public research system and private-sector R&D. Objectives in terms of spin-off creation specified in the performance contracts of public research organisations are not met.

To improve the situation, the main reform launched last year is the reinforcement of the country's policy on innovative clusters. Clusters are to be given new missions and a new cluster is to be set up in the automotive field. Moreover, the government has announced its intention to put in place a process to enable public research organisations and firms to develop common research agendas focused on middle- and long-term targets. Two important laws are scheduled for adoption in 2014: the consolidation of public research centres, expected to allow areas with major prospects of cooperation with industry (such as materials and sustainable development), to reach critical mass, with some less promising research subjects being discontinued; and the reform

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<sup>(1)</sup> <http://www.gouvernement.lu/3322796/Programme-gouvernemental.pdf>.

<sup>(2)</sup> National Agency for Innovation and Research, established in 1984 and subsequently constituted as an Economic Interest

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Grouping (EIG) in 1998. It combines initiatives of: the Ministry of the Economy; the Ministry for Higher Education and Research; the Chamber of Commerce; the Chamber of Trades and Fedil – Business Federation Luxembourg.

of the National Research Fund, expected to enable better commercialisation of research results, and to foster public/ private mobility of researchers through a revised training scheme.

An OECD review of the Luxembourg system of innovation is expected at the end of 2014.

The difficult situation of workers with low skills (in particular migrants and young residents) arises from several factors. First, Luxembourg's education system faces specific challenges due to various factors in particular multilingualism and a high proportion of people with migrant background in the population. The share of low achievers in Luxembourg is significantly higher than the EU average in reading and science and somewhat higher in maths. <sup>(3)</sup> Second, vocational education does not sufficiently match young people's skills with labour demand, in particular for people with a migrant background. Third,, although adult participation in lifelong learning in Luxembourg has risen over the last few years (reaching 14.2 % in 2013 against an EU average of 9 %), greater adult participation is needed, as residents are facing competition from a large pool of potential skilled workers from neighbouring countries. The measures taken on lifelong learning should also be reinforced to help increase the labour market participation of older workers.

The new government programme has proposed to reform secondary education to provide students with resources adapted to their individual needs, allowing them to develop basic skills while leading as many as possible towards higher qualifications. . The programme plans to introduce better coordination of vocational training policies, employment policies and labour market needs. The programme also states that the strategy outlined in the 2012 White Paper on lifelong learning will be progressively implemented in collaboration with the partners involved. One of the measures implemented in 2013 is more government funding for firms investing in lifelong learning for their employees.

### 3.16.4 Energy, raw materials and sustainability

In spite of Luxembourg's remaining heavy industries and the use of large quantities of transport fuel due to

transit traffic, energy intensity in Luxembourg is very close to the EU average. The efforts of government to promote energy efficiency focus mainly on buildings, with various initiatives to reduce energy use in the residential sector. In this regard, the government decided to go beyond European requirements and set 1 January 2019 as the deadline to achieve the target of “nearly zero energy buildings” for both public buildings and others.

Luxembourg is dependent on imports for all its energy needs. Further interconnections with neighbouring countries could therefore improve security of supply. With regard to electricity, the current interconnection capacity with Germany is sufficient but the situation has to be reassessed as a result of the German nuclear phase-out. During the first half of 2013 electricity prices for industrial consumers have remained above the EU average.

Compared to the EU average, peak-hour congestion in Luxembourg is a major problem. Luxembourg has the highest rate of car use in the EU, with 92 % of cross-border commuters using cars to get to work. Taking into consideration the high proportion of commuters from neighbouring countries, the problem would have to be addressed at regional level in consultation and cooperation with the foreign authorities from the greater region. To this end, the new government programme has proposed developing car-sharing initiatives and to integrate park and ride (P&R) at the borders with public transport systems in these areas.

