

# Kansen voor West 2007-2013

*Opportunities for West*

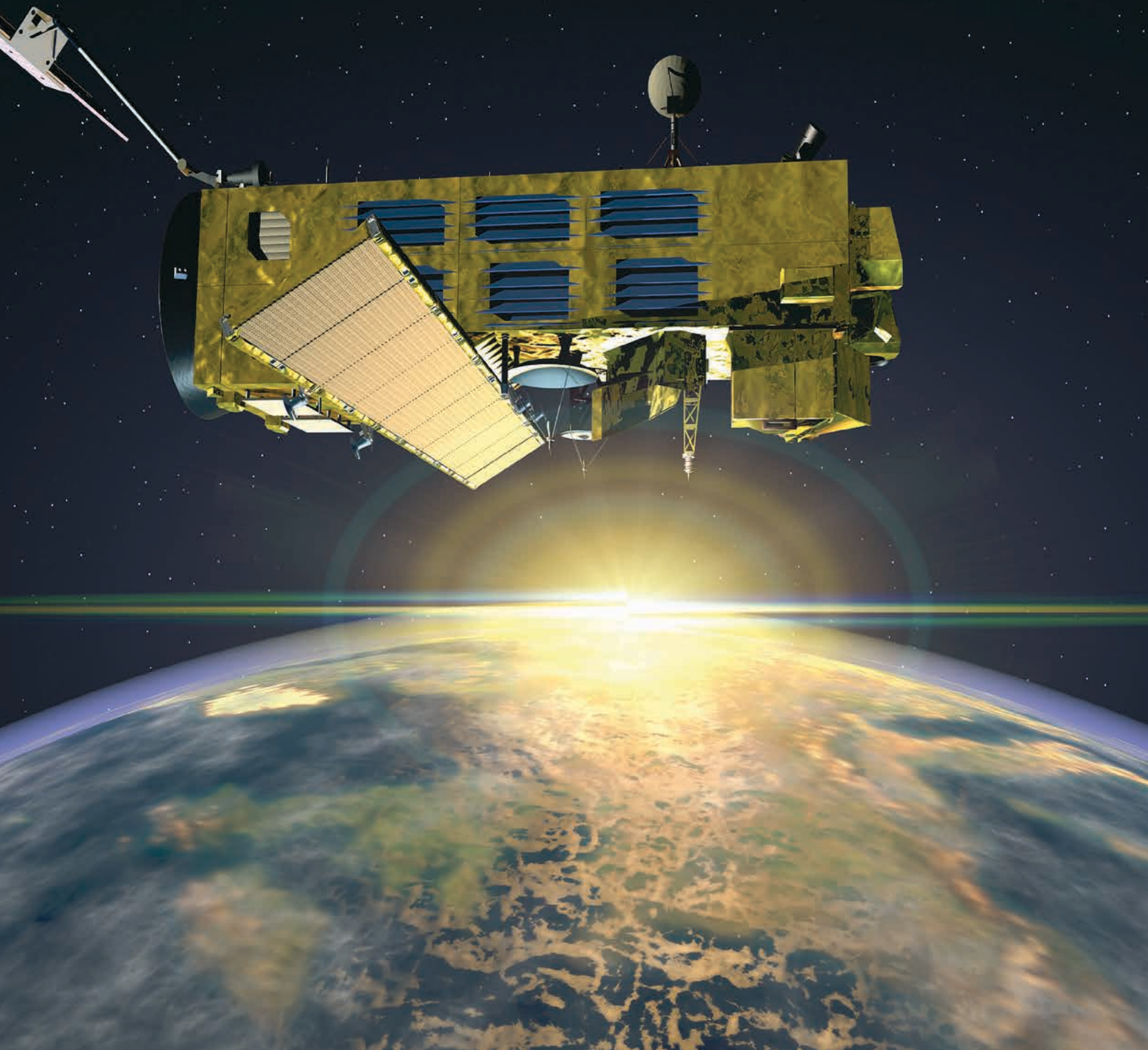
Bottom-up regional innovation  
in the West Netherlands region

## A reflection

**Kansen**  
voor **West**

G4P4 





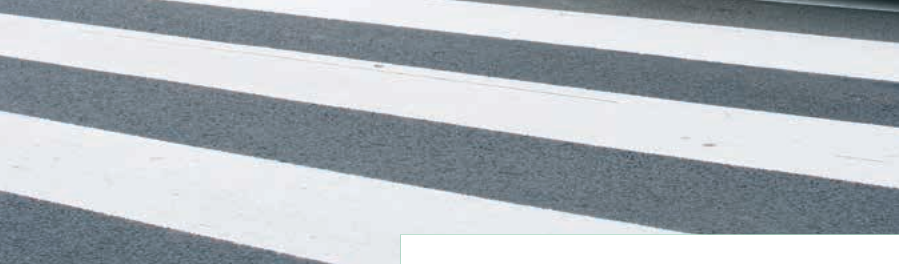


Table of contents	page
<b>Foreword</b> <i>Ruud van Raak</i>	4
<b>Kansen voor West (Opportunities for West) in figures</b>	6
<b>Nieuwe Kansen voor West (New Opportunities for West) – a reflection</b> <i>Erik Braun &amp; Henri L.F. de Groot</i>	9
<b>Project interviews</b> <i>Aukje van der Hoek</i>	40
<b>Credits</b>	141



## *Kansen voor West (Opportunities for West) 2007-2013 Bottom-up regional innovation in the West Netherlands region*

### Foreword

The publication you are reading now is one we are very proud of. It aims to provide you with an idea of the significance of Kansen voor West (Opportunities for West) 2007-2013. Kansen voor West is one of the four programmes in the Netherlands that make regional investments possible using resources from the European Regional Development Fund (ERDF).

The guiding principle for the programme is the Lisbon Strategy, which states that those aspects of a region that are already economically strong need to be further strengthened as this results in economic growth and more and better jobs within the European Union. Where the Randstad conurbation is concerned, this means increasing competitive strength by investing in areas such as innovation, research and development, knowledge exchange, the connectivity between education and the labour market, human capital and sustainable energy.

Kansen voor West is a collaboration between the four provinces that make up the Randstad conurbation and the four large cities located in them (Amsterdam, Rotterdam, The Hague

and Utrecht). The principles and objectives of the programme had been agreed upon when it began, but the big question was: would it actually work?

It is now clear that the programme is on target in terms of cooperation. The planned boost to investment has been amply achieved and a third of the investments is being paid for by the ERDF.







The programme has now reached its concluding phase and its contours have become visible.

When Kansen voor West started, the ambitions were sky high. The Randstad conurbation was to regain its position in the top five economic regions in Europe by the end of the subsidy period. That ambition was not achieved, partly and quite simply due to the financial crisis hitting so hard. In retrospect, however, the ambition was not a realistic one. The question that then presented itself was what Kansen voor West had, in fact, done and, in particular, what significance should be attached to that.

At the request of the Supervisory Committee, the management authority invited Dr Erik Braun of the Erasmus University Rotterdam and Prof. Henri de Groot of the VU University Amsterdam to reflect on the above question. In their essay, Braun and De Groot aim to make a contribution to the discussion regarding the further improvement of the effectiveness of scarce European resources for regional economic development.

In order to do so, they put the structural funds in a historical perspective and look at the various forms of regional and European policy. Specific attention is paid to the methods used for stimulating innovation and to the way this innovation was implemented. Finally, the authors provide a

number of directions that reforms could take in order to contribute to the further improvement of the effectiveness of regional policy.



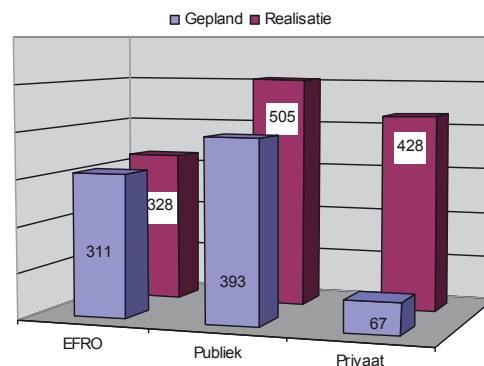
## Kansen voor West (Opportunities for West) in figures

The boost in investment spurred by the Kansen voor West programme is considerable: investments are 40% higher than planned in 2007. Private contributions, in particular, are responsible for this as they are more than five times higher than planned. However, public financing has also contributed more than 30% more than foreseen. The ERDF (European Regional Development Fund) contribution is also higher due to the extremely high commitment of the partners.

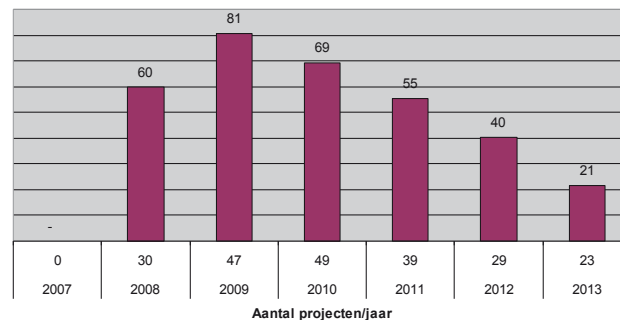
Preparations for Kansen voor West kicked off in 2007. The first projects were committed to in 2008. The project peak was reached in 2010. The highest commitments were made in 2009.

Projects that received private co-financing were generally priority 1 projects relating to the knowledge economy, entrepreneurship and innovation. The contribution to most projects was under one million euros. A considerable number of projects did not receive any private co-financing. This is primarily due to the fact that those activities would, under normal circumstances, in any case be publicly financed (works relating to public spaces, recreation, etc.).

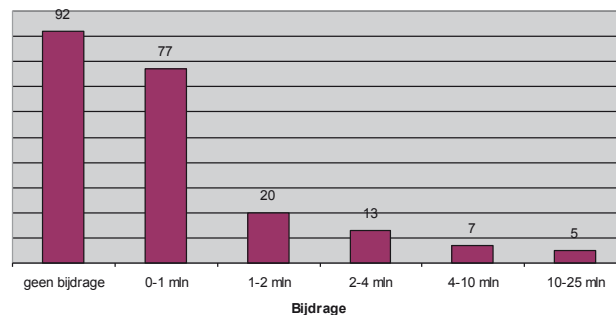
Bijdrage financiers in mln. euro



Gecommitteerde EFRO in mln. euro

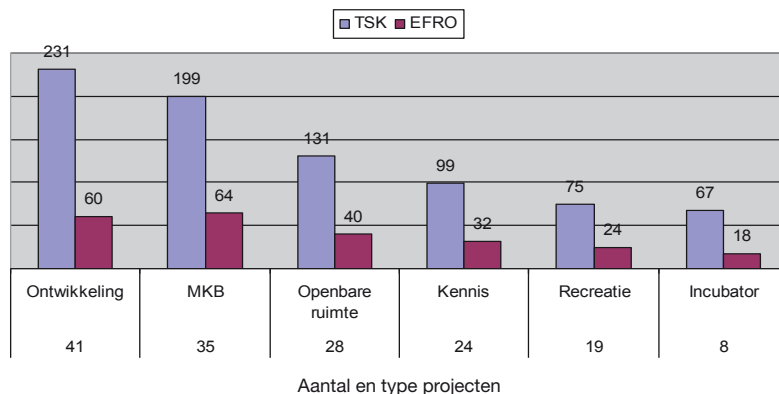


Aantal projecten dat wel of niet private cofinanciering ontvangt



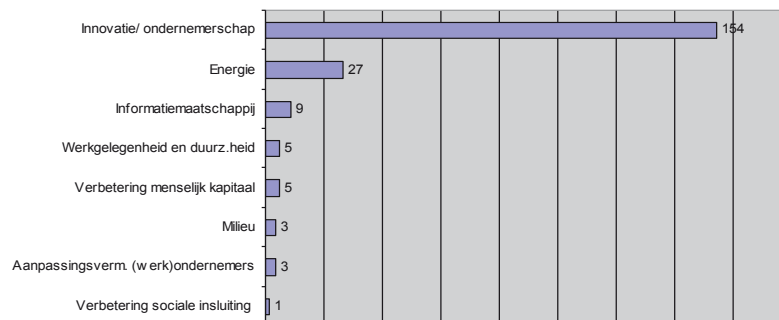


Inzet op belangrijkste typologieën (mln. euro)



More than three quarters of the total resources were targeted at six project typologies. The highest amount within this was for Development and SMEs. These are important for achieving what are known as the Lisbon objectives. The graph shows the ERDF contribution as a proportion of the total eligible costs (TEC).

EFRO inzet in de Lissabon doelstellingen (mln. euro)



Two thirds of the ERDF funding went to projects aiming at Lisbon objectives (the creation of jobs and the promotion of competition). By far the highest ERDF investments went to Research and Development, Innovation and Entrepreneurship. Energy and the Information Society also scored high.

Indicator	committed	target
Gross created jobs	11.386	6.880
Number of R&D projects	86	121
Number of collaborations	102	88
Number of SMEs supported	11.968	535
Number of start-up businesses supported	2.366	268
Private follow-on investments obtained (in millions of euros)	487	31
Number of tourist/recreational projects	23	35
Number of renovated/new urban amenities	65	40
Number of projects related to entrepreneurship, urban/district economy	58	35
Number of projects related to participation, quality of life or social activation	47	84

The programme's results can be measured by using a number of indicators. In general, the indicator scores are higher than initially planned.



# *A reflection*

## Nieuwe Kansen voor West (New Opportunities for West)

The essay entitled Nieuwe Kansen voor West (New Opportunities for West) was written by Dr E. Braun of the Erasmus University Rotterdam and Prof. H.L.F. de Groot of the VU University Amsterdam. The Supervisory Committee for Kansen voor West commissioned the writing of this reflection.

## Erik Braun

Erik Braun (born in 1970) is a senior researcher and lecturer at the department for Urban, Port and Transport Economics at the Erasmus University Rotterdam. He is also affiliated with the European Institute for Comparative Urban Research (EURICUR). His research interests are regional and urban economic development, real estate economics and city marketing. He has wide experience of European projects and of international comparative research. He recently carried out international comparative research into Urban Innovation Systems, together with three colleagues, and the results of this were published by Routledge.



## Henri L.F. de Groot

Henri L.F. de Groot (born in 1971) is Professor of Regional Economic Dynamics at the VU University Amsterdam and is also affiliated with the Ecorys research consultancy, for which he works one day per week. His research focuses on regional and urban economics, economic growth, international trade, environmental economics and meta-analysis. Around 2002, he contributed to the CPB Netherlands Bureau for Economic Policy Analysis paper entitled Funds and Games through carrying out various background studies. From 2010 onwards, he was involved in the drafting of the Methodological Note on Outcome Indicators for DG-Regio (Brussels).



# Nieuwe Kansen voor West (New Opportunities for West)

## *A reflection*

### Introduction

The Kansen voor West programme was recently concluded and a new programme is about to start. This essay reflects on the recently completed programme and looks towards the future programme. It starts with a historical sketch of European Regional Policy. The operational programme is then explained and a number of interesting points relating to the programme are reviewed. We end with a discussion about the opportunities and challenges facing the new programme, in which we will build on general lessons learned regarding regional policy, but in which we will also look at the more specific lessons that could be learned from the Kansen voor West programme. Our aim in writing this essay is to make a contribution to a constructive discussion about improving the effectiveness of future deployments of scarce European resources aimed at promoting regional economic development.

### A short history

European Regional Policy, which, together with European agricultural policy, takes up by far the largest proportion of the European budget, has a turbulent history. In its original

form, it was an instrument that was intended to promote the development of disadvantaged regions. Its development objective was the focus throughout the 1990s in particular and its logic was relatively simple. Disadvantaged regions have the potential to grow relatively quickly. Stimulating investment in those regions was thought to promote economic growth in disadvantaged regions. The stimulation of convergence within and between member states was also seen as an important European sociopolitical objective, not least given the large differences that exist in income per head of population. The theoretical vision of economic growth processes prevalent at the time supported the expectation that convergence could be accelerated through a policy of incentives. This made it seem as if a success formula for promoting convergence between member states and between regions within member states was simply up for grabs.

But however strong the theoretical logic behind the expectations for convergence was, experiences relating to the first rounds of regional policy were not universally positive.<sup>1</sup> Figure 1 illustrates the relative economic development of the European NUTS 1 regions

<sup>1</sup> The publication entitled *Funds and Games* issued by the CPB Netherlands Bureau for Economic Policy Analysis in 2002 provides a nice overview of this.

<sup>2</sup> Economists talk about what they refer to as a process of  $\beta$ -convergence.

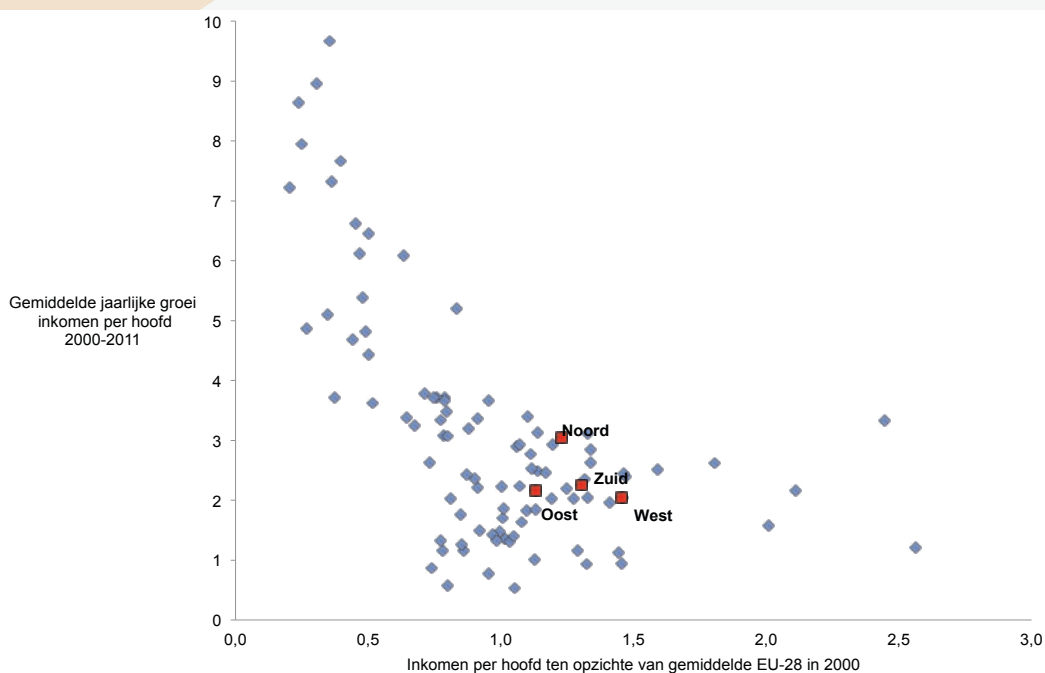




for the 2000-2011 period. The relative position of the region compared to the average for the EU-28 in the year 2000 is given on the horizontal axis. The average annual growth in income per head of population for the 2000-2011 period is plotted on the vertical axis. In the event of strong convergence between the regions,

relationship between the initial income per head of population (income per head in 2000) and the growth in the subsequent period.<sup>2</sup> The four Dutch regions (North, East, West and South) are clearly marked. The figure makes a number of things clear. First of all, the differences in income per head of population within the EU-28 were very substantial in the year 2000.

**Figure 1. Income per head of population and growth, 2000-2011**



Source: our own calculations based on Eurostat data.

The richest region in the year 2000 (Brussels) was more than two and a half times as rich as the EU-28 average, while the poorest region (East Romania) achieved just 20% of the EU-28 average. A clear process of convergence was at work in the EU-28 during this period. In 2011, East Romania was still the poorest region in the EU-28, but now stood at 33% of the EU-28 average. The richest region in 2011 was Luxembourg, with an income that was 2.7 times greater than the EU average. If we look at the Dutch regions, we can see that they are all between 10 and 50% above the average for the EU-28 (depending on year and region). Income is clearly highest in the West Netherlands region, but there is relatively limited growth (0.7%), while the East Netherlands region is the poorest of the four. The North Netherlands region grew the fastest during the period considered. It is important to note that these differences in income and growth can, to a certain extent, be explained by the composition of the populations or changes to these. The high income per head of population in the West Netherlands region can, to a large extent, be explained by an over-representation of highly educated workers<sup>3</sup>.

Despite the indications for convergence,

*empirical evaluation studies into the effectiveness of regional policy in the 1990s and at the beginning of the 21st century are often critical.* The main question these studies ask is whether policy had an additional causal effect over and above convergence, which could in any case be expected in a situation with large differences such as those found in Europe. Many of these studies demonstrate that the (additional) contribution made by cohesion policy was very limited.



<sup>3</sup> An example is the study *Stad en Land (City and Periphery)* in which regional wage differences in the Netherlands are explained by differences in composition and differences in productivity of what were otherwise identical employees. Regional wage differences are shown to be explained in approximately equal part by composition and actual productivity differences.



Various insights were available around the turn of the century to explain the limited effectiveness of the set of instruments. Without being exhaustive, we will discuss the main insights here, emphasising those that are relevant for understanding the choices made regarding instruments and those insights that will help us to draw lessons for the future.

A first potentially important explanation for the limited effectiveness of the policy can be found in the often very specific requirements that had to be met regarding, among other things, co-financing (countries also need to make their own contribution to projects financed with EU funds) and the type of projects that could qualify for financing. Shaping policy instruments in this way results in two types of problems. Firstly, large sections of the budget were spent on infrastructural projects that were aimed at improving and strengthening the accessibility of disadvantaged areas, thereby increasing their growth potential. The logic behind measures of this kind appears to be clear. However, there is a growing consensus that policy of this type often has an adverse effect. A phenomenon known as agglomeration forces is essential for understanding this.

These forces lead to a clustering of economic activity in the area. According to this theory, proximity and economic density pay off. The theory allows us to understand the creation of cities and the success of many clusters. What infrastructural works in this vision do is mainly to strengthen the already powerful centres of economic systems, which, because of the improved infrastructure, makes it even easier for these centres to serve the hinterland. Economic activity is therefore drawn to the centre instead of to the periphery. Secondly, the requirement for co-financing can potentially lead to 'good' money being used for suboptimally profitable projects and being withdrawn from the market. The mechanisms involved are complex, but the basic idea is simple and familiar. It starts with public-sector employees with good intentions trying to mobilise financial resources from Brussels. The specific projects that qualify for financing are not necessarily the most profitable ones. However, the incentives for bringing in funds are nonetheless considerable. If those resources are purely additional, then the only problem is that the money could have been put to better use. The requirement for co-financing, however, means that money that was initially freely disposable also partly needs to



be used for the project qualifying for funding. This can potentially result in money being used for projects with relatively low profitability. The fundamental question here is how Brussels, in selecting the projects, can be sure that the scarce resources are being invested in the most profitable projects. *In other words, is Brussels capable of picking winners?* Past well-intentioned regional policy teaches us that modesty is called for. Against this backdrop, a more open policy that is able to respond to specific regional opportunities and needs is preferable.

A second set of explanations can be found in the lack of proper monitoring in advance of, during and following completion of the implementation of policy and in too little adjustment during the process. *In other words, there is too little emphasis on evidence-based policy.* Such a policy requires a proper cost-benefit analysis prior to the start of the project, proper monitoring during the process (with the possibility of making adjustments) and a proper ex-post evaluation in order to be able to learn lessons for the future. The policy employed over recent decades is far removed from this ideal policy cycle. The

prevailing culture more resembles bookkeeping and retrospectively looking at whether the money was actually spent in accordance with the agreements made, rather than the focus being on optimising the deployment and redeployment of scarce public resources.





A third series of concerns where regional policy is concerned came into being through the strong political interests relating to it. Although the intentions of regional policy (as policy that is aimed at promoting economic development in disadvantaged regions) were widely endorsed, it is still difficult to escape the conclusion that the budget for regional policy has been divided up partly on the basis of political arguments.

*After all, if we consider the regional differences in Europe, it is difficult to understand why relatively prosperous member states, such as the Netherlands, still receive a contribution based on European regional policy.*

The offering of partial benefits in exchange for a relatively large net contribution to Europe would appear to play an important (political) role in this. While policy of this type is understandable from a political point of view, there are quite a few objections to be raised regarding the efficiency of such a complex way of circulating money. It would be better if the differences between gross and net contributions were minimised. This would bring the transaction costs that are inevitably associated with the circulation of money down to a minimum.

The incentives for public-sector employees to make use of the schemes in place - irrespective of the contribution made to European prosperity - can also encourage suboptimal allocation of scarce resources.

### Modifications to regional policy - current and future budget periods

The analyses described above which are mainly characteristic for regional policy in the 1990s and the beginning of this century have, in different ways, led to the modification of policy. New modifications are also in the pipeline for future policy. Without being exhaustive, we would like to discuss a number of trends with respect to modified policy.

