TOWARDS A GREENER LABOUR MARKET POLICY

AN INITIAL POLICY EXPLORATION

DEPARTEMENT WERK EN SOCIALE ECONOMIE
verruimt je blik op werk

Colophon

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Preamble

During the meeting of the EU Council for Employment, Social Policy, Health, and Consumer Affairs (EPSCO) on 6 December 2010, conclusions were adopted on the initiative of the Belgian EU Presidency with regard to one of the principal and most important challenges facing the European labour market policy[1]: the role of the labour market policy in function of the greening of the economy.

The Council Conclusions in the first instance establish the link between the ambition propounded by the European climate objectives and their consequences upon the mechanics of the labour market. These consequences are multi-faceted and are often being under-estimated (or over-estimated) in their repercussions on the jobs, the qualifications, and the professions that will determine the course and the dimension of employment for the future. Both job volume and content are likely to become subjected to substantial changes. The necessary transition of the economic structure will undoubtedly present a gamut of both opportunities and challenges for the employment policy in general.

[1] Conclusions of the Belgian EU Presidency, *'Employment policies for a competitive, low-carbon, resource-efficient and green economy'*

By means of this policy exploration, we aim to map out as comprehensively as possible the impact, the opportunities, the threats, and the challenges that accompany the transition towards a greener economy. We want to ascertain what enhancing sustainability of economic potential means for the labour market policy of Flanders. This policy exploration focuses attention on both the quantitative and qualitative impact of 'greening' on jobs and the employment market.

The policy exploration starts from a broad perspective, both with questions on how to further flesh out the concept of 'green jobs' (and 'green skills') and on how to determine the desired policy approach. The greening of the economy is a global mutation phenomenon demanding an integral approach from policy makers, educators and instructors, public and private job counsellors and advisors, sectors, businesses, and regions.

All are faced with the challenge to assist and guide the available talents throughout this tricky course of transition, thus to contribute, also from the standpoint of employment policy, to a more sustainable economic development.

Dirk Vanderpoorten
Secretary-General of the Department of Work and Social Economy

1. Europe 2020: a strategy for smart, sustainable and inclusive growth

Today's issues confronting our society, such as the climate problem for one, are obviously not confined to Flanders alone. Global warming does not remain bound within national frontiers. Hence, a challenge such as reinforcing economic sustainability can only succeed if tackled in a manner that transcends these frontiers. The European Union has during the past number of years assumed an ambitious stance in the fight against climate change and as an advocate of a more sustainable economy.

In the new European strategy for growth and jobs 'Europe 2020'[2], sustainable growth (besides smart and inclusive growth) figures as one of three fundamental pillars. Moreover, the sustainability objective is linked within the strategy to a clearly defined target goal (based on the earlier Energy and Climate Package 2008). In concrete terms, by 2020, the EU is aiming at:

- limiting the emission of greenhouse gases by 20% compared to 1990,
- improving energy efficiency by 20%, and

[2] Communication of the European Commission (2010), *'Europe 2020 – A strategy for smart, sustainable and inclusive growth'*

- increasing the percentage of renewable energy sources to 20% in the final energy consumption.

The first two objectives demand the adaptation of products and production processes, while the third objective requires the development of new industrial niches.

The transition towards a smart, sustainable and inclusive economy is doomed to fail in the absence of a well-functioning labour market. The recent European Employment strategy does[3], within the framework of the Europe 2020 plan, put the Member States on the right track for what concerns the modernisation of their labour markets through the formulation of a number of clear objectives: enhancing employment throughout the labour market, improved training of the workers, reinforced employment mobilisation and activation, a better integration of members from disadvantaged social groups, and enhanced labour mobility.

With all due concern for these challenges, the European Commission (EC) issues a number of recommendations to the Member States in its flagship initiative 'New Skills for New Jobs'[4] that was launched in November 2010[5].

The Communication by the EC advances a number of priorities as conditions required in the modernisation of the labour market:

- Better functioning labour markets through the reinforcement of the 4 components of flexicurity, amongst which the activating labour market policy. Thanks to the European employment strategy, the active labour market measures have now become more effective than ten years ago. Nevertheless, there remains room for further improvement in certain areas: individual career choice

[3] Council Decision (2010), *'Guidelines for the employment policy of the Member States.'*
[4] Communication of the European Commission (2010), *'An agenda for new skills and jobs: A European contribution towards full employment.'*
[5] The Agenda 'New skills for new jobs' is 1 of the 7 flagship initiatives of Europe 2020 (aside from 5 key objectives and 10 guidelines).

information, assistance during the job search, measures to improve skills, and employability.

- A better educated and skilled workforce capable of contributing and adjusting to technological change with new patterns of work organisation. This is a considerable challenge, given the rapidly changing skills needed, and the persistent skills mismatches in the EU labour market. Investment in education and training systems, anticipation of skills needed, matching and guidance services are the fundamentals to raise productivity, competitiveness, economic growth and ultimately employment.

- Better job quality and working conditions. There is no trade-off between quality and quantity of employment: high levels of job quality in the EU are associated with equally high labour productivity and employment participation.

The Belgian EU Presidency emphasized in its conclusions the importance of such priorities in the future European labour market policy. Flanders too strongly advocated in the EU Presidency programme an enhanced activation and competency policy with greater attention paid to improved integration of disadvantaged groups into the labour markets of the European Member States.

Conform to the objectives formulated in Europe 2020 and the flagship initiative 'An agenda for new skills and jobs', Flanders will continue its ongoing investment in modernizing the labour market, increasing employment participation, and in the ongoing professional training of its active workforce.

2. Green jobs: towards a conceptual framework for the greening of employment

Following our outline of the European framework in the areas of sustainable growth and employment, we are embarking upon a search for the meaning of the term 'green employment'. And, indeed, the concept 'green employment' or 'green jobs' remains a term of confusion, not surprising, in fact, given that there does not exist consensus on a clearly defined delineation of the term; as a result, a number of differing definitions are being bandied about.

A study of the international literature on the subject teaches us that, quite often, a distinction is drawn between a strict and a broad interpretation of the notion of 'green jobs'[6]. In a strict approach, a job is considered to be 'green' when its principal activity has a direct connection with the environment, e.g., the so-called eco-industries. Supporting eco-industries is an assignment given to the areas of the environment, economy, and innovation. In a broader context, jobs are likewise labelled to be green if they contribute to limiting the ecological footprint of a sector, even though the sectoral activities may not in an actual sense aim at an environment-related objective. Stimulating activities with a view to the sustainability of all economic sectors rather belongs to the employment area.

[6], Brussels Observatorium voor de Werkgelegenheid *'Groene banen in Brussel – Een verkennende analyse – Green jobs in Brussels – An exploratory analysis.'* Brussels Employment Observatory

A strict application of the concept has the advantage of allowing a relatively clear delineation of the sectors within the eco-industry, consequently making it easier to estimate the impact of these sectors on employment. The disadvantage is, however, that it does not provide us with a total picture of all employment opportunities that may arise out of the awareness of industry with respect to issues around the environmental problem. On the other hand, a broader definition of green jobs renders it more difficult to clearly delineate these jobs (which gives the concept an abstract character), yet enables us to make an easier estimation of the growth potential of the economy and the employment dimension in consequence of the transition towards an environment-friendly economy.

In box 1, we find examples of definitions wherein the concept 'green jobs' is demarcated in a different manner. The definition of Eurostat/OECD is one of the most often quoted definitions in the literature and is a paradigm of the strict application of concept 'green jobs': employment is quantified by activity, especially for the eco-industries[7]. The UNEP definition is slightly broader in scope since it takes into account also job content and not only the exact activity as such. It is, however, the ILO definition that embraces the broadest application of the concept. Aside from employment within the eco-industry sector, the ILO also considers every job, in whatever sector, as a green job if the work in question exerts an environmental impact below what is considered average, and when the job contributes to the sustainability of the economy. In addition, the ILO also pays attention to the social dimension of the sustainability process: the organisation emphasizes the import of the quality of the work and of the access of disadvantaged and vulnerable social groups to the labour market.

