

Ministry of Economic Affairs

# Ambitious enterpreneurship in practice

The Netherlands already has inspirational examples of ambitious entrepreneurship. Companies such as Tomtom, Ampelman, NXP and Booking.com are already well known. But there are more successful businesses in the Netherlands. In many cases they also benefited from government schemes.

Nearly all the companies named made use of the WBSO tax incentive scheme for innovation (WBSO). The WBSO encourages technical innovations in every sector of industry by lowering the wage costs for R&D. Start-ups, small independent traders, SMEs and multinationals can all take advantage of the scheme.

However, entrepreneurs have access to a still wider range of instruments. Many of these schemes are implemented by the Netherlands Enterprise Agency (RVO), which supports entrepreneurs in sustainable, agricultural, innovative and international enterprises.

Below are selected extracts in which each example is used to describe an instrument.

#### Airborne

Airborne has specialised in the design and large-scale production of composite products. These products find their way into the aerospace and other industries. Aircraft, for example, already have many "black" components, i.e. made with plastics reinforced with carbon fibre. This is logical given that characteristics such as being lightweight, strong and sustainable are important in the aeronautics. Airborne is also active in the oil and gas markets and the maritime sector. Airborne leads the way in the maritime market in the design and production of the blades used to generate green tidal energy from wave power.

In the past few years Airborne has turned its attention increasingly the automation of composite production technology. This can give it a competitive edge. Some 230 people are employed in the business.

The business benefited from government schemes including the Innovation Credit and Growth Facility, and the WBSO and RDA incentive scheme for innovation.

Businesses can use the **WBSO and RDA tax incentive** schemes to assist with R&D costs. Both schemes promote technical innovation in all industrial sectors. The WBSO reduces the wage costs and the RDA provides an extra tax allowance for other R&D expenditure: for prototypes or research equipment, for example. The tax benefit can be offset against the tax liability declared to the tax authorities. Businesses pay less in payroll tax and independent traders get a fixed allowance.



# Applied Nanolayers B.V.

Applied Nanolayers B.V. is a new Dutch company for the commercial production of large high-quality graphene sheets. Graphene is a new and very promising material. It has been the subject of much research, which has been awarded the Nobel Prize. This carbon, just one atom in thickness has endless potential applications, from lighter aircraft to super-fast chips to much improved batteries. But no-one was manufacturing high quality graphene on a large scale. Applied Nanolayers will fill that gap. The company plans to start production next year.

The company received support from the MIT scheme in the Hightech Systems & Materials Sector.

The MIT scheme to stimulate innovation in SMEs in the top sectors helps small businesses to forge links with innovation activities within the top sectors. Each top sector decides which mix of instruments to use to involve SMEs. The available options include feasibility studies, R&D cooperation projects, Innovation Performance Contracts, knowledge vouchers and hiring in highly qualified staff from a research organisation or a large business.

#### Avantium

Avantium started as a spin-off of Shell. It is established in Amsterdam and has around 130 employees. Avantium innovates, and carries out research and product development in the field of green materials. It collaborates with iconic companies such as 'The Coca-Cola Company' (TCCC), Danone, ALPLA and Solvay.

In 2010 Avantium received support from the Innovation Credit scheme for the development of Furan-based components (building blocks) for raw materials that can ultimately be used to produce all manner of green plastics (PET bottles, carpet yarns, sealants, etc).

If the project is technically successful Avantium will be able to produce raw materials for bioplastics on a large scale, at lower cost and with better product characteristics than traditional raw materials.

Avantium received support from the TKI for the biobased economy.

**Topconsortia for Knowledge and Innovation (TKIs)** bring together public and private partners for research and innovation in the top sectors. This bundling of forces promotes synergy and cohesion in research and innovation activities in key economic and social areas.

The research programming of the TKIs is the result of cooperation between knowledge-intensive companies, universities and institutes for applied research.

To encourage companies to take part in TKIs, the Government introduced a TKI supplement, with a budget of over 83 million euros in 2013. For each euro a company invests (in cash) in a TKI, the Government adds 25 cents. The TKI supplement for the first 20,000 euros contributed by an entrepreneur is 40%.

#### Dyecoo

Textile dyeing using water takes a toll on the environment. Dyecoo developed a technique based on CO2. The dyeing machines, that can use carbon dioxide to dye textiles, represent an environmentally friendly revolution in the textile industry, saving a great deal of water. The company sells these machines to companies in Thailand and will soon add Taiwan. Dyecoo is collaborating with Nike and other partners to make waterless textile dyeing the new international standard. Dyecoo is working to make a competitive product using the new technology.

The WBSO scheme contributed to the manufacture of the machines. The company also benefited from the SME credit guarantee scheme (BMKB).

Under the BMKB scheme the government guarantees up to €1.5 million for business finance. This is intended for enterprises with up to 250 employees and an annual turnover of up to €50 million or total assets of up to €43 million.



## Epyon

Epyon started developing fast chargers for the consumer market in 2005, reducing the charge time for mobile phones from 6-8 hours to 15 minutes. The idea of rapid charging of lithium-ion batteries was researched by a group of students in Delft, who set up a business to collaborate in the project. Epyon is one of the companies to emerge from YES!Delft, the incubator of TU Delft.

The product was developed and certified, but the consumer market proved complex. By developing fast chargers for other things, including forklift trucks, the focus shifted to the business market. In 2008 Epyon turned its attention to making fast chargers for electric cars, reducing the charge time to 20 minutes.

Following an explosive increase in world-wide demand for charging facilities for electric vehicles, and after several financing rounds, the company was finally taken over by Swiss multinational ABB. Epyon was the first official company to emerge from YES!Delft and will now continue as an independent product group within ABB.

Some of the founders of Epyon have started a new company (Dingify) in 3D printing at YES!Delft.

The Epyon company came from YES!Delft, the enterprise centre of the technical university (TU Delft) and received funding from the then subsidy scheme for the exploitation of knowledge (SKE). It also benefited from Innovation Vouchers.

In granting the **innovation vouchers for electrical mobility** the Ministry of Economic Affairs hoped to encourage small entrepreneurs to make greater use of the knowledge on electric transport that existed in knowledge institutions. The innovation voucher for electrical mobility is worth up to €5,000. SMEs can use the voucher to have a knowledge question answered by a knowledge institution. A budget of €500,000 was made available for this scheme.

### **ISA Pharmaceuticals**

ISA Pharmaceuticals' technology, creating more efficient and specific immunotherapy solutions, contributes to the control of certain cancers, including cervical cancer. Practically every case of cervical cancer is caused by a virus. Viruses are usually rendered harmless by the body, but this virus has adapted particularly effectively so that it is less rapidly detected by the immune system. If the virus is not detected there is a risk that the virus DNA gets built in to the DNA of the human cell. Thus, under certain circumstances, the virus can change a normal cell into a cancer cell.

Thanks to research, ISA has now built up a portfolio with two clinical phases of therapeutic SLP vaccines for various forms of cancer and precancerous stages. ISA Pharmaceuticals is currently focusing on getting its main cancer treatment product approved for market as quickly as possible.

The company received government support through the SME credit guarantee scheme (BMKB) and also obtained finance from other sources including the Innovation Credit scheme.

Innovation Credit is a risk-bearing credit. The credit must be repaid, with interest. The interest depends on the risk profile. The credit is intended to finance promising innovative projects, which must be completed within a few years and lead to new products, as in the case of the technical development of a new product, or the development of a drug for which a clinical study is still required.

Small companies can use innovation credit to finance 45% of the development costs of a project, mediumsized companies 35% and large companies 25%. The credit cannot exceed €5 million. The development costs include: your own wage costs, materials, depreciation, outsourcing costs, travel costs and costs of patent applications. In the case of partnerships the maximum credit percentage can be increased to 40% or 50%.

## Jorrit Koeman/Urban Tulip Experience

Jorrit Koeman (a sole trader) wants to work with a nursery and software company SYNZ B.V. to set up a year-round tulip garden in the Vondelpark where consumers can pick tulips and auction them with the aid of and auction clock. Flora Holland BV and VWB, the bulb sector organisation, supports the project concept. The aim of the pick-your-own-garden is to interest and involve consumers more in the chain and in other sectors, such as fruit and vegetables. An added advantage is that it generates sustainable customer value at a lower cost.

This project receives support from the first tendering round of the **MIT scheme for the Horticulture and Parent Material Sector.** 

### Ojah

Ojah uses its unique food technology to produce 100% plant-based alternatives to meat. The products are marketed in the Netherlands under the brand name Beeter®. They are made from sustainably grown, non-GM soya.

Consumer demand for high-quality meat substitutes is growing with consumer awareness of the sustainability and health implications. Unlike the current generation of meat substitutes, Ojah products have a long fibre, giving a real meaty bite and succulent structure. Consumer tests show that products containing Beeter® cannot be distinguished from the meat versions and industrial clients are satisfied that they can be processed into, say, ready meals and snacks.

No additives are used in the production of Ojah products. The process also has low water and energy consumption thanks to the short production time. So both the product and the production process help to reduce the greenhouse effect.

Ojah has obtained finance from sources including the MIT scheme. The company also receives support from Start Green Venture Capital via the SEED Capital scheme.



# PaperFoam Biobased Packaging

For years there has been an increasing trend towards greater sustainability. The PaperFoam company makes biodegradable packaging for electronics, cosmetics, medical appliances, food and more. The packaging, made from potato starch, is compostable; the carbon footprint is therefore smaller from start to finish than comparable packaging made from plastic or paper pulp. The packaging has 4-star biobased certification, is lightweight and fully biodegradable. The injection moulding process can furthermore produce accurate shapes that provide better product protection. The design and colour options make this product attractive to marketeers and designers. The technical characteristics of the product have been further developed to make the packing material suitable for the medical and paramedical industries: a market that consumes a great deal of packaging and where there are therefore environmental gains to be made.

The company was able to develop and improve its technology partly with support from the SBIR scheme.

Small Business Innovation Research (SBIR) is a procurement instrument used by the Dutch government to find innovative solutions to societal challenges. The government seeks new, creative and unconventional ideas with commercial prospects.

The government identifies a specific challenge and assigns a budget to it. The Netherlands Enterprise Agency works with a ministry or other government body to describe the problem in an SBIR procurement contract. The contract is then put out to public tender.

#### Mendix

Mendix has developed a platform that allows organisations to develop their own applications and integrate them into their existing systems. With the Mendix platform, it is possible to develop applications in just a few days. As well as saving time, organisations can save on costs, and the investment pays for itself within a foreseeable period. Hundreds of enterprises throughout the world are already using Mendix, including ABN Amro, Dun & Bradstreet, Genzyme, KPN and TNT.

Mendix is growing rapidly and last year opened new European headquarters in Rotterdam. It also has offices in the UK, United States and South Africa. The company recently received a capital injection of 25 million dollars from leading Dutch investors Prime Ventures and the American Battery Ventures. Previously it had already had investment from HENQ Invest and from investors in the SEED Capital scheme.

The company obtained finance through the SEED Capital scheme.

The **SEED Capital** scheme (previously the SEED facility) gives investors the opportunity to invest in technology and creative start-ups, in which the risk is shared with the Netherlands Enterprise Agency. Technology and creative start-ups thus get the opportunity to obtain funds to complete their innovation. The budget for SEED applications is €20 million.

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