To start with, we see that the *objectives of regional policy have been expanded*. Where regional policy was initially primarily aimed at promoting convergence between and within member states, current policy focuses on promoting what is known as smart, sustainable and socially inclusive growth, or in other words the 'S3 objectives'. Put succinctly, we in modern Europe are looking for innovation and sustainability in both the social and environmental arena. This means that today's policy is not as much aimed at promoting very specific types of investments (such as infrastructure) any more. However much these S3 objectives agreed in Lisbon are worth pursuing, when looked at from an economics point of view, there is a major problem

associated with using regional policy in order to pursue these goals simultaneously.

The first Dutch Nobel Prize laureate, Jan Tinbergen, taught us that a separate instrument is needed for each policy objective. The risk is that regional policy will degenerate into policy that is aimed at everything that might appeal to people. Who could possibly be against smart, sustainable and socially inclusive growth? The crucial question is where there are trade-offs between the different objectives and which set of instruments is needed in order to achieve the various (and possibly conflicting) objectives simultaneously. The current debate devotes too little attention to these relevant complications associated with the policy to be pursued.

A second trend we have identified is that *policy is becoming increasingly place based*. The notion of place-based regional policy in Europe originates from the Barca Report published in 2009. This influential report argues for policy that pays heed to the location-specific context within which the policy is supposed to take effect. It is diametrically opposed to the idea popular among economists that one-size-fits-all policy is conceivable. A





strong emphasis on what are known as ‘smart specialisation strategies’ is the next logical step in implementing this idea. This transition towards policy that pays heed to location-specific factors is something to be applauded. However, practice has shown that policy of this kind is difficult to implement. For example, we still see the tendency of many municipalities striving to create their own Silicon Valley. Copycat behaviour is still the order of the day, with policy that has proven to be effective in region A being indiscriminately proposed to region B without sufficient attention being paid to location-specific factors. Current examples of such behaviour are efforts made to attract or keep what is known as the creative class, investments in cultural facilities, etc. We also see the temptation to simply translate smart specialisation strategy into top sector policy. Sometimes these are even presented as being synonymous. Nothing could be further from the truth.

### **Transformation of European policy**

Against the background set out above, the details of new regional policy will be implemented in the new budget period. Over recent years, the policy to be pursued has been intensively discussed within DG REGIO (the Directorate General for Regional Policy) with efforts made to learn from the past.

To what extent the ambitions will be actually realised, remains to be seen. The most recent signals have not all been hopeful. There is a great deal of distrust between the regions and Brussels. The wish to formulate healthy ambitions and monitor the achievement of these in order to be able to learn and make adjustments where required, is often seen by the regions to carry the risk of incurring problems in the future if objectives are not achieved at the end of the project. The image of DG REGIO as a party that primarily carries out checks afterwards and does not want to be seen as a partner in the development process as it is unfolding, plays an important role in this. Nevertheless, a serious and constructive approach is desirable. A responsible, useful deployment of scarce resources will gain from this.

Two elements form the guiding principles for the proposed transition. The first is the joint development of policy that works within an atmosphere of mutual trust. Unfortunately, recent experience involving the dominance of accountants and lawyers in monitoring and concluding programmes feeds mutual distrust. Where this point is concerned, the fervent hope is that all those involved will dare to set personal interests aside. The general public deserves no less. The extent to which parties





will be successful in doing this will contribute to determining whether the European people regain their trust in Brussels and believe that it actually has social interests at heart.

The second element is formed by what is known as the 'Methodological Note on Outcome Indicators', which sets out a roadmap for policy that is more evidence based. Using all available information in order to optimally develop policy sounds like an obvious thing to do. However, there is still a long way to go on this point, too. The concerns are wide ranging. A practical objection is the collation of more information for substantiating plans. Such a practice would be diametrically opposed to the intentions of reducing the time and money spent on administration. This means that the member states and Brussels are confronted with a complex dilemma. Unnecessary administrative burdens are obviously problematic, but pursuing good policy requires information, both in advance (in order to be able to evaluate and select plans) and afterwards (in order to be able to learn lessons for the future). The information currently available is, almost without exception, seriously insufficient for the purposes of carrying out proper evaluations.

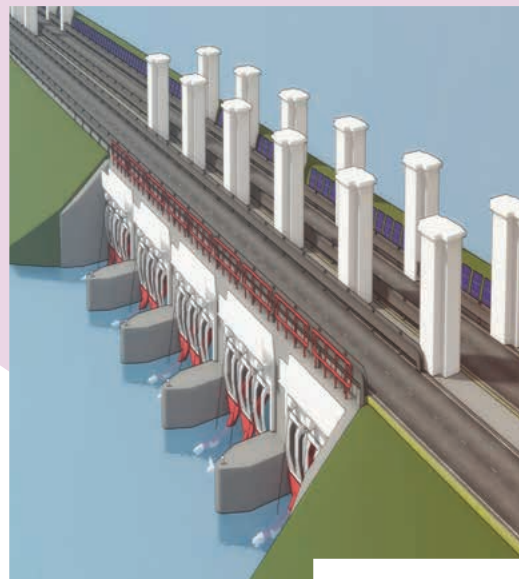
In other words, good, evidence-based future policy requires entrepreneurs arguing for the time and money spent on administration to be kept to a minimum to make concessions. It is here that the Netherlands, as an advocate for cost-benefit analyses and with its rich tradition of policy evaluation, can set an example for Europe. A second concern lies in the fact that the ex ante definition of objectives in explicit terms may be used against the region later on, and may be used as a reason for Brussels to reclaim part of the money. Trust, as mentioned above, plays a crucial role in this. Projects can, with good reason, turn out to be less successful than the information available at the time led us to believe. As long as there are good reasons for this, this is no reason for paying back money. However, it does mean that total transparency is required regarding the reasons for the failure to meet expected targets so that lessons can be learned from them for the future.

### Regional policy in practice: the 2007-2013 period

The modifications to regional policy from the start of this century as set out above did, of course, affect the nature of, approach to and allocation of resources within the programmes that received grants in the period from 2007 to 2013. A total of approximately €347 billion<sup>4</sup> was spent on regional policy during this period, equating to more than a third of the total EU budget. *The impact and the relative size of European subsidies are sometimes overestimated in public and political debates.*

Of course, €347 billion is a considerable amount, but when we realise that the sum eventually needs to be divided up between 28 member states, then the picture becomes a lot less clear cut. If the European subsidies received by member states, and not just those for regional policy, are expressed as a percentage of Gross National Product (GNP), it becomes clear that the effect of European subsidies on national economies is limited. Even for small economies that receive a lot of support, such as Greece, the figure is below 2%.<sup>5</sup> This does not affect the fact that these resources (money from European taxpayers), too, should be spent effectively and carefully.

Regional policy is financed using the structural funds that are intended for the further socio-economic development in European regions. The structural funds are made up of the European Social Fund, which supports programmes that stimulate employment and education and combat poverty, the Cohesion Fund, which was specially set up for the 15 countries within the EU that are less productive in economic terms, and finally the European Regional Development Fund (ERDF).



<sup>4</sup> [http://europa.eu/pol/reg/index\\_en.htm](http://europa.eu/pol/reg/index_en.htm).





The extension of the objectives for regional policy, as described above, was mainly put into effect for the ERDF programme. Inspired by the EU's Lisbon knowledge and innovation agenda, the objectives for the ERDF programme were extended between 2007 and 2013, with an increase in competitive strength, innovation and sustainability being key.

*The European Commission expects that programmes receiving a subsidy focus 60% of the money received on achieving Lisbon objectives.* In the period between 2007 and 2013, ERDF resources were, for the first time, made available for the specific challenges faced by urban areas within the EU. The inclusion of urban areas is not unexpected, taking the Lisbon objectives into account, along with the agglomeration forces already mentioned in this essay, which result in those regions that are economically strong becoming stronger still and lead to the urbanisation and consolidation of economic activity becoming the motor for economic development to an increasing extent.

<sup>5</sup> Estimates vary. The <http://money-go-round.eu> website has calculated that this is equal to 1.84% of Greek GNP.

### European regional policy and the Netherlands in the 2007-2013 period

For the purposes of the ERDF programme (which is, after all, all about regions), the Netherlands is split up into four regions at NUTS 1 level: the North region (the provinces of Drenthe, Friesland and Groningen), the East (Gelderland and Overijssel), West (Noord-Holland and Zuid-Holland, Utrecht and Flevoland) and South (Zeeland, Noord-Brabant and Limburg). This is clearly not the right scale level for the Netherlands for pursuing regional policy. The NUTS 1 regions play no role whatsoever in administrative reality in the Netherlands and also do not reflect the functional economic regions within the country.

In this respect, *the NUTS 1 classification is primarily a handy way for Brussels to keep the number of parties with which it needs to consult to a minimum*. The provinces (NUTS 2) and the COROP<sup>6</sup> regions (NUTS 3) are, from a European point of view, evidently too small.

A total of €830 million was available for these four regions in the 2007-2013 period. An important condition to be met when ERDF resources are awarded is co-financing. There

must always be some form of co-financing involved. Such financing may be public (and come from central government, provinces or municipalities), private, or a combination of both. Co-financing may also take the shape of contributions in kind, such as employee hours or making property available. At the start of the programmes, central government expressed the hope that part of the programmes would be privately financed. The four regions all have their own operational programme that was approved



<sup>6</sup> The 40 COROP regions were established in 1970 and reflect functional regions. Commuter traffic was used as a basis for the creation of these areas. All European member states divided up their country into similar regions, with the region ideally corresponding to a city and its surrounding area.



by the EU and is administered by a management authority. The management authorities evaluate the subsidy applications and handle them.

The management authority for the South and East regions is made up of the members of the Provincial Executive for the provinces in the region. The management authority for the North region comprises the executive board of the Northern Netherlands Provinces Alliance (SNN).

The situation for the West region is substantially different. This region comprises the provinces of Noord-Holland, Zuid-Holland, Utrecht and Flevoland, including the four large cities of Amsterdam, Rotterdam, The Hague and Utrecht. There are regular calls to create an administrative layer at Randstad conurbation level and an entity of this kind would make an ideal consultation partner for the European Commission. However, there is no administrative layer or alliance operating on this scale as yet. The Municipal Executive of the Municipality of Rotterdam ultimately became the management authority. Selecting one of the partners, and then just one city too, was a striking choice as the West region is a collaboration between the four provinces that make up the Randstad conurbation and the four large cities within them

(G4). More attention will be paid to this further on in this essay.

### Kansen voor West (Opportunities for West) 2007-2013

The extension of the ERDF objectives as outlined above also had an impact on how the ERDF structural fund programme was implemented in the Netherlands between 2007 and 2013. The four regions formulated common priorities, which were: (i) to boost innovative capacity and entrepreneurship, (ii) to increase the appeal of regions and (iii) to invest in attractive cities. These objectives also serve as the guiding principles for Kansen voor West (Opportunities for West), the operational programme for the implementation of the ERDF structural fund programme for the West region. A total of €310 million in ERDF resources was made available to the West region. Table 2

shows how the budget was distributed between the priorities. The total investment aimed at, including public and private co-financing, amounted to €770 million, with 40% coming from the ERDF and 60% financed by central government, local and regional authorities and other public and private parties involved. Kansen voor West was given a boost through the fact that the co-financing contribution from the private sector was larger than planned for in advance. *The programme far exceeded all expectations, drawing a total investment figure of approximately €1.1 billion.*

The Netherlands Court of Audit studied the way the resources were distributed between the three objectives, and came up with a slightly

**Table 2. ERDF resources for Kansen voor West 2007-2013<sup>7</sup>**

Priority	Description	ERDF funds (in millions of euros)	Percentage
1	Knowledge economy, entrepreneurship and innovation	147,7	45,5
2	Attractive regions	53,7	17,3
3	Attractive cities	96,8	31,2
4	Technical aid	12,4	4,0
	<b>Total</b>	<b>310,6</b>	<b>100%</b>

<sup>7</sup> [http://www.kansenvoorwest.nl/index.php?option=com\\_content&task=view&id=17&Itemid=55](http://www.kansenvoorwest.nl/index.php?option=com_content&task=view&id=17&Itemid=55) (in Dutch)





different allocation to the one shown in Table 3. Half of the ERDF funds went to innovation and entrepreneurship, 20% went to the appeal of the regions and 30% was for socio-economically thriving cities.

When a programme is so extensive (involving more than 220 projects), large differences between those projects are unavoidable. In this programme, about half of the projects fall in the innovation and entrepreneurship category. The others are more or less equally divided between regional and urban projects. The diversity of the projects to be found within just one of the objectives is also large. For example, the Lage Weide port deepening project to the west of the Amsterdam-Rhine Canal (city of Utrecht) and costing €4.5 million falls under the 'attractive cities' category, just like the more standard projects in disadvantaged neighbourhoods, such as the renewal of the Hart van de Afrikaander neighbourhood, the construction of a new building for the EYE Film Institute Netherlands on the north bank of the IJ waterfront in Amsterdam and a Business Investment Zone (BIZ) for the shopping area surrounding the Noordeinde Palace in The Hague. There are also differences in the private

co-financing of the projects: a random sample taken from the project list shows differences varying from 0% to more than 30%. There are also conspicuously large projects, such as the development of the STC-Group, which is to be made into a top-quality knowledge institute. This involves the Shipping and Transport College in Rotterdam working towards transforming the group into a real draw for large international companies and small, innovative companies, bringing them to Rotterdam. The project involves an amount of more than €20 million across four years. The diversity of the projects is part and parcel of opting to support innovation and entrepreneurship. However, although there is great diversity, this does not mean that the programme has no common themes. First of all, there are the set priorities for the programme (see Table 2) and the requirement made by the European Commission that 60% of ERDF resources must contribute to achieving the Lisbon objectives. In addition to the priorities presented above, Kansen voor West also uses 'typology measurement'.<sup>9</sup> There are 15 main and sub-typologies that characterise the project that has been awarded funding in a maximum of two words. Two questions were relevant in setting up this typology, namely: "What is the investment

specifically aimed at and/or what is the main thing that the project brings about?"<sup>10</sup> Table 3 presents the five main typologies – development, SMEs, public spaces, knowledge, and recreation – and together these receive approximately 70% of the ERDF funding. By looking at the programme through this alternative lens, a clearer picture emerges of where the priorities for Kansen voor West lie in practice. SMEs are clearly a prime focus for the programme, with more than 20% of the ERDF funding going to them. Knowledge transfer (more than 33%) and funding projects (more than 20%) in particular stand out. Development involves a considerable proportion of medical development projects (40%) and energy projects (33%). Within the public spaces typology, almost 40% of funding goes to the redevelopment of areas and approximately 33%

is destined for the improvement of industrial areas. Where deployment of funding for knowledge is concerned, it is striking that almost 30% is going to the maritime sector. Table 4 contains a short description of two examples of each of three of the most important main typologies for the benefit of readers who are less familiar with the programme.<sup>11</sup>

*Kansen voor West scored well in the evaluations that are available.* The mid-term evaluation carried out by Berenschot consultancy in 2011, which paid particular attention to process-oriented aspects of the programme (including communication, marketing and cooperation), concluded that Kansen voor West presented itself well. The above investigation carried out by the Netherlands Court of Audit, which took

**Table 3. Investments according to main typology in millions of Euro<sup>8</sup>**

Main typology	Number of projects	Total expenditure (in millions of euros)	ERDF contribution (in millions of euros)	% of total ERDF resources
Development	41	231	60	19
SMEs	35	199	64	21
Public spaces	28	131	40	13
Knowledge	24	99	32	10
Recreation	19	75	24	8

<sup>8</sup> Kansen voor West (Opportunities for West) (2014) Management Authority, Annual Report 2013. Kansen voor West

<sup>9</sup> Kansen voor West (Opportunities for West) (2014) Management Authority, Annual Report 2013. Kansen voor West (Opportunities for West) Operational Programme, p. 38.

<sup>10</sup> Kansen voor West (Opportunities for West) (2014) Management Authority, Annual Report 2013. Kansen voor West (Opportunities for West) Operational Programme, p. 38.

<sup>11</sup> A full list can be found at [www.kansenvoorwest.nl](http://www.kansenvoorwest.nl) (click the British flag to view the website in English).



a critical look at the effectiveness of ERDF projects in the Netherlands, shows Kansen voor West to be an exemplary region.<sup>12</sup> It is true that there is some criticism of the indicators used for establishing the effectiveness of the policy pursued, but the West region was the only region that assessed subsidy applications both quantitatively and qualitatively for effectiveness

and efficiency. The 2013 annual report also shows that Kansen voor West more than complies with the European Commission's requirements. According to the plans, 63% of the ERDF resources were to be spent on achieving Lisbon objectives. According to the latest figures, 65% of the funds have been used for this purpose.

**Table 4. A number of projects under the three main typologies**

Main typology		Example projects
Development	Medical:	The <i>Spinoza Centre</i> is a modern research centre that aims to bring together business and scientific institutes for neuroscience research projects at the very highest level.
	Energy:	The <i>Rich in energy (Energierijk)</i> project consists of the construction of an anaerobic co-digester of biomass – a device that allows for the generation of power on the basis of animal manure and plants.
SMEs	Knowledge transfer:	<i>Nieuwe Energie op de Creatieve As</i> (New Energy in the Creative Axis) involves the creation of an expertise centre for stimulating innovation and entrepreneurship within the creative sector in the Haarlem region.
	Funding projects:	The Techno Fund provides venture capital to more young businesses focused on top-class technology in fields such as ICT, life sciences, communication, internet, robotisation and back-up technology in Flevoland.
Public spaces	Redevelopment:	The objective of this project is to increase the quality of the public spaces - and thereby that of the residential environment - of the Katendrecht district in Rotterdam by improving the accessibility of <i>Katendrecht</i> and the SS Rotterdam for pedestrians and cyclists.
	Industrial areas:	This project aims to improve the economic buoyancy of the <i>Overvecht Business Park</i> , thereby making it more attractive to entrepreneurs.

<sup>12</sup> <http://www.binnenlandsbestuur.nl/bestuur-en-organisatie/nieuws/effect-eu-subsidies-aan-gemeenten-dubius.9204001.lynkx> (in Dutch)

### **The role of the city in development and as management authority**

The Randstad conurbation (and the four big cities in particular) constitutes the main economic motor for the West region. The first brochure for the programme, dating from February 2008, also showed this to be the case, as geographic demarcation was not along West region lines, but instead focused on the entire Randstad conurbation due to the region's synergy with other structure-strengthening programmes. The importance of the Randstad conurbation is also expressed by the criterion against which the results of this operational programme are to be gauged: a position for the Randstad conurbation in the top five urban regions in Europe. It will come as no surprise to anyone that Kansen voor West immediately saw its opportunity when the ERDF programme was extended to include an urban section. From a G4 point of view, this is perfectly legitimate and understandable as in the districts of the four large cities, too, differences in prosperity are considerable.

It was unusual for the municipality of Rotterdam to be selected as the management authority for an ERDF programme. However, Rotterdam's

can-do mentality makes it a good match and there are certainly advantages, as use can be made of an existing administrative system that has experience and clout. This configuration, with the G-4 as economic heavyweights and one of these cities as the management authority, does, however, bring with it the risk of an urban bias, with policy being put into effect mainly in what could be termed 'urban' projects. The partners involved in Kansen voor West were aware of this risk when setting up





the programme and duly took it into account. When the programme was set up, a lot of time was invested in the distribution of the resources between the partners. A 'limit on effort' was set for each partner in order to achieve a balanced distribution of resources between the partners. This made things clear for the partners and contributed to the money being spent on time, which is important for European programmes. In fact, this approach is inevitable if one city is to act as the management authority, as otherwise there is a real possibility of conflicts regarding the distribution of the money. In practice, the areas located more on the peripheries of the West region also received their share. If we look at amounts received per head of population, the most northerly part of Noord-Holland did particularly well. The same applies to the Westland region in Zuid-Holland, for example. The ERDF resources for priority 2 - attractive regions - were deliberately not used for the G-4. Where the returns on each euro invested eventually turned out to be the highest is an open empirical question that needs to be answered on the basis of evidence.



### Open working method for stimulating innovation

*The major lesson to be learned from Kansen voor West for the purposes of other programmes is the working method used, which involved stimulating innovation and entrepreneurship.*

The experience of those involved regarding the assistance given for the subsidy applications and the way in which these applications were processed was a positive one. A conscious decision was taken not to work with watertight schemes or tenders, as often used for similar programmes, for Kansen voor West. Instead, the priorities for Kansen voor West were clearly set out in the operational programme and the programme can be seen as an invitation for the submission of project proposals. There are, of course, constraints. For example, subsidy applications cannot be submitted by individual companies and the application has to be consistent with the programme's priorities. The idea behind this more 'open' approach is the prevention of good projects falling by the wayside at an early stage due to limitations imposed by a scheme or tender. Anyone with a project who is interested in applying for a subsidy can contact one of the support offices set up by the eight partners. The support offices supply interested parties with information about

the programme and about relevant European legislation. They also look into whether the project/idea would make a contribution to the objectives of the Kansen voor West programme. This makes the subsidy application process an interactive one. However, it does not mean that the programme representatives help draft the project proposal. That really is the responsibility of the initiators. The main objective of the programme is to link parties with one another and strengthen consortiums. The procedure can be illustrated with a case from the Westland area. Entrepreneurs in the Westland area were in need of knowledge from both the agricultural university in Wageningen (with respect to green issues) and the Delft University of Technology (with respect to technological aspects). The two knowledge institutes were having difficulties cooperating. The subsidy for the project would only be allocated if they worked together. This case shows that money is a means for bringing about cooperation and, ultimately, more collaborative projects came about between the two knowledge institutes. Kansen voor West has ensured that cultural differences no longer stand in the way of cooperation. The result is an improved subsidy application and, ultimately, a better project. Kansen voor West is typified by the role it plays in linking up parties with each



other. This does require more expertise and time on the part of the programme representatives. This modus operandi, along with the broadly defined objectives of the programme, partly explains the diversity of the projects eligible for subsidy within the programme.

In addition, Kansen voor West provides opportunities for innovative ideas that had been refused bank backing. Where the development of the BioPartner Accelerator incubator at Leiden University was concerned, not even the university's principal banker was prepared to provide financing. Through Kansen voor West, the initiative was able to go ahead and the incubator has been a huge success and is now fully occupied. Even before the incubator was ready, the principal banker actively approached the initiators, offering to provide financing for a potential second incubator. The way the programme works and the diversity of the projects involved are diametrically opposed to the European Commission's wishes as it much prefers programmes to involve projects that are similar to each other. It is significant that this is mainly prompted by the prevailing bookkeeping mentality with the retrospective checking of whether money was actually spent in line with agreements, as mentioned above. The entrepreneurs who receive subsidies

through Kansen voor West also encounter the bookkeeping culture of the EU, in which it is all about receipts and accounting for money spent, rather than about the ultimate results of the investments. This reputation that clings to European programmes possibly forms a barrier for entrepreneurs who may be considering submitting a subsidy application in the future. What scares off entrepreneurs in particular is the risk that investments might be rejected after first having been regarded as qualifying for subsidy by project partners and the representatives of European programmes. Given the European methods of settling accounts, it can be risky for a city (in this case Rotterdam) to act as management authority. It does, in any case, entail financial risks as the city receives the ERDF resources and manages them but also needs to pay them back if it subsequently transpires that projects or parts of projects do not, after all, qualify for subsidy. Solid agreements about this have been made between the partners within the Kansen voor West programme, with clear procedures being in place for the subsidisers. On the basis of its experiences, Rotterdam has decided to take on the role of management authority for the coming 2014-2020 period, too.

### Opportunities for the future

The developments outlined above offer good opportunities for constructively contributing to the ambitions for regional policy. Without wanting to be exhaustive, we would like to provide a number of directions for reform here. These may be able to contribute to the further improvement of the effectiveness of regional policy.

Firstly, one test that is often forgotten is the extent to which European scale is actually the relevant scale on which to pursue policy. What we are talking about is the implementation of a subsidiarity test that establishes what the most appropriate administrative unit is for pursuing policy. Proximity to the target group is very important for this, making a case for policy to be pursued as close to the general public as possible. But at the same time, all of the effects of the policy need to be felt by the policy developer and therefore need to be taken into account.

A second crucial condition is that policy pays heed to the specific local context, including paying attention to history, strengths and weaknesses that are present, etc. Translated into political terms, this comes down to the development of a smart specialisation strategy.

In other words, know what your strengths are as a region and try to build on these.

A third condition is the drawing up of a monitoring plan with clearly defined outcome indicators. A plan of this type can serve as the basis for ex ante evaluation, for interim evaluation and adjustment, and for ex post evaluation. Such plans ensure that all available knowledge is taken into account in policy plans and that a foundation is laid for learning





lessons from not only successes but also failures. Failures, in particular, are a politically sensitive issue, but for policy to be more successful in the future, it is very important that lessons are learned from both positive and negative experiences in the past. Obtaining insights into the possible significance of time- and place-specific factors that contributed to the policy's success or failure is also important in this respect.