Box 1: Definitions of the concept 'green jobs'

OESO/Eurostat: Environmental goods and services sector (EGSS)

The Eurostat methodology for the 'Environmental Goods and Services Sector' (EGSS) does not define the concept 'green jobs', but rather measures employment in the above-mentioned sector: the EGSS is a heterogeneous set of producers of technologies, goods and services that prevent or minimise pollution and minimise the use of natural resources. Thus, environmental activities are divided into two broad segments: environmental protection and

[7] Hoge Raad voor de Werkgelegenheid (2010), *'Report 2010.'* High Council on Employment

resource management. Only those technologies, goods and services are considered that have an environmental protection or resources management purpose as their prime production objective (i.e. 'environmental purpose'), hence excluding goods and services that are not provided mainly for environmental purposes[8].

UNEP-ILO-ITUC-IOE (10):
The United Nations Environment Programme (UNEP) defines green jobs as "… work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute substantially to preserving or restoring environmental quality. Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution."[9]

ILO clarifies:
"´Green jobs´ does not lend itself to a tight definition but certainly includes the direct employment which reduces environmental impact ultimately to levels that are sustainable. This includes jobs that help to reduce the consumption of energy and raw materials, decarbonizes the economy, protect and restore ecosystems and biodiversity and minimize the production of waste and pollution. […] A somewhat wider concept of "green jobs" might embrace any new job in a sector which has a lower than average environmental footprint, contributes to improving overall performance, albeit perhaps only marginally."[10]

Flanders supports the broader definition of the concept 'green jobs', such as the ILO definition, since this type of application fits better into the perspective of the labour market policy. Likewise the Flemish Service for Employment and Vocational Training (VDAB) employs a broad application of the concept 'green jobs'. During the coming year, the VDAB intends to take action towards introducing sustainability strategies into its training programmes, thus to generate greater sustainability for professions and occupations. Based

[8] OECD/Eurostat (1999), *'The Environmental Goods and Services industry: manual for data collection and analysis.'*
[9] UNEP/ILO/IAO/ITUC (2008), *'Green jobs: Towards Decent Work in a Sustainable, Low-Carbon world.'*
[10] ILO (2008), *'Global Challenges for Sustainable Development: Strategies for Green Jobs'.*

on the findings of the European Centre for the Development of Vocational Training (CEDEFOP), the VDAB approaches 'green jobs' from a functional perspective.

VDAB definition

'VDAB has developed a practical definition for 'green jobs' that is based on the sustainability principle. When the portion of green activities forms circa one third of the work volume, we are applying the term 'green jobs'. This job definition does, however, require some nuancing since the expected trend points towards a need for, and an evolution towards, green generic skills in all jobs. For the long term, all jobs are expected to become green, but for the short term there exists a need for green operational structuring in the areas of vacancies and training programmes.'

3. Towards a green and sustainable economy: impact on the dynamic of the labour market?

What does the transition towards a sustainable economy mean for the labour market policy? Juan Somavia, Director-General of the International Labour Organisation (ILO), offers the following explanation:

'The mounting cost of energy-intensive production and consumption patterns is widely recognized. It is timely to move towards a high-employment, low-carbon economy. Green jobs hold the promise of a triple dividend: sustainable enterprises, poverty reduction; and a job-centred economic recovery.' [11]

According to the leading and influential study 'Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World', the transition towards a sustainable economy can influence employment in various ways. Four important dynamics may be distinguished in this respect:

1/ in some sectors, additional jobs will be created, for instance, because of product development that will enhance the eco-efficiency of industries;

2/ some forms of employment will be transformed, for instance, through the switch-over from fossil to renewable fuels;

[11] ILO (2009), *'The Green Jobs Programme of the ILO.'*

3/ certain jobs will succumb without direct substitution, for instance, when packaging becomes more heavily taxed and, in certain instances, disappears altogether;

4/ many existing jobs (especially in construction, chemical, electrical industries,…) will change their content and implementation, depending on changing work methods, materials, for instance, and hence also require 'greening' of their job profiles. The content of certain existing professions will evolve under the impact of the changing legislation, statutory regulations, products and services, production methods, etc. Also the range of tasks and responsibilities will be transformed, whereby some *tasks* will become more important than others, with new tasks created and others eliminated. And in keeping with all of this, the need for required *skills* will change in turn, in order that these new tasks may be performed efficiently.

The dynamic in professions and skills is therefore marked by two important dimensions[12]: the first 3 dynamics refer to changes in volume, while the dynamic 4 refers to changes in the content of the professions. Both processes and dimensions will be described infra.

A. Quantitative projections

The afore-mentioned dynamics forecast that, in the course of the coming decades, we will witness strong shifts in employment. It appears from a recent Flemish study about the impact of the climate policy on the labour market in Flanders (see infra in point …) that the greening of jobs is very difficult to map out with any precision. Hence, the level of ambition aimed at in the quantitative segment of this policy exploration remains restricted to presenting a brief overview of the most important trends.

[12] IDEA Consult in collaboration with Ecorys Nederland in context of the VIONA study (2010), '*Gevolgen van klimaatbeleid voor de Vlaamse arbeidsmarkt – Consequences of the climate policy for the Flemish labour market.*'

A recent study by the Federal Planning Bureau[13] presents an overview of the relative importance of the sub-industries related to the environment in Belgium (in keeping with the strict OECD/Eurostat definition). The study indicates the share of these industries in employment in terms of their environment-related activities. What strikes us immediately is the fact that employment here is particularly concentrated in the following sectors: recycling, the processing of waste water, the development of chemical products, the construction sector, transportation, and other activities. Because of the NACE nomenclature, this classification takes only account of strictly environment-related activities.

In 2010, an initial attempt was undertaken to examine what kinds of effects the greening of the economy might have on the Flemish labour market. In that exploratory study (Idea Consult: 2010), the climate policy is taking as the point of departure and an examination is made of its impact on the economy and employment in Flanders. The study is primarily exploratory in nature since, up to the present day, little information and few data about the impact of climate policy on the Flemish economy are available. The fragmentation in data sources, information mechanisms, and work methods of the various departments makes it difficult to compile a consistent dataset for Flanders. As such, the development of a Flemish own quantitative calculator remains (as yet) a non-feasible ambition.

The Idea Consult study hence recommends that the forces of the diverse research institutions engaged in research studies on 'effect quantifying' be combined, including those for the Belgian and the Flemish economy (such as, e.g., the Federal Planning Bureau, the DAR, and the SERV). This would enable the development of a joint database and research methodology to measure the impact of climate policy on employment in Flanders. From the perspective of efficiency, synergy, and harmonisation with international concepts, the study further points to the direction of an enhanced collaboration with the Federal Planning Bureau for the further elaboration of quantitative impact analyses in the future.

In consequence of such considerations, the focus of the study was laid on the qualitative employment effects and the challenges for the labour market and competency policy within

[13] Federal Planning Bureau (2009), '*Qualitative Employment Multipliers for the Belgian Environmental Industry*'.

certain well-defined sectors. Given the expectation that new European regulations with respect to climate policy will exert a significant impact on certain economic sectors, 3 sectors were scrutinized by means of case studies: the construction sector, the chemical sector, and the renewable energy sector.

Construction sector

In Flanders, the construction sector is primarily composed of small to medium-sized enterprises that are mostly active locally. The increased demand for sustainable products and services figures as the harbinger of major opportunities for the market. Within the construction sector, this demand has been to a large degree stimulated by the Energy Performance of Buildings Directive (EPBD). The European Directive was quickly transposed into regional legislation (it is only not directly binding as yet) with objectives that are relatively progressive within the European framework. In addition, also financial incentive measures and campaigns by the (international) authorities ensure that consumers and companies be encouraged to invest in energy efficiency and renewable energy.

