

COUNTRY REPORT: Netherlands

INNOVATION, HRM AND NEW TECHNOLOGIES IN SME

R. Van de Winkel

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INTRODUCTION

This research is part the Innovation Management Agent project commissioned by the National Committee of Spain. The project is coordinated by Documenta. The aim of this project is to contribute to the innovation capacity of small and medium sized enterprises (SME). This contribution is arranged by specially trained innovation management advisors. In the first stage of the project the profile of such advisors is described and after that arrangements are made for an appropriate training of these kind of advisors before they start working on behalf of SME. Apart from Documenta the project is run by CEEI (France), Dimitra (Greece), WPBS (Poland) and Revalento (Netherlands).

This initial part of the project is focused on investigating the current situation in SME regarding innovation in the Netherlands, before the potential role and tasks of an innovation agent for the Netherlands can be described properly.

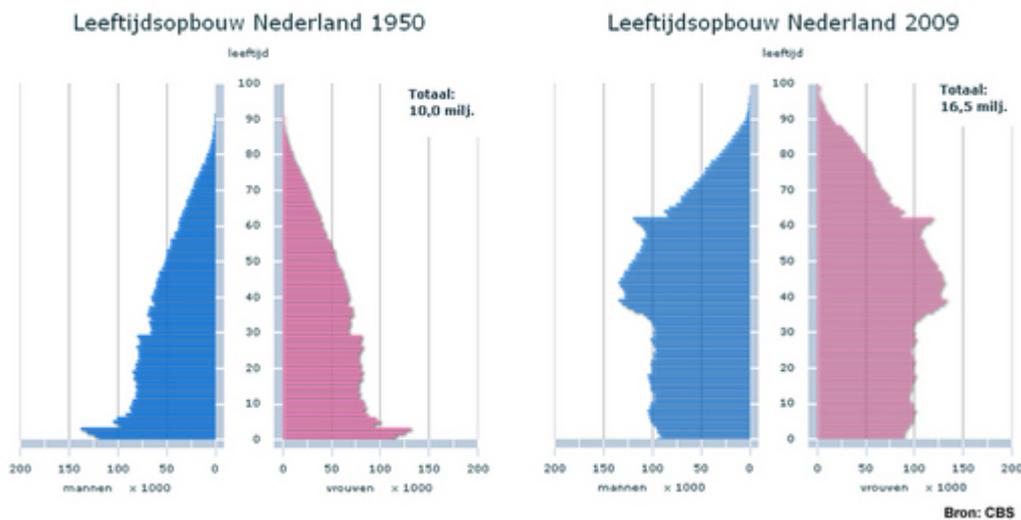
In the EU the term SME is used in to describe all business that have staff up to 250 persons. Actually this means that such a definition incorporates types of businesses that have very large differences: varying from f.e. small bakeries up to high tech businesses operating international. Thus the definition covers micro organizations that have a staff of up to 5 or 10 people as well as relatively big organizations that have the opportunity to have staff that is (highly) specialized in certain areas. Evidently this span of horizon will influence the way these types of organizations think about and deal with innovation. In this study SME will be defined as businesses with staff up to 100 since this is the national criteria that is used in most statistics (see: Kennissite MKB en Ondernemerschap, 2011). Whenever possible a split is made into micro SME with staff up to 10, SME with staff from 10 up to 100, and big businesses (>100). If statistics used apply to a different classification it will be indicated.

General Context:

Brief description of the country and region (size, population, socio economic structure, etc)

The Netherlands has a population of over 16,5 million people. Up to 2040 the population will still grow to app 17,5 million. After 2040 the population will gradually decline. During that period the % of native will gradually decrease and the percentage of immigrant will instead increase to almost 30% of the total population in 2050. This percentage of immigrants consists roughly of 40% of western immigrants (many from European countries) and 60% from non western countries (CBS, February 2011).

In the following diagram the Dutch population is presented in different age categories in the year 1960 and 2009.



An increasing amount of the population is considered to become inactive (>65) and thus will ask for appropriate policy to address their needs as well as their claims on the society. The peak of this development will be around 2038.

The Dutch economy has passed a period of recession. The CBS statistics on unemployment reflect the way the economic activities are recovering from this latest recession. At the end of 2010 the actual rate was 4,3%, well below the average in the Eurozone of 10%. Also youth unemployment being 8,2% is considered to be the lowest percentage in the Eurozone (Statline, CRB, Heerlen 2011).

The next table shows an overview of the development of labour participation of the population.

Period:	Population n x 1.000 (15- 64)	Labour participation as a % of population:	
		Men	Women
2001	10.728	78,4	54,4
2005	10.940	78,0	58,1
2010	11.017	78,4	63,4

Source: Statline, CBS, Heerlen 2011

Most of the women that are working do have however part time jobs (70% having jobs for 12 to 32 hours a week). This is one of the highest percentage in Europe. Labour participation of women has gradually been increasing during the last decade especially in the age group of 25-34 and 35-44 to reach a level of 79% for both age groups in 2009 (source: Statline, CBS, 2011) being comparable with the figures for men. A further increase in labour participation of women toward more full time employment is not easily expected. The position and value of part time work reflects a modern choice pattern (a career being less important) as well as a rather luxurious position: a full time job and related career is not the ultimate dream nor is it a necessity for many anymore.

In the next scheme an overview is presented of participation in higher education of men and women as well as the development of these figures during the two decades.

			Higher professional education			University		
			Total men and women	Men	Women	Total men and women	Men	Women
	Grand Total Men	Grand Total Women	Total men and women	Men	Women	Total men and women	Men	Women
College year:								
1990 - 1991	232.317	190.646	242.656	128.708	113.948	181.982	104.503	77.479
1995 - 1996	232.575	213.288	270.565	137.823	132.742	177.746	96.075	81.671
2000 - 2001	234.817	241.886	312.698	149.819	162.879	166.299	86.177	80.122
2005 - 2006	272.879	287.469	356.842	170.842	186.000	205.886	103.170	102.716

2009 - 2010	304.926	329.088	403.087	192.144	210.943	233.254	113.751	119.503

(Source: Statline, CBS, 2011: Registered students at UAS and University)

From the above it can be concluded that during the last two decades the numbers of participation in UAS and University have been increased by almost 50%. The participation numbers of women have increased even more rapidly by 72% compared to the figures of 1990. Within a period of ten years time women have gained an equal participation level in higher education. From 2000 onward the participation level of women in higher education has surpassed the participation level of men.

To complete the general social economic description an overview is presented of the way jobs are divided over the different economic sectors throughout the last 15 years.

Sector:	Jobs in:	1995 (x1000)	2000 (x1000)	2005 (x1000)	2009 (x1000)
Agriculture etc.		83	102	97	112
Industry		914	966	844	813
Construction		344	406	372	364
Transport and communications		376	451	424	430
Trade		965	1.195	1.152	1.262
Health and Care		761	911	1.116	1.279
Environmental, culture, media and other services		378	517	532	640
Education		379	424	469	511
Government and public services		482	520	525	545
Business services including financials		996	1.380	1.443	1.830
Total (app)		5.677	6.870	6.975	7.788

(Source: Statline, CBS, Heerlen, February 2011)

In almost all areas (with the exemption of the sectors of Construction and Industry) the amount of staff that is employed is picking up again after a period of recession.

The biggest sectors are Business services closely followed by Trade both together offering app 40% of all jobs. The above trends appear to be continued in also 2010.

Before focusing on SME in comparison to large businesses an overview is presented of the Dutch business sectors and their employment share. These figures are compared to similar statistics of the province of Noord Brabant.

