

## NIDO/KSI Appendix C - PPDO programs

1.	Sustainable Business Practice in an international context .....	1
2.	Cooperation for Sustainability .....	2
3.	Corporate Social Responsibility in medium-sized and small industry .....	4
4.	ICT for sustainability .....	5
5.	Services as the driving force for sustainability .....	6
6.	Market introduction of new and sustainable technology (MDT) .....	7
7.	Sustainable innovation (DI) .....	8

### 1. Sustainable Business Practice in an international context (DOI)

The program *Sustainable Business Practice in an International Context* (DOI) deals with the question of how Western business can simultaneously strengthen the three cornerstones for sustainability – people, planet and profit – in its international activities in order to contribute to the solution of the worldwide problems concerning poverty and the environment. This is an important question for companies because public opinion and social pressure are increasingly forcing them to conduct their business in a sustainable fashion.

The DOI program will help companies actually to implement the sustainable conduct of business in international operations and trade in the context of global developments. The implementation of the results of the World Summit on Sustainability and Development (Johannesbrug 2002) comes to mind here.

NIDO will use the DOI program 1) to stimulate internationally operating companies to anchor sustainable development principles in their objectives and activities and 2) to explore and utilize the options for across-the-border cooperation between companies and between companies and other organizations.

Leap projects considered to shape these objectives will have to lead, already during their course, to sustainable results and in a more general sense to the increase of knowledge and insight.

- Leap project 1: '*Sustainable conduct of business and globalization* aims at the question of how companies actually can conduct their business in a sustainable fashion when they operate internationally. Also included is how the management abroad, which is influenced by other surrounding factors, can be involved effectively. Mechanisms for the transfer of successes between countries are also involved.
- Leap project 2: 'Sustainable conduct of business and international trade obstacles is parallel to this in its aim at the international lessons that can be learned from successful niche-companies like Max Havelaar. It is also seen that these niche-companies, with their more expensive products, can learn from the mainstream companies (such as the marketing of sustainability and the increase of the market share).

In the DOI program, NIDO works directly with companies that wish to sustainably conduct business within an international context. Central in this is the question of how an individual company can give pro-active form to this and increase its influence in a broader context. Impeding and stimulating factors and trends in international relationships will be laid open to discussion with the actors involved (including official bodies and non-government organizations), and serve as the basis for the identification of new chances. Scope will be given in monthly meetings with 12-15 companies for creativity and to learn how to implement sustainability in daily practice. The companies will formulate their projects themselves and will also make time and people available for this purpose. The results of the company projects will be a first concrete experience in this field

for the companies. NIDO will always act as the director or process manager and will play an agent's role in bringing together the persons who have and wish the knowledge.

The target group for the DOI program consists of companies that operate internationally, for example multinationals and companies with international (trading) partners. Interaction will also be stimulated in the meetings between these companies and e.g. representatives of government organizations, the financial sector, NGOs and knowledge institutions.

In terms of knowledge, the DOI program builds on the earlier NIDO-program 'From Financial to Sustainable Profit'. It dealt with how the additional value of the sustainable conduct of business could be demonstrated and communicated. As a supplement, two initiatives will be taken to further expand the knowledge base:

- University programs: knowledge from (international) knowledge development, education and training programs will be introduced; additional knowledge development will be broached where there are unanswered questions.
- Networks: knowledge and experience of the internationally sustainable conduct of business will be obtained, developed further and spread via existing international networks such as those of the Eisenhower fellowship program, those of the International Program on the Management of Sustainability and those of the Global Reporting Initiative. Companies that wish to work in a Third World country can also get more insight into the local conditions via these networks.

Participants will be internationally operating, Dutch companies and public organizations from various sectors, which attach importance to worldwide sustainability, partly on the basis of the movement towards the sustainable development that is under way in the Netherlands. Participants obtain competences to implement sustainability in their own organization.

## **2. Cooperation for Sustainability (SvD)**

The program 'Cooperation for sustainability' looks into the question of how different sorts of cooperation can contribute to sustainability. Sustainability requires a radically new approach. Companies cannot do this alone. Cooperation with parties with complementary knowledge and means is necessary because working on sustainability:

- goes beyond the normal time horizon of a company so that companies are hesitant to invest in this;
- is a broad topic for which different competencies are needed, which a company would not quickly have available in-house;
- requires renewal and creativity, which often develop on the borders between the knowledge and skills of the cooperating organizations;
- contains a specific interaction with the government, in which the various roles that the government plays are worked with (partner, representative of the general interest, policeman).