From the VIONA study it appears that, today, already 70% of companies operating in the construction sector in Flanders are in one way or another involved in sustainable building activities. As such, the sector has during the past few years witnessed a strong increase in sustainable building activities. Striking is the fact that insulation is by far the most common sustainable activity. The increase in sustainable building activity can be explained by a number of factors: a rise in energy prices, a lowering of prices of sustainable construction materials, and financial incentives on the part of the authorities. These factors have contributed to the rise of awareness about sustainability within the construction sector.

Currently, the sustainable construction sector employs some 8000 people; expectations are that this number will triple by 2020. The greening of the economy hence exerts a net positive impact on the construction sector.

Chemical sector

The chemical sector is directly affected by the climate policy because of the introduction of the European Trading Scheme (ETS) in 2012. The ETS is a crucial pillar in the European climate policy and is trying to drastically reduce the emission of CO2 in the industry. In addition, many other factors determine the international competitive position of chemical companies. Aside from the cost of energy and CO_2 emissions, the prices of raw materials, personnel expenditures, and transportation costs are of crucial importance. In addition, it is so that the decision-making centres of multinational corporations are often located abroad, which means that the Government of Flanders is not in a position to exert its influence in any wise. Decisions regarding the localisation of production and R&D are always considered at the European and global levels.

Hence, while there does indeed exist a growing demand for green chemical products, the chemical sector is faced with an absence of innovation, given the long-term nature of the investment planning in most of the companies. This renders it difficult to stimulate the development of sustainable chemical products in the short term[14]. Large-scale investments in Research & Development are lacking, although with respect to energy efficiency some progress has been booked. Moreover, it appears that the profitability of sustainable chemical products is in many cases dependent on government subsidies.

Renewable energy

Today, the renewable energy sector represents only 4% of the total energy production in Flanders (especially bio-mass). In addition, the various sub-sectors have reached a different maturity level. Nonetheless, the impact of the climate policy on the sector is not insignificant, especially thanks to the European Trading Scheme (ETS) regulation. Renewable energy is a labour intensive sector where a lot of attention is devoted to R & D. The sector is therefore characterized by a highly qualified, professional job structure.

Today, some 10,000 people are employed in the renewable energy sector in Flanders. Direct employment within the sector is expected to double by 2020. One of the industries with

[14] This is also the case for the sustainability of production processes.

great potential to lower the ecological impact is precisely the renewable energy sector. Many studies (international, European, Flemish) hence point out the potential for job creation within the sector. The ILO study estimated the number of jobs in the renewable energy sector alone at 2.3 million worldwide (direct jobs). A study for the DG Environment (European Commission) by GHK[15] calculated the number of direct jobs in the eco-industry to be 2 million. If indirect and induced attendant job effects are counted, one arrives at a figure of 4 million. In that regard, Germany is absolutely leading the pack in Europe. It is estimated that the German eco-industry already in 2007 employed an estimated 1.5 million people, or some 3.8% of the active workforce[16]. Expectations are that this figure might even double by 2020 if the eco-industry is allowed to fully deploy itself.

The Federal Planning Bureau[17] (2008) compared the impact of a 20/20 scenario in the context of the European Energy and Climate package with a 30/20 scenario. This package has the ambition, on the one hand, to reduce the emissions of greenhouse gasses by, respectively, 20% or 30% by 2020 (vis-à-vis the 1990 level) while, at the same time, investing 20% in renewable energy. It appeared from this that the planned European initiatives might bring about a drop in employment of 16,000 (20/20) to 17,000 (30/20) jobs in a scenario whereby revenues generated by the new CO2 levies are not being re-injected into the economy. However, if dividends (for instance, through a carbon tax) were to be thus re-invested in the eco-industry, the Planning Bureau forecasts a net gain in job employment of, respectively, 26,000 (30/20) versus 25,000 (20/20).

A recent study (Oxford, Sorbonne e.a. 2010, by contract of the German Ministry for the Environment) confirms the positive impact of an accelerated shift to a low-carbon economy on the European economy and employment. For Belgium, a drop in unemployment is estimated from 7….% to 5….% when the target is a 30% emission reduction.

The earlier study by the Federal Planning Bureau thus concludes that the planned policy initiatives (energy savings and development of renewable energy) presents us with major

[15] GHK (2007), *'Links between the environment, economy and jobs'*.
[16] Friends of the Earth (2006), *'German's Environment and Employment Report'*.
[17] Federal Planning Bureau (2008), *'Impact of the EU energy and climate package on the Belgian energy system and economy'*.

economic, industrial, and social challenges fraught with costs but also offering new possibilities. An anticipating labour market policy is therefore also an indispensable link to derive full benefit from these opportunities.

A look at the Flemish Renewable Energy sector

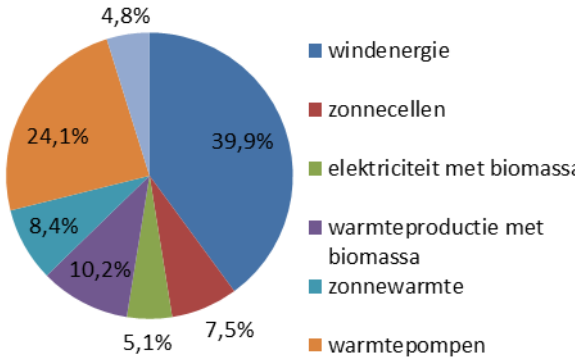
According to the Federation for the technological industry, Agoria, the renewable energy sector will also in Belgium provide for employment opportunities[18]. The European objective to produce 20% more renewable energy appears to be an important springboard for growth in the sector. Agoria estimates that the segment renewable energy will by 2020 account for 13% of the entire energy sector. While the financial crisis has caused some delays in the market, the renewable technology sector continues to evolve. The following table gives an overview of estimated employment figures within the most important branches of industry.

In 2020, the wind energy will be by far the most important industry branch in the renewable energy sector in Belgium. In addition, heat pumps and bio-mass will play a significant role. Hence, the major employment opportunities are found amongst the activities manufacturing, installation, and assembly and, finally, in operational activities and maintenance. The demand for more technically qualified profiles is confirmed by this study.

Figure 1: overview of estimated employment in 2020 by type of renewable energy forms

[18] Agoria (2009), '*Werkgelegenheid in de sector hernieuwbare energie – Employment in the renewable energy sector'*.

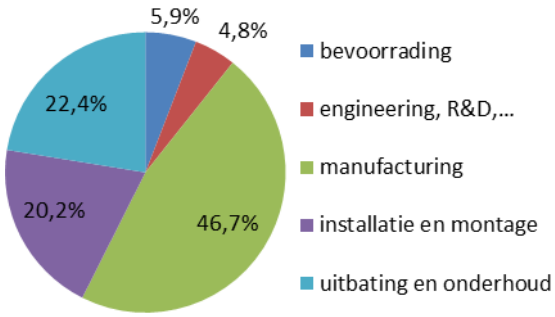
total	33,125
wind energy	13,225
solar cells	2,500
electricity from bio-mass	1,680
heat production with bio-mass	3,370
solar heat	2,775
heat pumps	7,975
bio-fuels for the road	1,600



Source: Agoria

Figure 2: overview of estimated employment in 2020 per activity within the market segment Renewable Energy

total	33,125
supply	1,950
engineering, R&D,…	1,595
manufacturing	1,.475
installation and assembly	6,675
operation and maintenance	7,430



Source: Agoria

Although certain specifically 'green' sectors will register strong growth in the near future, most experts are nonetheless of the opinion that the creation of green jobs will only exert a limited (or slightly positive) net effect on the total employment picture. Hence, the great challenge consists in the introduction of general sustainability strategies within the already existing economic sectors.

B. Qualitative shifts

In Part 3 A, a general overview was given of the evolution amongst professions in the various economic sectors. Special attention was devoted to the potential for job creation in the renewable energy sector. But likewise in terms of quality, significant shifts are anticipated. Some tasks will be more important than others and the context of many professions will undergo very profound changes. These evolutions will greatly influence future need for

given skills. If it wishes to play a part in facilitating that transition, the Flemish labour market policy will have to take sufficient account of these qualitative evolutions.