A fourth recommendation relates to the way in which projects are financed. Various bodies, including the OECD, indicate that there is a lack of venture capital in the Netherlands. This particularly complicates the financing of very risky projects with a potentially high return. The recently founded Regional Development Corporations (RDCs) potentially offer a solution to this shortage. Many of these RDCs are set up as what are known as 'revolving funds'. The use of European resources for boosting these funds can be a very effective way of making a contribution to the combatting of market failure, namely the lack of venture capital. This does mean deploying the funds on a relatively large scale. It should be prevented that the resources are divided up along regional and

policy ambition lines. The strength of a revolving fund lies in its ability to pool risks and for them to cancel each other out. The limitations of revolving funds also need to be recognised. Ideally, they should be used for financing high-risk projects with high expected returns. The use of revolving funds for financing initiatives involving the transformation of business parks or property, for example, are less obvious. These types of project are primarily aimed at avoiding the negative external effects of vacancies. The long-term return expected for projects of this kind is limited, but in such situations, there are good arguments for central government playing a role through contributing public resources for a responsible dismantlement or demolition of buildings.

The preceding remark also touches on the scale on which regional policy needs to be carried out. The study entitled *Stad en Land* (City and Periphery) concluded that the Dutch municipalities are too small for optimum regional policy, while the Dutch provinces are too big. In other words, the geographical area within which the effects of policy can be felt and within which effects need to be internalised in the policy plans lies somewhere between

municipality level and province level. Against this backdrop, the current practice of regions playing a central role is a strange one. Brussels' wishes regarding the number of parties with which it needs to carry out negotiations are no doubt of importance here. But this does lead to challenges when it comes to shaping effective policy and distributing the resources available. Current practice involves resources being divided up between parts of regions beforehand. While, from a theoretical point of view, this is not the best possible solution, it is a sensible way of allocating resources that prevents the need for extensive negotiations and renegotiations regarding the distribution. In due course, the distribution of resources at a lower scale level is recommended.

In conclusion, perhaps the most important lesson to be learned from Kansen voor West is that a relatively open programme is more compatible with modern insights into innovation policy than the usually strictly regulated and watertight schemes and tenders. *The opportunity for 'Neue Kombinationen' will only be increased if the operational programme also allows for the making of new combinations.* The role of broker, connecting and bringing parties

together in the hope that this leads to the desired innovation and entrepreneurship, is a role that fits here.







### **More in-depth reading**

Below, we list a selection of relevant publications for anyone interested in further reading on this subject. We have provided a short description of each publication's contents and its relevance in the form of a reader's guide. This will enable readers to make their own selection of further reading according to their own particular interests.

### *Funds and Games*

This study, published by the CPB Netherlands Bureau for Economic Policy Analysis in 2002, was written as part of inter-departmental policy research into cohesion policy. The study provides what is still an elegant overview of the theoretical and empirical knowledge that lies at the foundation for cohesion policy and its reforms. Through raising a number of major problems to be found in the design of cohesion policy in the 1990s, this study made a contribution to the reforms that were implemented over the course of this century.

Ederveen, S., J. Gorter, R. de Mooij and R. Nahuis (2002): *Funds and Games: The economics of European cohesion policy*, CPB Netherlands Bureau for Economic Policy Analysis, The Hague.

### *Fertile Soil for Structural Funds*

This study demonstrates that the effectiveness of structural funds is crucially dependent on the institutional quality of the country receiving those funds. The effect of structural funds in countries

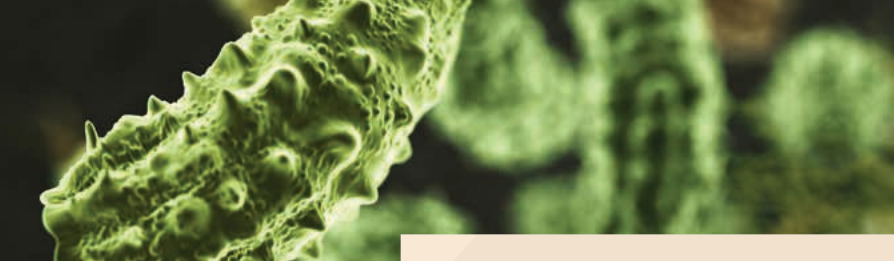
with poor institutions is, in fact, negative. In looking at European regional policy, this study comes to a conclusion that is similar to the conclusion reached by the World Bank in its study into the effectiveness of development aid. To a large extent, these studies form the basis for the increased emphasis on the importance of 'capacity building' as an important first step for the further development of disadvantaged regions.

Ederveen, S., H.L.F. de Groot and R. Nahuys (2006): *Fertile Soil for Structural Funds? A Panel Data Analysis of the Conditional Effectiveness of European Cohesion Policy*, Kyklos, 59 (1), pp. 17–42.

### *Barca Report*

This influential report written by Fabrizio Barca brought about a major change in the way regional policy is viewed in Brussels. An important notion developed in the report is the notion of what is termed 'place-based' policy, which stresses that good policy needs to pay heed to location-specific factors that, to a large extent, play a determining role in the effectiveness of policy.

Barca, F. (2009): *An Agenda for a Reformed Cohesion Policy: A place-based approach to meeting European Union challenges and expectations*, European Commission (DG-Regio), Brussels.



#### *Stad en Land (City and Periphery)*

Study looking at agglomeration forces in the Netherlands and the increasing importance of cities for regional economic development. Among other topics, this study looks for an explanation for regional differences in wages and prices of land. It also contains an analysis of the optimum scale level at which policy should be carried out, concluding (put succinctly) that cities in the Netherlands are too small and provinces are too big for being able to adequately internalise the regional effects of policy.

De Groot, H.L.F., G. Marlet, C.N. Teulings and W. Vermeulen (2010): *Stad en Land*, CPB Netherlands Bureau for Economic Policy Analysis, The Hague.

#### *Methodological Note on Outcome Indicators*

This memorandum was written under the supervision of Fabrizio Barca and Philip McCann in their role of special advisors to the commissioner of DG-Regio, Johannes Hahn. It lays the foundation for evidence-based policy and gives direction for the requirements with which evidence-based policy preparation needs

to comply. DG-Regio's endeavour in writing this memorandum was to make a contribution to future regional policy being more evidence based and to give member states guidelines for writing and implementing this policy. The memorandum reflects a turnaround in thinking on the part of DG-Regio, moving away from the bookkeeping mentality of checking money spent and working towards constructive cooperation and consultation in order to reach agreements regarding the deployment of resources in the most cost-effective way.

Barca, F. and P. McCann (2011, eds): *Outcome Indicators and Targets: Towards a new system of monitoring and evaluation in EU Cohesion Policy*, European Commission (DG Regio), Brussels.

*Platform policies based on related variety and differentiated knowledge bases*

This study shows that incremental innovations can be influenced by innovation policy only to a limited extent. Real breakthrough innovations with plenty of growth potential call for a more open approach for which a wide variety of knowledge and skills need to be brought together. Exactly which interactions will lead to innovation has turned out to be unpredictable in practice.

Asheim, B., R. Boschma and P. Cooke (2011), *Constructing regional advantage: platform policies based on related variety and differentiated knowledge bases*, *Regional Studies*, 45 (7), pp. 893–904.

*Complex Adaptive Innovation Systems*

This study emphasises that innovation systems are complex and emergent. There is no 'repeat prescription' that makes the chance of success equally as big.

Cooke, P. (2012), *Complex Adaptive Innovation Systems: relatedness and transversality in the evolving region*, Routledge, Abingdon (UK).



### *Cluster Evolution*

Martin and Sunley emphasise that the development of innovative clusters is only predictable to a limited extent. There is no standard life cycle for growth, stabilisation and downturn. New combinations and insights can contribute to innovative clusters starting to grow once again.

Martin, R. and P. Sunley (2011), *Conceptualizing cluster evolution: beyond the life cycle model?*, *Regional Studies*, 45 (10), pp. 1299–1318.



## Introduction

The fifteen project interviews below were previously published in the public versions of the 2010, 2011, 2012 and 2013 annual reports. No changes have been made to the texts. This is why, in some articles, mention is made of plans and intentions that are already in the past at the time of this publication.

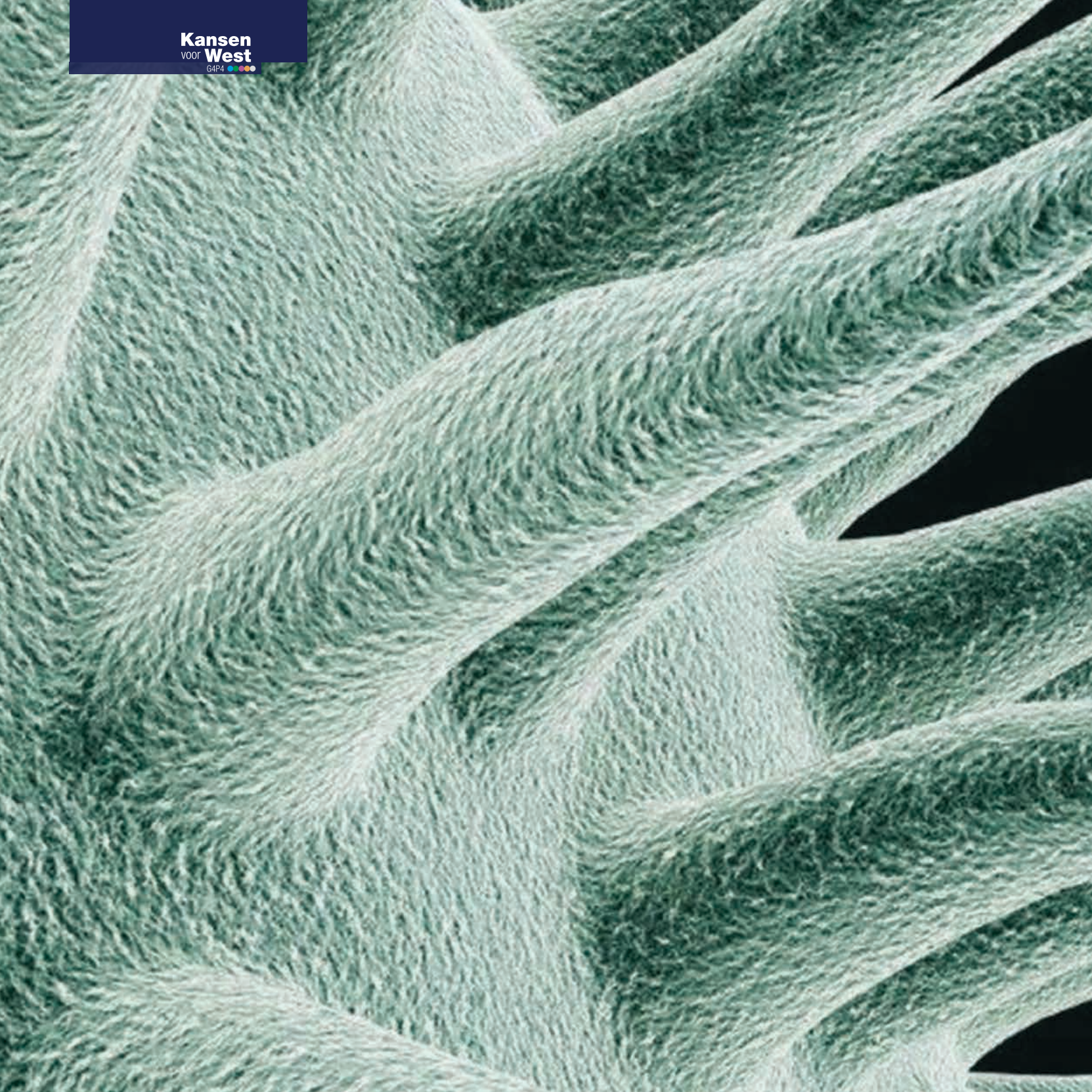
The aim of the interviews is to make the Kansen voor West programme more tangible through showing how European money can make the difference between plans on the shelf and actual realisation. Each year the report focused on a different theme. In 2010, the focus was on outlining the three priorities for Kansen voor West. In 2011, attention shifted to 'red' and 'green' life sciences. The year 2012 aimed to show the effect of provincial projects, and the theme of 2013 was urban projects.



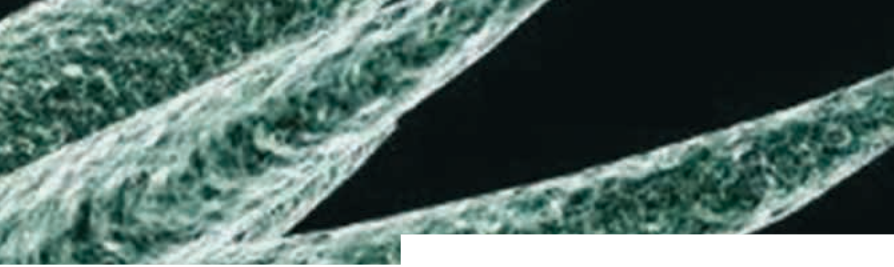
## Project interviews

- 1. World first for the Netherlands with new generation of electron microscopes (2010)*
- 2. Fast Track to Innovation aims to make Noord-Holland more sustainable more quickly (2010)*
- 3. Flourishing small-scale economies as lubricant for local neighbourhoods (2010)*
- 4. Amsterdam life science sector takes major steps forward (2011)*
- 5. New PET/MRI scanner fits in with ambitious VUmc plans (2011)*
- 6. Spinoza Centre: an advanced look into the human brain (2011)*
- 7. Sustainable, fresh idea to solve salinisation problem (2011)*
- 8. Techno Fund Flevoland more than worth the investment (2012)*
- 9. Maritime Campus Netherlands puts in the work (2012)*
- 10. Task Force Innovation Utrecht Region takes large step forward (2012)*
- 11. The Sustainability Factory: top innovator in technical vocational training (2012)*
- 12. Architectonic showpiece pays tribute to the medium of film (2013)*
- 13. The Hague makes way for a ballroom (2013)*
- 14. Locals finally on top of the world (2013)*
- 15. Multipurpose second-hand shop in Utrecht (2013)*









## 1. World first for the Netherlands with new generation of electron microscopes

**Leiden University plays host to two cryogenic transmission electron microscopes, which in terms of technology are state of the art. Not only do these enable you to see more details than any other microscope in the Netherlands will currently allow, they can also operate 'independently' thanks to automation. Operation by remote control, from any place in the Netherlands or elsewhere in the world, is also possible. "It is thanks to this technology that we are on the threshold of publishing a series of groundbreaking scientific articles," says Jan-Pieter Abrahams, Professor of Biophysical Structural Chemistry in Leiden. "In addition to attracting increasing amounts of attention from around the world, the microscopes will also soon bring increasing activity as a spin-off." Abrahams is referring to a project costing millions of euros to which Kansen voor West (Opportunities for West) is making a substantial contribution.**

The year 2011 will involve the set up and testing of the microscopes, and in 2012 the two heavyweights will be fully operational. The Netherlands has every right to be proud of the national research institute for high-resolution cryogenic transmission electron microscopy. No single Dutch organisation had sufficient money,

knowledge or experience for setting up this valuable facility on its own. That was the reason for ten Dutch universities and research institutes to take the plunge and join forces to set up the Netherlands Centre for Electron Nanoscopy (NeCEN). "Instead of us having to go abroad for certain types of research project, other countries will be coming to us," explains Abrahams.

### **New generation of microscope adds value**

The latest model of electron microscope has been specially designed to examine the complex structures inside cells to a level of detail that until now was not thought to be feasible. And, even more importantly, they do this under circumstances that are almost natural. This will allow us to find out exactly what goes on within living cells.

Cells are just like little biochemical factories that in terms of complexity vie with the advanced Europoort-Botlek industrial area with all its machinery. "We will soon be able to produce images of specimens under cryogenic (extremely cold, ed.) conditions.

This makes the structure of isolated proteins visible in very high resolution and results in two- and three-dimensional overviews of cells," explains Abrahams. He emphasises that this

will constitute a major step forward in science in terms of knowledge of blood cell abnormalities, cardiovascular diseases, the way infections operate, molecular processes that cause cancer and the interaction of drugs with the proteins in our body. One day of the electron microscope being used will supply research data for six months. "The preliminary stages of research involved in, say, the testing of a vaccine always take many years," says Abrahams. "With our new techniques, we could quite easily save on a couple of years of preliminary work."

### **The modular structure of a cell, or of a bit of blancmange**

The main part of the research facilitated by NeCEN (more specifically, NeCEN Science) at the Bio Science Park in Leiden involves the development of new strategies for preventing, diagnosing and treating diseases. It will not only be fundamental science that gains from this new generation of microscopes: NeCEN Open Access is an open facility that also allows industry to make advances in their application-oriented materials research. The Kansen voor West subsidy is primarily intended to support the industry-aimed component of the project. Businesses have proven to have just as much

interest in this new research method as the academic world, if not more. Abrahams refers to the dozens of letters of support received from large companies, such as DSM, Unilever and Danone.

These are the companies that will be using the technology, perhaps to investigate the modular structure of a blancmange in an effort to come up with the ultimate taste sensation, for example. "Anyone is welcome to come and







make use of our facilities, as long as they keep to the standard procedure for registration and, of course, pay for the service."

### **The whole is greater than the sum of its parts**

The two types of electron microscope, manufacture by FEI Company in Eindhoven, measure 1.5 x 1.5 metres and stand 4 metres tall. The new building, specially constructed to be vibration free, will be completed in the summer and is located right next to the Cell Observatory of which Abrahams is in charge. The location is no coincidence as the observatory houses a whole range of other technologies that focus on making cells and molecules visible. These include standard (optical) microscopy, magnetic resonance imaging (MRI), X-ray crystallography and many others. "We have everything covered," says Abrahams, "from cell culture facilities to the electron microscopes. And that is our strength. Each individual technology sheds light on specific aspects and has its own strong and weak points. Combined with electron microscopy, these technologies form the building blocks with which we are able to build a complete overview of what goes on within cells. And the knowledge that we will now

be able to gain means that we can take giant strides forward." The centre hopes to extend its facilities to include a third type of electron microscope. "In the long run, that shouldn't be a problem, as in both scientific and economic terms, the impact of this new technique will be enormous." Abrahams is convinced that this will be the case. The facility will be very busy with researchers coming and going, which will also draw a lot of international life science companies. "Everyone wants to be where the very best research is being carried out."

### **Necen Open Acces**

Main beneficiary: Universiteit Leiden

Total project costs: € 7.235.085

Kansen voor West (Opportunities for West)

contribution: € 4.702.805

Website: [www.necen.nl](http://www.necen.nl) (in English)





## 2. Fast Track to Innovation aims to make Noord-Holland more sustainable more quickly

**Sustainability for buildings is something that we are all now actively involved in. High efficiency boilers, double or triple glazing and cavity wall insulation are things we have all become familiar with. But these are just the start. The collaborative project entitled FastTrack to Innovation (Innovatiesnelweg) in the province of Noord-Holland is forging ahead and creating a stage on which the private sector and knowledge institutes work together on the accelerated and comprehensive application of sustainable building and installation techniques.**

The aim is to make the region permanently sustainable. Funds received from central government, the province and Kansen voor West allow Fast Track to Innovation to provide advice, often for free. This is exactly the nudge that the construction sector needs in order to get going. And what about the businesses in the building sector themselves? They donate their specific practical experience and enthusiastically demonstrate to their fellow builders that sustainable construction really does work.

### **Written-off property becomes sustainability centre of expertise**

The new owner of a former school building in the village of Spanbroek is turning it into his

business premises and is using the rooms he does not require as a centre of expertise for sustainable techniques. Of course only after he had made it entirely sustainable. This means that visitors can see the techniques applied in practice and check consumption and the savings made. This is one of the examples of enthusiastic entrepreneurs wanting to share their knowledge about sustainable building with others in the construction sector. And these ambassadors are very important as, with the exception of one growing leading group, many companies are still cautious about using innovative products and processes. The building sector is pretty conservative in this respect. Unfamiliarity breeds suspicion, all the more so in times of economic malaise.

### **Sharing knowledge through networks**

Built-up areas gobble up one third of national energy and emit a proportionately large amount of CO<sub>2</sub>. The energy is needed for heating, cooling, ventilating and lighting buildings. In terms of implementation, bringing down energy consumption would be easy, but knowledge about how to do this has not yet been widely circulated. In Noord-Holland, various parties came together in an effort to break this deadlock. Their formula is simple



and successful: ensure that fellow builders, who are the hands-on experts, share their practical experience and bridge any gaps by providing advice. "We try to take away any barriers by offering knowledge. This is what the money granted to us in 2010 by Kansen voor West (Opportunities for West) is being used for," explains René Jansen, coordinator for the province of Noord-Holland's Sustainable Energy Service Point and the process manager for the Fast Track to Innovation project. The project was set up by Service Point and the Development Company Holland North, in collaboration with many other parties in the building sector in Noord-Holland. "The objective is to cause a departure from the trend, so that sustainable building becomes the norm in our province," says Jansen. He explains that the main aim is to stimulate the setting up of networks between the various companies and organisations in the building sector and to inform them about the products that are on the market. The building companies can then learn to handle the products as part of pilot projects. "Entrepreneurs can either be aware or unaware of their lack of competence. The Fast Track to Innovation allows them to become consciously competent. We use four cornerstones to achieve this

consciousness: communication, pilot projects, knowledge development and a quality process. These concepts are nothing new, but they are compatible with existing structures such as training courses used by the Dutch Construction and Infrastructure Federation (Bouwend Nederland), the Syntens innovation network, and the ESPEQ and OTIB training organisations."

### Focus on the end user

Ideas for pilot projects are now streaming





in with 28 applications currently needing to be assessed. One example of Fast Track to Innovation aiming to make Noord-Holland more sustainable more quickly is an approved pilot project involving the construction of six climate-neutral homes in Amstelveen. A number of co-financiers from the building sector and participating in the project joined forces for this. They will also be monitoring their applications, along with the residents. After all, the end users are what it is all about. "They need to believe in the concept and it helps if we can offer them a quality label with guarantees," explains Jansen. The project is now working hard on producing such a label.

### **Snowball effect**

Jansen expects the project to have a snowball effect. "Currently we have a few dozen businesses that have joined the Fast Track to Innovation project as co-backers. They are putting their valuable time into the project. In 2013, there may be as many as 250 businesses involved." Bringing together knowledge at gatherings and networking events is of crucial importance. "And it works," says Jansen. "For example, the managing director of M&O

Techniek, a firm of installation contractors in the town of Wormer, talked about the renovation of his own company's premises, which now have a class A energy label instead of a class G one. He was completely open about everything and showed the detailed costings for the work." Extra chairs had to be brought in as the organisers had not planned on there being so much interest. "It is actually very simple," according to Jansen. "You only need to offer a platform. Here and there you might also need to give someone a nudge by offering personalised advice. The partners involved in the building sector then automatically grow towards each other, whether they are architects or end users or anyone else in between."

### **Fast Track to Innovation (Innovatiesnelweg)**

Main beneficiary: Development Company Holland North (Ontwikkelingsbedrijf Noord-Holland Noord N.V.)

Total project costs: € 3.159.808

Kansen voor West (Opportunities for West)

contribution: € 1.741.308

Website: [www.dwa.nl](http://www.dwa.nl)

(click 'Over DWA' > 'English' to view the website in English).





Graaff  
vegein B.V.

10-6031420  
54295722





### 3. Flourishing small-scale economies as lubricant for local neighbourhoods

**Local entrepreneurs are more than welcome and make significant contributions to the quality of life in a district. The city of Utrecht is becoming increasingly aware of this. Not everything should be only about the residents in a neighbourhood. We should therefore ensure that residents and small businesses care more about each other and about their neighbourhood. This results in a win-win situation where quality of life and safety are concerned and small-scale economies benefit from it. Utrecht, in part thanks to the Kansen voor West (Opportunities for West) subsidy, is ensuring that the municipality can fully focus on this labour-intensive objective.**

It is doing this through the Local economies and small-scale entrepreneurship (Wijkeconomie en kleinschalig ondernemerschap) project. It all starts with cultivating an awareness of the shared responsibility in a neighbourhood. This is done by actively stimulating parties and offering them a place to come together, a platform, right there in their own neighbourhood. Success already seems to be guaranteed if the spontaneous collaborations of self-employed professionals with no employees are anything to go by. These professionals would never have come into contact with each other if it was not for the entrepreneurs event organised for them.

#### **Good examples tend to be followed**

The Colour Kitchen in the Zuilen district of Utrecht is a place to eat and drink. It is located in a former school building on the Prinses Christinalaan, putting the property to a surprising new use. This is good for the neighbourhood and also worthwhile, as the owner, Wim Wiersma, offers jobs and training in the hospitality sector mainly to young people whose prospects might at first glance appear to be less than promising. This puts them on a better social footing. And what about the products that are served in the restaurant? Wherever possible, these are sourced from local producers. Bread comes from the Turkish baker, for example, and specialities are sourced from the Moroccan shop over the road. It's a fantastic example of an entrepreneur being aware of his neighbourhood and wanting to improve it.