Knowledge about cooperation is therefore also an important condition for the implementation of sustainability. Cooperation is not easy in practice. Parties often find it difficult to trust each other and to invest their time and money in a joint initiative. Questions about power, trust, difference in culture, dependence, the way the contracts are used and project management are therefore of essential importance in this theme.

This program aims at the management of involved companies and the executive government bodies. Naturally, other officials play a preparative and sometimes an initiating role in this. Participants are sought in parties (companies, public organizations) that consider forms of cooperation as a means to make their operations more sustainable, and in experts on experience who

wish to share their knowledge in this field. Some partnerships between companies and NGOs (non-government organizations) are also in this category.

The aim of this program is to enable companies to obtain knowledge and experience of the advantages, options and difficulties of working together towards sustainability. NIDO plays an important driving role in the collection of scientific and practical knowledge and applies itself to making this knowledge applicable and accessible. In this they do not attempt to become themselves the carrier of knowledge, but instead wish to lay the links needed to achieve this goal. In the program:

1. existing knowledge possessed by knowledge institutions is collected and translated into applications for sustainability;
2. experience learned from completed projects is hereby combined to arrive at helping hands for working together towards sustainability;
3. lessons learned are implemented in experiments with new cooperative links for sustainability.

NIDO is developing various activities for this purpose in the following projects:

- Project 1: 'Alliance management' is mainly aimed at trading knowledge. It aims mainly at scientific researchers, advisers and companies and official bodies with cooperation experience. The parties are given the opportunity to share their experiences so that they can learn from each other and reflect on their experiences on the basis of the already developed knowledge. This deals with the important themes around cooperation, such as trust and contract forms, and which sort of cooperation (e.g. project cooperation, alliance or joint-venture) is suitable under which conditions. In addition, the conditions themselves are a point for discussion. Action will be taken to change them so that they promote cooperation.
- Project 2: 'Working together on sustainability' is strongly anchored in practice and aims particularly at practice projects that utilize the knowledge obtained. Project 2 aims to a large degree at industry, at large project developers, at organizations such as the Ministry of public works, and at financial institutions, and also at public parties such as provinces and associations with specific interests. This refers to parties with limited experience in cooperation for sustainability but see potential in this for their future operations. NIDO provides simple means to share knowledge from the practice of the set up and operation of cooperative links. E.g. by the organization of a symposium for the involved and interested parties, the development of a training course and a manual for practice, and the issue of essays for managers and politicians. The knowledge from this project is then back-linked to project 1.

Participants in this program build up competencies in suitable forms of cooperation, to define them and to make them into a sustainable success. This includes for example insights into why cooperation is useful, and under what conditions this is so.

The program builds on the knowledge and experience from earlier NIDO-programs<sup>1</sup> in which successful cooperation was brought about between a large number of actors in production chains, from different branches, with public parties such as the government, environmental movement and knowledge institutes, and with industry. A connection is also sought in the scientific knowledge already available in this field; at the Erasmus University (Nooteboom, Klijn, Beyen), the University of Tilburg (Barkema, Noorderhaven), the State University of Groningen (Ghuri, Biemans), the Nijmegen School of Management (Dankbaar) and the Politecnico Milano (Manzini).

This mainly concerns knowledge of industrial economy (transaction costs theory, network theory, game theory), management and social psychology.

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<sup>1</sup> E.g. in the following NIDO-programs: From Financial to Sustainable Profit; Combining for Sustainability, Sustainable Outsourcing and Sustainable Urban Regeneration.

### 3. Corporate Social Responsibility in medium-sized and small industry (MKB)

The program 'Corporate Social Responsibility in medium-sized and small industry' (MKB) aims at the question of how principles of sustainability can be applied in the MKB. The MKB comprises 99% of Dutch companies. Considering this large share in the Dutch economy, Government policy (NMP4) has determined that the MKB can and must play an important role in the transition to 'sustainable consumption and production'. In practice it has appeared that the involvement of medium-sized and small industry in sustainability initiatives is usually difficult. The position occupied by these companies in the chain means that there is a lot of falling back on short-term and partial solutions. Recent research has however shown that there is great readiness in the MKB to conduct business sustainably or in a socially responsible way.

One of the explicit conclusions of the program "From Financial to Sustainable Profit (FDR)" was that the MKB needs its own approach and support in the road to the sustainable conduct of business. Continuing to build on FDR is therefore the goal of the MKB-program in order to define the factors that obstruct the MKB in its drive towards sustainability and to experiment with new approaches to enable the MKB to integrate sustainability in its strategies. In addition, there is also the desire to conduct an active discussion with civil servants concerned with policy, regional authorities and intermediary organizations in order to direct policy so that sustainable conduct of business in the MKB is stimulated, or in any event is not obstructed.

Two projects will be begun to achieve this objective.

- Project 1, 'Transitions in the MKB' aims at how the MKB can make more and better use of knowledge about sustainability. This will use a branch approach (in which branches is the transition possible and needed the most, what are the specific bottlenecks / success factors) and a regional approach (sustainable company sites, entrepreneurs' associations, or regional initiatives for e.g. energy, the environment and raw materials).
- Project 2, 'Policy impulse for sustainability in the MKB's drive towards the stimulation of an active policy approach in national and regional government organs and intermediary parties. The program can be used to arrive at an active stakeholders' discussion and the introduction of new knowledge and experiences so that policy renewal and deepening can be achieved.

In implementing both projects, a system approach will be used in which both the internal factors of the companies (knowledge, competencies, means), and the external factors (culture, institutions, legislation and regulations) that can obstruct changes, will be examined.

The target group for project 1 is MKB-companies, which feel an increasing pressure or desire to operate sustainably, e.g. because they are active in Third World countries, have the government as a client or operate in a sustainable chain. With these companies the most important (moral) dilemmas will be sought that obstruct the transition to sustainable operation, to start effective processes for MKB-entrepreneurs to begin the sustainable conduct of business in their own organization, to obtain an understanding of the value thereof and to develop further.

The target group for project 2 is more diverse and is looking for a mix of companies, official bodies, advisers, and intermediary organizations (such as Syntens, Novem), which can influence the internal (e.g. competence development) and external factors (e.g. legislation and regulations, support for innovation).

With this two-sided approach, this program also provides competences to flesh out the sustainable conduct of business for the MKB in such a way that MKB members will experience it as a useable, feasible and attractive way of doing business.

#### 4. ICT for sustainability (ICT)

Industrial processes are currently undergoing changes, jointly on the basis of Information and Communication Technology (ICT), which make completely new ways of operation possible. Think of direct marketing & sales, the use of logistics and general services and new forms of custom-built production. The program 'ICT for sustainability' investigates how sustainability can be incorporated in these developments, to make sustainability a structural part of this new company process set-up.

**Consumers** can choose more expensive products better and more consciously using suitable information about products and those making the offer, which is available at the correct moment and in the correct form. Sustainability aspects (with respect to affairs such as origin, transport, energy consumption, manner of production, fair trade and waste substances) must be included in this information clearly, objectively and noticeably. Consumers can also be helped to act more sustainably in other ways. Finding or making custom-made products is becoming easier with ICT applications.

ICT can help **companies** to carry out their own operations more effectively and at the same time more sustainably. Think for example of teleworking, management information, making production processes more sustainable and applications in logistics (such as a system to see quickly if storage capacity is available in the vicinity). In relation to others, ICT can help to increase the chain transparency, and also to lead to new chain concepts (e.g. custom-made production).

This program's aim is 1) to investigate in which new applications of ICT the addition of sustainability aspects can lead to appreciably more sustainable practices for the consumer and industry and 2) to experiment with the incorporation of sustainability considerations in ICT applications in these new areas in cooperation with private and public parties.

Several projects will be formulated for this purpose, which are related to different roles in companies and local authorities.

- Project 1 (for logistics, production, purchasing and sales managers): Distributed production: re-arrangement of company processes, supported by new ICT applications for management information and chain transparency in which the ultimate combination of flexible and efficient production and logistics will be sought. This project aims at companies that are modernizing their production system, wish to flesh out sustainability and thereby think of using ICT. Action will be taken as a part of this project, which will see that the physical and institutional infrastructure is adapted to these new developments.
- Project 2, (for marketing and logistics managers in companies): Sustainable Customized Solutions: New marketing concept on the basis of ICT, sustainability and mass-individualization. This program aims at companies and government organizations, which will use ICT applications to supply custom-made work to clients in terms of products and/or services and/or 'information', and thereby wish to allow sustainability aspects to play a role. Suitable competencies of clients, NGO's and intermediary organizations and identification of conditioning measures of governments are part of the scope of this project. Participants create e.g. competencies to incorporate sustainability aspects objectively and usefully in ICT applications, so that users of these applications receive effective support for a more sustainable practice. The projects build on experiences from the NIDO programs 'Market opportunities for sustainable consumer products' and 'Sustainable Outsourcing' and comparable international initiatives. Scientifically, a link is sought via research into e.g. consumer interfaces, consumer behavior, and computer science, which for example is/will be performed at the University of Tilburg.

## 5. Services as the driving force for sustainability (DVD)

The program 'Services as the driving force for sustainability' (DVD) aims at the question of how services can stimulate the development towards sustainability. For this purpose, the program will look at 1) which sort of services can contribute to sustainability, 2) on what conditions can services be successfully deployed and 3) under which circumstances services obstruct sustainability or have a rebound-effect. The program investigates the change needed to deploy services in this way. An example of such a change is the sale of illumination as a service instead of the sale of lamp bulbs alone. The interests of the supplier and user then merge in the sense that both are interested in a sustainability of the product, which is as large as possible. The ambition within this context is to provide services that are inherently sustainable. This means that economic profit is inseparably linked to the achieved ecological profit. The illumination salesman then earns from the fact he offers the service 'illumination' in a more energy-saving way than others.

It will be seen how incentives can be changed for those services that obstruct sustainability (e.g. a lease-auto with a company petrol pass) in order to be able to make the change to sustainability. The ambition here is to determine on what conditions an incentive structure can become inherently sustainable, and then to determine how it is possible gradually to change existing incentive structures in this direction and when breakthroughs in these existing structures are necessary (disruptive system changes). It is assumed in the latter case that new enterprises will be necessary in the value chain.

The goal of the DVD program is 1) to experiment with the definition, implementation and marketing of new services together with the leading companies, 2) to make an inventory of how far existing knowledge and experience contribute to answering the above questions and if necessary to begin new knowledge development and 3) to interest companies that offer product/service combinations in the chances to strengthen the trend towards sustainable services. Two projects will be begun for this purpose:

- Project 1, 'Knowledge of sustainable services' will aim at the inventory, sharing and making available of knowledge and experience with sustainable services. Knowledge institutions, private parties, which offer sustainable services (e.g. Greenwheels, Greencab, Odin), and clients of these services will be involved. Particular attention will be paid in this project to the role of policy and regulations, infrastructure aspects and NGOs for the success or failure of (the development of) these services. New knowledge development will be begun where necessary.
- Project 2, 'Development of sustainable services in practice' will bring together public and private parties for defining, implementing and experimenting with new services. The driving function will be central and the specific requirements to market sustainable services successfully will be looked at. Both gradual developments and disruptive developments will be involved.

The main target group in project 1 is the suppliers of knowledge, who already have knowledge and experience of sustainable services. The second project aims at parties, public and private, who wish to implement sustainable services in practice. Leaders from a diversity of sectors and branches will be involved in both projects. The participants will create competencies to flesh out product/service combinations so that they contribute optimally to sustainable development and to exploit them successfully. In addition to the fact that these companies share their knowledge and gain new knowledge and practical experience, they also act as 'lighthouse examples' for the companies within their branch, so that an effective dissemination of knowledge is achieved.

The program will use and will build on knowledge that is already available in this field at e.g. the University of Delft (Faculty of Industrial Design, Prof. Brezet). The program also links up with scientific knowledge of consumer behavior, attitude change and research into innovation.

## 6. Market introduction of new and sustainable technology (MDT)

The program 'Market introduction of new and sustainable technology' aims at the question of what the drivers and obstacles are in the introduction and further application of new sustainable technology. For example: internal factors, such as the manner of organization of the technical and marketing knowledge present in the company, and external factors, such as market acceptance, risk perception, legislation and regulations, existing routines, existing market arrangement and infrastructure provisions.