Sector:	Industry	Trade	Transport and comm..	Services	Business services	Other:	total
Netherlands	20,7%	16,1%	6,3%	20,5%	20,6%	15,7%	100%
Noord Brabant	26,9%	17,0%	5,2%	18,4%	18,4%	14,0%	100%

(source, EIM Regionale Kerncijfers, 2008)

In terms of employment sectors the province of Noord Brabant is somewhat different from the Netherlands due to a more profound role of Industry.

Brief description of main characteristics of SMEs and their investment in innovation and new technologies in the country and region (number of SMEs, number of micro enterprises, evolution of those numbers in the last years –creation or not of enterprises-, investment on innovation by sector, new technologies more commonly used in SMEs and rate of use if possible, etc...)

About 99% of all businesses in the Netherlands have less then 250 employees. In 2008 these businesses constitute almost half of all jobs in the Netherlands. In the past SME has been called the job engine of our economy. However in 2009 this has changed, since the SME was effected more by the recession then other organizations. At the end of 2010 this picture is the same: the growth (+0,25% turnover) in SME has been less then it has in the big companies (+2,75% turnover. Source: EIM, Zoetermeer, 2011).

In the next overview a comparison is made between the employment that is offered by different sizes of businesses.

	Micro SME (<10)	SME (10 – 100)	Big Enterprises (100>)	Total
Netherlands	27,2%	22,7%	50,1%	100%
Noord Brabant	27,6%	23,7%	48,7%	100%

(source: Lisa & EIM, Kerncijfers MKB, 2008)

Regional differences for the province of Noord Brabant tend to be marginal in this respect.

Regarding the dynamics of SME now data are presented regarding business start ups as well as start ups of business as being self employed. Since this dynamic varies between different sectors of the business this overview is more detailed (only the commercial sector is presented, without government, health and care, rental and immobility market).

Sector:	Amount of business starts			
	2003	2005	2008	2009
Industry	1.882	2.524	2.765	2.540
Construction	5.780	10.633	16.071	16.563
Trade	9.793	12.316	10983	9.277
Hotel, restaurant, cafe	1.897	2.271	2.242	1.939
Car, car services	917	1.198	1.439	1.302
Transport	1.774	2.270	2.735	2.537
Financials	533	521	412	334
Cleaning	797	1.012	1.279	1.588
Business services	11.533	14.802	22.699	23.570
Law and admin services	848	1.194	1.758	1.579
Architect, engineer	1.205	1.480	2.207	2.276
ICT	2.155	3.057	3.699	3.666
Marketing	1.299	1.426	1.803	1.669
Other business services	6.026	7.645	13.232	14.381
Other commercial services	4.751	6.537	9.574	9.798

(Source: Kennissite MKB en Ondernemerschap, 2011)

At the onset of recession the business start-ups have dropped most in the following sectors: Trade, Hotels etc, Cars and marketing. A couple of sectors however have gained increase in business start ups: Construction (being most heavily infected by the recession), Cleaning, Business services and other services. One of the explanations given is that in some areas former employees who lost their job re-entered the labour market as being self employed.

This explanation is supported by the statistics on numbers of self employed:

Years:	2007	2008	2009	2010	2011
Number of starters	101.800	107.400	104.900	110.000	115.000

Development of business starters as Self Employed

(Source: RABObank, *Cijfers and Trends*, November 2010)

Currently over 400.000 people work in this way. People who start their business as being self employed usually work in the different service sectors as well as in construction and health and care.

National expenditure on R&D (a focussed perspective on innovation)

The general view is that R&D activities form one of the major sources for innovation of products as well as process. In the next table an historical overview is presented of the expenditure of the Netherlands on R&D activities.

% on RD expenditure of gross domestic expenditure	2000	2005	2008	2009
Netherlands	1,82	1,90	1,76	1,84
EU 16	1,86	1,83	1,92	2,01
EU 27	1,84	1,84	1,96	2,05
US	2,69	2,56	2,77	

(Source: Statline, CBS, 2011)

Currently Dutch expenditures on R&D seems to stay behind in comparison with EU expenditures. However if one takes patents as an objective measure for product or process innovation the gap in R&D does not currently effect the Dutch position in the amount of patents that are acquired. In the EU only Sweden, Finland and Germany score a higher amount of patents (Source: Ministry of Education and Culture, 2011).

Most of the Dutch patents (70%) are acquired by top ten international operating business as well as Universities (Source: drs R. Van de Poel, drs M. Seip, drs J. Snoei, EIM, 2010, page 10). Micro SME achieve 15%. More illustrative is that of all big companies 18% has applied for a patent in 2009, as for SME this is only 1%. Looking at it from a regional perspective: more than 50% of all patents stem from one region: Brain Port Eindhoven in the province of Noord Brabant.

R&D and patents is just one way of looking at innovations: world wide operating businesses with (unique) new products. This perspective is one of the strategies the

Dutch Government chooses regarding when defining Key competitive business sectors their policy tries to stimulate: High Tech Systems, Flower and Food, Water, Chemistry and Creative Industry.

Innovation in a broader perspective

The second governmental strategy addresses the general competitiveness of businesses and their contributions to the knowledge society as well as sustainable development of the economy. This strategy puts innovation in a different and much broader perspective. A business is called innovative when it has renewed (some) of its processes or products in a certain time span (Source: "Innovatie als motor van de economie", AC van Wijk, CBS, 2010). Based on this broader definition of innovation in 2008 some 25% of all Dutch business qualify for being innovative (varying from product innovation to social innovation). Of all regions the province of Noord Brabant has the highest score.

More recent research in SME has generated a general overview of type of innovation in SME. The results are presented in the next overview.

In 2009:	SME <10	SME 10 - 99	SME Total
% businesses with new products or services during last 3 years	27%	45%	30%
% businesses that have improved internal business processes during last 3 years	39%	65%	44%
% businesses with use of external network for knowledge exchange	38%	59%	42%
% businesses that cooperate with businesses or knowledge institutes	26%	44%	29%
% businesses with specialized innovation staff	27%	52%	32%
% businesses with active R&D	21%	34%	23%

(Source: Kennissite MKB en Ondernemerschap, EIM, 2011)

A general conclusion from this research is that almost 50% of all SME with staff between 10 and 99 is involved in one or more ways in innovation during the last three years. For micro businesses this percentage is well over 30%. Noticeable is that much of these type of innovation is related to the domain of Social Innovation.

PART 1: INNOVATION AND HUMAN RESOURCES

INTRODUCTION: THE CONCEPT OF INNOVATION AND ITS FUNCTION IN BUSINESS DEVELOPMENT.

A short sketch of the innovation discussion in the Netherlands will be presented to illustrate the different definitions of innovation as well as the impact of the actions based on these definitions.

In 2000 in Lisbon the European Commission has stated the ambition to develop the European Union to the most competitive and dynamic knowledge economy of the world within a period of ten years. An economy that is able to offer sustainable growth, with better jobs and more social cohesion. As a consequence of this ambition in the EU there was agreement that the budget for Research and Development should be doubled in the year 2010. In line with the EU ambition the Dutch government targets at establishing a top position for the Dutch economy within Europe. During 2002 there was a growing awareness to put word into action. Universities and colleges as well as the Association of Dutch Universities for Professional Education (HBO-raad), the Association of Universities in The Netherlands (VSNU), Research institutes like NWO, TNO, KNAW, employer organisations like VNO-NCW, MKB-Nederland (SME), FME-CWM, the labour unions, several advisory bodies of the government like SER, and a public body like Stichting Nederland Kennisland all opted for more national coordination. As a model for this coordination one referred to the Finnish model. There the Science and Technology Policy Council (STPC) was established constituting of partners from government, employers, research and Universities. The STPC was seen by many as the decisive factor in Finland's success during the last 15 years.