#### **Lubricant for quality of life**

Community involvement is a major objective of the small-scale, neighbourhood-oriented approach for entrepreneurs in Utrecht, according to Brigitte Hulscher, deputy head of the Economic Affairs department for the municipality of Utrecht, who is responsible for the project. "We are primarily aiming at cooperation at the lowest levels in neighbourhoods," she explains. "In doing so,

we are making as much use as possible of the 'eyes and ears' already present in the districts, but also of district papers, for example, and our district offices that are already in place." Hulscher explains that in the past the municipality's attention was primarily paid to spatial projects, concentrating on matters such as where the best place would be to plan a row of shops. "These days we are primarily looking for synergy between our local economy account managers and the many creative people to be found in the various districts. Hulscher explains that money for temporary projects obtained from Kansen voor West, the province and its own funds allows the municipality to provide a good foundation for flourishing, close-knit local economies in Utrecht, offering plenty of opportunities and options for small-scale entrepreneurship. She believes that entrepreneurs should operate in communities. They are the lubricant for quality of life in a neighbourhood. That awareness needs to grow.

### Securing fruitful connections

The municipality of Utrecht believes in shared responsibility at the lowest levels in districts, where 'shared' constitutes the collaboration with local policemen, the fire brigade, the municipal-

ity's district manager, property associations and/or other relevant landlords and, last but not least, with the entrepreneurs themselves. Support is offered by a street manager, specially brought in for the project. Most of these parties are also involved in obtaining a Business Security Warranty (Keurmerk Veilig Ondernemen). And if the local supermarket wants to take corporate social responsibility, it is also free to join the project. Hulscher admits that this is a long-term project. And that, now that extra funds have become available, the main target is to make a





difference once and for all by securing the many fruitful connections that have been made. Joining forces to reach a win-win situation needs to become something that is an entirely natural and familiar thing to do. "It might not seem like anything earth-shattering, but I think that the fact that local tradespeople in various shopping areas took to shovelling snow themselves last winter is encouraging. It is a sign of entrepreneurs becoming more aware of their community and of them becoming more involved in creating a clean and safe shopping environment."

"There are four cornerstones to the way we work, namely craftsmanship, business climate, the security aspect associated with that climate, and finally the 'connection', or in other words the process of bringing parties together. Breaking matters down like this provides direction for the creativity of the entrepreneurs and this seems to work." Where craftsmanship is concerned, Utrecht receives support from the Zwind agency, brought in using the subsidy. Zwind provides advice, coaching and training to potential and start-up entrepreneurs and makes connections by organising theme-based gatherings and networking events. "At first, the services of Zwind were intended to be used only by entrepreneurs in the urban regeneration districts,"

explains Hulscher. "Then last year we extended the service provision a little, as districts such as Leidsche Rijn, for example, need the support just as much. The kind of support needed can vary per district. If we were to exclude a 'new' district such as Leidsche Rijn from our attention, then the same problems might occur there as in the urban regeneration districts." Additional resources bring much-needed room for creativity between the project representatives and the various partners. And a good example tends to be followed. Utrecht is convinced of that.

#### **Local economies and small-scale entrepreneurship (Wijkeconomie en kleinschalig ondernemerschap)**

Main beneficiary: Municipality of Utrecht

Total project costs: € 4.565.156

Kansen voor West (Opportunities for West)

contribution: € 1.826.062

Website: [www.utrecht.nl/english/](http://www.utrecht.nl/english/)



# Life Sciences Center Amsterdam

The Amsterdam  
technology transfer hub for life sciences

## Harvard-on-the-Amstel...

"Together with the Spinoza Centre, we will be a complementary whole. And soon we will be adding the icing on the cake: the Amsterdam Imaging Center, which will put the Amsterdam region very firmly on the international map where scientific innovation is concerned. Are we capable of becoming Harvard-on-the-Amstel?"

Professor Guus van Dongen, VU University Medical Center

## Amsterdamse hotspot

"If we are successful in complementing each other's specific areas of expertise, we can make Amsterdam a real international hotspot for brain and cancer research."

Professor Theo Mulder, Royal Netherlands Academy of Arts and Sciences





## 4. Amsterdam life science sector takes major steps forward

**The Amsterdam region is strengthening its position in the knowledge economy by aiming at innovation, cooperation and new activities. The various knowledge institutes within the life science sector work closely together in the field of imaging for biomedical science. This covers imaging techniques such as X-rays, CT scanning, MRI scanning and PET scanning for the benefit of neurological, oncological and cardiovascular research. The knowledge infrastructure is being successfully optimised and hospitals and universities are increasingly entering into strategic alliances, not only with each other, but also with companies in the pharmaceutical and scanner industries at home and abroad. 'Open innovation' is the motto.**

The two articles that follow in chapters 5 and 6 relate to ERDF projects that complement each other when it comes to imaging techniques, resulting in Amsterdam having everything covered in this field. This enables the city to make its mark on the international stage, both in terms of being a city of knowledge and a city of innovation. ERDF contributions work as a catalyst for strengthening Amsterdam's position.

Firstly, Professor Guus van Dongen of the VU University Medical Center (VUmc) talks about the future Imaging Center and, in anticipation of that, the setting up of a PET/MRI Center. The PET/MRI Center was established using ERDF funds, just like the second laboratory for the development of disease-specific contrast agents established before it. In these laboratories, translational research is the focus. This involves fundamental knowledge from the laboratory being further developed to result in products, including diagnostics and drugs, that most benefit patients. Personalised therapies is in sight.

Secondly, Professor Theo Mulder of the Netherlands Academy of Arts and Sciences (KNAW) provides information about the Spinoza Centre for Neuroimaging. This centre, the construction of which will start in 2013, will be carrying out fundamental research using advanced MRI scanners (3T and 7T). The very high resolution of the 7T equipment in particular will allow us to find out much more about how the human brain works. This ERDF project is based on a unique collaboration between the main knowledge institutes in Amsterdam.

PHILIPS

## Molecular imaging and tracers

The foundation for molecular imaging is formed by the use of 'tracers', which are contrast agents that may or may not be radioactive. These selectively adhere to disease-specific biomarkers or to drugs. Tracers can be used

- within the field of nuclear medicine (positron emission tomography = PET and single-photon emission computed tomography = SPECT),
- radiology (magnetic resonance imaging = MRI, computed tomography = CT and echocardiography) and
- in optical procedures (optical coherence tomography = OCT, fluorescence imaging).

For the purposes of PET or SPECT imaging, a small amount of a radioactive substance needs to be linked to the disease-specific contrast agent or the drug. When MRI imaging is involved, the substance is paramagnetic and for optical imaging it is fluorescent.

Many hospitals, including the VUmc, now have a hybrid PET/CT scanner. The VUmc will be the first hospital in the Netherlands to have the most technically revolutionary hybrid camera, the PET/MRI scanner, at its disposal.



## 5. New PET/MRI scanner fits in with ambitious VUmc plans

**The VU University Amsterdam's Medical Center (VUmc) is working on a centre that will bring together all types of imaging techniques. The redesign of the VU University campus and the VUmc presents the perfect opportunity for realising this goal. The VUmc Imaging Center Amsterdam will be operational in 2016 and will be one of only a few imaging centres of this caliber in the world.**

A first and crucial step towards this will be the official opening of the PET/MRI Center in October 2012. The centre houses a revolutionary and promising technique in the field of medical imaging, namely PET-MRI scanning. The ERDF project funds will be used to fit out a building and purchase PET/MRI research equipment. The VUmc has now fitted out a second laboratory to be used for the radioactive labelling of drugs and disease-specific contrast agents, known as tracers. This laboratory, too, was made possible through contributions from the European Regional Development Fund. Professor Guus van Dongen explains about the many irons the VUmc has in the fire. He emphasises the added value of far-reaching cooperation between the knowledge institutes, but also of cooperation with industry, the Amsterdam authorities, the Dutch ministries and organisations in other European countries or operating at European level.

**The rewards brought by knowledge sharing: network development, specialisation and facility sharing**

Far-reaching cooperation between hospitals and universities proves to be the only way to go in terms of business economics. Why would the renowned Amsterdam-based Netherlands Cancer Institute/Antoni van Leeuwenhoek Hospital and the Academic Medical Center go to the trouble of purchasing expensive cyclotrons (particle accelerators) if they are able to make use of the advanced TracerCenterAmsterdam within the VUmc Imaging Center? "The needless doubling up of equipment and expertise based on a notion of 'every man for himself' is now a thing of the past," says Van Dongen. "It's now all about network development and making the best use of each other's expertise and infrastructure (facility sharing)." He sees the fact that the top Amsterdam knowledge centres in the fields of oncology, neurology and cardiology have now joined forces as an enormous step forward. The knowledge centres present themselves to international industry and to subsidy providers at home and abroad through shared Technology Transfer Offices (TTOs). "This means that Amsterdam presents itself in a powerful way where imaging is concerned and that it has strengthened its position as a centre for research well."

### **PET/MRI Center: innovation front runner**

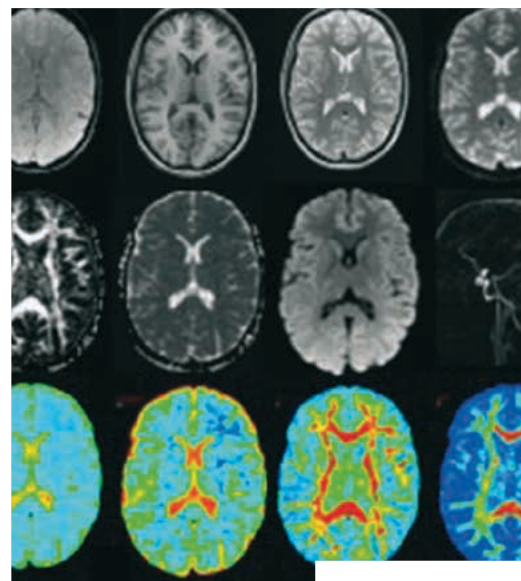
The VUmc has the full range of imaging techniques at its disposal. "We had, in any case, reached the stage for redesigning our centre, as the technological developments for hybrid imaging equipment (PET/CT and PET/MRI) require departments to work together closely," says Van Dongen. He outlines what the situation has become for the Nuclear Medicine and Radiology departments, which are now both operating from six different locations. "That is why we chose to concentrate things, bringing everything together under one roof." The two departments have now merged. All of this is to do with the fact that the VUmc sees the realisation of the PET/MRI Center as an important step towards the future Imaging Center. It already wants to realise and position this centre as an internationally leading facility now. The ERDF has made contributions to this ambition. The official opening of the PET/MRI Center will be in October 2012.

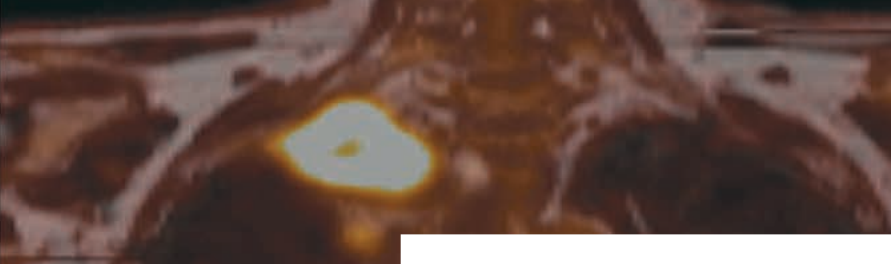
The fully comprehensive Imaging Center will be operational in 2016. This will mean that finally everything will quite literally be in place: it will be a centre where everything will be

done to perfection: with nuclear, radiological and optical techniques and where patients and innovation are the focus.

### **High hopes for hybrid scanner**

The PET/MRI scanner makes an advanced form of imaging technique possible that will help doctors and scientists in their research into new diagnostic and treatment methods for cancer and neurological disorders. The centre purchased the equipment, designed by Philips,





at the end of December 2011. "We did not want to wait any longer for this hybrid scanner, which combines PET and MRI techniques," explains Van Dongen. "This is because we anticipate that it will enable us to achieve revolutionary results in the fields of diagnostics and therapy." The scanner, along with all of the other equipment, including nuclear laboratories, will need to be moved to its final home in the Imaging Center, but that will be no problem. "The equipment has been set up in its temporary home in the new PET/MRI Center building in such a way that both the equipment and the laboratories can be moved without any difficulty in accordance with the plug and play principle. Up until then, we will be able to gain plenty of experience using this innovative scanner."

### **What benefits are offered by a combined PET/MRI scanning system?**

Each of the two imaging techniques (PET and MRI) have been used independently for a number of years, but now Philips has united them in one single system. This allows doctors and researchers to create images of both the anatomy of a patient and the biology of a tumour or disorder. This results in a better understanding of the causes of conditions

such as Alzheimer's, cancer and heart disease. The use of the hybrid PET/MRI scanner brings great added value, according to Van Dongen. "Compared to the other hybrid system, the PET/CT scanner, PET/MRI scanning has the advantage of a significant reduction in radiation exposure during scanning. The combination of PET and MRI in one scanner is also more effective, less stressful for patients (as two scans are made during one session) and offers more possibilities for diagnostics and the monitoring of treatment." The added value of the scanner is mainly down to the fact that it allows you to measure several biological parameters at the same time. "MRI allows you to measure blood flow accurately. If blood flow within a tumour is poor, for example, then you get an immediate explanation for why there is no or little build up of the radioactively labelled drug (PET method) in the tumour and therefore why the drug is not being effective. This then allows you to establish, during just one scanning session, that a treatment option using that specific drug can be excluded in advance. If used, it would raise false hopes and would be a waste of both time and money. This fits in perfectly with the VUmc's ambitions of offering patients 'personalised therapies'.



### Customisation for individual patients

Specific molecular changes take place in bodies affected by conditions with significant social and other impact, such as cancer, Alzheimer's, multiple sclerosis and cardiovascular diseases. Over the last decade, researchers have established exactly which 'disease-specific molecular biomarkers' these are. The biomarkers can be visualised using what are known as tracers, or contrast agents. This represented a major medical breakthrough, as this discovery allowed molecular imaging to trace diseases at every stage, from diagnosis right through to therapy. "Medical science has now taken yet another revolutionary step forward in that we can now use the same imaging techniques, particularly PET imaging, to follow the specific route drugs take in a patient's body," says Van Dongen. "This is done quite simply by linking a small amount of radioactivity to the drug. This allows us to establish, for example, whether the drug selected actually reaches the tumour when a certain dosage is used." Van Dongen uses a number of figures to illustrate how invaluable this breakthrough is: "Just 40% of all drugs prescribed have turned out to be effective. In more than half of patients, the drug used has no therapeutic effect, and may even have negative

side effects. The individual biological features of a disease determine whether a drug is successful or not. In oncology, just one in four of the prescribed drugs actually works."

It is clear that molecular imaging is a very effective method from the patient's point of view and that no time is being lost applying the method. "Generally, you only have an idea of whether a therapy has been effective after five or six weeks, or even up to three months, but now you can find out within a few days.







You can then immediately look at alternatives, without needlessly having to carry on with a drug that is having no effect," explains Van Dongen. "Annual drug turnover currently totals 900 billion euros, so clearly there are massive gains to be made. Scanning a drug in order to determine its effectiveness costs around €3000, while therapeutic treatment using such a drug costs between €50,000 and €100,000 a year. It therefore goes without saying that this discovery is of great socio-economic importance, particularly in times when the costs for healthcare are rising rapidly." Custom-designed treatment for each individual patient offers the solution and that solution is a future prospect. Imaging enables the pharmaceutical industry to come up with very specific methods for developing new drugs more efficiently and, consequently, at reduced costs. The therapeutic efficacy of a substance can be established at an early stage.

### **Quintessential tracer developer**

The VUmc has invested large amounts in the development and manufacture of tracers, particularly PET tracers for clinical use. It was the first to introduce the most important PET tracer (18F-fludeoxyglucose, shortened to 18FDG and also known as "radioactive sugar"). The

introduction of this tracer led to an explosive growth in the number of PET scanners in Dutch hospitals. The TracerCenterAmsterdam, at which advanced biomedical research and drug development takes place, was specially set up by the VUmc to be a prominent supplier of these tracers. "Here, a team of biologists, chemists, physicists, pharmacists and doctors work on innovation. Safety is of paramount importance, both for our staff and our patients." The clinical tests are conducted using high-tech hybrid PET/CT and PET/MRI cameras. The actual clinical value of a tracer is only established at this testing phase. Only then can the team can start thinking about routine application in healthcare.

"A long and meticulous testing period in our tracer development lab precedes any authorisation for clinical application," explains Van Dongen. "So far, 60 tracers have been developed for clinical application." This has made the VUmc one of the largest and most successful tracer developers in the world. Van Dongen expects there to be an explosive growth in demand for molecular imaging and tracers from pharmaceutical and biotechnological companies at home and abroad. "The number of contracts for biomedical research is sure to increase significantly."

#### VU University Medical PET/MRI Center

Main beneficiary: VU University Medical Center  
(VU medisch centrum)

Total project costs: € 12.948.385

Kansen voor West (Opportunities for West)  
contribution: € 5.579.354

Website <http://www.vumc.com/>

#### Second GMP lab thanks to ERDF

Once a tracer has been approved for clinical application, the complex and multidisciplinary process of linking a small amount of radioactive contrast agent to a disease-specific biomarker or drug commences. Radioisotopes are made on site using particle accelerators (cyclotrons), which need to be close to the production lab due to the short half-life of the isotopes (they decay after a few hours). Chemists work quickly and with extreme precision to link the radioactive substance to the eventual tracer. This is done in Good Manufacturing Practice laboratories (GMP labs), which have been standardised for the development and production of drugs intended for human application. The working environment in the laboratories is sterile and contains various hot cells which are used for preparing the tracers. "This means that the entire chemical process, from the manufacture of the radioactive contrast agent right up to the preparation of the syringe containing the labelled tracer, takes place in our laboratories," says Van Dongen. "We now have five cyclotrons, two GMP labs and twelve hot cells. The second GMP lab was built a few years ago using ERDF funds. This tracer infrastructure will also be effortlessly moved to the future Imaging Center."

#### Dutch Imaging Hub

"The VUmc has entered into a strategic alliance with the University Medical Center Groningen and the Radboud University Medical Center in Nijmegen in order to form the Dutch Imaging Hub," says Van Dongen. "There is intensive cooperation between the three parties, working on specialised research into drugs using the latest molecular imaging techniques. As a result, new drugs and treatments will come onto the market more quickly and the Netherlands will remain a world player in this type of research."





Van Dongen proudly mentions the long-term cooperation contract between the Dutch Imaging Hub and the Swiss Roche-Genentech company, which was entered into at the end of 2010. "Roche-Genentech is the most innovative pharmaceutical company in the world. It employs 80,000 staff and has annual revenues totalling approximately € 50 billion. The Dutch Imaging Hub will be the sole facility to carry out imaging labelling work for the company's drug development programme." And there is more that Van Dongen is proud of: the international pharmacy and scanner industries want to work on developments with the VUmc and the whole of the Amsterdam region, and the complex plans for the new building are really coming together, too, on paper and in practice. "We managed to get everything done incredibly quickly. We are the front runner in this field, and if this is anything to go by, we will certainly remain so."

### **Like a spider in the European web**

The VUmc is also attracting attention on the European stage through the coordination of a network of European imaging and tracer centres within EATRIS (European Advanced Translational Research Infrastructure in Medicine). The European head office for EATRIS is also located on the VUmc campus. This strengthens the

role of the Netherlands as a centre for cross-pollination between the European academic world and the industry for translational research.

"We anticipate that this will make the Netherlands an even more attractive place of business for international companies in the health sector," says Van Dongen. "Dutch knowledge institutes excel in translational research and EATRIS is the ideal structure for international cooperation."

### **Perfect fit for national top sector policy**

"If we look at our strengths within the framework of Kansen voor West and European aspirations, the Amsterdam metropolitan area stands out due to the high level of knowledge it has in the fields of oncology, neurology and imaging. It has a lot to offer on a global level. So it comes as no surprise that our objectives fit in perfectly with what central government is championing with its top sector policy." Where the 'Life Sciences & Health' top sector is concerned, policy is aimed at 'making a contribution to high-quality, affordable healthcare, thereby contributing to improved quality of life and better control of care costs. It is a development that should increase labour productivity and GNP'. Due in part to the far-reaching cooperation the Amsterdam medical world is involved in, this objective seems to have been made for this sector.



THINK  
THEM  
CREATIVELY



## 6. Spinoza Centre: an advanced look into the human brain

**In 2014, the Spinoza Centre for Neuroimaging will become operational. From then on, companies and scientific institutes will be able to use it for carrying out multidisciplinary, neuroscientific research at the very highest level. The ERDF contribution made to the institute will allow it to purchase very advanced equipment, including a 3T and a 7T MRI scanner.**

The centre will be split between two new buildings in Amsterdam. Specially set up for scientific purposes, the centre is to become a breeding ground for biotechnological activity. The cooperation between the various Amsterdam initiators makes it unique and involves two hospitals (AMC and VUmc), two universities (VU and the UvA) and the Royal Netherlands Academy of Arts and Sciences (KNAW) through its Netherlands Institute for Neuroscience. Professor Theo Mulder, director of the KNAW, explains the idea behind the centre.

Fundamental neuroscience is all about the close study of the human brain. How exactly do our brains work, and what can we do in the event of disturbance to the brain? It is a fascinating field within healthcare and there are plenty of blanks still to be filled in. "Luckily, our partners have increasingly come to realise that we can

only advance in this field if we work together efficiently," says Mulder. "The knowledge that we gain by doing this will then be made available to the hospitals for clinical application. The focus is on working with human subjects for fundamental scientific purposes, but from the very beginning we took the possibility of using the scanners for patient research into account, too."

### **Two new buildings in Amsterdam**

One of the two new buildings in which the Spinoza Centre will be housed is on the grounds of the AMC hospital, right next to the Netherlands Institute for Neuroscience, which is a KNAW research facility. It is here that construction will begin in the last quarter of 2012. The building will house both a 3T and a 7T fMRI scanner. The other location for the Spinoza Centre has been in operation for a year now and is located at Roeterseiland (part of the University of Amsterdam premises). It already has a 3T fMRI scanner in place for scientific research. The ERDF contribution enables the Spinoza Centre to purchase these scanners. In addition to the scanners, the Centre will house equipment for data analysis and neurophysiological measurements. "It is clear that fundamental research has a significant market value," says Mulder. This is something that innovative



companies also believe, as the biotechnological and medical electronics sectors have already been showing a lot of interest in our new centre. After all, without fundamental research, there would be no basis for applications in the future and that is something we sometimes seem to forget."

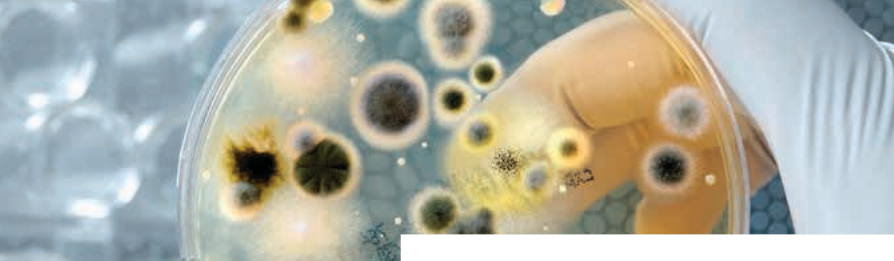
### **What does the Spinoza Centre stand for?**

Mulder explains that the new centre focuses on research into the relationship between behaviour and the brain. How do people perceive the world around them? How are decisions made and problems solved? What is the neurobiology behind our capacity for empathy, or for hate? Research is also centred on issues such as brain recovery following injury. "It is all to do with how we regulate our behaviour and how our behaviour can become disturbed. How does the brain of someone with autism or OCD work? What happens in the brain of someone with Alzheimer's, Parkinson's disease or multiple sclerosis? And one question that is important in the field of forensic psychiatry is whether more insights into the processes in the brain combined with environmental variables can supply an explanation for extremely aggressive

behaviour." These are just a few of the many aspects about which so much more knowledge can be gained.

A lot has been learned about the human brain over recent decades. Imaging and other techniques have made significant contributions to this. "What's very important is the insight gained into the fact that brain structures, too, can recover and that there is continuous reorganisation within the brain after, say, a





stroke. To be honest, we understand the workings of the human brain only in part and are just beginning to get to know this most complex of machines in existence in the universe."

### **Breeding ground for innovative biotechnological activity**

"We want the Spinoza Centre to be an incubator for innovative activities. This means that by carrying out fundamental research at the highest level, we will also become a breeding ground for biotechnological businesses," says Mulder. People are beginning to understand that the whole is greater than the sum of its parts.

"We have appointed people in the industry to work as a kind of industrial science scout, with the aim of bringing the two worlds together. Companies and institutes not only share their knowledge, but also ensure that it is made accessible to everyone."

In fact, the parties cooperating in the Spinoza Centre were ahead of the ideas developed by the Ministry of Economic Affairs, Agriculture and Innovation regarding top sector policy. "It fits perfectly within the 'Life Sciences & Health' top sector that the policy aims at strengthening, while also having aspects in common with the top sector that is ICT as we, together

with Leiden and Utrecht, are generating new analysis methods, especially now with the new experimental 7T scanner."