The program, together with the participating parties, looks for strategies that can lead to a breakthrough to provide sustainable technology with easy access to the market. Working together with the participants and external experts, success and failure factors will be identified on the basis of examples and their relevance to the situation of the participants will be determined. Participants will work in practice on projects that can give an actual break-through.

The program aims at companies and public organizations interested in the introduction of a new sustainable technology in the short term or slightly longer, and who wish to remove the obstacles to it on time.

- Project 1 "a sustainable range of products" aims at companies that wish to expand their existing portfolio with a product based on new sustainable technology, and who wish to build up experience with a sustainable business case. The following questions are central to this: How can companies and local authorities mobilize and convince their internal organizations to work for a sustainability-orientated expansion of their portfolio? How can the surroundings and market be approached starting from an existing image and how can ancillary conditions aimed at a successful introduction be created? The risk that the more sustainable product will influence the position of the current (not completely sustainable) product package in the market will also have to be dealt with here.
- Project 2: "the sustainable company" aims at the support of entrepreneurs who enlist as a player in the market with a new innovative technology. Project 2 pays attention to the support of new entrepreneurs with an innovative sustainable technology. The idea is that on one hand the drivers and obstacles needed to bring about something successful will be larger, but on the other hand the chance of breakthroughs in sustainability can also be larger. The selection of cases is specifically aimed at this break-through potential. Questions are aimed at the effective creation of a support for the new technology in the market and the surroundings in the broadest sense of the word.

Participants in this program will acquire competencies to anticipate the difficulties caused by the introduction of new sustainable technology and, together with others, to take action in time to ease the introduction process.

## 7. Sustainable innovation (DI)

The program 'sustainable innovation' aims at the development of competencies for innovation management for implementers and boosters. The criterion is that the existing innovation approach of companies and governments falls short in effectively arriving at sustainability. The development of new innovation methods, which enable the specific problem of sustainability in the innovation process to be tackled, is used to cope with this. We provisionally call this Sustainable Innovation.

**Sustainable innovation** is an integral renewal of products, processes, production systems and services (including the accompanying organization forms and system arrangements) aimed at the achievement of a substantial increase in ecological, economic and social sustainability. It combines a social objective (sustainability) with the individual economical interests of companies. This first program builds on the experiences of the NIDO programs "Knowledge creation for sustainable innovation" and "Market opportunities for sustainable products". The scope of this first program can be adjusted on the basis of the results of these two latter programs.

Elements involved in the knowledge development in sustainable innovation are e.g.:

- The introduction of social ambitions for sustainability in the innovation process.
- The effective involvement of final users/clients (with their own perception of sustainability) in the innovation process.
- Making it possible to deal with both short and long-term ambitions in the innovation process. This means for example that the development of long-term solutions (aimed at a substantial sustainability jump) must also provide benefits in the short term.
- The effective involvement of the authorities (local, national, international) as partners with a sustainability ambition in the innovation process, and therefore not only as a 'grant provider'. Various representatives of government organizations will participate in this process.
- Making vertical and horizontal co-innovation usable. This means learning to use joint innovation in the chain and around a specific need domain.
- The effective introduction and integration of knowledge from different nature, sources and disciplines.

Several concrete sustainable innovation projects will be carried out with market parties within the program. Knowledge and experience of new innovation methods will be inventoried and developed further on this basis. The joint work towards new forms of innovation management will lead to the development of a communal language and increase in the support for visions aimed at sustainability.

- Project 1: "Cases of sustainable innovation". Market parties will experiment in this with new forms of management and the implementation of an innovation process whose primary purpose is successful final products. Knowledge will be built up about these new methods using these practical cases. The project is also aimed at allowing companies and drivers to gain experience of this new approach, and to see that the conditions for the development of new sustainable products (policy, knowledge flows, consumer information etc.) improve.
- Project 2: "Sustainable innovation as a focus for business process redesign". In this project, market parties also run through an innovation process aimed at the achievement of concrete results. Attention is primarily aimed however at permanently embedding this new method in the innovation management process as it is already used by the company. A condition is that sustainability will play an important role in the market offer of the participating parties. Attention will also be paid in this project to the social conditions under which this sustainable innovation process best prospers.