In the mid of 2003 the Innovation Platform was formed modelled after its example in Finland. The Platform constitutes of 18 members representing the government, several universities and their representative bodies, employers (like Philips, Shell, Schiphol) and advisory bodies. In this the Platform is a perfect example of the work of the Dutch Polder model: before the start of any actual change a broad support for development is created by consulting, sharing and involving players from all layers of the society.

THE INNOVATION PLATFORM

The mission of the Innovation Platform is to strengthen the Dutch innovation power and to bring the country back in a leading position within the European knowledge economy. At that moment (2002) it was perceived that in the Netherlands human as

well as economic potential were not used to its full scale. Therefore contributions are needed to make better use of this potential. For this policy and plans will cover a vast area of issues: ranging from improvement of collaboration between knowledge institutes and businesses, improving the educational system, improvements on the climate for businesses, improving the innovative power of the public domain, making the Netherlands more attractive for foreign talent etc.

These targets are seen as ambitious and hardly achievable only by the Platform itself. Therefore the Platform focusses on direction and creating conditions for change, thus allowing others to move ahead. This seemingly ideal approach and situation gradually has met some firm criticism during the period the Platform has actually been operating up till now (2011).

COMMENT ON THE APPROACH OF THE PLATFORM

From different sides the strategy, focus and actual output of the Innovation Platform as well as the innovation debate itself have been commented. Soete¹ (2002) has pointed out that the innovation debate has concentrated on macro-variables related to technology: for example the investment in R&D, low percentages of scientists and engineers that are available and patent delivery. In this orientation it has been unclear f.e. whether this lack of R&D investment is a consequence of a new orientation within Europe on R&D in which existing R&D is rationalised in a strive for efficiency of large multinational R&D intensive companies. Likewise if such a process takes place no attention has been paid to the consequences of this for the Netherlands (see also previous discussion on patents).

Also the debate as well as the Platform initiatives have a strong focus on technological innovations and on selecting those promising technologies for the future (innovation becomes a synonym for new unique products). A central thought is still that a small country will only be able to focus adequately and efficiently on a few core technologies and their applications (nano technology, biotechnology, glass fibre network for communications etc). Apart from that it has been pointed out also that the content of innovations discussions have been coloured by the partners that have participated. Thus the innovation debate was only covering ground for the big companies (>95% of

¹ Soete, L., *Innovation Lecture 2002, Ministry of Economic Affairs*

companies is SME). The debate is in danger of losing its relevance for the SME. Also Volberda² (2004) signals that there has been a strong tendency to focus on technological innovation only, and to ignore other areas like f.e. administrative innovation. In his Innovation Lecture he points out that the managerial and organisational capacities to recognize relevant knowledge, assimilate it effectively and apply it to reach its own ends are largely ignored. To his opinion a stronger focus on management and organization determinants to absorb knowledge is required. For innovation as a continuous process a fertile ground is needed first (See also Nonaka, I and Takeuchi, H.: The knowledge creating company, 1995). This requires more attention for the process (of knowledge adoption and learning) itself.

Thus in their criticism a link is forged with a policy that has been set out in a much older National Programme called Lifelong Learning (continuous upgrade of professionals and thus linking to HRD) as well as a broader view and definition of innovations: To continuously improve products, staff as well as organizational processes to stay competitive. To be able to evaluate and thus improve business as a basic attitude of all businesses. To be able to achieve sustainable growth. Gradually this vision on innovation has gained more attention especially under the heading of Social Innovation.

The two sides of the debate that has been sketched in the above is still visible in the different policy as well as the actions of different stakeholders (see below). Lately the focus is shifting strongly toward attention for Social Innovation. Social Innovation (working smarter, managing more dynamic, informal leadership, building on trust, organising more flexible) is growing since it evidently generates better conditions for sustainable growth and competitiveness as well as (in the end) product innovation. It is more valued than investing solely in R&D (Volberda, H W, van den Bosch, FAJ, Jansen, JJP, "Slim managen en innovatief organiseren, Erasmus Universiteit Rotterdam, 2006).

INNOVATION IN THE ENTERPRISES

System of innovation. Actors and relationships among them.

I. Ministry of Economic Affairs, Agriculture and Innovation

² Volberda, prof dr. H.W. and van den Bosch, prof dr. Ing F.A.J.: *Rethinking the Dutch Innovation agenda, Innovation lecture 2004, Ministry of Economic Affairs*

Since the last elections (2010) the former Ministry of Economic Affairs has been changed into this new name. By incorporating Innovation the new government stresses the importance of this issue in their policy.

From 2004 onward the Ministry of Economic Affairs, Agriculture and Innovation has highlighted the following three areas: Rules and regulations, Entrepreneurship and Innovation and sustainability. Lately in 2010 a new theme has been added to this agenda: sustainable energy supply. This last theme will not be addressed since it has no specific link with SME. Currently the actual policy is characterised by severe budget restrictions giving less room for an active government policy. The consequence of this is that theme of innovation is again restricted mainly to the level of the high tech key areas as well as related product innovation, and to the initiatives of businesses themselves.

Each of the areas will be described in short and illustrated with example actions (source: Policy agendas 2004, 2010, Ministry of Economic Affairs, Agriculture and Innovation, Den Haag, 2011).

1. Rules and regulations

The ministry aims to decrease the amount of regulations for businesses. The total amount of regulations will be reduced by 25% and administrative burden and regulations will be simplified and decreased. This line of policy started in 2002 and is still continued. The aimed 25% reduction has still not been achieved.

2. Entrepreneurship

- ✓ Actions have been formulated to stimulate Dutch entrepreneurship. Specific actions for starters, international entrepreneurship, elimination of financial barriers, actions stimulating women entrepreneurship and the entrepreneurship of elder people and people from ethnic minorities, entrepreneurship in the care sector, development of key sectors, development of knowledge networks and networks between knowledge institutes and businesses. Examples are:
- ✓ Improve climate for technology starters: The program Technopartner was started in 2004 and will stimulate the knowledge exploitation by knowledge

institutes and improve the capital market for technology starters. This program is linked with the Ministry of Education.

- ✓ Small Business Innovation and Research arrangements: this arrangement covers three areas: feasibility, development of a prototype and commercialisation. The arrangement tries to stimulate research and development in small businesses. The development of this arrangement occurs in participation with the Ministry of Education.
- ✓ Entrepreneurship projects at all levels of education to stimulate the relevant competence development as well as entrepreneurship as a tangible career option (budget recently closed).
- ✓ Development of professional competences of future teachers with entrepreneurship competences (budget recently closed).
- ✓ Deltaplan Betatechniek: targeting at an increase of 15% in Beta and Technology graduates by 2010 (still running).
- ✓ Introduction of Innovation vouchers and Innovation performance contracts for SME as a way to combine funding and outcome. This action has a close link with the above mentioned Small business Innovation and Research Arrangement.
- ✓ Creation of a healthy establishment climate for enterprises (links with rules and regulations).

3. **Innovation, sustainability and the global Dutch business position** (in a strict definition of innovation!)