Aware of the cross-border challenges, the government's transport department is currently working on a project to enhance cross border mobility with Germany and Belgium (*Schéma de mobilité transfrontalière*, SMOT). <sup>(4)</sup>

Despite these difficulties, Luxembourg continues to implement the 2012 Sustainable Mobility Strategy “MoDu”, in which all administrations concerned collaborate in a sustainable, integrated response to the problems identified above, considering environmental, mobility, urban and rural planning issues. <sup>(5)</sup> This strategy also includes the sectorial plan for developing road and rail infrastructure under which recent measures include (i) a tramway in

<sup>(3)</sup> OECD PISA 2012 survey.

<sup>(4)</sup> <http://www.mt.public.lu/presse/communiqués/2014/02/14-liege/index.html>.

<sup>(5)</sup> [http://www.mt.public.lu/planification\\_mobilite/1strategie\\_modu/index.html](http://www.mt.public.lu/planification_mobilite/1strategie_modu/index.html).

Luxembourg city connecting the central railway station and P&Rs with the EU and business quarters outside the city centre, (ii) an additional train station at the entrance of Luxembourg-city and (iii) an additional rail track towards the French border.

The target of increasing the share of renewable energy used in transport from 2 % in 2011 to 10 % by 2020 remains a challenge and “MoDu” aims at increasing the share of public transport in all motorised forms of domestic transport from 14.5 % in 2009 to 25 % in 2020. The existing vehicle fleet in Luxembourg is becoming greener and more fuel efficient, but the government is still far from its objective to increase the share of electric vehicles to 10 % of the fleet by 2020. Between 2005 and 2012, renewable energy consumption as a proportion of total consumption doubled in Luxembourg to 3.1 %, far from the 11 % target for 2020.

Based on the projections that Luxembourg submitted to the European Environmental Agency, the country is expected to miss its greenhouse gas (GHG) emission reduction target by a wide margin.

### 3.16.5 Access to markets, infrastructure and services

The Luxembourg economy is highly open and highly dependent on the neighbouring countries, in particular those of the *Grande Région* (Belgium, France and Germany). However, there are still restrictions on the cross border supply of goods in retail markets, as Luxembourg retailers may not always be free to source their goods at the best price on the internal market. Even though there may be valid reasons for certain price differences between national markets, there are also indications of territorial supply constraints that prevent lower prices in some national markets such as Luxembourg, especially in the case of branded products.

Trade is characterized by increasing deficits in the trade of goods and large surpluses in the trade of services, in particular financial services.

Although exports of high tech goods represent over 25 % of total exports of goods (15 % for the EU average), export growth remains slow, as a consequence of a significant loss in export market share for goods in the aftermath of the financial crisis. This reflects a structural loss of cost competitiveness.

As a result of both wage increases and sluggish productivity, the unit labour cost increased one and a half times faster in Luxembourg than in EU15 and more than four times faster than in Germany over 2000-2012, eroding the competitive position of the country.

The growth model in Luxembourg still greatly relies on its high performance in financial services. The new government is set to further promote these, as the 2013 programme envisages merging the two entities “Luxembourg for Finance” and “Luxembourg for Business” into a coordinated promotion entity piloted jointly by the Minister for Finance and the Minister for the Economy. Plans also include boosting research in the area of financial services.

### 3.16.6 Public administration and business environment

Reducing the administrative burden for citizens and enterprises and increasing efficiency have remained priorities for the new authorities.