### **What does High-Field MRI (fMRI) involve?**

An fMRI scanner produces high-resolution images and provides both anatomical and important physiological information. The human subject or patient lies inside a hollow cylinder (the MR tunnel) and magnetic resonance signals are detected and sent to a computer.

The Spinoza Centre uses the MRI scanner to focus on the registration of brain activity on the basis of the number of physical characteristics. Iron in the blood, for example, makes the blood flow to the brain visible. And oxygen-rich blood is a sign of brain activity. This means that, in many situations and for various behaviours and diseases, the scanner can help to ascertain which parts of the brain are active, inactive or functioning abnormally. They can also pinpoint any changes in brain activity across time.

### **Tesla**

The tesla is a unit for measuring the strength of magnetic fields and therefore provides an indication of the sensitivity of a scanner.

These days hospitals commonly have 1.5- and 3-tesla MRI scanners. The Spinoza Centre will house two 3-tesla (3T) scanners, one at each site. These scanners are extremely suitable for carrying out many types of research. 7T MRI scanners have ultra-high magnetic fields and are therefore considerably more sensitive when it comes to producing images of cerebral microbleeds, for example, as their higher magnetic fields provide a stronger signal than a standard scanner. This means that images can be generated more quickly and that higher-resolution images can be made. Also, some contrast effects are more distinct at ultra-high field level than they are at lower field levels. Examples include the contrast between blood and brain tissue (for producing images of vessels) and the contrast between tissues with various iron densities.

There are already two 7-tesla MRI scanners in the Netherlands, located in the cities of Utrecht and Leiden. The Spinoza Centre will be the third facility to house one of these powerful scanners. Researchers in Maastricht are now experimenting with a 9.4T scanner, which is seen as being the most powerful scanner currently feasible.

### What are you most proud of?

"I think that the increase in scale is a huge step forward. The Spinoza Centre is a unique collaboration, in which the participating parties have demonstrated that they have the courage to accept that, in the long term, better quality is to be achieved through cooperation rather than through permanent competition. This is a viewpoint that, until only recently, was far from being self-evident. If you cooperate with others, you can become a major player in the





field of neuroscientific research." Mulder is keen to emphasise that the cooperation extends beyond the city of Amsterdam. "The exchange of knowledge with the universities of Leiden and Utrecht is essential, particularly because these two facilities have already been working with exactly the same Philips 7T scanner for a few years now and have therefore done all of the methodological donkey work for us." But cooperation extends even further than the Randstad conurbation, as there are also close ties with the universities in Nijmegen (specifically the FC Donders Institute) and in Maastricht.

### **More investment in science**

Mulder would like to see much more being invested in science than the 0.7% of Gross National Product now being spent on it (by the public sector). "The percentage of GNP spent on science in surrounding countries is three to four times higher. No wonder that those countries are surpassing us at every turn. And we haven't even mentioned countries in Asia yet. The Netherlands Academy of Arts and Sciences is continually pointing out that a country should not neglect its knowledge economy." Mulder is emphatic about this and continues, "You should never cut back on R&D

because if no more innovations are forthcoming, then this will eventually lead to paralysis of industrial policy as well." He is glad that this viewpoint is shared at European level. "Now all we can do is hope that our country will adopt the EU standpoint. Top sector policy should not only be about business policy: we will not survive without considerable investment in scientific progress. It will considerably benefit the economy."

### **Spinoza Centre**

Main beneficiary: The Netherlands Academy of Arts and Sciences (Koninklijke Nederlandse Akademie van Wetenschappen, KNAW)

Total project costs: € 13.124.359

Kansen voor West (Opportunities for West)

contribution: € 6.494.339

Website: [www.knaw.nl](http://www.knaw.nl)

(click the 'English' link to view the website in English)



## The Delft Blue Water Consortium:

Delfland Water Board

Delfluent Services B.V.

Evides Industrierwater

Veolia Water Solutions & Technologies

Veolia Water Nederland

Cooperation was sought with the following organisations for the purposes of supporting and/or additional scientific research:

Delft University of Technology

The following organisations also became involved in the second project, 'Irrigation water tailored to individual needs' (Gietwater op maat):

Priva

LTO Groeiservice





## 7. Sustainable, fresh idea to solve salinisation problem

From 'The innovative purification of urban water' to 'Irrigation water tailored to individual needs'

**The Harnaschpolder wastewater purification plant in the municipality of Midden-Delfland is one of the largest purification plants for used urban water in Europe. It is here that the Delft Blue Water Consortium is using ERDF funds to work on a sustainable and innovative alternative to the fresh water supply in Delfland. The idea is to reuse purified urban effluent in an innovative way, supplying it to the greenhouse horticulture sector for irrigation purposes. A variant of the purified water can also be used to keep the water level up in ditches and canals during dry periods. This results in benefits for the environment and is also a major solution to increasing salinisation problems.**

The first major step was taken by demonstrating the feasibility of innovative purification techniques with the help of the ERDF. The ERDF has also made contributions to the follow-up study now in progress. Oscar Helsen, policy adviser for the effluent chain at the Delfland Water Board, explains.

### **Urban water down the drain: a pity, it deserves better**

The Harnaschpolder wastewater purification plant is located in the municipality of Midden-Delfland and belongs to the Delfland Water Board. The board has delegated the management of the plant to Delfluent Services B.V., whose shareholders are Evides Industriewater and Veolia Water Nederland. The Harnaschpolder plant purifies all of the urban water originating from the The Hague region. This means it handles used urban water from more than one million people and businesses, making the Harnaschpolder one of the largest wastewater purification plants in Europe. Currently, the purified urban water, which is fresh water, is quite simply discharged into the North Sea through a high-pressure pipe. The idea was already put forward by the chairman of the water board when the wastewater purification plant was put into operation in 2006: Let's make the effluent the subject of research and find out whether reuse of this purified and therefore already relatively clean urban water could make a contribution to an improvement in the management of water resources and therefore to an improved environment.

### Climate change reason to search for alternative

A collaboration involving several companies was started up in November 2010 (see opposite page). Working under the name Delft Blue Water, this consortium started researching the options for the sustainable production of clean water for the surrounding area (surface water) and for the greenhouse horticulture sector (irrigation water). The consortium called in the help of the Delft University of Technology for support/additional research. As the demand for fresh water in the Delfland region is increasing due to the consequences of slow salinisation resulting from rising sea levels, there are good grounds for further research. Currently, an additional water supply is brought in from the Brielse Meer and the Rijnland District Water Control Board during dry spells. For a range of reasons, there is a large chance that the supply of this water cannot be guaranteed in the future. The salinisation of surface water has dire consequences for agricultural land and natural landscapes. What's more, the greenhouse horticultural sector in Westland requires a regular supply of good-quality irrigation water. Oscar Helsen of the Delfland Water Board explains that the greenhouse horticultural sector

in the region uses rainwater for irrigating crops. Commercial growers also use desalinated groundwater to supplement this, particularly in the spring and summer. "The growers pump water out of the ground and then desalinate it. They then pump the residual brine back into the ground." This results in an even higher concentration of salt in the ground and that is effectively in breach of European legislation. "There is a reasonable chance of this practice being limited or even banned in the future due to environmental considerations," according to





Helsen. "Furthermore, the costs of desalinating groundwater will increase for commercial growers due to the increasing salinisation of the ground. This all means that there are good grounds for the province of Zuid-Holland to promote research into a more environmentally friendly use of irrigation water."

However, a national ban on the practice of pumping brine back into the ground is unlikely in the short term, as the Dutch House of Representatives has not yet recognised the urgency of the situation. It is for this reason that the province is tolerating the desalinisation method used by the growers. However, the province is drawing up a guideline that aims to make commercial growers aware of the environmental problem associated with the method. They are being encouraged to make use of irrigation water from the Harnaschpolder wastewater purification plant in the near future. "We think it's a shame that, at a national level, politicians are working on the matter at a slower pace," says Helsen. "That means that there's less reason for commercial growers to quickly change the way they work. We will therefore have to do our very best to not only come up with a suitable way of purifying the wastewater

so they can use it for irrigation purposes, but also to develop an economically attractive distribution network for the water. This would mean that the growers would be able to draw our purified effluent straight from the tap and use it as irrigation water. The positive noises we are hearing from commercial growers are making us more determined to make the project a success."

### **Trial using new purification techniques**

The scale of the Harnaschpolder wastewater purification plant and of the potential market for irrigation and surface water in the Westland area serve as an excellent basis for further research into the reuse of urban water.

Delft Blue Water looked into the possibilities for reusing the urban water with the help of innovative purification techniques. "We set up a demonstration hall on the grounds of the wastewater purification plant," explains Helsen. "In 2010, two lines of research into the treatment of effluent were started up there - one as a datum line and the other as an innovation line. Only those purification technologies in common use were applied for the datum line, but for the innovation line we tested two new techniques developed by Veolia Water on the effluent."

### Tomatoes irrigated using wastewater (Tomaten op afvalwater)

Main beneficiary: The Delfland Water Board  
(Hoogheemraadschap van Delfland)  
Total project costs: € 788.231  
Kansen voor West (Opportunities for West)  
contribution: € 315.292

### Irrigation water tailored to individual needs (Gietwater op maat)

Main beneficiary: The Delfland Water Board  
(Hoogheemraadschap van Delfland)  
Total project costs: € 1.250.000  
Kansen voor West (Opportunities for West)  
contribution: € 500.000  
Website [www.hhdelfland.nl](http://www.hhdelfland.nl)  
(click the 'English' link to view the website in English)

For comparison, experiments were carried out using two different production methods for two water qualities: one for surface water (for groundwater recharge and polder storage basin water) and one for the irrigation water for the greenhouse horticultural sector. First, nitrogen and phosphate were removed, leaving clean additional surface water. Then the salts were removed from the water. This then resulted in good-quality irrigation water.

### Innovative technology proves its worth

"We soon discovered that when we compared innovative and established technologies with each other, the innovative line clearly had the advantage," says Helsen. "Both the water quality obtained using standard techniques and that obtained using new technologies were sufficiently high. The main advantage of the new line is that it is more stable. The higher quality of the effluent that has undergone further purification is more constant." According to Helsen, comparing the standard and new techniques was made possible mainly through the contribution received from the European Regional Development Fund. "We initially wanted to look only at innovative techniques, but the Delft University of Technology advised

us to set up a datum line, too. Thanks to the ERDF, we had the funds to be able to do that and the result was a thorough study that was well substantiated." The primary experimental phase involving test set-ups came to an end in the summer of 2012 and delivered promising results. The conclusion was that the follow-up treatment of effluent to produce surface water and irrigation water can be cost efficient, sustainable and reliable. "The business case we developed showed that we can offer the





greenhouse horticultural sector a competitive price for irrigation water. Ultimately, this means that the sector will lose less money and that it will no longer have any concerns about desalinising ground water."

### **ERDF contribution makes 'Irrigation water tailored to individual needs' possible too**

This positive result was grounds for Delft Blue Water to initiate further research, Irrigation water tailored to individual needs once again partly supported by the ERDF. The focus of this follow-up research is on supplying irrigation water to commercial growers. The consortium has been expanded to include Priva (a process automation business for the greenhouse horticulture sector) and LTO Groeiservice (a network organisation for the horticultural sector). "The follow-up project aims to confirm that water can be supplied to businesses in the agricultural and horticultural sectors in a customised way," says Helsen. The research topics involved include the following:

1. Is it necessary for all salts and substances to be removed from the purified water?
2. Can the cost price for water for reuse be brought down even further?

3. Would commercial growers and consumers accept the use of purified urban water for irrigation purposes?

4. How can we set up a 'smart' distribution network? Evides has already carried out a study into the development of an innovative transport system for the distribution of irrigation water. Growers gain from low transport costs, as these will form the largest cost item involved in the supply of irrigation water. "Naturally, the hope is that all of the growers who currently desalinate water will join the project," says Helsen.

"The most inexpensive option is to lay the entire pipe structure for the whole of Westland in one go. The wastewater purification plant has sufficient capacity for this. What we need to do now is to get a clear picture of the feasibility and practicability of the proposal. This is why the LTO (the Dutch Federation of Agriculture and Horticulture) has joined the consortium as a research partner. The consortium will be trying to find answers to questions such as 'What are the issues for growers?' and 'What would it take to get growers to change their minds?' "At the same time, we will be growing tomatoes in a test greenhouse using irrigation water produced from purified effluent," says Helsen. "This will be done in cooperation with the growers." It is clear that this phase will depend on good



communication with the future users of the water. A communication plan is to serve as support in this respect. "We will have a stand at the Floriade in Venlo and will be presenting our project at various meetings at which growers are present. It's a promising story and there is a big chance that potential users will be enthusiastic in offering their cooperation if the investment in the construction of the distribution network is spread out between several parties."

### **Irrigation water as an export**

The innovative endeavours made by Delft Blue Water serve several purposes: to reuse urban water that otherwise would simply be discharged into the North Sea, to make the discharging of brine into the subsoil a thing of the past, and to improve the quality of surface water. Helsen is particularly pleased about the fact that the Delfland Water Board, as a regional authority, is energetically working together with businesses and the Delft University of Technology. "It is good that we are anticipating the future consequences of climate change. While the immediacy of the salinisation problem does not yet seem to be a priority for politicians, it will be recognised at some stage and by then we will already have a solution on offer." Another

point that is certainly important too is that the increase in salinisation is not just a problem that is confined to the Netherlands. "This means that our irrigation water can also be used as a product for export around the world."











## 8. Techno Fund Flevoland more than worth the investment

**What is more worthwhile than supporting young businesses, seeing them grow as a result, capitalising on the investment and then using that money to invest in new start-ups and restarters? René Krijger, director of Techno Fund Flevoland, describes how this participation fund works. It is a 'revolving fund' as the money that is released through the sale of participations and from repayments of loans provided is then used again for other promising young businesses. "We are working on promoting technologically innovative entrepreneurship in the province of Flevoland. This is something that is not only good for the image of the region but also increases the number of jobs in the province, which is our main goal."**

The fund started up in 2000 using public funds including contributions from the ERDF. It took a while, but the Techno Fund is now more than paying for itself and, together with a fund for SMEs (the MKB Fonds Flevoland), it has created more than 1000 jobs in Flevoland.

### **Target group: innovative tech start-ups**

Due to the economic crisis, it is often difficult for start-up and fast-growing innovative companies to obtain financial backing. Techno

Fund Flevoland provides venture capital to innovative technology businesses that are having problems arranging funding. The fund participates in such start-up businesses and restart businesses through buying shares and providing a competitively priced loan, which may be subordinated. Financing is always in the form of a combination of these solutions. The fund offers financing for businesses across the whole of the province of Flevoland, with the exception of the municipality of Zeewolde. In order to qualify, businesses must be established in Flevoland or have plans to establish in the province. Techno Fund looks for innovative tech start-ups in sectors including ICT, life sciences, medical technology and biotechnology. An important condition is that there is a genuinely innovative element to the business. This may be a process, a product or a technique.

### **No entitlements, maximum deployability**

Techno Fund Flevoland was set up in the year 2000. Its shareholders are the municipalities of Almere, Dronten, Lelystad, Noordoostpolder and, recently, also Urk, along with the Flevoland Development Agency. Financial contributions were made by central government, the province of Flevoland and the ERDF. As part of the Kansen voor West (Opportunities for West) programme,



€5.5 million in participation capital was made available. Share capital totals €10 million.

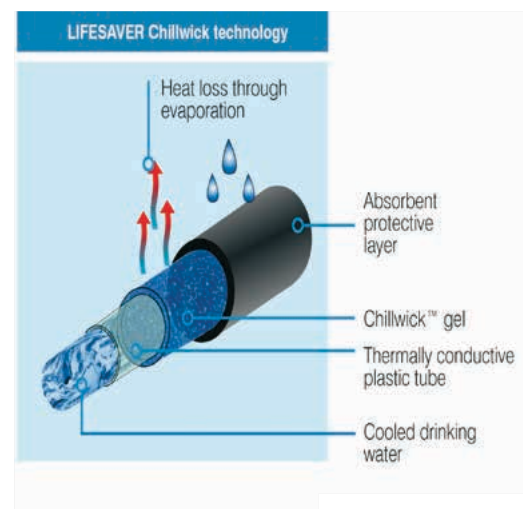
The shareholders do not draw on the fund's financial buffer so that the opportunities for new jobs remain as large as possible. This is why the partners waive their rights to interest and dividend distribution and why they have no intention of making claims on a proportion of profits made through the sale of company shares. MKB Fonds Flevoland also operates within the province and works along the same lines. However, this fund is aimed at more traditional businesses. The funds are supervised by a private limited management company, which has four supervisory board members and a staff of three, namely René Krijger, Evert Hakvoort and Yvonne Hermans, who work closely together.

### How does the Techno Fund work?

"Between 70 and 80 companies knock on our door each year. We enter into serious discussions with approximately 25 of those businesses. Once we have assessed the proposal in terms of financial feasibility, employment, opportunities for growth and management qualities, among other aspects,

we actually take the plunge with an average of six businesses per year. Those businesses represent the crème de la crème for us, as they come across as the most interesting and most promising prospects. We buy shares, issue a loan, which may be subordinated, and enter into a contract with those companies.

Although we opt to have a minority holding in the businesses, we do ensure that the contract prevents us from being voted down at shareholders' meetings at the slightest whim." Krijger continues by explaining that the fund





follows the development of the businesses and that he is able to inspect all of the company's documents, such as its quarterly reports. "We monitor the businesses to ensure that they are not only making a profit, but that they are also growing, so that employment will also increase. And if there does seem to be a risk of something going wrong, then we bring in reinforcements in the form of experts in our network and put the company back on the rails. We work on the basis that we will be able to sell our shares at a profit about five or six years down the line. At that point, the business will have paid off the loan we gave it and it will be financially strong enough to buy us out. Another buyer may also show interest. Sometimes we need to wait before selling our shares, as was the case with two life science businesses in which we have been participating for at least 10 years now. One of the two companies is developing a new drug. It is a long process, but if the drug is ultimately allowed onto the market, the company's value will quickly increase to what could be hundreds of millions of euros. That is worth the wait, even though in this branch, there is still a lot that could go wrong..."

"We get to see a very wide range of businesses. Some examples include an algae cultivating

business, a cardboard factory and a houseboat builder. We also have an interest in what is known as a Masterplan Duurzame Visserij, which involves the development of sustainable fishing techniques. This is what makes this business so interesting. Where all of the start-ups are concerned, the condition is that there has to be a market for what they are doing. Otherwise we will not participate."

### **From zero to revolving**

The European Regional Development Fund (ERDF) lent the Techno Fund its financial support right from the very beginning. "Especially in the beginning, we needed the money for raising awareness of our existence and for setting up our organisation. We were not yet able to fend for ourselves at that time, but now our agency is able to operate fully on the income we get from the distribution of interest and dividends. We no longer need any subsidy money at all. We placed advertisements, produced promotional items, created a website, gave a lot of interviews and worked hard on setting up our network." It took a while to get things right organisationally for supporting innovative businesses. "We were dealing with a lot of different parties and a lot of different pots of money. But now it's all up and

running perfectly. We work with just one pot for the five participating municipalities and account to our Supervisory Board and shareholders."

Krijger is not embarrassed about the fact that the Techno Fund operated at a considerable loss in its first few years. He mentions that write-offs totalled €500,000 to €600,000 per year at that time. "That did make some people pretty nervous." It was in 2010 that the fund first managed to get out of the red. In Krijger's opinion, a start-up period of ten years is nothing exceptional. "After all, we are investing risk capital in the risky start-up business sector. When we started up in 2000, I did ask to be given ten years..." As it turned out, he did indeed need that much time, but now the Techno Fund is truly a 'revolving' fund as profit is made on the total investment across the board. That money can then be used to finance other companies. "We currently even have more capital than the €10 million originally invested."

### 5% make up for lost investments

"Our experience has shown that one third of the start-ups fail, that we make some money from 10% of the companies and that we depend on those 5% of the businesses which perform so

well that they make up for the other businesses from which we are unable to earn back our investment."

### Smart investments and earnings

In Krijger's opinion, a revolving fund is a smart financing solution especially in times of economic scarcity, particularly for innovative businesses. This is certainly the case in times when fewer subsidies are available and bank loans to smaller companies are not possible.





"A revolving fund is a very good alternative," says Krijger. "We need to get away from the idea that subsidies bring salvation. Subsidies are useful to supplement financing, but in the world of innovative entrepreneurship, daring investments are not a bad idea at all. We invest risk capital, with a chance that the money will be lost, but if we have estimated things well and a business is successful, the money comes back to us. And then it multiplies itself again. Subsidies just get used and then are gone."

### **Multiplier effect**

The start-up businesses the Techno Fund invests in are generally no more than three years old. "The target group is a risky one and the banks are not quick to invest in them. Large venture capital companies won't play ball with them at all. They do not operate at the bottom end of their markets and only get interested when several millions of euros are involved. Any business that is able to obtain all the financing it requires from a bank has no need of us. The Techno Fund was set up to make risky investments and to bridge the gap between nothing and one million euros. We are never the only investor as we don't invest more than 300,000 first time around. This

often means that more investors need to be involved and, in such cases, our investment can provide impetus. The fact that we are willing to invest offers no guarantees, but it does raise confidence. I recently visited a company in which we are investing €100,000. It's great to see that a business like that eventually ends up with €600,000 to spend. This is an extraordinary multiplier effect. A threefold increase would be the average these days."

### **Restarter with Airbus and Boeing as customers**

DTC (Dutch Thermoplastic Components), a business in Almere with a young engineer from Delft at the helm, found out for itself that the Techno Fund can provide impetus. DTC develops components for the aircraft industry that are lightweight and yet ultra-strong. "DTC needed bigger business premises in order to be able to grow. We believed in the company's innovative programmes and offered financial help, along with a private investor with whom we regularly work together. The consequence of this was that the bank was then again prepared to talk." DTC has now obtained certification and is a very successful business. It grew within a short space of time and now



employs 25 people and has customers including Airbus and Boeing. "What is also great is that they make five work experience places available, and those are really necessary these days."

### **Bringing businesses to Flevoland**

Krijger is enthusiastic about the fund attracting businesses from other parts of the country, too. He names two software companies that settled on Almere because of the Techno Fund. "Both companies were taken over by foreign listed companies after two years. And that was fine because we collected the earnings from the shares in these two companies and the jobs are staying in Almere. Besides, it's important to mention that we only sell the shares if the subordinated loan has been paid off." Flevoland can sometimes lose out, too. "One company we invested in grew from employing 5 people to employing 250 people, but that company moved to Woerden following a merger."

Techno Fund helps new companies to expand further and in principle does not participate in businesses with financial problems. "Not unless we can see good future prospects for the company." This was the case for a company that develops digital products, but which had

considerable negative equity. "But we still invested in that company, as it had contracts with major customers in the pipeline. That gave us the confidence that everything would turn out well." But some start-up companies have no future. Krijger regularly comes into contact with the owners of such businesses, who, although being creative and having plenty of technical insight, forget that they need to market their business properly. As Krijger is in the habit of saying: "A new, enthusiastic entrepreneur is





allowed to be a bit self-willed, but does need to be open to advice given by others."

### **Impressive software company**

Flevoland is proud of Griffid, a leading company in the Netherlands supplying smart electronic security systems, among other products, from its base in Almere. Among Griffid's customers is the Erasmus University Medical Center, for which the company integrated camera monitoring, access control and an intercom within one central control room in a very innovative way. Griffid developed the software (which is hardware independent) required for this itself. The Techno Fund helped the company with a restart and it now has partnerships with resellers and installers around the world, and a distribution sales office in the United States.

### **Hitting the jackpot**

The Techno Fund can only earn back write-offs through making earnings from shares. "Our first really big success was the lucrative sale of our shares in the Simpel telecom company, which is now well known in the Netherlands. The money this brought in immediately covered a number of write-offs." Krijger continues that there is always a chance of the fund hitting the jackpot

and earning millions. "That then means that you are guaranteed to have sufficient liquid assets to last a number of years. The chance of us hitting the jackpot soon is more than likely, thanks to the various irons we have in the fire..."

### **Techno Fund (Technofonds Flevoland)**

Main beneficiary: Flevoland Development Agency

(Ontwikkelingsmaatschappij Flevoland BV)

Total project costs: € 5.500.000

Kansen voor West (Opportunities for West)

contribution: € 1.680.000

Website [www.omfl.org](http://www.omfl.org)



## 9. Maritime Campus Netherlands puts in the work

**Worried about unemployment? There are plenty of jobs in the maritime sector. In fact, opportunities abound! But team work is required if the most is to be made of these opportunities. This is why the Maritime Campus Netherlands (MCN) was set up in Den Helder in 2008. MCN is a collaboration that brings together entrepreneurs, educational establishments, research institutes and central government. This guarantees a comprehensive approach, thereby increasing the chance of economic success, particularly in the offshore industry. The focus is on innovation, on sharing and increasing knowledge, and on ensuring that the technical vocational training future employees receive is compatible with what industry is looking for. MCN puts its energies into this, taking a lot of initiatives, and is already seeing its first success stories. MCN's managing director, Marja Doedens, provides information about this ERDF project which, with the help of funding that then came in from other sources, got off to a flying start.**

The plan is for MCN to grow over the coming decade to become a large-scale institute serving all those sectors that want to operate at sea and manage the sea in a sustainable way. The rules

are clear to the 14 partners in the consortium: parties work together in a focused way, take the principle of open innovation as their point of departure and ensure that economy and ecology are in balance.