- ✓ Stimulation of specific areas in which country already excels: High Tech Systems, Flower and Food, Water, Chemistry and Creative Industry (an average of 45 M Euro for 4 years up to 2014). Specific funding for areas that are of importance to society.
- ✓ Improvement of Innovation climate by: fiscal support for search and development activities for businesses; R-D partnerships between knowledge institutes and SME (link with vouchers); joint actions plan of Ministry of Economic affairs, Education and Social Affairs and Employment to address future shortages as well as decrease thresholds for attracting knowledge workers from abroad.
- ✓ More business that innovate by: technopartners (see above); knowledge transfer: specific attention to those SME's that want to innovate and use of

expertise that is already available; focussed recruitment of knowledge intensive businesses from abroad;

- ✓ Better use of innovation opportunities by creation of innovation campuses and test plots for innovation (technology TOP institutes: a collaboration between universities, UAS (and other professional education) and businesses like they exist in Brain Port Eindhoven in the province of Noord Brabant), as well as innovation oriented research programs.

The above agenda covers the period up to 2020. At national level the governments' responsibility is to facilitate this agenda. At regional level Provinces and local authorities have the responsibility to integrate this in their economic, educational and labour market policy. At that level issues like sustainability and other areas of innovations (social innovation f.e.) are being highlighted again. To do this a strategic dialogue and structural collaboration is organized in 30 areas covering the Netherlands. (organized in so called "Regional Platforms Labour Market Policy" in which are involved at a board level the following stakeholders: businesses, employer and employee representatives, educational institutes and universities, local authority, Provinces, Labour Offices). The second major instrument is the creation of arrangements between education and businesses on all sorts of areas (research, training, professional education etc).

//. Some examples at Regional level: working in arrangements

The direct effect of the two above mentioned national instruments can be seen at regional level f.e. in West Brabant and in Zuid Oost Brabant (Brain Port Eindhoven), both being a part of the Province of Noord Brabant.

1. Innovatie Actie Plan West Brabant (IAP, innovation action plan West Brabant) 2009-2011:

The IAP is a regional cooperation initiative. In this initiative regional authorities, businesses, education and organisations like the Chambers of Commerce have joined forces to enhance the innovation capacity of the region. Innovation is defined in a very broad sense covering product and process innovation, marketing, social innovation as well as sustainability. The purpose for this alliance is the contribution to sustainable

development of the region, labour market development as well as sustainable competitiveness. The IAP is also an example of the way arrangements between education and businesses have taken shape regionally.

The targets of IAP are: promotion of the relevance of innovation, Increase of amount of innovative businesses, active participation on businesses in knowledge circles, increase in the amount of innovative business start ups and the development of regional development themes. National funding as well as funding options of the Provinces are both linked to the targets of the IAP. Many of the actions this IAP covers relate strongly to the area of Social Innovation.

Example actions are (source: www.innovatieplan.nl, 2011):

Regarding Start ups: "Micro credits" (€35.000) for business, "Starterslift" supporting entrepreneurs in technology, creative industry as well as biobased economy, "Starters Passport" supporting entrepreneurs with consultancy and expertise, "Stratos" supporting entrepreneurs with knowledge by organizing mutual exchange between entrepreneurs, and "West TOP" supporting the expanding innovative entrepreneurs.

Regarding Advise: "Adviesregeling OP Zuid": funding mechanism focussing the stimulations of innovation in SME regarding product, process as well as market to enhance competitiveness, sustainable economic growth and the development of the regional labour market, "AVANS Centre for International Business" an advise body creating sustainable cooperation between employers and knowledge institutes regarding international entrepreneurship, "AVANS Centre for Excellence for Entrepreneurs", a similar kind of advise body for all entrepreneurs questions and research activities, "Bedrijfsgerichte Regeling Sociale Innovaties" funding for SME regarding social innovation, "Innovation Vouchers" giving entrepreneurs the opportunity to get answers on questions regarding their product, processes or services, "CREABRAINS" offering free support from UAS and Universities to entrepreneurs regarding financial management, "Brabant Financial Matching" offering funding for business proposals in combination with guidance and coaching regarding the development of underlying business plans.

Regarding Awakening of innovation: "Actieplan Groei" supporting, coaching and advising entrepreneurs on all issues of business development and the problems they encounter (in collaboration with Syntens, now covering >3000 entrepreneurs in the region), DE

ToekomstBedrijven supporting entrepreneurs in the development of their business plans and ways to realise them (a joint project of Syntens and regional Chambers of Commerce covering >2000 businesses in the region), "MKB Design" stimulating entrepreneurs in the use of design as a way to increase innovation as well as profitability (in collaboration with Syntens), workshop and seminars on sustainable development and innovation providing information, support as well as funding opportunities. Also the IAP has generated fund for "Innovation Officers" in the period of 2008 to 2013, funding staff that has the specific task to look for business improvement and innovation and to manage the implementation of desired innovations (project run in cooperation with Syntens).

Regarding Knowledge circles and knowledge clusters: creation of "Expertise Centres like Bio Economics, Care, Logistics and Maintenance" supporting exchange as well as professional education, "Innovatie Prestatiecontracten" (innovation performance contracts) supporting long term innovation plans with funding as well as knowledge and support, "STRATOS" organizing mutual support between entrepreneurs themselves.

Regarding Regional Themes: "Biobased" supporting entrepreneurship in bio based economy (as a new sustainable market), "DINALOG" supporting entrepreneurs in logistics with new knowledge, the creation of "Expertise centres" and work groups developing action plans for Regional Investment programs, "Work shops and work programs" for entrepreneurs on sustainability and innovation, social innovation.

2. Brain Port Eindhoven

The second example is Brain Port Eindhoven currently appointed as worlds' number 6 area in terms of skills level. It has number one position in the Netherlands regarding Top Technology and Knowledge industry. It is the only area in the Netherlands that has met the Barcelona Norm regarding R&D (currently 8%) where as the rest of the Netherlands only realises 1.8% of BNP. Brain Port has businesses the Key areas that are on the agenda of Dutch policy, the Innovation Platform as well as Provincial Authorities: Mecatronics, Automotive, ICT, Life Sciences, Bio Technology, Medics, Design, Creative industry and Food processing. It covers not only big enterprises (like Philips, ASML) but also many SME. Over 50% of all Dutch patents are coming from this

area. Its contribution to the Dutch Economy has been € 25 Billion in 2008 (Source: Brainport.nl, 2011). Activities are always linked with the EU Navigator program covering the domains of People, Technologies, Business and Basics.

Its' focus is to sustain and further develop its top position by:

1. Further enhancing arrangements between trade and industry, knowledge institutes (universities, higher professional education as well as vocational education) and authorities. (Partnerships in so called TRIPLE HELIX arrangements. The three different stakeholders are all united in the Brainport Foundation and have created an executive organisation for realising their ambitions, built partnerships and raise funding). High Tech Campus Eindhoven and High Tech Automotive Campus Helmond are examples of centres of excellence in which more than 100 companies (96% SME) and over 8000 researchers work together with Universities.
2. Continue to further enhance private research and increase public R&D funding (result of the TRIPLE HELIX cooperation, and now already by far the highest in the Netherlands).
3. Increase critical mass of knowledge infrastructure by cooperating and collaboration with other regions
4. Further increase knowledge transfer and exchange of SME.
5. Increase the attractiveness of the region for (international) knowledge workers (culture, education, working and living).

Some of the activities:

- ✓ "Brainport Groeiwijzer" giving entrepreneurs support and advise on all business themes;
- ✓ "MKB Financieringsgids" giving information and free personal advise on funding and financial opportunities (See also next activity, thus combining national regional, private resources and risk capital);
- ✓ "MKB Dienstverlening" a regional organized support structure with advisors offering free advice and support on starts, covering all business areas and research, financial opportunities, attracting knowledge workers, attracting foreign businesses, improving business climate (also link with reduction of

administrative burden and rules), organisation of business incubators in all key areas of the region; active (international marketing and promotion of key areas, businesses and region; development of business accommodation and advise on use of locations to entrepreneurs as well as local authorities.