The impact of climate policy on professions and skills

It appears from the Flemish VIONA study that the impact of climate policy on professions and skills is strongly sector-based. Especially opportunities in the product market appear responsible for the dynamic.

Within the sectors experiencing a strong contextual impact from the climate policy, specifically the construction sector (EPBD Directive), there is need for upgrading the competency and skill levels in diverse professions: e.g., from architects to contractors and sub-contractors such as electricians, insulators, and installers of central heating systems. Also in the renewable energy sector, we find a pressing need for technicians with specific knowledge in, for instance, the field of wind energy.

We thus find that the climate policy is increasing the need for training and specialisation at different levels. This need is especially concentrated in the area of (1) regulations (e.g., EPBD), (2) novel techniques and applications (e.g., wind energy, passive (low-energy) houses) and (3) new products (e.g., roof tiles with integrated voltaic cells).

A recent study by Cedefop[19] into skills for green professions advances a number of important factors. A transition towards a green economy has greater need for upgrading and adaptation of existing skills than for the development of novel curriculums. The difference between a green and a conventional profession cannot be drawn readily and is consequently not very meaningful. A balance between generic 'green' skills and 'greened', updated technical skills appears more important for the development of a 'green' economy than specialized 'green' skills (see Figure 3).

[19] Cedefop (2010), *'Skills for green jobs: European synthesis report'*.

Source: Cedefop Briefing Note 'Skills for green jobs', page 2

Likewise, the ILO emphasizes the need for upgrading and adaptation of existing skills for the transition towards a green economy. Rudi Delarue, Director of the ILO Bureau for the EU and the Benelux countries, proffers his views on the competency policy of the future in the following contribution:

ILO Bureau for the EU and the Benelux countries

Rudi Delarue, Director

The transition towards a low-CO2 and less polluting economy offers great opportunities for the employment field. This transition is not only a matter of job-creation in newly created sectors but likewise bears on jobs changing as a result of adaptations of organisations, production processes, products and services in existing sectors and by shifts amongst the sectors.

The employment policy, as well as the social policy, needs to react pro-actively to this shift. This involves, amongst others, offering adapted training opportunities (both general and specialized programmes), coaching with timely upgrades in training and of skills, a proper harmonisation and balance between supply and demand in the labour market, socially responsible re-structuring of organisations, job organisation, protection and prevention

measures in terms of health and safety, and appropriate social dialogue. The various sub-factors of appropriate employment need therefore to be addressed.

It must become possible to adapt the competency policy more rapidly to changes occurring within the sectors in terms of determining and establishing regulations, activities, and techniques. We note that, because of the rapid evolution in professions and skills in some sectors as a result of climate policy, amongst other causes, a large number of competency profiles and qualifications have become outdated. Up to the present, a very time-consuming procedure has been used to make up these profiles. There is unquestionably need for a more dynamic instrument capable of incorporating (future) changes in professions and skills at a faster tempo. At this moment, work is made of just such an instrument, named 'Competent'. This refers to a competency management system that encompasses the entire labour market and is to be updated on an annual basis.

4. Problem areas in the labour market

This chapter addresses a number of problematic points that impede the smooth process and progress of and in the labour market. Eliminating these obstacles is, in effect, a necessary prerequisite for ensuring improvement in the proper functioning of the Flemish labour market.

As already stated in Chapter 1, the European Commission advances within its flagship initiative 'New Skills for New Jobs' a number of recommendations with regard to the labour market policy. For instance, the EC puts forward 3 priorities towards the modernisation of the labour markets in Europe: the reinforcement of the 4 components of flexicurity (amongst them the employment activation policy), a better skilled workforce, and the enhancement of job quality.

This Chapter pays particular attention to problem areas that impede the creation of a better trained workforce. In addition, a number of other problems are discussed briefly, e.g., policy integration and job quality.

A. Horizontal policy integration

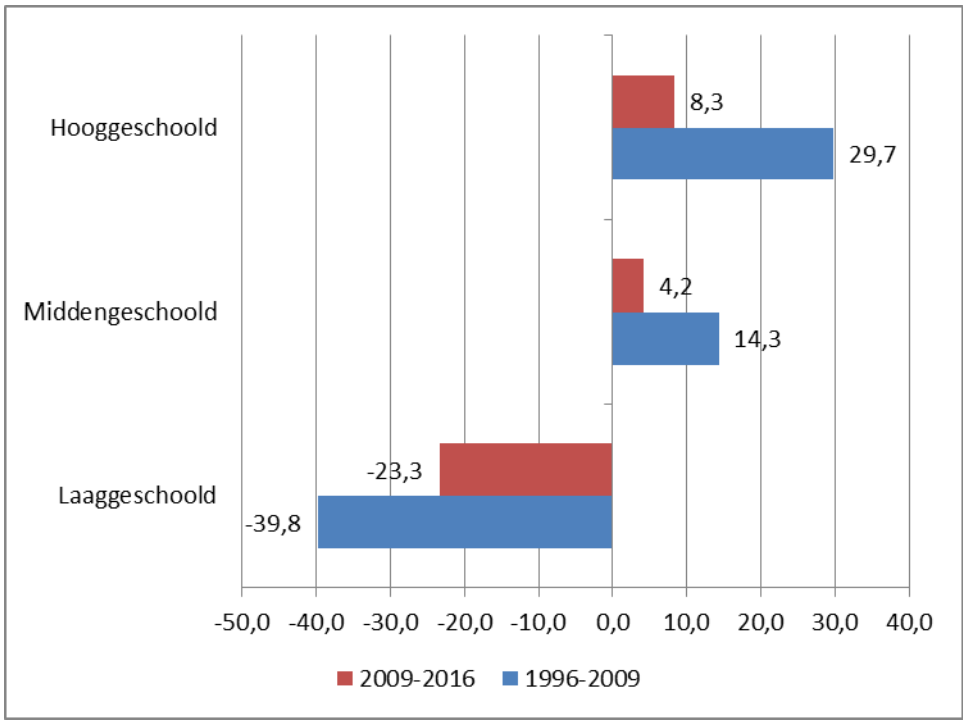
All too often, a policy area creates policy frameworks that fall short of casting their view beyond the boundaries of their own area. Today, however, many themes are of a nature

that transcends strictly delineated policy areas. Generating a sustainable economy is a good example of this: the economy theme is rife with multiple cross-connections tied to a great number of varied domains such as employment, environment, innovation, and education, amongst many others. If the policy aims at formulating answers to complex issues, it will only be successful in this with the help of a coherent approach that pays attention to all sub-aspects of the problem area in casu. Hence, to tackle a problem thoroughly, it is necessary to involve all of the relevant stakeholders in the process. Because of the tightly-knit reciprocal inter-relationship existing between them, it is only normal that the area of education should be the labour market policy's principal partner.

B. A better skilled workforce

The graph from Idea Consult[20] compares the demand for skills between the periods 1996-2009, on the one hand, and 2009-2016, on the other. The graph demonstrates that by the year 2016, jobs will have become more knowledge intensive, this in the wake of the creation of a knowledge-based economy. As a result, the demand for medium to highly qualified workers will sharply rise (+31.6%) in relation to the demand for low-skilled workers (-16.5%). Nevertheless, other studies, such as the opinion by the High Council of Employment, indicate that the need for low-skilled workers will persist also in the future.

[20] IDEA Consult in collaboration with Ecorys Nederland and KULeuven within the context of VIONA (2010), *'Ontwikkeling van een instrument voor arbeidsmarkt- en competentieprognoses – Development of an instrument for labour market and skills forecasts.'*



Source: Idea Consult (2010)

Today, many people do not, however, possess the right qualifications to fill those newly generated jobs. As a consequence, a substantial segment of the workforce is being hampered in its development by a lack of generic skills, much reducing their chances for participation in the knowledge-based economy.