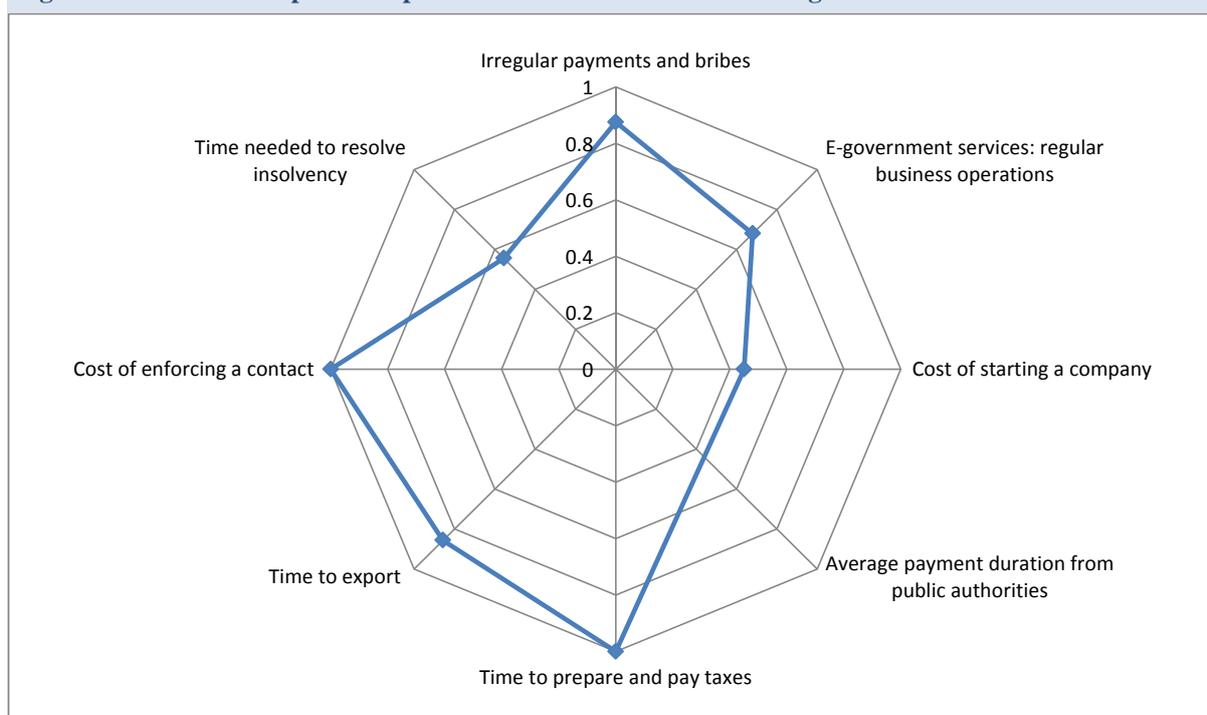
The new government has put in place a new, larger Ministry of the Economy, which now includes the former Ministry of SMEs and Tourism. The plan is to make this a one-stop-shop for enterprises that will regroup all the procedures for authorisations and subsidies.

In January 2014, the government set up a taskforce on administrative simplification chaired by the Ministry for Administration and Administrative Simplification, composed of representatives of a number of ministries. The aim of the taskforce is twofold: achieving better legislation and better preparation of legislation. The taskforce has also started to revise all authorisation procedures so as to lighten the administrative burden.

Other measures to modernise the legal and regulatory system include simplifying the legal process regarding dematerialisation of documents and their conservation in electronic form, generalised on-line access to VAT accounts and the publication of legal notices regarding companies and associations on an electronic platform.

In mid-2013, a new action plan for SMEs was announced, confirmed in the new government programme. The plan will be the framework for a

Figure 3.16.1: Overall profile of public administration - Luxembourg



Note: Values have been scaled so that the best observation (Member State) gets 1 and the worst gets 0.

Source: World Bank Doing business; Intrum Justitia; OECD; World Economic Forum; European Commission

more dynamic policy in support of SMEs and will be linked to the 10 Small Business Act principles and the Entrepreneurship 2020 action plan.

Concerning procurement, Luxembourg has one of the lowest EU publication rates of procurement contracts competitively advertised at EU level and a low uptake of e-procurement. <sup>(6)</sup> E-procurement can generate significant cost savings, improve the transparency of public procurement, shorten lead time and increase competition. Overall, its introduction is an opportunity to rethink the way public procurement is organised and a key element for leveraging smart procurement.