- ✓ "Communications" organizing combined promotion and marketing strategies and monitoring of its effects. A portal in which all participating partners (TRIPLE HELIX) are promoted is one of the means that are used.
- ✓ "Projects and programma's" organizing joint projects the market is asking for. TOA is one of them, addressing the need for more Beta students at all levels (level 4 up to 8). This can only be dealt with effectively in an integral approach: combining HRD development in business arranging for proper and attractive career paths by Life Long Learning, creating new jobs at the bottom of the business for new work force, promotion of technology to learners even in primary education, and enhancement of the quality of professional and up to date level of education.

Currently Brainport is running 30 projects all based on the above sketched integral approach as well as the cowork of the different stakeholders.

III. SME

Regarding innovation EIM has done research in 2003 (Innovatie in het MKB, EIM, 2003) on the main problems SME have with innovation. The research focussed on three aspects: input (R&D, capital, knowledge), throughput (combining knowledge and capital in an effective way bringing innovation to the domain of business processes) and output (the innovation). All three need to be taken care of properly to make innovation effective. Research has indicated that up to 30% of all successful innovation can be attributed to non technological factors. (Effectief innoveren, J.P.J. de Jong, Y.M. Prince, EIM, Zoetermeer 2003). Some of these factors are: strategy and vision, organization and management, culture and organizational learning, development, manpower, design and marketing. This means that for innovation one needs to take into account these non technological factors. Stimulating SME to improve on innovation essentially means the same (Investeren in Innovatie, Kenniscentrum D66, 2004). This brings innovation strongly back to the domain of Social Innovation as a starting point

for all other innovation. In the following some of the structures are described that put these research outcomes into practice.

One of the best examples of the way Dutch employers themselves organize knowledge on business development and innovation and the use and transfer of that knowledge is the SME association "Syntens". Syntens and its advisors participate in almost all arrangements of the type that have been sketched above. More over Syntens has been appointed by the Ministry of Economic Affairs, Agriculture and Innovation as the organisation that is responsible to contribute to the development of opportunities of SME to improve and innovate (innovate on in a broader definition: they focus on business improvement). Their services are often free of charge.

Regarding innovation they have 270 innovation advisors that support SME. They offer business analyses and reflection and advise on ways to improve business within realistic limits. Their recognisability for businesses is great since all their advisors have extensive business back ground and are specialized in specific business areas. They are considered highly valuable sparring partners (Source: www.Syntens.nl, 2011) at local as well as national level.

Specific for innovation and HRD (apart from their involvement in regional arrangements and national policy) is MKB Krachtcentrale. This project aims at "Working in a Smarter Way", increasing productivity by making a better use of the talent of the staff of the business. Specialist Syntens advisors again give free advice to businesses on subjects like:

- Employee participation
- New forms of leadership in relation to innovation
- New forms of working (time and place independent) with new performance criteria
- Self scheduling of work
- Talent development and talent use
- Redesign of processes, looking for efficiency
- Rearranging responsibilities
- Team work
- Innovation from the work floor
- Good practises as example and inspiration

A third development is the project “De ToekomstBedrijven” (FutureBusiness) which started in 2008. The project aims to familiarise SME with all support that is available for innovation (again in a very broad perspective). In a direct person to person meeting with businessmen their development plans and options are discussed. Free advice is given as to how to realize these plans and how to make best use of options available (finances, knowledge etc). Only in the South of the Netherlands over 1400 businesses have been reached since the start of the project. Topics over interest have proven to be: going international, entering new markets, re-entering the market with an improved product, from idea to business, benefitting from likely trends and developments in a region, business transfer and sale (www.detoekomstbedrijven.nl, Syntens 2011).

Remarkable is that most of the activities of Syntens cover or have strong links with Social Innovation.

IV. AWWN and VNO NCW

Algemene WerkgeversVerening Nederland (General Dutch Employer Organization) is an employer organization for big businesses (app. 100 plus) covering a total of 2 million employees. AWWN is operational in the whole field of employership, employment conditions and employment relationships. It is actively involved in over 500 labour agreements. Some of its services are based on the membership and are for free. For others (tailor made advice) members pay for its services. Regarding innovation one of its key contributions is the promotion of social innovation.

Since 2005 AWWN advises its member on social innovation. Which innovative measures are apt for an organization, how to come from an innovative idea to a more concrete action plan, how do one involve its staff in such innovations etc? Five areas deserve special interest:

- Organization of work
- Labour relations
- Labour participation
- Health management
- Knowledge and employability

Similar like Syntens the advisors of AAVN have a extensive business back ground and are specialized in certain areas. Thus they have a high recognisability of their added value.

Each year AAVN selects business for their Innovation Award. This price is awarded to businesses that are exemplary regarding Social Innovation and the creation of support for this within the business.

Also the AAVN has contributed to the forming of a broad association that specifically addresses Social Innovation: het Nederlands Centrum voor Sociale Innovatie (source see www.ncsi.nl). This centre accumulates knowledge and disseminates the knowledge and support active initiatives on social Innovation. The centre is an association of employer organisations AAVN and FME, CWM, employee organizations FNV and CNV, and knowledge institutes like UvA, Rotterdam School of Management and TNO. The association itself is an example of creating a big and broad support according to Dutch Polder principles.

VNO NCW not further specified since they mainly represent big companies.

V. Branche organizations of SME (all sector specific)

Over 40 different branche organization (construction, trade, cooling and heating, butchers trade, transport, inland navigation etc) offer support to SME regarding staff development, education and professional training. They offer training regarding specific innovations and trends in their branche (ranging from specific technologies and professional skills to management, business processes, sustainability etc), contribute to curriculum development of professional education, promote Life Long Learning, promote collaboration with vocational education and knowledge institutes etc. They support the promotion of innovation again in a broad sense of the word: technological as well as the business processes, the amount of knowledge workers, the professional level of staff. To achieve this most of them have:

- Web presentation
- Training catalogues
- Information and advice on finances
- Seminars, workshops and meetings on innovation trends and business processes

- Business advisors
- Models for partnership with vocational education
- Active policy for work placements for vocational education

Their recognisability is high since their focus and expertise is related each time to the specific branche. Most of them have a membership construction but in most cases this membership is obligatory.

VI. Chambers of Commerce

The Netherlands Chamber of Commerce manages the trade register. The Chamber's other tasks are to provide Dutch entrepreneurs with information, stimulate regional trade & industry and advise local and regional government.

The first main task of the Chamber of Commerce is to implement economic legislation, including the Trade Register Act. These laws have been introduced to enable businesses to benefit from reliable information recorded by an impartial organisation. Certain sectors of industry must satisfy special licensing requirements in terms of safety, public health and the environment. This knowledge is also past on via the Chambers.

Second main task is the promotion of trade and business itself nationally and internationally. In their services they combine sector and product knowledge with network, finances and funding.

Thirdly the Chambers have a task in development of the business climate in a region in a more broad sense. Thus they advice regional authorities on partnerships between vocational education and business, staffing, recruitment and knowledge workers. In this role they participate in the regional Platforms Education and Labour and contribute to the promotion of innovation in a broader perspective.