It is, therefore, of crucial importance to invest in a better trained workforce in order to narrow, and eventually eliminate, the gap between supply and demand of skills. Extra attention needs to be paid in this to disadvantaged segments of society: seniors, emigrants, and those of inadequate educational background. Investing in teaching and improving skills for the most vulnerable social groups is a necessary condition towards their successful integration into the labour market, something that can significantly enhance the chances of success for the project of the knowledge-based economy.

An added difficulty is that Flanders is evolving at a dizzying speed towards a problem-based economy. The financial-economic crisis of the past few years has hardly contributed to mitigating the problem of labour shortage. The difficult tie-in between education and the labour market (especially in the vocational and technical streams at the secondary level),

rising youth unemployment, and the general low employment rate all are contributing factors to ensure that a large number of existing vacancies cannot be readily filled. The increasing need for replacement personnel, brought about by the ageing of the workforce, further ads to the demand for workers, as a result of which the normal functionality of the labour market is put under increasing pressure.

Moreover, amongst the total number of vacancy postings sent to the VDAB during the financial-economic crisis years, the percentage of vacancies in difficult-to-fill, problematic professions even increased. Table 3[21] gives an overview of these prime problem professions (in clusters of professions) in Flanders. Only clusters of professions for which the VDAB in 2009 received more than 500 job postings have been included into this synthesis overview. The principal cause for the problem has been identified by the number 1. Where professions within one cluster have different causes for their being identified as problematic, the number 1 may appear in different columns. The number of problem professions for quantitative, and the number of problems because of qualitative, reasons function like Communicating Vessels. In the case of a booming economy and low unemployment, the quantitative factors dominate; in a less constricted labour market, it is the qualitative factors that assume the greatest importance. The year 2009 displays a clear decrease in the percentage with the quantitative factors.

Table 1: Most important profession clusters by cause: quantitative, qualitative, or employment conditions

Profession cluster	quantitative	qualitative	conditions
Engineer	1	2	
Nursing	1		2
Care giving	2	1	3
Teaching sec. and primary levels Nursery and primary education	1		
Technical draftsman	1	2	
Technician	1	2	
Bookkeeper		1	
Educator		1	2
Supervisor child day care	2	1	1
Information technologist	2	1	
Production manager	1	2	

[21] Study Bureau VDAB, *'Analyse Vacatures 2009 –Knelpuntberoepen / Vacancy Analysis 2009 –Shortage Professions.'*

Call Center assistant			1
Technical-administrative employee		1	
Employee planning and logistics		1	
Representative			1
Sales person		1	2
Tele-sales person			1
Branch Manager and branch assistant		1	1
Gardener	1	2	3
Agro- and horticultural worker			1
Truck driver	1	3	2
Maintenance mechanic for machinery machines	1		
Mechanic for motor vehicles		1	2
Installer of sanitation and Air-Co systems	1	2	
Welder	1		
Electrician	1	2	
Joiner	1	2	
Mason	1		2
Roofer	1		2
Butcher	1		2
Security guard		1	2
Cook		1	
Waiter		2	1
Janitorial		2	1
Hairdresser		1	2

Source : VDAB

The re-orientation of the workforce, including the disadvantaged groups, in function of the needs within the labour market will present one of the greatest challenges for the labour market policy in the future. The greening of the employment policy confronts the VDAB with the taxing task of having to equip job seekers /workers with the required skills by means of training programmes, such as green attitudes, in order that these difficult-to-fill (problem) professions and occupations may find sustainable occupancy in the future. As the director of the labour market, it is indeed incumbent upon the VDAB to ensure that supply and demand be better attuned with one another.

C. Job quality

A policy geared towards green growth and employment also needs to bear fruit in the socio-economic field. As already stated, the integration of the disadvantaged groups represents a critical success factor towards realizing the targeted knowledge-based economy. In

addition, the creation of new jobs does not in and by itself offer guarantees of qualitative employment.

A sustainable or green labour market policy can also bring about social change by a pro-active reaction to the economic transformation. Rudi Delarue of the ILO confirms this analysis:

ILO Bureau for the EU and the Benelux countries

Rudi Delarue, Director

The ILO has, however, pointed out several times in the past that not all workers will be better served by, and benefit from, the shift towards a sustainable economy. In addition, the many new or adapted jobs as may be generated do not necessarily guarantee qualitative employment. Classic examples are the waste processing and recycling, both inside and outside of the EU (e.g., dismantling of vessels, disassembly of PCs). Likewise, not all jobs in, amongst others, the areas of solar and wind energy are, by definition, qualitative in terms of, for instance, health and safety in the workplace. Consider for a moment the installation of solar panels on rooftops. Hence, an adapted policy is a necessity.

5. Building blocks for the greening of the labour market policy

In Chapter 3, we dealt with the expected impact of the creation of a sustainable economy on the labour market. In the preceding chapter, we discussed the problematic areas that present a challenge to the labour market in Flanders. The present chapter suggests a number of components that might give a direction to the labour market policy of the future, this with a view to a successful transition towards a more sustainable economy.

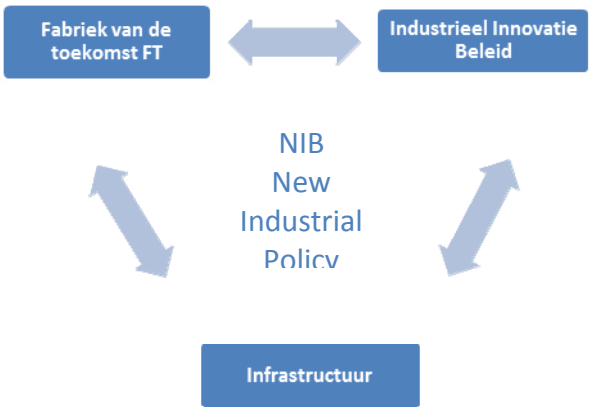
A. An integrated policy approach

New Industrial Policy

In response to the challenge presented by the climate problem, Flanders is working on a further decoupling between economic growth and the emission of greenhouse gases. In the Coalition Agreement of 2009, Flanders demonstrates its ambition to establish a sustainable

economy by the year 2020[22], which was translated into concrete objectives within the framework of Pact 2020 and Flanders in Action. The complex task of trying to harmonize the multitude of Flemish policy plans does, however, present an obstacle to an efficient and integral policy approach.

The New Industrial Policy (NIB) is an attempted step towards an integrated policy that aims at guiding the necessary transformations of the industry (see the 4 major transitions) within the economic and social fields. With its NIB, Flanders enters a plea for the transformation of the Flemish economic fabric. The 'industry of the future' is, in effect, the foundation of a competitive and sustainable economy[23]:



The industry of the future is based on a transformation policy that rests on the 3 pillars demonstrated in the above Figure 1:

- A productivity offensive and heightened competitiveness;
- An industrial innovation policy that supports the transformation: especially major projects;
- An infrastructure policy for a modern and competitive industry and economy.

However, the NIB can only succeed when all relevant policy areas espouse and support the strategy and make their contributions. For the Flemish labour market policy, this means first

[22] This was translated into the Flanders in Action programme and the Pact 2020 of the Government of Flanders.
[23] Communication of the Government of Flanders (2010), *'Een Nieuw Industrieel Beleid voor Vlaanderen – A new industrial policy for Flanders'*.

and foremost, the adaptation and reinforcement of the training and career path policy, which is, in fact, a necessary pre-condition for the coming economic transformation.

Excellence Centres: reinforced partnerships amongst actors in the labour market, education and training

In order to avoid a future labour market crisis, the Flemish employment policy is confronted with the challenge of having to reinforce the existing policy mechanisms. This should lead to a condition where people, on the one hand, stay at work longer and, on the other, all available talents are profitably employed in the labour market. In order to be able to formulate an adequate response to this complex challenge, the collaboration amongst all actors with an interest in the labour market and in the fields of education and training needs to be enhanced. In 2011, Excellence Centres will be created in order to give form and presence to these reinforced partnerships.