Efforts have been made to improve this situation. In 2012 Luxembourg set up a new platform which acts as a national hub for public procurement. This open source platform is a single point of access for economic operators in the field of public procurement in Luxembourg. It includes information on procedures; contract notices (*eNotification*) and

<sup>(6)</sup> Latest data available are for 2011. For further information see e.g.: [http://ec.europa.eu/europe2020/pdf/csr2014/swd2014\\_luxembourg\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2014/swd2014_luxembourg_en.pdf) and [http://ec.europa.eu/internal\\_market/publicprocurement/docs/modernising\\_rules/public-procurement-indicators-2011\\_en.pdf](http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/public-procurement-indicators-2011_en.pdf).

tender documents (*eAccess*). Notification of contracts above and below thresholds on the national public procurement platform is mandatory for all awarding authorities. A service desk is available for economic operators and awarding authorities. In 2013 the legal framework was completed <sup>(7)</sup> to leverage the uptake of e-Procurement. For instance, secure communication (e.g. questions on a specific tender) between economic operators and awarding authorities during the tender phase is available and used. In 2014, a comprehensive e-Tendering function will be available.

Luxembourg has a relatively high enterprise survival rate after two years. The new government wishes to make it easier and faster to set up a business. Legislation adopted on 13 September 2011 simplified administrative procedures for the development and operating conditions of classified establishments, mainly by introducing tacit authorisation and obliging administrations to meet specific deadlines. Luxembourg generally ranks well in surveys of the administrative burdens of the tax system. The point of

<sup>(7)</sup> Règlement grand-ducal du 27 août 2013 relatif à l'utilisation des moyens électroniques dans les procédures des marchés publics modifiant le règlement grand-ducal modifié du 3 août 2009 portant exécution de la loi du 25 juin 2009 sur les marchés publics.

single contact performs well in terms of giving comprehensive information to businesses and allowing them to complete administrative formalities online.

Although a number of initiatives to foster entrepreneurship that started in previous years have continued, and although the scores of Luxembourg in this area have improved since 2009 (the entrepreneurship rate climbed from 8 % to 17 % between 2009 and 2012), Luxembourg still trails the EU on average significantly. <sup>(8)</sup> However there has been a considerable influx of foreigners setting up businesses in Luxembourg. Among the incumbent population, the appetite for self-employment remains below the EU average (36 %, EU: 37 %) and has even declined by some 7 % since 2009. The robust economic situation in Luxembourg makes self-employment just one of several career options, especially for skilled professionals. This is why entrepreneurship has so far remained a limited phenomenon in Luxembourg. The feasibility of becoming an entrepreneur is rated as relatively easy by 36 % (EU: 30 %) and school education is seen as a positive influence on the decision to set up a business (57 %, EU: 50 %).

### 3.16.7 Conclusions

Luxembourg still scores well in terms of overall competitiveness, but the cost competitiveness of the economy remains the main medium and long term challenge, with the steady deterioration of the balance of trade for goods, compensated by large surpluses in the trade of services, particularly financial services on which growth remains strongly dependent.

Despite the Luxembourgish authorities' resolve to foster investment in R&D as part of a long-term policy for Luxembourg's economic development and diversification, the Luxembourgish research and innovation ecosystem remains very weak, with its public components not yet able to play a decisive role in fostering innovation-led growth.

The situation for workers with low skills (in particular migrants and young residents) remains difficult despite a large number of government and business initiatives. Greater adult participation in

lifelong learning is needed to tackle the country's structural unemployment.

Finally, Luxembourg continues to face the challenge of achieving the national target for reducing greenhouse gas emissions.

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<sup>(8)</sup> [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/countries-sheets/2013/luxembourg\\_en.pdf](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/files/countries-sheets/2013/luxembourg_en.pdf).