To achieve all this the Chambers organise:

- seminars, workshops etc on trade and business issues;
- seminars and workshops on important regional and national themes like sustainability, and regional development, social entrepreneurship etc.
- exchange meetings between businesses (knowledge circles);

- advisors that give support and advise for businesses regarding start up, product development, recruitment, funding and finances (much free of charge);
- advice in regional projects and partner role in regional arrangements (like for example in Brainport or IAP).

VII. Universities (Dutch including those that work together in the EU partnership of LERU)

In the above the role of Universities is already sketched when describing their role in creating Centres of Excellence, the forming of innovative arrangements with businesses and the attraction and training of knowledge workers. At the source of their role in innovation lie frontier research and knowledge workers, both of which are the hallmark products of universities. LERU (League of European Research Universities) has formulated five attention areas on which their policy is based (addressing the issue of innovation first in its small definition addressing frontier research only, but extending it when relating it to mobility of knowledge workers, research being also based on market needs, career options and the creation of proper and attractive living climate, the focus on solving more global issues, see again Brain Port as example):

1. Stimulate excellence: by stimulating (EU wide competition) for funding frontier research. It also requires autonomy for universities to build on their strengths and enact good governance. On national level this is done by stimulating research in the Dutch key areas in combination with Centres for Excellence and the forming of arrangements.
2. Attract the best talents of each generation to a research career and nurture them: this includes training PhD candidates with expert skills that are highly valued both within and outside academia, and by providing well-designed, well-funded and well-supported research jobs embedded in transparent career structures (role for partnership with businesses).
3. Create a barrier-free space for European researchers, by opening up national research systems to foreign researchers and by removing obstacles to researchers' mobility.
4. Develop major, state-of-the-art research infrastructures that even countries are unable to afford individually, ensure access for the best researchers wherever

they come from, and ensure they are expertly managed (create Centres of Excellence).

5. Orchestrate collaboration in globally significant research programmes to address some of the world's biggest societal challenges by pooling national research efforts in an efficient, flexible and transparent manner (putting innovation in the context of social responsibility). (Source: see [www. University of Utrecht](http://www.universityofutrecht.nl), 2011).

The Universities of Eindhoven and Tilburg in the region of Noord Brabant are among 3 other Universities facilitated with €25 million Euros to adapt research to the needs of the society and for commercial interest. While research-intensive universities in particular play an important role in the innovation chain, they do not operate in isolation but are an intrinsic part of a larger innovation "ecosystem". In Brain Port region this additional funding is also used to match it with private R&D funding. The Brain Port is also a good example of demonstrating the relevance of such an ecosystem.

Many UAS (Fontys in the region of Noord Brabant (Source: see www.fontys.nl)) offer "laboratories" in which business, experts, teachers and students meet each other and jointly work on answering business questions and sharing knowledge. Questions range from market research to product development and design. Many of these initiatives are supported by the RAAK regeling, a matching program run by the Ministry of Education.

Joint structures like United Brains in Noord Brabant that target those SME that want to renew their products. United Brains is a joint knowledge portal of TU Eindhoven, UAS Fontys, TNO, and ROC Eindhoven (vocational education). Entrepreneurs who want to renew their product but lack specific knowledge are referred to proper experts. Similar portals or desks are run on most universities and UAS

Apart from research and contributions to the amount of knowledge workers the Universities (and UAS) offer businesses a variety of training courses on innovation (including short one day courses as well as up 2 year courses at MBA Level). Overviewing this training market one can only conclude that innovation has become a hype market. From high tech innovation to more simple business development courses, everything is called innovation and every self respecting training institute is offering one or more.

VIII. Vocational Education

The role of vocational education in innovation has several aspects. It addresses the issue of apt training of future professionals, the close collaboration between businesses and education for curriculum and training delivery as well as its content, contribution to Life Long Learning, the collaboration in work based learning, research, the promotion of the beta workers and the role of beta workers in the society. Thus innovation is understood from a broad perspective.

Most of the schools for vocational education offer help desk or even “laboratories” for SME. These services offer businesses to pose their questions regarding marketing, design, staff, training, research, product development. The help desk either refers to specialized services in the region or the school is able itself to address the question (often in cooperation with a UAS). In this way vocational education contributes to knowledge transfer. This type of proposition of vocational education is rather new for many of them. It means that a lot of development work needs to be done still.

Last but not least most of the institutes for vocational education offer training and adult education. Many offer courses on innovation in almost every area of the labour market. In many cases these courses are run in combination with a UAS. Innovation is generally treated in the sense of business development.

At regional level again its role is demonstrated in different forms of arrangements with businesses, authorities and knowledge institutes, and in more policy oriented structures like the platforms Labour Market and Education. Apart from the above mentioned some other examples of their activities are:

ROC Zeeland has gained the 2011 National Award for Innovation in Vocational Education for their project called “Vakmanschap is Meesterschap”. In this project teachers, and businesses meet each other for the development of the kind of education the businesses require. Together they develop content as well as attractive formats that are stimulating for students as well as a promotion for the profession itself. In this project have collaborated 50 businesses in 2010. The award has been giving because

of the sustainability of such processes as well as the active knowledge exchange it has realized between businesses and school. (see www.roczeeland.nl)

ROC Leijgraaf (Region Noord Brabant) offers a knowledge centre for SME regarding innovation and strategic management for the care sector as well as for regional and local authorities. This centre works together with United Brains and Synthens. (see www.rocleijgraaf.nl)

IX. Ministry of Education

The Ministry of Education targets specifically the creation of knowledge bridges between SME businesses and knowledge institutes in regional innovation programs. This specific program is called RAAK (see Stichting Innovatie Alliantie, 2011). Currently there are 56 RAAK programs covering all provinces and all areas of innovation. Because of its success the program is now expanded to the public domain. In many of these development and exchange programs vocational education is involved also.

Diagnosis of innovation in SME

This is already answered in the introduction section: see statistics on innovation in SME as well as the different areas of innovation. 50% of all SME has been innovating in products and or business processes during the last three years.

In research describing the situation in 2002 three main areas are discerned that can hamper innovation, more typically for a product type of innovation:

- The input: economical risk, finances, lack of qualified staff and knowledge
- The process: lack of good strategy and targets, existing rules and formalities
- The output: proper balancing of costs and gains, commercial risk

Additionally innovation can be hampered when businesses believe that it is not necessary (lack of urgency), market conditions are unclear or even negative, or innovation has already taken place. One other conclusion that has been presented in the research is that part of the hindrances for innovation can be contributed to SME itself for its potential lack of knowledge regarding the business administrative processes that

influence the capacity of organizations to acquire ideas and transform these ideas to better processes and products. More specifically knowledge regarding: strategy and vision, organisation and management, culture and organizational learning, development, design and marketing. (Source: Jong, J.P.J, Prince Y.M., "Effectief technologisch innoveren: de rol van niet technologische aspecten in industriële bedrijven", EIM 2002; "Pijlers onder de kenniseconomie. Opties voor institutionele vernieuwing", Centraal Planbureau, 2002).

One of the major changes that have take place in the innovation debate is the gradual shift toward the non technological side of innovation, to social innovation. Also the effects of the policy focus on arranging knowledge transfer and addressing shortages of knowledge workers are becoming visible. Last but not least the recession has forced many businesses to focus on their organizational effectiveness and improve it. The result is that the Netherlands in 2010 now have one of the highest productivity and innovation rates in Europe. The result is also that over 50% of SME has been innovating in the last three years (source: "The Lisbon Scoreboard", Centre for European Reform, 2010). More recently the Innovation monitor 2010 has shown that there is an increase of almost 12% of investment regarding issues that relate to Social Innovation.