### **Oil, gas and wind screaming out for staff**

The oil and gas industries represent a mature market, but are heading towards a situation in which many staff will need to be replaced. Approximately 15,000 people currently work in the sector, with most employees aged over 55. These staff will soon be leaving the labour market and the Netherlands will be facing the huge challenge of finding and training new employees. Add to this the wind energy sector, an up-and-coming and booming business, and the result is that there will be a large demand for qualified staff. In 2030, approximately 200,000 people will be needed for the offshore wind sector in Europe alone. "This means between 8,000 and 10,000 jobs for the Netherlands over the coming years," explains Doedens. "Where on earth are we going to find these people?" In posing this pressing question, Doedens is touching on a sore point. "With so many jobs coming available in the offshore industry, it is a pity that we have to conclude that standard technical vocational education in no way offers



a solution. People are not being trained for the right things and, unfortunately, the gap between education on the one hand and industry and knowledge institutes on the other is just getting bigger."

### **Time is pressing**

Doedens would like to see changes fast, as the economic opportunities are all there. "The Netherlands is famous around the world for its Delta works. There are also great opportunities open to us where wind energy is concerned, and particularly the maritime side of things in the offshore industry. I think that the government has missed opportunities here. Luckily, the tide is beginning to turn, but time is pressing if we really want to take these chances." Doedens continues by saying that all that is needed is for parties to join forces and put their backs into the problem. "Den Helder is a fantastic location for us. There are a lot of knowledge and research institutes involved in maritime industries here, and the technical vocational education sector is also well represented. Our consortium partners represent a good cross section of the organisations, institutes and companies we want to use in giving a huge boost to the activities in the maritime industry."

### **Daring to cooperate**

Doedens explains that combining forces costs time. Companies are not always immediately willing to work with open innovation methods, which involve research questions being shared and complete openness from participants.

"Cooperating is something that you have to dare to do and before that's possible, there needs to be trust. We have managed to build trust slowly. During the initial phase of the project, we approached our extensive network





and explained to companies why they need to cooperate. We asked them what knowledge they were missing and what kinds of staff they would be needing in the future. These are the decision-makers we are talking to. They are the ones who invest billions on behalf of their business and look beyond their staffing requirements for the coming year. During these conversations, you can see that people start to understand that things will go terribly wrong if we don't improve the matching of supply and demand. The days when the right staff would just turn up at the right company are over..."

### **Good examples tend to be followed**

In 2009, the ERDF-MCN programme was started up. This programme, which will run until the end of 2014, is split up into 16 work packages. The Dutch central government, the province of Noord-Holland and the municipality of Den Helder also made substantial financial contributions to the programme, with private partners making up the budget for the start-up of the various projects. In addition to setting up a project agency, a number of research projects were commissioned. A considerable part of the programme is dedicated to setting up demand-driven education. This functions

as a counterpart to standard education and is an approach in which business and industry play an important and directive role. The various MCN projects develop minors and other educational courses and specialisations for senior secondary vocational education, higher professional education and pre-university education in the fields of Oil and Gas, Wind Energy, Mechatronics and Emergency Control. "We also initiated the Technology Tour (Rondje Techniek) project, which involves educational establishments and companies doing the rounds, visiting pupils and teachers at preparatory secondary vocational and general secondary level in the province of Noord-Holland." Supplementing this, the Gender project is specifically aimed at developing girls' enthusiasm for 'maritime careers' and the study programmes suitable for preparing for those careers. The aim is to bridge this gap, too, as young women are still underrepresented on technical vocational training programmes. "We hope that we will be more successful if the information we provide is geared specifically to them. In any case, the image young people have of technical careers is often inaccurate. And the offshore industry is even more unfamiliar territory. Technology is not only about 'getting

your hands dirty' and working in the offshore industry does not mean that you spend your entire life out at sea."

### In at the deep end

"A common thread that links all of the efforts we make in terms of education is that we try to provide realistic examples that capture the imagination. Right from the start we are providing information that is up to date and practically oriented, preferably bringing in guest speakers from business and industry. This is what makes the difference and ensures that young people are able to consider their options the industries and careers open to them in a fully informed way." As an example, Doedens mentions the higher professional minor in Oil & Gas, which started up in September 2011. The minor is taught in English, making it easy for international students to follow the course. "We use the demand-driven approach to teach the young people on the course very practical things, such as various survival techniques as part of emergency control. Students end up in the water in the very first week of the course and the exercise is also used for team building, as they try to save their own skins. This is something that you do not

come across in standard education and yet it is essential knowledge for anyone working offshore. It's good to introduce young people to these matters at an early stage." At senior secondary vocational education level, a number of establishments transformed a technical training dockyard (Leerdock Techniek) into a campus on which business, industry and educational establishments work together. Here, young people can practise using very modern equipment. In some cases, it is even





more modern than the equipment used by the companies."

### **Just the beginning...**

A part of the ERDF funding period was spent on developing the various courses and specialisations and on making the students feel at home. This included, quite literally, finding them homes. "Den Helder offers students rooms that are all ready to move into for the six months they are on the course. We have students here from all over the country and we help them find their feet in the region." Doedens is convinced that if you offer support to students in this way, you can attract 20-30% more students in the future. "We are not expecting to have larger numbers of students on the programme until after the ERDF funding period comes to an end in 2014, but that is fine, because we will soon be reaping the benefits." However, she is certainly proud of the 300 students who have entered the programme since the 2010-2011 academic year, both at higher professional level and senior secondary vocational level. More than 60% of those students have already successfully completed the maritime specialisation programme, and there were no dropouts.

### **Straight into a job**

"When students ask me whether they will be able to find work in the oil and gas sectors, I always reply that they would have to be real fools to not end up with at least two or three job offers after finishing the Oil & Gas minor. And this is not just a sales pitch, because demand from the industry is growing and growing. It's great that companies are now also contributing to the financing of the minor, as this ensures continuity once the subsidies come to an end."

### **The ERDF effect**

"The support from Europe has given us more scope. It provides impetus, as it raises confidence and opens more doors for us. For example, we started up our research projects with only the involvement of educational establishments, but now a large number of businesses are also contributing to the funding of them. The specific research projects lead to new research topics. And that automatically means a stream of new orders."

### **Maritime Environmental Balance project's sustainable snowball effect**

The ERDF-MCN research project entitled Maritime Environmental Balance (Maritieme



Milieubalans) is all about sustainable business practices at sea. The IMARES research institute is working on an overview of the effects of the offshore industry on the ecology. Some of the things it is looking at are the effects of emissions and the ecological effects of algae growing on our wind turbines and drilling rigs, for example. "The timing of this project could not have been better," according to Doedens. "It has caused a lot to happen. Increasing numbers of parties are joining in and contributing ideas for sustainable alternatives. IMARES and Marin, for example, are now working with the Canadian and Swedish navies to produce The Arctic Handbook, which will provide environmental guidelines for the Dutch offshore industry operating in the Arctic.

### **National Knowledge Center Offshore Wind Energy**

The KIA Wind at Sea report, drawn up by MCN in collaboration with various partners in 2010, too, made it clear that wind energy will become a prominent new sector in the economy. This led to the establishment of a knowledge centre regarding offshore wind energy (Kenniscentrum Wind op Zee), among other initiatives. A 'green deal' for the centre is currently being worked

on with the Ministry of Economic Affairs as part of central government's top sector policy. "At some stage in the future, the centre will also have a physical home, but the activities we are advocating are now up and running. The centre's objective is to safeguard demand-driven education at all levels above general secondary level. It is also important that the various courses and programmes complement each other well, do not overlap and are in line with demand. The centre stimulates educational





establishments in the Netherlands to offer various offshore wind energy programmes. MCN set the ball rolling by setting up the Wind Energy specialisation and a minor in Wind Energy. Doedens also attaches a great deal of value to the talent pool set up by the knowledge centre, which will assure the educational establishments of a fixed number of work experience places, research projects and graduation projects for the upcoming four years. "Eneco, Siemens and Ballast Nedam are just some of the companies that students may end up working at as part of their work experience or project."

### **Minor in Wind Energy unthinkable until recently**

"I am proud of the fact that we started up the Wind Energy specialisation in September 2011 and already have 170 students. When we announced that we were going to set up a specialisation and a minor in Wind Energy three years ago, everyone thought we were mad. Now companies are calling us to find out when they can get their hands on the first students completing this higher professional education specialisation programme. The first student graduated in March this year." When asked whether there are any new ERDF applications

underway for the period after 2014, Doedens replies "We are making good progress with the ERDF programme. It's all up and running. Of course, we are progressively gaining more understanding, which means that we then want to take up new challenges that may require all the support we can find." Doedens jokingly adds that MCN is now so good at putting together the periodic figures to substantiate the use of funds for the ERDF reports that it would be a shame to take leave of the relationship with the fund next year... She concludes her explanation of the programme by expressing her firm opinion that a demand-driven, comprehensive approach is certainly one worth following, adding that the concept developed by MCN for it can easily be used by other sectors, such as the green biomass gasification sector. "That would not only be good for the Dutch economy, but also for Europe as a whole."

### **Maritime Campus Netherlands**

Main beneficiary: Energy Port Foundation  
(Stichting Energy Port)

Total project costs: € 7.320.000

Kansen voor West (Opportunities for West)  
contribution: € 3.625.000

Website: [www.maritimecampus.nl/en/projects](http://www.maritimecampus.nl/en/projects)





## 10. Task Force Innovation Utrecht Region takes large step forward

**Since 2005, the Task Force Innovation Utrecht Region (TFI) has been stimulating and coordinating sustainable innovation. The market for the many successful innovative projects originating in Utrecht has turned out to be mainly further afield. This was the surprising conclusion reached by alternative economic research carried out in 2011. Since that time, the idea has no longer been 'Utrecht for Utrecht' but 'Utrecht for the rest of the world', starting with the Netherlands. Ton van Mil, TFI's managing director, talks about this turn of events and about the large step forward that came about as a result. Networking and crossovers are what make the difference. The symbiotic business relationship between the game industry and healthcare is an example of just such a crossover. The serious, applied computer games that result from this relationship will soon be indispensable to public health.**

Innovation is the main engine behind increased prosperity in a modern, healthy economy. The Task Force Innovation Utrecht Region was set up in 2005 with this notion in mind. It was an initiative of the Chamber of Commerce of Utrecht, the province of Utrecht, the municipalities of Utrecht and Amersfoort and

the Utrecht Regional Council. TFI focuses on improving the innovation climate and on increasing economic success for businesses, authorities and knowledge institutes in the region, covering the province of Utrecht and the Gooi area. Its first task was to stimulate sectors to innovate and to offer them support in doing so. This resulted in many successful innovative projects, supported by the European Regional Development Fund (ERDF). In 2011, TFI took a crucial step forward and became the main engine for the innovation process itself, firmly setting the region on the Dutch map. "All of the activities we initiated during the initial phase of our existence as an organisation are still opportune today, but they have developed and matured and now make up a part of a larger plan," explains Van Mil. This applies to the Dutch Game Garden, for example. This project was involved right from the beginning and is a successful breeding ground for businesses in the game industry, which is undergoing explosive growth. This led TFI to market the concept behind the project further afield in the Netherlands.

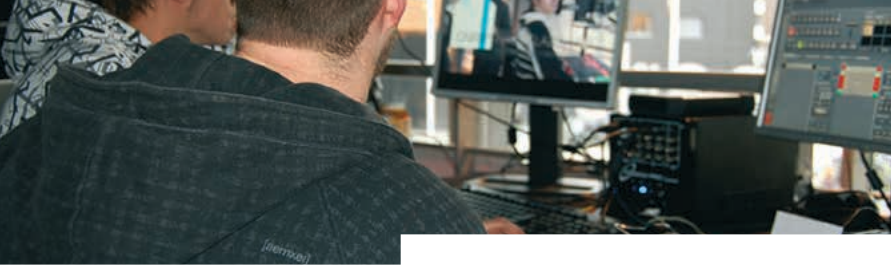


### **The Dutch Game Garden - a growing game**

The Dutch Game Garden (DGG) is a project in which TFI stimulates and supports talented game developers, encouraging them to become professionals in their field. Two of the ways in which it does this is by facilitating a multi-tenant business building for 50 game companies and by looking for promising applications in the market. The Gamesmonitor 2012 publication, a TFI initiative, demonstrated that the Dutch game industry is booming business. "Our approach is becoming more production-oriented and for this we use the Growing Games programme," explains Van Mil. "For example, we are going to market our Dutch Game Garden concept further afield by licensing it. Establish a DGG in Amsterdam, Rotterdam and Eindhoven, and get them to work with the industries there. That is how we professionalise the market." The healthcare sector is just such a market, requiring applied games for health. These are often Nintendo-type solutions for getting people to continue to exercise. The games can also be serious ones aimed at care staff and medical specialists, who can use the games to practise specific skills with their patients without straining them too much. TFI has

formats developed for such games, which can also be licensed and put onto the market. "We are setting up a finance fund for this purpose, involving interested companies. We are also promoting games development to the education sector as a branch that offers many job opportunities." Finally, Van Mil mentions the efforts being made within the Growing Games programme for setting up a validation system, together with the Netherlands Organisation for Applied Scientific Research, for applied games





so that they can be recognised as 'medicine' when it comes to reimbursements.

### **No such thing as economic limits**

"Until recently, our economic studies concentrated mainly on our own region," says Van Mil. "But in 2011, we expanded things and looked at new research topics.

Who are our potential customers exactly, where are they and what opportunities do they offer us?" The results of this really opened our eyes, as the market for the region turned out to be mainly outside of it. Just 8% of revenues came from customers in Utrecht, while Amsterdam was responsible for 24%, Rotterdam for 20% and Eindhoven for 24% of revenues. "And even though direct exports account for just 15%, we do have a large share of business if you look at what we supply to Dutch regions. This means that, for us, trade missions to Amsterdam can be just as beneficial as a trade mission to China," comments Van Mil.

### **Networking and crossovers**

The research carried out also provided insights into possible collaborations, investment options and scaling-up potential for the region. Van Mil emphasises that networking is absolutely

essential for these opportunities to arise.

Organisations become links in dynamic chains within the network economy. This leads to new coalitions and connections and opens doors that may otherwise stay closed.

TFI's strength now mainly lies in its guiding of entrepreneurs towards crossovers, with innovative solutions transcending their own sector or production/supply chain. The cooperation between the game industry and the healthcare sector is an example of this. "You don't really need TFI if you just want to generate ideas that are close to home. We see our role mainly as being appropriate for the emergence of new markets that come into being at the intersection between old sectors. The trick is to set up the right connections. To do this, we use the creative industry (design and gaming) and ICT as a kind of lubricant for achieving innovation in the other sectors."

### **Virtual physiotherapy**

Mr Jansen has benefited greatly from an applied game for health. It helps him to maintain his gross motor skills. He follows a course of virtual physiotherapy and performs exercises that have been selected specifically for him through his television. The presence of a

physiotherapist is not required. "Creative solutions like this are becoming hugely popular and contribute to the creation of an affordable healthcare system," according to Van Mil. "The Utrecht region has the skills to respond to that demand."

### **Private sector takes the lead in Economic Board Utrecht**

Whereas in the past the inventions were too far removed from the market, now TFI is allowing the market to take the lead. "We have consulted no fewer than 400 companies and civil-society organisations and asked them to support us on a long-term basis in our comprehensive and innovative approach." The networking required for doing this led to a new administrative structure in the form of the Economic Board Utrecht (EBU), which was established at the end of 2012.

This new organisation pooled all of the resources and scaled up existing networks. "The private sector now takes the lead, supported by government agencies where required. Their commitment increases the chance of our innovation policy succeeding." Van Mil continues by saying that the EBU allows

the region to better present itself and act as a partner of equal standing when in discussion with the Economic Boards of Amsterdam and Rotterdam. The connection to initiatives such as Brainport in Eindhoven and Food Valley in Wageningen has also become more logical. "We are currently holding exploratory discussions with these networks in order to be able to contribute to the Dutch economy at a higher scale level.





One of the topics is how to come up with a standardised economic analysis, such as the one we carried out.

### **Aiming at socially relevant innovations**

"We also took the step towards forming a solid basis for sustainable and above all social innovations. It is no longer all about economic policy, but about which social issues are most in need of innovations. This will prevent us from using ERDF money to support projects that turn out to be just a flash in the pan and that would not make it without that support.

It is also sensible to embrace those initiatives in particular that focus on the key areas at which government economic stimulus policy is aimed. That is where the money and the opportunities are to be found." Van Mil mentions the sustainability industry and the healthcare and medical sector. Both are areas of focus for TFI, as are life sciences, the creative industry (design and gaming), innovative entrepreneurship within the business services sector and SMEs.

### **TFI - the engine for sustainable innovation**

"Through all of the insights we have obtained, we have grown from being a quintessential

'project factory' to actually embodying the innovation process itself," says Van Mil. "We now see TFI as the engine behind sustainable innovation, deploying various formulas for getting innovation processes going. Our economic analyses provide us with a lot of knowledge and inspiration and this means that we then already know whether something works or whether there is space on the market for it." TFI regularly organises gatherings with the aim of parties coming together and forming new chains, which then often lead to fruitful and successful initiatives. "Successful and enthusiastic entrepreneurs are regularly invited to such events and this considerably increases the credibility of what we are doing for the audience. Market demand can sometimes be latent and in such cases we need to make it explicit. What is important is that we come together to form coalitions for the implementation of all of these ideas." Van Mil talks about their 'Inspiration Days'. On these days, the activities go beyond making contacts and exchanging knowledge. "We intentionally introduce topics with innovative potential. So, for example, we might sit around the table with a specific professional group and talk about innovations from the creative sector that could



be useful to that group. Sessions like this can result in many solutions including an app aimed at patient safety, which allows qualified and future doctors to practise making the right decisions quickly when complex medical treatments are involved. Another approach is to work on strategy within our 'Get Connected' network, making a fundamental examination of the system in place and coming up with innovative ideas together."

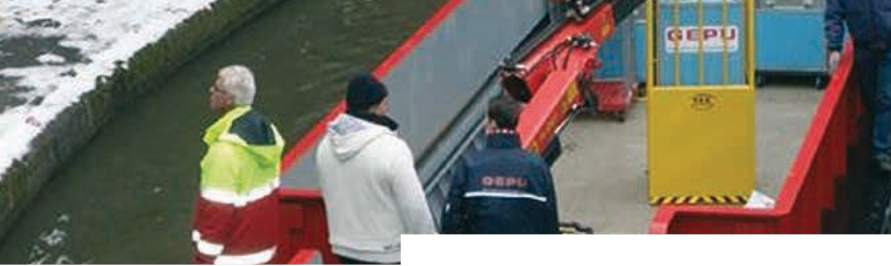
### **Making public transport green**

Why would anyone opt for public bus services that, from an environmental point of view, are right at the limits of what is permissible in Europe when zero emissions are also possible? TFI wants to change the system which leads to legislation having an obstructive effect rather than a sustainably innovative one. In anticipation of the operating concessions process for bus transportation coming up in 2016, parties sitting around the TFI table are working together to come up with alternative revenue models. It is quite possible that the extent to which environmental aspects are met will be given priority over the other requirements.

### **The ERDF gets the ball rolling**

The TFI has helped the Utrecht region on its way to becoming able to fend for itself when it comes to innovation. In Van Mil's opinion, the ERDF must never become more than a support for starting up and scaling up promising innovative processes. "If we do things properly, then the market mechanism should take over eventually. The support received from the ERDF





is still very welcome at this stage to get the ball rolling, but we need to realise that we will have to keep the momentum going ourselves later on. The advantage the ERDF offers is that you are given the space and time to explore, gain fruitful new insights and make use of opportunities that would previously have been unimaginable. This allows us to make real changes to the system."

#### **Innovative Utrecht: the Next Step**

#### **(Utrecht innoveert: the Next Step)**

Main beneficiary: Task Force Innovation Utrecht Region  
(Taskforce Innovatie regio Utrecht, TFI)

Total project costs: € 7.103.696

Kansen voor West (Opportunities for West)

contribution: € 4.133.232

Website: [www.taskforceinnovatie.nl/english/](http://www.taskforceinnovatie.nl/english/)





## 11. The Sustainability Factory: top innovator in technical vocational training

**'Ensure that the learning and working environment is so inspiring that technical vocational courses perfectly match regional labour market requirements. Make technical courses truly appealing to young people and bring practice inside the classroom.'** The Sustainability Factory (De Duurzaamheidsfabriek) in Dordrecht uses this educational formula and closely works with business and industry and various educational establishments and knowledge institutes to implement it. Realising that sustainability is the main rising star in the economic world, the organisation uses sustainable technology as its guiding principle. "In accordance with that principle, the future generation of technically talented young people has got it made," believes Rein Meester, chairman of the Learning Park Development Cooperative (Coöperatie Ontwikkeling Leerpark) and also Director of Sustainability for the municipality of Dordrecht. The municipality of Dordrecht and the Da Vinci College, a regional training centre, both have a 50% interest in the cooperative.

The Sustainability Factory was completed and taken into use in September 2012, with a celebratory opening taking place on 4 October 2013. It will be then that the dream set out on

paper finally becomes reality. "We deliberately chose the word 'factory'," explains Meester.

"This is because we bring together technology, innovation, research and the manufacturing industry. The factory is a creative breeding ground, leading up to professional practice. Young people learn not only a trade, but also the right way to deal with clients and how to cooperate with others to produce a final product. The courses offered go from senior secondary vocational level to university of technology level. Naturally, ICT plays an important role, but there is welding, turning and planing work going on, too."

### **Added value for the regional economy**

Within the Rijnmond/Drechtsteden region, the Sustainability Factory focuses on the development and careers of young people, skilled workers and people entering the profession laterally. It is a place in which existing and future professionals experience the value of a technical profession and in which small and medium-sized businesses, in particular, see opportunities for cooperation. "For example, we have here the latest computer-controlled welding robot manufactured by Valk Welding," says Meester. "It constitutes the transition from hand-controlled to computer-controlled



welding. This is not only extremely interesting for our students and their teachers, but also for businesses. For example, we are in talks with a shipyard here in our region that is very interested in the welding could save them a huge amount of time when carrying out fine mechanical welding work. And that is exactly what we are aiming at - cooperation at a level that benefits the regional economy."

### **An appropriate answer to a labour market problem**

As the population ages, large numbers of baby boom generation employees are retiring. But where are the replacements for this post-war generation? The problem is that too few young people put themselves forward for technical vocational training. The government and businesses understand that they need to promote technical professions more. "Too many young people still assume that technical training always leads to 'dirty work' and that there are better opportunities to be had by following general secondary education or pre-university education. However, these days anyone with a technical education at senior secondary vocational level stands a big chance of getting a job and will also have good career prospects."

Meester continues by saying that it is very important that even as early on as at primary school, children, as well as their parents and teachers, become more aware of the advantages and options technical vocational training has to offer. "This is why, on the initiative of business and industry (Technet), we offer primary school pupils an information programme. This allows them to see students 'at work' at the factory and we introduce them to technology in a fun way."

### **Sustainability is the motto**

Everything revolves around sustainable, innovative technologies at the Sustainability





Factory and these have become a focal point for the way many organisations operate. Business and industry could not wait to get their hands on skilled technicians and now the environmental sector is crying out for them too! "This development creates new opportunities in the labour market, as new skills are required. Otherwise, who will repair our wind turbines and electric cars in the future? And will there be sufficient numbers of staff to install solar boilers, to develop techniques for the recycling of raw materials, or to make the work of employees in the healthcare sector easier using home electronics?" The demand for the creativity required for making all kinds of products and production processes more sustainable is only set to grow. "We are focusing on two areas within the field of sustainable technology, and those are maritime technology and sustainable energy technology. Focusing on the maritime/ maritime supply sector is no coincidence, as the Drechtsteden region is the third-largest maritime hub in the Netherlands, after Rotterdam and Amsterdam. A total of 70% of the businesses in our region are maritime related and considerable specialist requirements are made of the supply industry, as today's ships are more like floating high-tech factories." The technical-maritime

learning pathway set out by the Da Vinci College enables many of its pupils to find work experience places in the maritime sector, with a considerable chance of also finding work in that sector. The second educational cornerstone is sustainable energy, focusing entirely on the innovative application of sustainable energy sources, such as wind, water and the sun. The two cornerstones of the Sustainability Factory are united in one area of prime focus: sustainable production technology and automation. "Due to the fact that we have a comprehensive range of machinery here, we can really take a multidisciplinary approach to production. The focus may be on the maritime or the energy sector, but could also be on the healthcare sector, for example."