An Excellence Centre is to be thought of as a platform where a number of actors and stakeholders, in open collaboration and following an agreed-upon methodology, hold mutual converse and discourse and engage in joint actions towards a rational attuning of supply and demand in the labour market in function of filling problem vacancies within the sectors. The Excellence Centres hence represent a concrete cooperative platform geared towards arriving at concrete labour market-oriented objectives in the area of skills development and assistance. As such, the various partners assume joint responsibility for achieving the above-mentioned objectives.

An Excellence Centre, being network-based and network-directed, is meant to address:

- Ways to tackle lacunas in the labour market. The dynamic, mobile offer of training courses brings the desired competency reinforcement needed to fill the existing problematic vacancies closer to the job seeker and the company.

- Creating a better fit between education and the labour market by concentrating further on qualifying programmes through educational courses within the framework of Secondary after Secondary (SenSe) and Higher Vocational Education

(HBO) tracks. The smooth integration of all qualifications[24] obtained in the course of one's professional career, in order to facilitate the advance towards the required qualifications needed for the performance of certain jobs, is the challenge in trying to achieve a proper balance between supply and demand.

- The further elaboration of business-focused tracks aimed at improved harmonisation between supply and demand and the incorporation of the necessary attitudes in training and guidance programmes.

- A well-founded investment policy in the correct and needed technical infrastructure. That policy will be embedded into a system of 'Excellence Centres'.

- Devising and fleshing out functional learning tracks in direct relation to professional profiles and the required skills in the workplace.

- An offer of 'blended' training tracks and web learning modules in order to create the capacity for orientation and training (and for the development of a career path) and thus quickly increase employability in the labour market.

- A broadly accepted certification accreditation in collaboration with the sectors whereby certifications and Skills Acquired Elsewhere will be recognized on a sectoral basis and encouraged as alternatives to the classic diplomas.

B. An enhanced focus on skills

Ever since 2007, skills have been considered central in the labour market policy. The Competency Agenda has 10 action points that take for their objective the mobilisation of job seekers in order to further develop their skills by means of a suitably adapted guidance and counselling model, informal learning, etc. However, the labour market in Flanders looks a lot different today from what it was 3 years ago. The worldwide financial-economic crisis has had its repercussions in Flanders and has set back or nullified a great deal of the progress

[24] In function of the POP or Personal Development Plan.

that had been achieved prior to the debacle. At the same time, the crisis has presented an opportunity to tackle training and instruction possibilities with renewed vigour, which is a way to accelerate the transformation of our economy.

In the year 2011, Flanders finds itself confronted by 3 major challenges in the area of skills: skill reinforcement (up-skilling), anticipating (anticipation), and 'matching' of the skills of workers towards the creation and the filling of jobs of the future.

- **Up-skilling:** In order to ensure that workers possess the correct skills to fill both old and new jobs, a massive investment in skill reinforcement is called for. Intelligent policy measures must stimulate both employees and employers towards investing in the reinforcement and upgrading of their respective competency profiles. Educational and training courses likewise need to be better attuned to the needs of a rapidly evolving labour market.

- **Anticipation:** A truly anticipating labour market policy should first of all be capable of closely monitoring developments concerning competency requirements, both today and tomorrow. We need to reinforce our knowledge of evolutions within sectors and professions in order to enable us to attune available job offers to the demand, while avoiding the emergence of the problem professions.

- **'Matching' on the basis of skills:** And, in fine, it is also important that both the employed and the job seekers be re-oriented towards green/white jobs by a system of 'matching' based on skills. The activating labour market policy, inclusive of guidance and matching models, needs for that reason to be reinforced. This activating policy requires a more dynamic and future-oriented character whereby job transitions are being encouraged and rewarded.

With a view to filling job vacancies in the future, it is necessary that the Government of Flanders, in its conclusion of future agreements with the social partners, take fully into account the challenges lurking in the field of skills. The degree in which the policy will succeed in formulating adequate responses to these challenges will serve as a critical success factor for the transition towards a more sustainable labour market policy.

C. The introduction of green accents into the existing labour market mechanism

As stated above, the reinforcement of skills of job seekers and the employed places the Flemish labour market policy before one of its greatest challenges. One first step to meet this challenge would be the introduction of green accents into the existent package of labour market measures and programmes. Following then is an overview of the most recent developments in this area.

Green experience certificates

The green experience certificate was created to call attention to, and bring recognition of, profession-based skills, wherever acquired. Via a field test and/or by means of a complete and relevant portfolio, workers would be given the opportunity to demonstrate that they do possess the required skills to perform a given profession or occupation. Next, the individual in question receives an experience certificate issued by the Government of Flanders. This certificate is a labour market instrument meant to benefit employees, independent operators, and job seekers alike.

The Social-Economic Council of Flanders (SERV) annually issues a call to the sectoral social partners to propose professions for which such an experience certificate might be useful. After the list of professions has been approved by the Government of Flanders, the SERV, in collaboration with the sectoral social partners, starts the development of a standard. This standard is to function as the yardstick to determine whether or not an individual possesses all the required skills to be granted this experience certificate. A standard will describe what skills are necessary to be able to exercise a given profession successfully. For the time being, most standards for the experience certificate have already adopted the aspect of performing work activities safely and conscious of the environment. An example of this is the standard adopted for the profession of all-round operator in process chemistry. Besides attention to working safely and conscious of the environment, other green skills or competencies are

currently present in only limited numbers. It is via the standards that attention for the greening of skills will have to expand and reach full scope in the future.

Sector covenants and greening: support with a sectoral approach angle

In the current generation sector covenants, several sectors are acknowledging the impact of the current evolution towards a more sustainable economy. The need of, and the request for, green skills in the sectors is growing and both are therefore given a place in the covenants of, for instance, the construction sector, the sector of electricians, the automotive sector, the metal workers sector, amongst others. In the first place, we note changes in products and processes under the impulse of the eco-innovation. Furthermore, also changes in the regulations play a major role (e.g., European Directive on energy consumption and renewable resources, the regulation concerning the lowering of the E-level for new housing from E100 to E80,…).

Aside from their acknowledging this challenge, a number of sectors have also taken concrete actions to respond to it. In the first place, the actions are directed towards the reinforcement of the required skills via the organisation of suitably adapted training opportunities for both employed workers and job seekers. Examples here are training programmes about energy performance regulations, sustainable building, renewable energy, etc.

In addition, sectors likewise are investing in awareness raising courses for employers and (future) employees with regard to the thematic aspects of the topic. Evolutions are stressed and the importance of investments in training courses is emphasized.

And, finally, the sectors intend to embed their knowledge of the evolutions within their own areas into professional competency profiles on the basis whereof orientation, job placement, and training can be given a more relevant form and substance. This way, the labour supply can be better attuned to the demand.

Green activities within the work experience programme and the social economy

The work experience programme (WEP+) will for long-term job seekers span a bridge between a period of unemployment and the step towards the regular professional activity

by its offer of training and guidance in the workplace. The measure is directed preferentially to lowly schooled job seekers and lies embedded into the job trajectory of the VDAB. A WEP+ lasts for 12 months but may be shortened to 6 months or extended to 18 months, depending on the needs of the job seeker.

A number of promoters within the work experience circles are active in green care. Some 150 job seekers are given a job tailored to their needs with prospects of advancing towards, and integration into, the regular economy.