Innovation and human resources

In the above the gradual shift is described from innovation as a technological and pure product and R&D oriented issue toward a more broader perspective on innovation. In this boarder perspective on innovation the role of HRM and HRD are becoming more prominent. To be able to innovate other constraints are discerned than those related to pure knowledge, finances, market conditions and, among others, government policy.

Innovation in this broader perspective is related to the user. It is not a statement about the quality of a product, service or method. What might be innovative in one organisation could be considered as "standard" in another organisation. In this broader definition it is defined as "every instrument, method or process that helps an organisation to improve in reaching its goals and objectives". This means that analysis of needs and advantages of innovation, should always precede the introduction of innovation. Continuous evaluation and the culture and willingness to do that become

major factors to achieve this. In this much broader definition (see: www.mkb.nl) there is a parallel with the definition of learning organisations: Within a learning organisation individuals as well as teams at each level of an organization will improve continuously their competences and capabilities to define and contribute to the goals of an organisation (from: Boonstra, prof dr.J.J. "Lopen over water", University of Amsterdam, 2000). Innovation starts with evaluation and the willingness to learn focussing more on constraints that link to the heart of organizations, its processes, its culture, its people. This puts the spotlight on the role of HRM and especially on HRD: contribute to the culture and processes of an organisation that is able to reflect and willing to learn. By doing this HRM and HRD also link with Life Long Learning actions and social innovation.

In the Netherlands HRM and HRD are and always have been (the last 25 years) considered valuable management functions. It is not an administrative task. For this type of work there is specialist professional education at UAS / University level. HRM managers are considered to be sparring partner regarding strategy and vision and necessary staff development issues. In general they contribute to the culture of an organisation in a major way. In general organisations of app 30+ staff have dedicated managers with this specific task. In smaller organisations this depends on the turnover as well as on risk analysis. In small organisations HRM HRD needs to be one of the assets of the director and his culture and style of managing.

If the current national and regional program offers on innovation are considered more closely one can conclude that a lot of support is offered at the level of organisational processes, part of it being culture, management, learning, staff and staff development (see Social innovation). Thus these programs offer already a lot of professional support also regarding HRD. There are several reasons for such focus:

- 1- Lack of knowledge workers in certain areas and thus the need for training and development
- 2- Contribute to attractiveness of work and good employment ship as a way to commit staff to organisations and build on trust
- 3- Addressing specific knowledge shortages of managers and directors in SME
- 4- Promotion of continuous learning as a strategy for sustainable development
- 5- Promotion of the culture of organisational learning as a basis for business improvement and innovation

- 6- Contribute to problems of aging society (and aging staff)
- 7- Promotion of a broad level of support within an organisation to enable creativity, development and change

Again this focus seems effective since most of the innovations in the last three years have covered the process of the organisation and thus put a strong emphasis on social innovation. Not surprisingly last year the amount of money that business have spend on social innovation has increased by 12% (see: Concurrentie en Innovatie Monitor 2010, Erasmus Universteit, Rotterdam , 2010).

Typical HRM/HRD issues that are mentioned being relevant by all current actors mentioned in this report (Syntens, AWWN, MKB, Branche organisations, Ministry of EA&I):

- New forms of leadership in relation to innovation
- New forms of working (time and place independent) with new performance criteria
- Self scheduling of work
- Talent development and talent use, age conscious staff policy
- Redesign of processes, looking for efficiency
- Rearranging responsibilities, team work
- Innovation from the work floor
- Labour participation, Employee participation, social responsibility
- Health management, social responsibility
- Knowledge and employability (and social responsibility)
- Culture of an organisation
- Organisational learning

The current advisors of f.e. Syntens and AWWN currently address all the above HRM HRD issues. Their added value is considered great since all advisors have a extensive background and experience in specific SME sectors, and are themselves typically specialized in organisational processes (economic grade in combination with long term experience as a business advisor). Their services are in most cases offered for free.

NEW ORIENTATIONS IN HUMAN RESOURCES IN THE LAST YEARS AND FOR THE FUTURE (TENDENCIES)

The concluding remarks and findings regarding current and future issues of the previous paragraph are now presented under the 3 headings of the profile of the curriculum.

1. Knowledge Management

- a. Generation and enhancement of knowledge
 - Organizational learning
 - Knowledge and employability
 - Social innovation
- b. Competence-based management
 - New forms of leadership
 - Self scheduling of work
 - Talent development and talent use
 - Age conscious staff policy
- c. Lifelong Learning
 - Talent development and talent use
 - Innovation from the work floor

2. Management by value

- a. Corporate Social Responsibility
- b. Sustainable growth
- c. Labour participation, employee participation

3. Other:

- a. Culture of an organization
- b. New forms of working (time and place independent) new forms of performance criteria
- c. New forms of leadership in relation to innovation
- d. Innovation from the work floor
- e. Health management
- f. Redesign of processes, looking for more efficiency

Please value from 1 (low) to 5 (high) how you consider those new orientations previously identified and analyzed are actually being used / implemented in SMEs and their importance for improving SMEs competitiveness:

NEW ORIENTATION	USE IN SMEs	IMPORTANCE FOR SMEs
Knowledge Management	2-3	5
Generation and enhancement of knowledge	2-4	5



Education and Culture DG

Lifelong Learning Programme

Organizational learning	2-4	5
Knowledge and employability	2-3	5
Social innovation	3	5
Competence-based management	2	3
New forms of leadership	3	5
Self scheduling of work	2	4
Talent development and talent use	2-3	5
Lifelong learning	3	5
Talent development and use	2-3	5
Innovation from the work floor	3	5
Management by Value	2-3	5
Corporate Social Responsibility	2-3	5
Sustainable growth	2-3	5
Labour participation, employee participation	3	5
Other:		
Culture of an organization	2-3	5
New forms of working	2	4
New forms of leadership	2-3	5
Innovation from the work floor	3	5
Health management	3	4
Redesign of processes	3	5

PART 2: NEW TECHNOLOGIES USED IN GENERAL IN SMES RELATED TO THE PROFILE (MAX. 5 PAGES)

Please make a list of those New Technologies being used by SMEs (that you know), give a short description, name in which department mainly are they being used and rate its importance (from 1 lower to 5 higher) for improving innovation and competitiveness in SMEs.

(One example in red)

Explanation: be aware that the profile is not going to be defined for a concrete sector or activity so please avoid those specific NT which are used only in some specific kind of enterprises and try to name those general ones which might be used by any SMEs.

NAME OF NEW TECHN.	DESCRIPTION	DEPARTMENT USING IT	RATE OF IMPORTANCE
E-mail	System for sending and receiving messages electronically over an internet computer network	All departments	5
Web presence	Web environment for promotion and sales (see www.mkb.nl)	all	4
Open office	Software for email, sharing of documents, agenda and library functions (see f.e. www.sbl.nl)	all	4-5
Social media	Use of social media in marketing (see www.mkb.nl , www.synthens.nl)	Management strategy, information and communication, client information	3-5
Knowledge portals	Internet sites giving access to specialist information (see www.mkb.nl , www.synthens.nl)	all	5
Innocentive	World Wide Open network regarding innovation for knowledge centres as well as businesses (see www.mkb.nl , www.synthens.nl)	all	5
Customer relations system	ICT software to keep track of customers and potential customers, a relations management system	Client management	3-5

	(see www.mkb.nl , www.synthens.nl)		
Customer satisfaction	ICT based questionnaire generator to measure customer satisfaction (see www.mkb.nl , www.synthens.nl)	Managemnt strategy Client management Information and communication	5
Service desk	Web based or by telephone service for questions and complaints.	Managemnt strategy Client management Information and communication	5
Enterprise resource planning (ERP)	Software for arranging and monitoring all business resources including knowledge and experience. (see www.mkb.nl , www.synthens.nl)	all	3-5
Data back up system	Provider based back up systems as safe guard for valuable data	Information and communiucation	5
Quality system	Models like ISO or EFQM to focus the organisation on outcome and contribute to continous development (see www.mkb.nl , www.synthens.nl)	all	3-5
Appraisal system	Methodology to systematically discuss and assess skills and competences in relatuion to organisational needs (see www.mkb.nl , www.synthens.nl)	Human resources	5
Individual development plans	Plan regarding development of skills and competences of individual staff member in regard of personal ambitions as well as possibilities of the organisation (see www.mkb.nl , www.synthens.nl)	Management strategy Human resources	5
Organizations development plan	Development plan of all staff of an organisation in relation to its vision and ambition (see www.mkb.nl , www.synthens.nl)	Management strategy Human resources	5
Personalized reward system	Individualized primary and secondary labour agreement conditions, based on a formalised set of options to be selected	Management strategy Human resources	3-5

	from (see www.mkb.nl , www.synthens.nl)		
Development cheque, training voucher	Personalized budget for own skills and competence training (see branche organisations like www.oom.nl)	Management strategy Human resources	3-5
Innovation officers	Free advise for SME offered by Synthens regarding innovation and implemenattion of innovation (see www.mkb.nl , www.synthens.nl)	all	3-5
E billing	Internet based billing and paying system (see ministry of EA&I)	Economic and financial management	3-5

I have put mainly attention to simple ICT and internet innovations and HRM/HRD instruments (link with socila innovation) since these both are most easily to be generalised to all areas of SME and are related most to the subject of the profile. I did not mention things like separation of waste, coleccion ofpare etc or use of energy saving lights and suppoirting systems for heating since this is too obvious.

Ideally the above overview needs to be scored separetly for micro SME and SME. When discussing the profile this needs to be considered once more.

Example of departments:

- Global environment of the enterprise
- Management Strategy
- Information and Communication
- Human Resources
- Suppliers' Management
- Clients' Management
- Production
- Economic and Financial Management
- New Technologies

RESUME OF SITUATION OF SMES WITH RESPECT TO PREVIOUS POINTS ANALYZED UNDER INNOVATION AND NEW TECHNOLOGIES

a. Resume of right now situation

Currently, in 2010, 50% of all Dutch SME (10 - 99) have been innovating their products or organizational processes during the last 3 years and have increased their collaboration with other businesses and knowledge institutes. For micro SME (< 10) this is still over 30%. Although the economy has gone through a period of serious recession the efforts regarding innovation apparently have been on a (very) high level. Currently Dutch economy has achieved highest productivity rate and one of the highest innovation rates in Europe (CER, 2010).

The work of the Innovation Platform (development of key areas) is considered partly successful. It is successful since it was able to start the development the key areas as well as some Centres of Expertise. However it missed the point since it focused on high tech technology for only a very small part of existing Dutch businesses. It also did not address the non technological aspects of innovation for businesses in general that are rooted in organizational and management processes. However business as well as their representing structures have gained the awareness that social innovation is the key factor for sustainable growth, innovation and competitiveness. Success of their efforts is demonstrated by current Dutch leading position in productivity as well as innovation. The total budget spend on social innovation has raised during the last year by 12%. (mind that this is done in a period of recession).

Through the instrument of "arrangements" many businesses are connected to each other as well as to knowledge institutes of different levels (from EU qualification level 4 up to 8). The regionally formed networks have a spin off regarding the attraction of more students becoming knowledge workers, as well as knowledge workers from abroad. For that reason Brain Port Eindhoven region now has worlds 6th highest IQ level.

The current network of Syntens, AWWN and over 40 branche organizations arrange for advisors that inform, advise and coach SME in their development (finances,

management, social innovation, sustainable growth, culture, change, design, marketing etc) as well as in the creation of networks with knowledge institutes.

From all knowledge institutes there is an extensive offer of training regarding innovation and business development. Also most institutes have set up service desks for businesses to offer support on business development and innovation.

Regarding HRM/HRD it is recognized that HRM/ HRD play an important role in turning the Dutch economy to a knowledge economy and address future work force shortages. The current national and regional programs support the role and position of HRM HRD by addressing organizational learning, (staff) development, culture and management. Again this is also demonstrated by the fact that a lot of budget is spend on social innovation, by nature of its profession a key area of HRM and HRD.

b. Resume of needs and lacks

Although a lot of improvements have been realized since the first national programs on innovation have started this does not mean that everything is running smoothly. One might conclude: still 50% of the SME and 70% of Micro SME is lacking activities regarding innovations since they have not done so the last three years. But this does not say that they will not do this in due time. Regarding innovation research has shown (see: Tanja, E, "Investeren in Innovatie", Kenniscentrum D66, 2004) that businesses can be divided in five different groups: the innovation advance guard, the group of business that are willing to innovate by participating in knowledge transfer, the group that is willing to innovate at a minimum of risk, the group that has the potency to innovate but yet does not do so, and lastly the group that does not find a reason in the short and medium period of time to innovate. Each category needs a specific approach. However it is impossible to say to which of the 5 categories business belong that have not been innovating during the last three years.

Especially in the Netherlands business still require to put more attention on better age related staff policy to keep all staff competent as well as sound and motivated during their (prolonged) working life.

The concept of innovation is used in several different ways. The way the concept is used depends on the stakeholder that is using the concept and the purpose for what the term innovation is used. The concept has gained a high “hype” value since the focus on innovation is hot. Much is called “innovation” what was actually in the past no more than sound business development. “Innovation” sells. The market becomes polluted.

Sustainable growth has become an official policy issue only since the last five years.

MAIN CONCLUSIONS AND RECOMMENDATIONS

Conclusion

Every business needs to change and renew to be able to keep its head above the water.

Dutch labour market has a very low unemployment ratio (4,3%) only 1% above friction level. Already businesses feel the need to adapt their policy to be able to have enough qualified labour force in the near future. Investment in R&D is relatively low but the investment in social innovation is high and still growing. Social innovation is considered to be the main factor for sustainable growth and competitiveness. Also it is one of the necessary strategies to address future staff shortages. Supporting networks for businesses focus on social innovation as well as building bridges with knowledge institutes. The current EU success of Dutch companies of being leading in productivity as well as innovation can only be understood by combining these context factors.

a. For the definition of the profile (profile areas and content by area)

Based on research as well as the current experience within the companies it is recommendable to check whether the area of social innovation is included in the profile. This would mean including areas like: Smarter working, informal leadership, organisational learning, culture, organizing more flexible (redesign of work processes), self scheduling of work, talent development and talent use, building on support and trust, innovation from the work floor, age conscious staff policy, sustainable growth,

The area of Social innovation puts a lot of additional skills on the advisor that operate in this area and advising a director or manager on (social) change: experience, keen

listener, keen on strategy and arranging wide support throughout the company he/she is advising, high recognisability of being an expert.

The work area also expects advisors that have a very good understanding of HRM and HRD.

b. For the work to be done in the SMEs by the person trained with this profile

In the Netherlands advisory working regarding innovation and social innovation is done by advisors that have a back ground in SME and in related business areas. There recognized expertise open doors and create evidently impact. Therefore it is not advisable to introduce a new kind of advisor that lacks this back ground and expertise and still has to compete with advisors of Syntens, AWWN and branche organizations.

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