### **In the right place**

The Sustainability Factory is part of a new, sustainable district called Leerpark Dordrecht (Dordrecht Learning Park), which is directly adjacent to the city centre. The Learning Park is a great example of multifunctional area development, with an awareness of nature, the environment and energy. The commissioning party for realising the Learning Park is the Learning Park Development Cooperative. The factory is located between schools,

homes, businesses offering apprenticeships, a fire station, retail outlets, sports halls and all kinds of other organisations and facilities. "It is important for professional education to have good links to the community and the Learning Park is the perfect environment in that respect," says Meester. "Students have the opportunity to gain practical work experience with a large number of highly motivated businesses and establishments in the new district."

The Learning Park Development Cooperative was able to put the Sustainability Factory in place thanks to support received from the province of Zuid-Holland and the European Regional Development Fund, among others, and using a loan from Triodos Bank. Many businesses have invested in the factory by contributing both machinery and expertise. "We would have preferred to have used an existing building from a sustainability point of view, but unfortunately there were no options in this respect," explains Meester. "The other side of the coin is that we have now been able to implement many of our ideas and that there were no obstructions to prevent us from incorporating a lot of ICT into the building." As it turns out, business and industry are

more than happy to be enticed to follow the educational philosophy of the Sustainability Factory and to give substance to parts of the educational programme. "It should be noted here that, thanks to the ERDF contribution, we were able to make investments in the building and equipment that we would otherwise have had to postpone indefinitely."

### **Model building for sustainability**

The project managed to attract Thomas Rau to design the building. This well-known architect with green credentials was responsible for the design of the Triodos Bank and World Wide Fund





for Nature buildings, among others. His design focuses on making the building comprehensively sustainable. By keeping in mind the building's orientation and other building physical parameters, Rau was able to minimise its energy needs. Its fittings are flexible in design, as are the machines housed in the building, so that there is always space for new developments. Something we know nothing about today may become tomorrow's reality. For educational reasons, the building's technical systems have deliberately been made visible, instead of being hidden away in cupboards or behind walls. The air handling unit, for example, is fronted by a glass panel and pupils and students are able to operate the factory's systems themselves thanks to Wolter & Dros, Mampaey and Verkerk collaborating in installing double operation panels to allow staff to step in if needed. The small thermal energy storage system built by energy and raw materials utility company HVC can also be used by pupils and students for practice and testing. The building looks like a factory and operates like one, too. The lower two of the four floors are fully fledged factory areas. The specially reinforced roof of the factory can be used for experiments with systems such as solar panels, wind turbines and the like. In addition to

housing various business spaces, the building also accommodates laboratories, workshops and meeting rooms. A full range of machinery has been installed, suitable for all educational levels from preparatory and senior secondary vocational level up to research-oriented higher educational level. "In our opinion, practical, exploratory learning is the best approach," says Meester. "What is more fun than tinkering with a robot as a project? Technology is something you primarily learn through practical experience, through looking, doing and discovering."

#### **XCalibur - a faithful copy of reality in miniature**

One of the Sustainability Factory's showpieces can be found on the ground floor. The XCalibur, a testing and practice system for the measurement industry, is a miniature version of the EuroLoop, built by Krohne Altometer and the Netherlands Measurement Institute (NMI), which can be found in the Botlek area of Rotterdam. The EuroLoop is the world's largest and most accurate research and testing centre for gas and fluid meters for the petrochemical industry. The XCalibur is a faithful copy, the only difference being that it runs on water due to safety considerations. Students on technical courses at all levels can gain practical



experience using the equipment by carrying out measurements and interpreting the results. They find out what happens if a valve is left half or fully open, or if you increase pressure or change the temperature. Around €2 million was invested in this unique testing and practice centre, with the involvement of not only the initiators (Krohne Altometer and the NMI), but of various businesses in the region as well. Those businesses also make use of the learning centre themselves for testing new meters and for the basic and further training of staff. They no longer need to go abroad for this.

#### **Turntoo and LeX**

The fourth floor of the Sustainability Factory is where people come to meet in order to continue working on innovations they have come up with. This is also where there are a number of business spaces for organisations associated with trade and industry, such as the Drechtsteden employers' organisation. The fourth floor has been furnished fully in accordance with Thomas Rau's Turntoo concept, which involves components and raw materials remaining the property of their manufacturers. Rau works on the principle that we should not consume but instead use

materials. This means that only the performance of a product is purchased in accordance with the principles of the circular economy. This means, for example, that the Sustainability Factory purchases light hours, just as it buys chair, table and walking hours. And if furniture should wear out, then the manufacturer takes it back, arranges for replacements and reuses the raw materials from the 'old' furniture (cradle to cradle). The raw materials are guaranteed to remain in a raw material bank, managed by Turntoo. "We pay only for the right to use the products," explains Meester. "This means that you force manufacturers to make their products





as long-lasting as possible."

The LeX experimentation lab is also on the fourth floor. LeX is an abbreviation for the Leonardo Experience. In the LeX lab, pupils in primary and secondary education can participate in technology workshops during which they transform the ideas they have come up with on the computer into 3D figures. In doing so, they make use of our modern 3D printers and our laser and vinyl cutters." Students on technical courses also use the LeX lab to (sometimes collectively) work on innovation projects for businesses. The businesses consider the Sustainability Factory to be the perfect environment for having prototypes developed and tested. They can give students specific assignments based on an innovative idea they have developed." Businesses and individuals can also commission the making of 3D models - for example, scale models for architectural firms, cross sections of machine components or a technical part of a system. "This type of assignment really appeals to young people."

#### **World's first 4D outer wall**

In November 2012, the Sustainability Factory scored a world first when it unveiled a 4D industrial outer wall. The wall was based on an

idea put forward by the Sublean Group located in the Dutch town of Slidrecht and consists of rotating panels that, depending on the weather or other conditions, can switch functions very quickly. "The panels are able to generate energy, reduce CO2, catch and store rainwater, combat heat stress by reflecting heat and can also be used for advertising purposes." According to Meester, this means that any surface can be rendered cost-effective 24 hours per day. "We are participating in research into the deployment of football fields, along with organisations including Innosport (IOC\*NSF), the Netherlands Organisation for Applied Scientific Research and the Delft University of Technology. The idea is to make rotating grass panels on a football field, which can be transformed into solar panels when the pitch is not in use. And you can bet that the students are 100% motivated to contribute their ideas to this project. You actually have to send them home at the end of the day because they are enjoying the work so much."

#### **The Sustainability Factory (De Duurzaamheidsfabriek)**

Main beneficiary: Learning Park Development Cooperative U.A. (Coöperatie Ontwikkeling Leerpark U.A.)

Total project costs: € 9.610.400

Kansen voor West (Opportunities for West)

contribution: € 1.609.600

Website: [www.leerpark.nl](http://www.leerpark.nl) (in Dutch)



## 12. Architectonic showpiece pays tribute to the medium of film - the EYE is a real eye-catcher

**The EYE Film Institute Netherlands pays tribute to the medium of film in all of its forms. The number of visitors to this multifunctional cultural centre on Amsterdam's IJ waterfront is exceeding even the wildest of expectations. Contributing to its popularity is the spectacular building in which it is housed, which acts as a figurehead for the Overhoeks district still to be developed. The institute gratefully used the funds received from the European Regional Development Fund to develop a number of interactive concepts, among other things. Thanks to the funds, the permanent digital exhibition about film as an art form, which can be visited free of charge, is presented in a very dynamic way. We asked the institute's director, Sandra den Hamer, about the EYE's formula for success.**

The new EYE Film Institute, located on the north shore of the IJ waterfront in Amsterdam, was opened by Queen Beatrix on 4 April 2012. Just under a year later, the institute was once again the subject of royal attention when the newly crowned king and queen used it as a starting point for their boat trip across the waterfront. Those images were broadcast around the world and, in retrospect, served to put the EYE firmly on the map. And now here we are at the

beginning of April 2014 and the second Film Ball has just taken place. This new tradition and a rival to the Book Ball is already a huge success, as are all the other goings-on at the EYE itself. The new building with its futuristic look turns heads and gets all of the attention. "Walking here always makes me feel great. There are so many visitors and so many children having a great time," says institute director Sandra den Hamer.

### **Multifunctional meeting place**

Sandra den Hamer was offered the opportunity of managing the Film Museum at the beginning of 2007, at which point she was still the director of the International Film Festival Rotterdam. She then became involved right in the middle of the design process for the new building. The Ministry of Education, Culture and Science also gave her the challenging task of bringing about a merger between the Film Museum, the Netherlands Institute for Film Education, the Film Bank and Holland Film. Their wish was her command and this meant that since 2010, Dutch central government, which provides subsidies to the arts, has only dealt with one institute for the whole of the film sector, namely the EYE Film Institute Netherlands.

"In 2012, we were involved in what was of course much more than a simple move,"



says Den Hamer. "We underwent an extreme makeover. Our previous home, the pavilion in the Vondelpark dating from 1881 and built in Italian Renaissance style, was beautiful, but it was just too small. It had just two little auditoriums and we had to keep our archives and artefacts at different locations. And there was no space for exhibitions." The time had come to say goodbye to the pavilion, which, starting in 1972, had housed the institute for a period of 40 years. "What we actually did in 2012 was to transform an upgraded cinema into a multifunctional meeting place that combines education, an archive, a museum and a modern cinema in one. There are no institutes in any other country that bring all of these things together. We used to look up to the Cinématèque Française in Paris, with which we work together a lot, but now our French colleagues are envious of us."

### Positive boost for area development

The husband and wife team that founded Delugan Meissl Associated Architects, a Vienna-based architectural firm, was responsible for the building's design. Their design emphasises what architecture and film have in common, namely the interplay between light, space and

movement. The building makes the most of the panoramic view out over the IJ, particularly when seen from the cafe/restaurant with its terrace right on the water. From all different points of the building, perfect views are afforded not only of the water, but also of the back of Amsterdam Central Station and the free ferry shuttling across the water day and night.

"There was good reason for Amsterdam to want us on this site. We give a positive boost to the continued development of the area on the north shore of the IJ." It is here that Overhoeks, a





new residential area, is being constructed, on land which was formerly Shell private property. "We notice that more businesses in the cultural and creative sectors are coming this way. For example, a party tower and a large music venue are going to be housed in two former Shell structures nearby. As we are also open in the evenings, we would of course be glad to see visitors to these cultural centres coming to the EYE and vice versa."

### **Preservation of Dutch film heritage a priority**

The EYE has four auditoriums with screens and with its 600+ seats can accommodate four times as many viewers as the former home in the Vondelpark. "We show how diverse film can be, all the way from avant-garde to mainstream. It's somewhere between art and entertainment, particularly as you never come just to watch a film here. We always add something to the experience, whether it's an introduction, an exhibition related to the film, a teaching package, a party..."

Den Hamer is totally delighted with the institute's huge exhibition hall measuring 1200 m<sup>2</sup>, which allows it to do full justice to film as an art form. Retrospective programmes, such

as one focusing on Fellini, and the many film festivals are held in rapid succession. "To me, festivals are an integral part of film culture, and they also bring a lot of additional activity to the institute."

The core activity of the EYE institute is to maintain and manage the film heritage of the Netherlands for future generations. This involves both Dutch films and foreign films that have been screened in the Netherlands. "What you see at the institute is like looking into the shop window of our museum collection, which consists of 40,000 films, 500,000 photographs, more than 40,000 posters and also many screenplays, film-maker archives and thousands of film-related objects. Currently, these are stored at lots of different sites around the country. This is going to change, as a new repository is going to be built not far behind our building. The first foundation stone is scheduled to be laid in August 2014."

### **Visitor numbers exceed all expectations**

"In 2012, our aim was to attract 225,000 paying visitors three years down the line. This would be three times as many visitors as we had had in the Vondelpark." Media critics were sceptical and took the view that unrealistic

expectations for growth were not appropriate in times of budget cuts. They were concerned that the general public would not venture to the north shore. However, this fear turned out to be unfounded as the EYE attracted 750,000 people in its first year, nearly 350,000 of whom were paying visitors. This proved to be more than just beginner's luck, as the visitor figures for 2013 show consolidation. "Our financial statement for 2013 show that we are now, for the first time ever, less than 50% dependent on subsidies. We work with a budget totalling €16 million, €8 million of which is covered by subsidies. This represents huge progress as two years previously we were still 90% dependent on subsidies." Den Hamer adds that the institute's remit is now much broader and therefore reaches a much wider audience. And, of course, the institute now has more staff: a total of 170 employees make up 120 FTEs. "The huge leap in the number of activities did entail higher costs, but we are now earning back a considerable proportion of those costs ourselves." These days, generating your own money is very much par for the course for organisations such as the institute, as cultural cuts compel them to be more enterprising. "That is why we organise various commercial

activities, such as congresses and events, and we also hire out our auditoriums to private individuals. The best revenue, however, comes from the increased visitor numbers. Visitors to the EYE can roughly be divided into four categories: film enthusiasts, school groups, tourists and Amsterdam-Noord residents. The local residents get a discount. We have even set up Filmclub Noord for them and the club has its own specific programme."





### **ERDF money makes the difference**

The building is rented by the institute but the institute had to pay for its fixtures and fittings out of its own pocket. "The €1.5 million we received from the European Regional Development Fund (ERDF) was essential for this. One of the things it allowed us to do was to set up an educational room for school groups in which children participate in a workshop and learn how to make a short film. We also used the money to have a number of concepts developed for making our digital film collection accessible in a way that is contemporary, easy and appealing." The results of this can be seen in the basement of the building, to which entrance is free. This is where, in a separate room, visitors come across a Film Panorama, which surrounds them with fragments of films on all sides. The film fragments can be called up by the visitors themselves using a remote control.

The basement also houses five 'pods', which are also very popular with visitors. These yellow cubicles, which in some ways resemble bumper cars with a roof, can accommodate up to three people at a time and show fragments of films or even whole films. "Young people, in particular, can't seem to get enough of these. We do a lot for children here - the EYEwalk, for example.

This is an exciting video tour aimed at children aged between 7 and 12. They carry an iPad that displays film characters on the screen who act as guides and take them on a 15-minute tour of the museum building. They discover what makes films exciting and how tricks are played on them to make them so exciting." The EYEwalk ends with the children acting in a film scene in front of the GreenScreen installation, which was developed in cooperation with Cinekid. And to top it all, the resulting film can be sent to participants by e-mail.

There are also two other interactive installations that make a visit to the basement a real treat.

The Flipbook Machine gives visitors five seconds in which to become the star of their own film, while the Body Paint allows you to throw virtual paint around. This installation immediately translates every movement you make into ever-changing colour compositions. This shows you what 'movement' can bring about.

### **A kiss on the hand from the institute director**

It's impossible to imagine financing today without sponsorships and crowdfunding. EYE has managed to attract and hold on to a number of new partners and funds, and film



and EYE sympathisers are also involved in the way the institute operates. "A nice example of crowdfunding is the restoration of three films with scenes filmed in Amsterdam between 1900 and 1930, which is being paid for in part by the general public. A contribution of just €10 is enough to get involved. Once we explain how labour-intensive and costly the process is, people have a better understanding of what it all involves." The U&EYE Fund has also been set up for all those who want to support the EYE and film culture. Those who make a commitment to the EYE by pledging a certain level of contribution for a couple of years can expect something in return. There is every chance of 'a kiss on the hand from the institute director' as a gesture, but discounts on ticket prices, museum shop items and exhibitions are also possible. Other options include 'your own cinema seat', free entrance to a preview or premiere, or your name included on the credits of a restored film. "Our financial participants are our most important ambassadors," says Den Hamer. "In addition to their specific financial contributions, which allow us to do really great things such as restoring a cinema organ dating from 1929, we immensely and mainly appreciate their commitment."

EYE on the IJ has become a place people like to go. And it is also a place to which people like to return it seems. And what about the tourists in Amsterdam? According to research, they visit the museums on Museum Square on their first day and then head for the EYE on their second day. Could Den Hamer then wish for anything more? "Yes. I would like us to be able to at least maintain our visitor numbers in the future." [www.eyefilm.nl/en](http://www.eyefilm.nl/en)





**EYE in the Amsterdam-Noord district**

Total project costs: € 3.938.615

Kansen voor West (Opportunities for West)

contribution: € 1.500.000

Website: [www.eyefilm.nl/en](http://www.eyefilm.nl/en)

## The Hague: 'Best City Centre in the Netherlands 2013-2015'

The city centre of The Hague is entitled to call itself the best city centre in the Netherlands for a period of two years. The city managed to steal this title for large cities away from under Amsterdam's nose and is the first G4 city to be among the winners since the competition, which is held biennially, began in 2003. The panel of judges looked at aspects including atmosphere, amenities on offer, circuit formation, the avoidance of vacancies, organisational capacities and developments for making the city centre future-proof. Its conclusion was that "The Hague has worked towards a complete, attractive city centre through its vision, cooperation and perseverance." For more information, go to [www.debestebinnenstad.nl](http://www.debestebinnenstad.nl) (in Dutch).



### 13. The Hague makes way for a ballroom - where shopping is given international allure

**The Hague winning the title of 'Best City Centre in the Netherlands 2013-2015' just goes to show that this royal city's centre is a great place to be. According to a panel of judges, the low-traffic city centre has developed to become a must-see destination. The Hague will feel it is a title richly deserved, as the municipality has been systematically working on creating this ideal since the late 1980s. The decade-long project of renovating and modernising the city's arsenal of retail chains culminates in the chic redevelopment of the Grote Marktstraat shopping street, set to be completed in mid-2015.**

Of all of the efforts made to create an attractive city centre, the metamorphosis of the Grote Marktstraat represents the icing on the cake. The luxury redevelopment of public spaces will do more than make an essential contribution to a new identity and an improved image for the retail heart of The Hague. The redevelopment project has a budget of €12.8 million, with more than €1.6 million coming from the European Regional Development Fund (ERDF). It heralds the advent of international allure.

The Grote Marktstraat runs from the Spui, with the 'new' city hall and library dating from 1995, down to the Grote Markt. With all of the large

department stores situated close together, it's this street that connects the various shopping areas with each other. The road was once a major new artery for traffic through the city centre and was built in 1920 in accordance with plans drawn up by the well-known Dutch architect Berlage. However, just under a century later, the traffic has disappeared from the scene. Marie-Jeanne Kleemans from the City Management department and Martijn van Dam from the Urban Development department explain the redevelopment. Kleemans commissioned the redevelopment on behalf of the executive and is therefore responsible for the redevelopment work and for managing the Grote Marktstraat project. Van Dam is involved in the upgrading of The Hague's city centre from an economic point of view.

#### **Growing belief in a new zeal**

Over the last two decades, the municipality of The Hague has worked very hard on ensuring that people enjoy visiting the city's retail centre. In 2004, it was clear that revenues in the retail heart of the city were falling short of those of the other three large cities in the Netherlands. By 2011, the city had made up the shortfall. "Despite the crisis and competition from webshops, sales in the city centre of The Hague



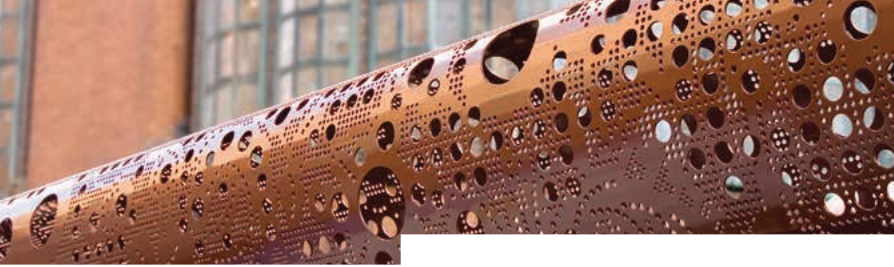
continued to increase, as did the number of visitors. Old images of an unattractive centre with indistinct routes and high traffic volumes are now fading fast. The attractiveness of the district is visibly increasing now that the construction and redevelopment plans are nearing completion, with an increase in the range of shops and department stores. People are starting to really believe in it."

### **Low-traffic area with parking right outside the door...**

In 1989, the municipality of The Hague published a report entitled *De Kern Gezond* ('A Healthy Centre'). "In it the municipality set out its integrated vision for making the city centre more attractive," explains Van Dam. "The report covered issues such as the atmosphere and business climate of the city, the use of public spaces and, not unimportantly, good traffic flow." The report made short work of the levels of traffic in the centre, which were too heavy and led to reduced air quality. The whole of the city centre needed to be redesigned, providing plenty of space for pedestrians and cyclists but not for cars, buses and trams. But even though the city centre is now a low-traffic area, that does not mean to say that accessibility by car

is poor. According to the 2009 traffic circulation plan, parking in the city centre is now primarily in multistorey car parks and no longer so much on kerbsides. "We now guide through traffic via an inner ring road that functions as a city route," explains Kleemans. "From that ring road it is easy to find your way to the various multistorey car parks in the city centre." Even in the *Grote Marktstraat*, people can actually park right outside the shops. At any rate, they can park in the underground car park, which is





located underneath the shopping street, along with the tram tunnel. Both were taken into use in 2004. "This means that you can easily load a new fridge into your car right in the middle of the pedestrian area." All of this has had a positive effect on air quality, while access traffic and through traffic, now separated from each other, both flow more efficiently.

"You could see the redevelopment of the Grote Marktstraat as completing the De Kern Gezond report," says Kleemans. "The design contest for the redevelopment was won by architect Lana du Croq from the Ellerman Lucas Van Vugt (ELV) firm of architects in Rijswijk." De Croq came up with the idea of giving the shopping street the appearance of a stylish ballroom. "This means that the ground level should be kept as free from obstacles as possible. So there are to be no flower tubs, no flower stalls, kiosks or any other kinds of street retailing whatsoever. But benches with integrated rubbish bins are to be allowed. The design also counts on the public going about their shopping to give the street a permanently lively look."

### **Customised paving and street furniture**

The fixtures and fittings used in the Grote Marktstraat are far from standard.

Du Croq designed unique elements that are user friendly and resistant to wear and yet still comply with strict safety standards. She took the inspiration for her designs from fashion worn in the early royal court era in The Hague and in particular from the lavish lace patterns of the dresses of that era. These are reflected in the street furniture and paving. For example, there will be steel benches in a subdued shade of red that have been made semi-transparent due to a lacy milled pattern. A focus group made up of people living in the area and business representatives were consulted in advance about the benches, which will replace the fencing at the three entrances to the Het Souterrain tram tunnel and underground car park. The benches then immediately reduce the number of places to which bicycles can be chained. The steel plate used to make the integrated rubbish bins will be decorated with the same lace pattern, only this time the pattern will be laser cut.

The pattern can again be seen in the top natural stone layer of the specially designed concrete terrazzo paving stones. The paving stones are both chic and unique and provide a decorative pathway, flanked on either side

by the manganese clinker bricks that are a familiar sight in the centre of The Hague and that are also used as paving in the side streets. The paving as a whole rests on extremely firm foundations but lies only 80 cm above the tram Driving supply vehicles, emergency service vehicles or cleansing department vehicles down the street will be no problem at all.

### **Chandeliers to impress and provide structure**

The enormous chandeliers that will be suspended at each end of the Grote Marktstraat and at the halfway point will be real eye-catchers. Between them will come 42 vertical lamps suspended by cords. The chandeliers are intended to serve as major landmarks for shoppers. "The design of the chandeliers took some doing," says Kleemans. "But I think we were successful, both in technical and aesthetic terms. They will be made up of a set of slender, transparent tubes that will be attached to the buildings on either side. What makes them extra special is that we can use unusual colour and lighting effects due to the energy-saving LED lamps integrated into the chandeliers." Kleemans emphasises that the unique,

luxury appearance of the lights was made possible in part due to the ERDF contribution to the project. "You won't find chandeliers as beautiful as these anywhere else in the world. Together with the striking paving and the extravagant-looking street furniture, they really make the difference we wanted to achieve, enabling us to rise above mediocrity." The stunning redevelopment of the Grote Marktstraat will mean that there will be more requirements to comply with in terms of management and





maintenance. A special plan has therefore been drawn up to meet these demands. The plan goes much further than simply the sweeping of the street and the emptying of rubbish bins. Extra money is even being set aside for the removal of chewing gum, something that is not done anywhere else in the city.

### **Bikes in the Grote Marktstraat are a different story**

The through route for bicycle traffic in the Grote Marktstraat will remain in place. Cyclists will still be welcome, but mopeds will be barred. "Fitting the cycle lane into the plan was something that occupied the municipal council for quite some time," comments Kleemans. Ensuring that pedestrians and cyclists do not get in each other's way is not an easy task. It was eventually decided not only to use different paving stones for the cycle lane, but also to position it at a slightly lower level than the rest of the paving. Parked bicycles will no longer be welcome in the Grote Marktstraat. Apart from the aesthetic considerations, it is essential for practical reasons that passage is kept open without bikes getting in the way. Shops and catering establishments need to be able to receive deliveries without any obstructions in

the way and the Grote Marktstraat will remain a main route for the police and fire service. "The starting point is ensuring that there is nothing to which you can chain your bike. In addition, we will be offering plenty of guarded bicycle storage facilities, free of charge. Until these are ready we will be offering plenty of temporary storage sites.