A practical example

"Natuurwerk" is a non-profit organization that trains and assists workers in performing outside tasks such as the maintenance of woodlands, landscapes, and nature parks for municipalities and third parties. In this manner, we contribute concretely to proper management of our natural resources and to sustainable job creation. One of our assignments consists in maintaining naturally overgrown verges, or berms and embankments, in the fields, ensuring their sustainability, with full attention paid to the flora and fauna in the environs.
Our foremen and workers are trained in recognizing the varied types of verges, since not all of these are alike. Before undertaking the actual maintenance of the verges they are first categorized into an inventory. Later on, the data we have collected are analysed and the verges are classified under specific vegetation varieties. Every vegetation variety is given a specific mowing and trimming frequency and periodicity. In certain instances, the mowing frequency and periodicity may be adapted to local circumstances or specific plant varieties; for instance, the late-bloomers are left undisturbed. With this specific management, we create on many locations very interesting varieties of verges that demand an extensive mowing regime and harbour a very wide bio-diversity."

In addition, there also exist diverse organisations and enterprises active within the social economy in niches and that are mainly concerned with ecological gains. The social economy

is composed of a gamut of diverse enterprises and organisations that, aside from employing workers from disadvantaged groups, advocate and champion a different form of doing business. Within the Flemish policy, especially the social organisations for workers with special needs, sheltered workplaces, the local service economy and insertion companies are well-known features.

Trendsetters in the 'double dividend' of ecological and social benefits are the recycling centres. They are contributors to both the reduction of the mountains of waste and to offering quality goods to customers from lower income groups and custom-tailored work. The majority of the recycling centres are united under the quality model 'the recycling store', a name by which they are best known to the public at large.

The 31 recycling centres in Flanders recognized by the Public Waste Agency of Flanders (OVAM) collected in 2009 some 52,027 tons of goods; this works out to 8 kg per resident, or 43,700 tons less CO2 emissions, enough to warm 17,862 homes for one year. About half of these goods lend themselves for effective re-use. Of the total collection and re-use, textiles (8,811 tons collected) and electrical apparatus (17 485 tons collected) represent a major portion. In addition, the recycling centres did in 2009 account for 3,861 jobs (2,976 FTEs) within the social economy. This constitutes an increase of 9% versus the year before.

As of 2008, the so-called 'energy scanners' have been active within Flanders. These are the people that carry out energy scans in social workplaces and local service economy departments and introduce minor energy-saving measures. Likewise, since 2009, insulation teams have been actively at work, insulation being a field for which, in collaboration with the VDAB, new training courses were introduced. All of these activities call for intensive cooperation with external partners: the construction sector, diverse departments and services provided by the Government of Flanders, subsidized housing companies, distribution-network managers, and local administrations.

In addition to the above, there exist two structural cooperative partnerships between the policy area Environment and the policy on Social Economy within the framework of green and nature management: the MINA-workers from the cooperative partnership 'Environment

as a step to sustainable development', on the one hand, and the so-called green jobs, on the other. In both these systems, funds and resources from the environmental as well as from the social economy fields are invested with the aim of stimulating environmental and natural management amongst the local administrations (and third entities appointed for that purpose, such as regional landscape or woodland management groups). At this moment, the green enterprises from the social economy sector are employing more than 2,000 workers (FTEs).

The policy does stimulate the trendsetting role of the social economy in terms of sustainable entrepreneurship in both activities and business administration. Reinforcing cooperation with the regular enterprises, administrations, the civil society, … is an essential requisite to strengthen that trendsetting role even further in future years.

D. The development of green skills via the training programmes of the VDAB and SYNTRA Flanders

The introduction of green accents into the training programme is another important lever for reinforcing the skills of workers with a view to enabling them to engage in the jobs of the future. The Employment and Investment Plan (WIP) of the Government of Flanders assigned the VDAB the task of organizing, in partnership, training programmes for green jobs or jobs for the professions of the future. The VDAB is required to develop a long-term strategy in order to introduce the sustainability principle into the programmes. This strategy is meant to implement, within a 3-year term, both revised technical skills and generic green skills in the existing training programmes.

Because of the large and direct impact of the greening of training courses in the construction sector, a lot of attention was paid in 2010 to sustainable building and energy-saving actions. In this regards, specialized insulation courses were created. In 2011, the VDAB will continue its efforts towards creating ongoing sustainability in the construction sector on the strength of a number of concrete actions:

- The institution of a strategic 'greening' account in order to give the greening process within the VDAB, and in collaboration with third party organisation, a transversal form.

- At the end of 2010, it was decided to work out a joint approach towards the development of training courses with emphasis on achieving sustainability within the construction sector. The focus here will be placed on energy savings inside buildings: the insulating of the construction shell, the finishing of the timber skeletal framework, and achieving an airtight fit with the exterior joinery work. In order to realize this objective, a 4-point plan was agreed upon with the sector:
    - The formation of a VDAB 'task force' sector with a view to working out a joint plan of approach.
    - The VDAB building centre in Hamme will henceforth function as a green pilot station. The centre will assume responsibility for the elaboration, harmonisation, and cooperation with the sector and for the coordination with other training providers.
    - The existing training courses for energy scanners will be continued and new courses in insulation practices will be started up for job seekers during the 2nd semester of 2011.
    - Finally, new actions will be defined to be implemented within the framework of the Work and Investment Plan (2010-2011).

And, in conclusion, the account manager for the greening plan will further assume responsibility for elaborating a greening approach track with other sectors. Here, the emphasis will be placed on mapping out new skills and competency needs with a view to upgrading existing training programmes (or the introduction of new programmes). Attention will also be paid to awareness raising programmes within the sectors on the subject of sustainability.

Green accents are likewise not absent from the training course programmes offered to entrepreneurs. For instance, the Flemish Agency for Entrepreneurship Training (SYNTRA) organizes a course in airtight insulating, aside from a more theoretical module 'insulation

specialist'. In this on-the-job training programme, the trainee (contractors of rough structures and roofing /installers of insulation systems) will be taught, while working on a life-size practice model equipped with walls and roofs, how to correctly install the most common insulation materials now in use. This programme started in the spring of 2010 and was so successful that the VDAB and major construction companies have in the meantime requested a cooperative programme with SYNTRA.

E. An anticipating labour market policy: a look towards future skills

In order to provide workers with the correct skills to enter tomorrow's labour market, it is important to keep abreast of the evolutions happening within sectors and professions in terms of what skills will be required for the future. Anchoring these evolutions within a central competency and skills management system must make it possible to reflect the impact of trends, such as, for instance, the transition towards a green economy, on job skills.

During 2011, an active search will be conducted for contact points to achieve a closer approximation of the volume and the content of professions and skills that will be required in the future. Elaborating further on previous research, begin September 2010 witnessed the start of the project "Flemish Labour Market Study of the Future" (VLAMT), and this in a broad cooperation partnership (VDAB, ESF-agency Flanders, SERV, SYNTRA Flanders, and also the departments 'Education and Training' and 'Work and Social Economy' of the Government of Flanders). With that project, Flanders wants to experiment with methods for detecting and analyzing trends and their impact on professions and skills. This sort of information may subsequently be important to diverse actors in the organisation and fine-tuning of an orientation, engagement, and training programme that dovetails with the future needs of the labour market.

The partners in the VLAMT project are advancing four base components towards the full organisation and activation of a Flemish system for skills forecasting:

1) Econometric and statistical analyses whereby both the net growth in employment and the demand for substitutions will be calculated up to the professions and skills

level. In line with the already mentioned VIONA recommendations, preference has been given to a bundling of forces with external partners.

2) Analyses by means of the 'Elise' databank, which was used to facilitate the detection of demand for new, and hence green, skills, and whereby also shifts important to certain skills can be mapped out.
3) Analysis of, and improved access to, existing output on the European plane.
4) Ad hoc in-depth research, on the basis of which analyses of changes in business operating processes can be added to the earlier components, should the need for this arise.

These components constitute the basis of a systematic approach for job and skill searches. Mapping out the needs for skills is of crucial importance to be able to counsel, guide, and assist workers and job seekers during the transition towards a more sustainable labour market that happens to be in continuous flux.

F. A better harmonisation between demand and supply: the role of the VDAB as labour market director

The further development of an anticipating labour market policy is the initial step in the direction towards better harmonisation between demand and supply. As director of the labour market, the VDAB hence fulfils an important role in this area. The VDAB's integrated action plan on problematic professions takes as its prime objective to bring greater symmetry to the relationship between demand and supply. In function of the implementation of the Employment and Investment Plan, e.g., the component 'expanding the training facility capacity', an evaluation was organized at the end of 2010. This evaluation led to a number of observations that point to the need for an upgrade in the workings of the agency:

- The current training programs of the VDAB are not innovative enough and insufficiently geared towards the demand side of the labour market.

- In spite of adequate dissemination of information on the part of the VDAB, there often appears little support amongst businesses and within sectors for setting up intensive cooperation around training programmes.

The action plan for an integrated problem policy aims at a substantial improvement of the internal workings of the agency in 2011, based on prior findings. This plan comprises various complementary action points:

- Firstly, the VDAB has undertaken the task to better harmonize the training programme it offers with the needs in the labour market. At this moment, the agency is conducting a thorough evaluation of that programme. Training courses that do not lead trainees to adequate employment opportunities are to be thoroughly revamped and upgraded, or even eliminated.
- A second action point is a 'more differentiated counselling model tailored to the trainee', hence, a more intensive assistance programme by the agency. By investing more in counselling and guidance, drop-outs during the courses are bound to be reduced. Likewise, at the conclusion of the training, more time and effort will be devoted to the job activation of the trainees in the labour market. When trainees experience difficulties getting a job within a reasonable time span, this will be addressed more speedily than in the past.
- Job seekers with qualifications, or aspirations, for professions and occupations with very poor future prospects for success will be steered onto a track towards an occupation/profession with promising prospects. At the moment, the VDAB is putting the final touches to a list of professions for which our labour market offers very dubious prospects. The job seekers with qualifications or aspirations for jobs on this list will immediately be enrolled in a re-orientation programme. In an initial phase, job seekers below 25 years of age will be selected.
- The fourth action point comprises the so-called 'labour market skills'. This refers to the general skills that are not associated with any specific profession or occupation and make it difficult, or even impossible, for the workers to get a job. Examples of this are :
    - Insufficient command of the Dutch language

- Low literacy
- Incapable of working with a PC
- Non-existing skills in job application processes
- A lack of (adequate) work ethic

Attention to this category of skills will form an essential aspect within the total service package offered by the VDAB. In June, a start will be made with this new approach to this problem area.

- Expanding the employment offer represents the final essential pillar in the action plan for an integrated problem policy. More of the Flemish population must be put to work. The known labour market reserve of disadvantaged groups needs to be actively guided towards jobs and activated. But likewise the employers need to be counselled and assisted to offer these vulnerable groups real opportunities.

This action plan must lay the basis for an improved service provision during the coming decade, during which time the problematic professions and the labour shortage are to be central features. For the time being, the action plan has defined only one single objective for 2011. For this year, the VDAB aims to have 65% of all trainees employed within six months after completion of their (re)training. The agency wants to increase that percentage during the following years. Obviously, the ultimate target is to have practically all trainees at work following their (re)training.

Conclusion

Global warming, and its impact on the environment, human health and human activity, can no longer be excluded from public debate. Gradually, the realisation has dawned upon us that all human endeavour in the march to further progress must be moderated and take account of the limitations of the environment's capacity to absorb that burden, while, at the same token, the limits that our planet can safely endure must be observed.

In that context, the international community arrived at an accord to restrict the rise in world temperature to two degrees Centigrade vis-à-vis the Pre-Industrial Age. Also on the European plane, the battle against global warming has in the course of the past years grown into an important political priority. In this regard, the new Europe 2020 strategy advances concrete objectives to increasingly divorce economic growth from recourse to natural resources and energy. In Flanders, the Pact 2020 contains quantified objectives that are to lead to a more sustainable economy.

The transition towards a sustainable economy resulting from these strategies and agreements will substantially re-arrange and re-align the existing consumption and production processes, as likewise the techniques, materials, and activities associated with them. Clean technologies will emerge and advance. The energy efficiency inside households and businesses will be enhanced, together with the development of renewable energy sources. And polluting activities will be exchanged for environment-friendly substitutes in a broad sense.

In brief, we are in the vanguard of a drastic eco-mutation of the economic and industrial structure. A mutation that certainly is fraught with major challenges and risks, but that will certainly also bring with it opportunities for the economy and employment, also in Flanders. In many industrial sectors, jobs will disappear, other jobs will be replaced, and new jobs will be created in innovative, green sectors. Some professions and skills will gain in importance, while others will disappear and still others will have their content changed. The potential for the near future is especially noticeable within the construction industry and in the development of renewable energy. But likewise more traditional (and sometimes polluting)

business branches are making an effort towards the greening of their operations, which demonstrates that all sectors and jobs can, to a certain degree, contribute to ensuring greater sustainability of the economy (for instance, green chemistry).

Generally, it is accepted that the greening of the economy, certainly during the 'labour intensive' initial phase, will bring in its train significant employment opportunities. The net effect with the application and implementation of international standards concerning energy consumption and environmental concerns appears to be slightly positive, according to most studies on the subject. The development of the renewable energy sector alone may by 2020 generate some 20 million jobs worldwide. In Europe, the figure quoted is 650,000 additional jobs in that sector, given the realisation of the 20% target set in the European Energy and Climate package. And also in Flanders, a doubling of direct employment in the renewable energy sector may be expected by 2020.

The impact on professions, qualifications, and skills is, in general, better substantiated. The Flemish VIONA study 'Consequences of the climate policy for the Flemish labour market' confirms the analysis that under the influence of the creation of new sectors, materials, techniques, and regulations, a great number of jobs will change to a different definition and content. According to the study, the transition towards a green economy will mainly bring about a growing need for technically and scientifically qualified personnel. Already today, there is question of a significant shortage to fill these technical job profiles, which may conceivably act as a brake on the future development of the green sectors and activities within certain sectors (construction, renewable energy, ...).

The climate and environmental policies will likewise increase in numerous sectors the need for special training, specifically in the area of regulations (e.g., energy performance …), new products and services (e.g., wind energy, passive housing), safety (e.g., assembly of electric cars) and novel technical applications (e.g., roof tiles with voltaic cells). The needed skills do not necessarily coincide with high qualifications (the percentage of lowly schooled labour is in some sectors even above average) and they are often also 'generic' in their bias. Safety, mobility, social skills, purposefully dealing with waste, energy, and raw materials, these are

only some of the generic green skills that workers will need to possess throughout their entire career.

All of these challenges make an appeal to the responsibilities and the accountability on the part of educators and training programme instructors, sectors, businesses, public and private labour negotiators in order that the available skills may be optimally attuned to the development of the 'green' question. Interest in green professions and fields needs to be further stimulated, within the education sector and outside of it. Generic green skills and worker skills that are associated with green production technologies and processes must be further developed within the context of a partnership approach. Much attention needs to be paid to an anticipating labour market policy that will to the greatest possible degree reveal the future needs for skills and structure. At the same time, investments must be made in the ongoing (re)training and upgrading of workers, particularly within the context of organisational restructuring.

By means of the VLAMT project (Flemish Labour Market Research of the Future) and the development of a skills forecasting system, the development of Excellence Centres for skills re-enforcement in partnership, the action plan on problematic professions with a great deal of attention to inter-sectoral mobility (re-orientation), and the enhanced training capacity for green and future professions within the framework of the Flemish Employment and Investment Plan, Flemish policy has already made significant strides forward in its intention to react both pro-actively and re-actively to the greening challenge. In this process, attention is not solely devoted to the green growth sectors but rather focuses on achieving the sustainability of all economic sectors.

The challenge for the Flemish labour market policy consists in providing adequate guidance to job seekers, workers, and employers during this transition period towards a more sustainable economy, and likewise in contributing effectively to a coherent approach that transcends the policy areas involved. Only when based on decisive policy can the promise of green job creation be brought to full fruition.

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