### **More space to get things going**

"The plan for giving the Grote Marktstraat international allure has certainly contributed to the amount of interest from businesses wanting to set up or return to the centre of The Hague and invest in property there," says Van Dam. However, a good business climate is crucial and The Hague has worked hard at getting this right. One of the conditions for a good business climate is good routing, which ensures that shoppers have no problems finding their way around, enjoy being in the shopping area and therefore stay there for longer. "We have now managed to make the pedestrian area into one compact unity that feels safe once again. It doesn't matter whether you go around one way or the other, as there are plenty of nice, logical routes to take you around the shops." The municipality has also worked hard on increasing the amount of retail



space available in the Grote Marktstraat, which is a top location for store owners. It did this by designating sites for new construction and renovation projects and by putting its support behind property owners' redevelopment plans. "The large retail chains are only interested in being where there is good access, where there is the greatest footfall, where there is a large range of varied and attractive shops and where there is enough space available for them too." This meant that various project developers started on a lot of building and renovation work, which resulted in the retail space in the Grote Marktstraat being increased by between 30,000 and 40,000 m<sup>2</sup>. A cautious estimate calculates the amount invested privately to be more than €200 million, multiplying the amount invested by the municipality. Van Dam also emphasises the fact that all of these efforts have resulted in approximately 600 new jobs.

The contemporary look of the Nieuwe Haagse Passage is a talking point. The mall, which is still being built, connects the Spuistraat end of the well-known Passage mall (which dates from 1885 and is a UNESCO site) with the Grote Marktstraat. Other large premises, such as Sijthoff City opposite the already extended Bijenkorf department store, are undergoing

drastic refurbishment work. A brand new building, the Markies, can be found in the same row of shops as Bijenkorf and has brought back Marks & Spencer to the city. Primark will be housed in the new Amadeus building on the corner of the Spui. The Hague's city centre and also a number of other large building projects in the immediate area have become very desirable to investors and businesses, resulting in a snowball effect.





### **Shoppers bring impressive 'ballroom' to life**

"When the enormous chandeliers are hung up in mid-2015, the redevelopment project for the Grote Marktstraat will have come to an end," says Kleemans. "The large-scale new construction and renovation projects in this shopping street will then be ready, too. This will mean that all the pieces of the puzzle will have come together to complete the new city centre." The smart redevelopment project also fits in with another of the municipality's more wide-ranging tasks, namely that of creating an excellent atmosphere and business climate in the city. And The Hague has been successful in achieving this. There has already been a sharp increase in the number of shoppers in the Grote Marktstraat. And it is those people who will be bringing the dream 'ballroom' of this royal city even more to life.

#### **Redevelopment of the Grote Marktstraat, The Hague**

Total project costs: € 6.059.128

Kansen voor West (Opportunities for West)

contribution: € 1.698.976

Website: [www.denhaag.nl/en](http://www.denhaag.nl/en)









## 14. Locals finally on top of the world - green Valhalla above shopping centre -

**The Rotterdam Roof Park (Dakpark Rotterdam), which extends over 1200 metres, is one of the largest rooftop parks open to the public in Europe. This recreational area is located nine metres above the ground and sits on top of a row of large retail outlets in Rotterdam-Delfshaven. Its attractions include whimsical water cascade steps, a wok restaurant housed in a large glasshouse, a Mediterranean garden, a community garden and a spectacular playground. Striking aspects of the park include its triple use of land, its integration into a vital flood defence system, and the long-term cooperation between the private and the public sectors. Local residents have also played and will continue to play an important role in the park. Project manager Karlien Stroeve from the municipality of Rotterdam's Urban Development department talks about the various stages of the project.**

### **Unique cooperation between public and private sectors**

The idea of creating a roof park first came about in 1998. What followed was a long and intensive planning process which involved close cooperation between residents, municipal

service departments and, later, the developer, Dura Vermeer. This resulted in the opening of a kilometre-long row of shops in November 2011, given the name 'Bigshops Dakpark' and housed in an elongated construction along the east side of the Vierhaven area, in the Vierhavensstraat. This road is a part of the Parklane route, a prestigious, green approach road for the western part of Rotterdam.

The row of shops offers visitors 'a kilometre of shopping fun' and is 40 metres deep. A car park with spaces for 750 cars extends over the whole length of the construction. Once the building itself had been completed, work was able to be started on the roof park. The official opening for the central section of the park took place in the summer of 2013. "The residents couldn't wait any longer and also wanted to be able to cross straight over to the shops," explains Karlien Stroeve. The park's layout was completed in the summer of 2014. Stroeve adds that the zoning plan still allows for the positioning of two buildings, one at each end, which for the purposes of the project are called the 'Head' and 'Tail' of the park. "The economic crisis has meant that no investors have yet come forward for these."



## Two wishes, one idea

The roof park brings together two wishes, namely a park for the surrounding districts and new activity in the Stadshavens area. The residents of the priority districts of Bospolder and Tussendijken in Rotterdam had been lobbying for a local park since 1998. The city authorities promised that one would be built as soon as around the old railway tracks was a setback and a decision needed to be taken regarding whether to remediate the soil or contain it. In the end it was decided to safely contain most of it. Soil needed to be removed from only a couple of places. "We see that depositing of soil with varying levels of contamination as the first type of space usage. The shopping centre measuring 25,000 m2 and its car park level are the second use, and the roof park is the third use of the same space." The municipality of Rotterdam took responsibility for the soil remediation and the roof park. The developer to which the project was awarded, Dura Vermeer, was responsible for the development of the retail premises.

## Temporary hitch

The next challenge was the dike on the west side of the area, which, being the primary water

defence structure, needed to be integrated into the roof park. "This meant that we needed to consult intensively with the water board and that we were restricted by not being able to put any cables, pipes or drainage into a part of the ground, let alone build on it." The covered access road for deliveries at the back of the shops is just within the sphere of influence of the dike, but was allowed to stay because it would cause few problems. This benefits all of the parties involved, as it means that loading and unloading take place out of sight.





At one stage during the construction process, work had to stop because of a collapsed district heating pipe dating from 1987. The pipe turned out to be in a worse state than was previously thought. "The pipe forms the main connection to the city centre, which meant that this particular hitch needed to be handled very carefully. As it turned out, the building work was not the cause of the problem. However, just to be sure, lighter equipment was used from then on and we were able to continue laying out the park."

### **The size of 16 football pitches**

And so the neighbourhood got its local park after having fought for one for 15 years. At no less than 1200 metres in length and 85 metres wide, it is an impressive urban park, covering an area equal to approximately 16 football pitches, facing the residential district with a slope running down towards it. The main entrance is also on that side as are steps leading up to it. Local residents played an important role in the project from early on in the preparation stages. They attended meetings with municipal service departments, held meetings amongst themselves and helped to decide which landscape architect would be selected to come up with a draft design for the park. Eventually

Buro Sant en Co was chosen. During this phase of the project, the municipality, together with a delegation from the neighbourhood, even went to Paris to draw inspiration from a number of parks in that city. The Municipal Urban Planning and Housing department elaborated on the preliminary draft to come up with a final plan. An important aspect of this process was the 'ten commandments' put together by the residents, which included the wish for no dogs to be admitted to the park, for there to be a fence around the park and for access on the west side towards the Bospolder district to be satisfactory. The list of wishes also specified that the park should be attractive and well maintained, and that it should be open both during the summer and the winter. It needed to have both a romantic and cosy feel as well as being 'grand and magnificent'. The result is a wonderful mix of plenty of greenery, trees and bushes, lovely footpaths, wide-open fields of grass where people can picnic, sunbathe and barbecue on stone grills, and also more intimate areas with plenty of benches.

### **Ties to stormproof trees**

Situating a park on top of a building means that there are specific structural requirements

to be met. All of the stops had to be pulled out to make a real park with trees, which was what the local residents really wanted. "Where the eastern part of the park is concerned, in other words the part that stands on top of the shops, the most important considerations were the maximum permissible load and imperviousness," explains Stroeve. "And everything needed to be watertight in terms of public and private law, too." Thorough research needed to be carried out into the right types of trees, bushes and shrubs and also into how they were to be looked after. It was important to know how to retain water, but without retaining too much, and to know which particular plants would be suitable. "The substratum that sits on top of the concrete roof is a real achievement in itself, as it is made up of approximately ten different layers, with a total thickness of one metre. The property boundary runs between the fourth and the fifth layer. The municipality is responsible for everything from the fifth layer upwards, while the building owner is responsible for everything below." Elements of the substratum include a light polystyrene foundation material, synthetic reinforcements, a drainage mat, a root control layer and even Oasis foam of the type normally used for flower

arranging, along with soil, of course. The soil used is a special, low-weight type with good moisture-retaining properties. "We even had special trees cultivated that spread their roots horizontally rather than vertically. And as it can get quite windy at a height of nine metres, the trees have been made stormproof by using ties to attach them to a double layer of steel reinforcing mesh. The heavier trees have also been positioned right on top of concrete columns in the building for extra security."





### **Gathering herbs to take home**

At nine metres, the highest point of the park is above the shops. At the halfway point along that side of the long row of shops there is access to the central section of the park using steps or a lift. Looking at the park from the Bospolder-Tussendijken side, water burbles down cascade steps in the summer, enticing visitors towards the top of the steps where a splash pad is located. This water feature was already a huge success in 2013, the first summer the park was open. When you reach the top of the steps, you are also right next to the large glasshouse, in which a wok restaurant is located. This long, slim construction is also used as an orangery in which various exotic pot plants, such as oleanders and palms, can overwinter. "The ERDF contribution of €2 million allowed us not only to meet the additional costs of a 'high-rise park', but also to offer little extras that you would not find in an average park," says Stroeve. The Mediterranean garden, for example, with its beautiful natural stone, pergola with vines and wisteria, and large herb garden featuring Mediterranean herbs, is far from being average. "It reminds some people of their country of origin. A nice touch is that everyone is free to pick the herbs for using at

home. People can also imagine themselves to be somewhere further south when visiting the warmtekamer. In this walled and wind-sheltered 'garden of warmth', special stones have been used which retain the heat for longer, making sitting on the picnic benches possible more often. The tropical plants in the garden also benefit from the retained warmth." A little further on, on the Hudsonplein side of the park, is the community garden, bordered by lovely old fruit trees and fruit plants. Stroeve explains that the municipality was responsible only for the preparatory work for the community garden, carrying out groundwork and installing a toilet. The rest is left quite literally to the local residents, though they are given expert advice and have a budget available to them. "This has turned out to really boost community involvement."

### **An unusual playground**

Finally, Stroeve is very enthusiastic in talking about an extremely unusual playground, which is due to open for the children in the neighbourhood in the spring of 2014 and will replace the old playground. "What makes the new playground unique is that we have made good use of the differences in height in the roof



park. One obvious thing to do was to run a slide down the slope, but another nice touch is the eight-metre-long water play stream, which winds its way down the dike like a mountain brook. Children can wade through the water and even change the course of the water by using sliding gates." The playground association manages the playground and supervises it from a lodge, which is built into the dike body and also houses toilets and a space for sheltering from the rain.

The roof of the lodge is in the form of steps, which can also be used as a seating area. Children who climb up the steps encounter a flying carpet, a tunnel for crawling through, a look-out tower and a zip wire on the way, while below, the youngest children can amuse themselves with other playground equipment including a 'mushroom' water feature. The seating area was designed to act as a meeting place for parents and children. It offers parents a good observation point from which to keep an eye on their little ones.





### **A good future assured**

"In order to ensure that a bright future is assured for the roof park, the Winkeliersvereniging Bigshops Dakpark (the retailers' association for the shops below the park), Stichting Dakpark (the park's association made up of local residents), the municipality and the submunicipality all signed a declaration of cooperation. Since the signing of the declaration, active local residents have been maintaining and managing the park together with the municipality. Local parents take on the responsibility for the roof park supervision and are able to quickly fall back on the municipality if the need arises. They ensure that the roof park's gates open at 7:00 in the morning and that park users comply with the regulations." All in all, this green building project has been a success, demonstrating that green space can form a substantial part of a construction plan and that it can be much more than just a nice little tree here and a pretty little shrub there. All in the strong conviction that this is truly beneficial to the quality of life in this specific district of Rotterdam.

#### **Landscaping of the Rotterdam Roof Park (Dakpark Rotterdam)**

Total project costs: € 5.680.000

Kansen voor West (Opportunities for West)

contribution: € 2.014.457

Website: <http://stadshavensrotterdam.nl/en/?s=dakpark>

## Meer over Emmaus

The inspiration for Emmaus Domstad was the ideology of French priest, Abbé Pierre, who founded the worldwide Emmaus movement in 1949. In the Netherlands, the Emmaus movement is represented at more than 20 locations, with all of those organisations affiliated to the Federatie Emmaus Nederland (the Emmaus Federation of the Netherlands) and Emmaus International. Following the manifesto of the movement, Emmaus Domstad's mission is as follows:

- Every person has the right to a place of residence, work and full participation in society, irrespective of their gender, race, faith or origin.
- We all have a task in achieving this goal.
- Every person has skills which enable them to make a valuable contribution to Emmaus Domstad.
- We need to live and work together in a sustainable way so that we do not overburden the earth.
- We need to fight poverty, overconsumption and the overburdening of the environment.





## 15. Multipurpose second-hand shop in Utrecht - Overvecht gains a community mainstay

**It's not something you come across every day: someone being generous enough to loan something to someone for no less than 30 years. Yet this was exactly what the Bo-Ex housing association did when it lent the Emmaus Domstad foundation the space that used to be a car park under a block of flats so that it could expand the already existing drop-off and sorting site for used goods to create a large second-hand shop. Jan van Dam, the general coordinator for the Emmaus foundation in Utrecht, is passionate about the benefits that something as 'simple' as a new second-hand shop can bring, to people, the local community, employment and the environment. In fact, the benefits are fully compatible with the Emmaus philosophy.**

The Emmaus Domstad foundation has a second-hand shop in the Lombok district of the city and a residential and working community with a second-hand shop in the district of Parkwijk (Leidsche Rijn). Emmaus will be opening a new second-hand shop in the Utrecht district of Overvecht in or around September 2014. It was at this same location that Emmaus started up its returns shop 12 years ago.

### **New use for car park**

The cooperation between Emmaus Domstad, the Bo-Ex housing corporation and the municipality of Utrecht's district office in Overvecht started up in 2002. Together, the three organisations arranged for Emmaus to be allowed to use a part of what was an unsafe and open-sided car park as a drop-off and sorting point for second-hand goods. In order to make this possible, the ground floor under a three-storey residential building was partly closed off and renovated. Emmaus opening its returns shop at the site considerably improved what the local residents had found to be an unsafe and unpleasant location, especially after dark. Under professional leadership, Emmaus volunteers turned the Returns Shop into a successful drop-off point. The discarded goods, once sorted, soon found new homes through the second-hand shop in Lombok.

### **Giving back value to people and goods**

The people working for the Emmaus foundation all come from different backgrounds, but they have one thing in common: they are all disadvantaged when it comes to finding their place in the labour market. "Some of them are lonely, others may have psychological or psychosocial problems," explains Jan van



Dam. "They may be carrying out community service, have debts, a language deficiency, or be confronted with a combination of these types of problems. It doesn't matter who they are, whether they are homeless, have nowhere to go, or are ex-prisoners - to us they are just people who, for one reason or another, have fewer opportunities to lead a meaningful life. And if you can get a few idealistic volunteers from the local community to help along, who do have a job or a household, then that takes the pressure off of us as supervisors. And at the same time, the volunteers get to learn something from the perseverance of the underprivileged." He continues that Emmaus gives back value to what people have discarded. That value is given back to the objects, but also - and mainly - to the people who do voluntary work for the foundation. "It does wonders when these people have structure in their lives and a working rhythm, and when they are among other people. We try to let them do work that they are good at. This makes them feel that they are needed and useful and that they really do make a contribution. And this is useful work, not just work we have created for them. For some people, working for us is almost about life fulfilment." The volunteers staffing the shop do not receive any remuneration, but

do get a free lunch and a staff discount on any purchases made. Van Dam is very clear about this: "We do not want to have to constantly rely on subsidies, particularly because we want to be free, as a social enterprise, to make the decisions we want to make. So, by definition, we fend for ourselves. That means that it is completely down to us which people we offer opportunities to. We want to make sure that we don't have to send anyone away because a specific pot of money from the government has been used up." "While





we are, in principle, financially independent, it was impossible for us to quickly raise the more than €400,000 required for extending the premises to create a new second-hand shop and for fitting it out. In this specific case, we were therefore very happy with the financial support received from third parties. We still contributed €100,000 to the refurbishment and fitting work ourselves." In addition to the support received from Bo-Ex and a sum paid out of the municipality's pot of money reserved for urban regeneration districts, ten private funds also dug deep for the project. "Finally, we were extremely happy with the more than €120,000 received from the European Regional Development Fund, which made up the rest of the budgeted sum."

### **Vibrant yet problematic**

"We wish it were otherwise," says Van Dam, "but our organisation is still badly needed for giving support to underprivileged people from various backgrounds." The reasons for starting the returns shop in the Overvecht district all those years ago have, unfortunately, not gone away. "And that will continue to be the case for a long time to come," comments Van Dam. "Many of the people living in the Overvecht district live at or under subsistence level and there is nowhere

for them to go to do useful work." Unemployment in this vibrant yet problematic district is high. This is why, in 2012, the Emmaus foundation came up with the idea of transforming the drop-off point for used goods into a full-scale second-hand shop which would carry the name of 'Emmaus Overvecht'. The very same original initiators once again came together to put their backs into getting a much more drastic refurbishment done, entailing the creation of a shop that will measure 450 m<sup>2</sup> and a drop-off and sorting area that will take up 150 m<sup>2</sup>.

### **The plan unfolds**

Emmaus is receiving the full cooperation of the property's owner, Bo-Ex, for the refurbishment work. The architect, who elaborated on the plan for a special price, is allowed to move the storage areas for the tenants living above so that one continuous sales area can be created. Bo-Ex has been big hearted enough to cover all the costs of moving the storage areas, which also involved demolishing a number of internal walls. The principle used for the refurbishment is that as much of the original building should remain intact. If that should turn out not to be possible, then efforts will be made to reuse as many of the materials as possible. In the plan,

the remaining dark and dirty parking alcoves on the edge of the property are to be made part of the inner space. In closing off the whole of the plinth around the building and placing an inviting glass shopfront on the street side of the property, the site will be undergoing a true metamorphosis.

### **A patchwork of little shops**

"Together with our staff, we thought about the shop fittings and the logistics of the operation and the shop is going to consist of various compartments. This is due to the load-bearing walls, as these cannot be removed. So we turned this particular requirement into a virtue, and the architect came up with a patchwork of little shops that go together to form a colourful and logical whole. Each compartment will have its own character and range of goods - electrical appliances, crockery, furniture, books, clothing, etc."

### **Second residential group**

The long-term plan for Emmaus Domstad is to use the income generated from the two second-hand shops in Lombok and Overvecht to set up a second residential group for 10 to 12 people. "This would primarily be for people who have

no idea of a home life, have hardly any social contacts and certainly have no work. We can then pay for board and lodging, insurance, an allowance and the other necessities of life for the people living in that residential group." Even today, in 2014, Emmaus still gets about one request a week for a place in the residential group. "And then we have to say no, unfortunately, because our Parkwijk unit is full. There is actually enough demand to necessitate two to three additional residential groups,





something that is also true for many other Emmaus foundations in the country."

### **Social revenues generated by a second-hand shop**

It is overwhelming to realise how much effect the opening of a 'simple second-hand shop' can have. To start with, there are the benefits to the environment, as the core activity of Emmaus ensures that much less is thrown away. This means that more goods and materials can be reused. Secondly, the shop doubles the number of jobs and work experience positions. Where there are now 15 people working in the returns shop, the second-hand shop in Overvecht will offer work to at least 30 people. "Most of those people will be local and may even live in the block of flats above the shop. They will sign up themselves or will be referred to us by a volunteer organisation, for example." The opening of the shop also makes a new type of work available to the people they can watch the shop, make its interior attractive, price up goods, help customers... "Our experience has shown that an Emmaus shop very quickly becomes a central point in the community, more than the returns shop is. A shop of this kind attracts people from the local community,

just because it is a nice place to pop into. We saw this to be the case in the Parkwijk and Lombok districts. People pop into those shops just for a chat, sometimes three or four times a week. They may also buy something, but they don't have to. You bump into your neighbours more often in our second-hand shops than you do on the stairs of your block of flats." This means that Emmaus reinforces bonds in the neighbourhood, while also making the area more liveable and safer. Just the attractive plinth around the building in itself does wonders. The daily activities in and around the shop do the rest.

### **Old computers selling like hot cakes**

In addition to improving the social climate, Emmaus also makes contributions to the fight against poverty. "The municipality's resources for poverty schemes are declining and we offer good products at 10-25% of their original retail prices. The municipality was very satisfied with this aspect of our new shop." A good example is the recent increase in the sales of old computers at Emmaus in Parkwijk. Computers are increasingly becoming one of life's essentials. Emmaus installs the free Linux operating system on the computers. "Since Microsoft stopped



## Emmaus Second-Hand Shop, Overvecht (Kringloopwinkel Emmaus Overvecht)

Total project costs: € 424.560

Kansen voor West (Opportunities for West)

contribution: € 122.310

Website: [www.emmaus-utrecht.nl](http://www.emmaus-utrecht.nl) (in Dutch)

supporting their Windows XP operating system with updates, there has been a real run on these modified computers, which cost approximately €40," explains Van Dam. "We never used to sell very many computers, but the XP situation has changed all that."

### Unique selling point

The Overvecht shopping mall is just around the corner from the second-hand shop. Competition comes primarily from non-food discount chains, such as Action and Zeeman, located in the mall. According to Van Dam, Emmaus distinguishes itself from these crowd-pulling stores through its varied range, competitive prices, products that are generally qualitatively better and a different kind of shopping experience. Shopping at Emmaus is also more adventurous as collectors of antiques, curiosities or vintage items can find unique items in the shop. Sometimes there are also brand new items to be found at very attractive prices. But what primarily distinguishes our second-hand shop from its competitors is our social concern. That is our unique selling point," realises Van Dam. In order to bring this message across clearly, Emmaus is now working with a group of artists. The idea is to promote the commitment Emmaus has towards the

community through images on the shop property. "Passers-by need to be moved by what we are doing here, and that should then entice them to buy from us rather than from our competitors." There is no shortage of potential customers in this urban regeneration district and Emmaus is a familiar organisation for the people of Utrecht. The organisation's strength lies in its mission and it is difficult not to want to support it.



## Imprint:

This is a publication of the management authority of Kansen voor West.

The editorial staff has composed this publication with the utmost precision, but will disclaim responsibility. Also, no rights can be derived from this publication.

Nothing in this publication is allowed to be exposed to publicity by print, photocopy, microfilm, or by any means, without the prior permission of the management authority of Kansen voor West. Copyrights 2014.

The essay 'Nieuwe Kansen voor West' has been written by E. Braun Ph D of the Erasmus Universiteit Rotterdam, and professor H. L. E. de Groot Ph D, of the Vrije Universiteit Amsterdam. They reflect on the recently finalized program, and look ahead to the future program, which has been made under the authority of the Board of supervision of Kansen voor West.

The interviews have been part before of the public annual reports of Kansen voor West and have been written, at the management authority Kansen voor West' request, by A. van der Hoek MA of the bureau Pro Communicatie.

**Editorial staff:** Adri Harkoorn, Ruud van Raak.

**Final editing:** Mieke Cornet.

**Photography:** The eight partners of Kansen voor West Representatives of the projects.

**Design:** Hans Langstraat ([www.ph-ontwerp.nl](http://www.ph-ontwerp.nl)).

**Printing:** Robedrijf, Rotterdam.

Erik Braun – Erasmus Universiteit Rotterdam  
Room H16-17, P.O. Box 1738, 3000 DR Rotterdam  
Email: [braun@ese.eur.nl](mailto:braun@ese.eur.nl)

Henri L.F. de Groot – Vrije Universiteit Amsterdam and Ecorys  
De Boelelaan 1105, 1081 HV Amsterdam  
Email: [h.l.f.de.groot@vu.nl](mailto:h.l.f.de.groot@vu.nl)

Management authority Kansen voor West  
(Mayor and Aldermen Rotterdam)  
P.O. Box 6575, 3002 AN Rotterdam  
Email: [rghj.vanraak@rotterdam.nl](mailto:rghj.vanraak@rotterdam.nl); [www.kansenvoorwest.nl](http://www.kansenvoorwest.nl)



Europa invests in the future. This publication and all projects have been achieved with support of the European Fund for Regional Development of the European Union.

Notes:

Notes:



