



ENERGY EFFICIENCY WATCH

Energy Efficiency Policies in Europe



Case Study

Energiesprong (Energy Leap) in The Netherlands



Co-funded by the Intelligent Energy Europe
Programme of the European Union

Key facts and figures

Country	The Netherlands
Name of policy	Energiesprong (Energy Leap)
Type of policy	Demonstration projects; Information tools for investors and users; Innovation Network Programme
Target sector	Residential Sector – Buildings; Industry, Tertiary Sector (Buildings)
Actions targeted	Energy efficient renovation of buildings
Duration	Started in 2010, will run until at least end of 2015
Overall target and/or achievements	Reduce energy consumption of buildings by facilitating a large-scale implementation of nearly zero energy buildings
Overall aim of the policy	Create appropriate market conditions for a large scale demand and supply of energy efficiency buildings
Innovativeness	Network approach

Policy objectives



The Energiesprong programme aims to make a substantial contribution to the conditions under which the Dutch energy transition can be achieved effectively. The mission of the Energiesprong programme is to contribute to the creation of favourable market conditions for an energy-neutral built environment (Figure 1). To achieve this, the implementing agency Platform31 stimulates, and where necessary organises, innovative commissioning, facilitates the development of supply chains and turns barriers into opportunities and incentives (Energiesprong 2011). This is needed because frontrunners can face various de-motivating barriers, including regulatory issues, financing problems, lack of communication and limited valuation of energy-efficient buildings. These barriers can often be overcome through small changes in regulations, other forms of cooperation, or by having access to appropriate knowledge, and can be converted into incentives for innovative building concepts. The innovation programme Energiesprong ensures that there is (Energiesprong 2011):

- Openness to cooperation that does not happen automatically;
- Preparedness for surprises and failures;
- Openness to diversity;
- Openness of borders.

By supporting the frontrunners in these developments, and by sharing their experiences with others, the Energiesprong programme aims to achieve the specified long-term goals of realising a climate-neutral built environment. Energiesprong facilitates the framework in which support can be provided, resulting in better market conditions and thus enabling innovations to find their way into the mainstream more easily.

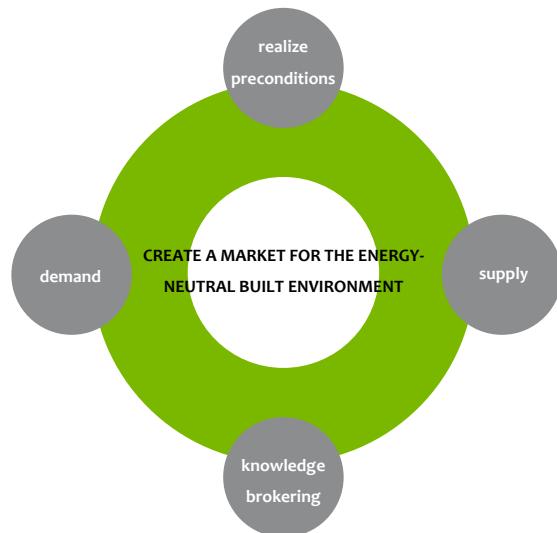


Figure 1: The goal of the programme is to create a market for the energy-neutral built environment. Based on: Energiesprong 2014.

The starting point of the programme is embedded in the government objectives as expressed in the Innovation Agenda energy neutral Built Environment (IAGO). The quantitative target defined at the start of the programme is to realise 5,000 building objects, of which 2,500 new buildings and 2,500 renovated buildings, with increasing savings from 45% up to 80% reduction of the total energy consumption. The programme's ambition for energy reductions in the built environment increased from a 45% reduction to completely energy neutral. By the end of 2014 the Stroomversnelling ("Rapids"; deal on net zero-energy houses) realised the reduction of the energy consumption in 2,896 building objects and over 500 building objects are in development and over 10,000 renovations are planned (Energiesprong 2014).

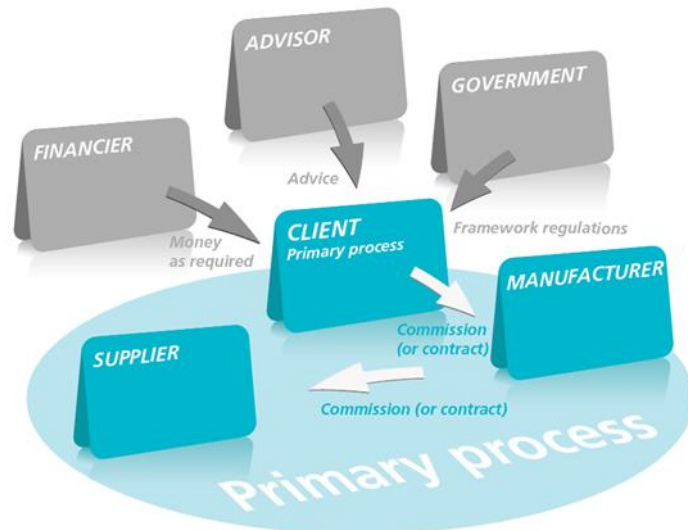
All actors, such as universities, market players (like technology suppliers, construction companies, housing associations) and the government, have been working together to lay the foundation to achieve a transition. In order to scale up the concepts of Zero-energy buildings the development is taken up by the market players to ensure that the concepts can be implemented and will be widely adopted (Energiesprong 2011).

The energy transition targeted by the programme does not only result in CO₂ reductions, but also in broader benefits. An accelerated and broadened approach to the built environment has created great potential for employment in the construction sector as intelligent, innovative renovation and new-build systems with guaranteed performance characteristics (energy & indoor environment) are developed and delivered. This gives the Dutch construction industry a chance to regenerate itself and to position itself as an international leader. For the occupants and operators of buildings the transition means lasting independence from volatile energy prices. This leads to more stable, and eventually lower, living and operating expenses.

Beneficiaries and action targeted

The programme targets clusters (home owners, housing associations, etc.) who are willing to put into practice projects that lead to an energy-neutral built environment (**Error! Reference source not found.**). In forming these clusters, Energiesprong's priority lies with combinations of owners and buildings whose impact on total energy consumption is greatest:

- Residential buildings (both corporate-owned and privately owned)
- Non-residential buildings (offices, health care)
- Regions (stakeholders within a specific geographical area)



Example of current practice

Clients are the primary target group of Energy Leap

- They pay the money, the other parties only exist by their good grace.
- The chain begins with them.

Figure 2: Clients of Zero-energy buildings (home owners, housing associations, etc.) are the primary target of the Energiesprong, the chain begins with them. Source: Energiesprong 2011.

Design and implementation

The Energiesprong programme is carried out on behalf of the Dutch Ministry of the Interior and Kingdom Relations (BZK) by Platform31. The programme runs from 2010 until at least the end of 2015, by which time the acceleration in the energy transition in market developments towards an energy-neutral built environment must have gained a critical momentum. Given the relatively short duration of the programme, the interventions to align demand, supply, regulation and financing, will be implemented in such a way that they have either achieved their aim within the duration of the programme, or are guaranteed by existing institutions before the end of the programme.

In general the programme provides process support. The Ministry provides in some cases financial support based on the recommendations of Energiesprong. During the implementation of the programme there will be constant coordination with other programmes that focus on sustainability in the built environment.

The target clusters are supported by the programme by:

- Establishing an evaluation framework that allows governments and clients to focus their investment on the maximum impact on energy consumption (where net energy becomes zero)
- The creation of a sustainable infrastructure in which the innovations needed for an Energiesprong in the built environment can easily be shared and scaled up.
- Support in the cluster formation. This can either mean that parties are literally brought together to form a client system, or that clients with a similar demand are brought together through tenders and competitions.
- Support in or with the client's role for projects with Energiesprong ambitions.
- Support during the implementation of these projects in Communities of Practice.
- Support in the evaluation of projects.
- Creation of an open-access knowledge base
- Municipal and provincial governments are seen as partners with whom Platform31 will work together towards similar goals.

Figure 3 gives an overview of the programmes and target groups of the Energiesprong programme.

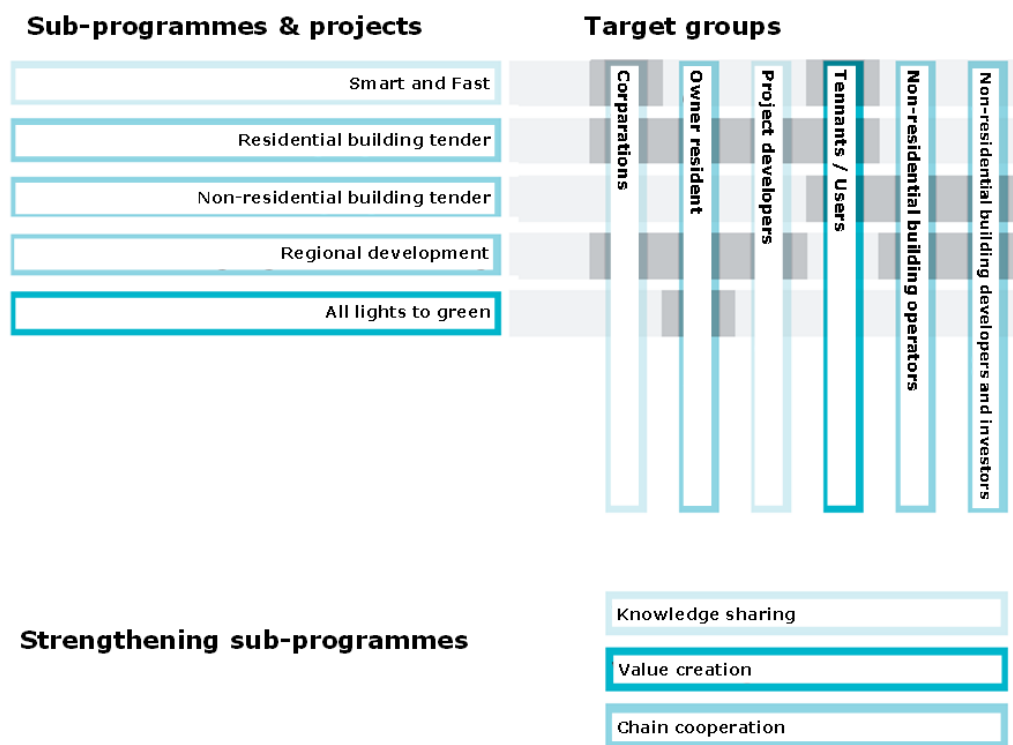


Figure 3: Overview of programmes, projects and target groups of the Energiesprong programme. Based on: Energiesprong 2014.

Policy impacts

During the duration of the programme two meta-monitoring programmes have been implemented by the independent research organisation TNO: 1. Target scope monitoring, which monitor developments in the market with regard to the objective of the Energiesprong missions and 2. Energiesprong monitoring which focusses on the effectiveness and efficiency of activities carried out within the Energiesprong. These are partly financed by the Dutch Ministry of the Interior and Kingdom Relations. Platform31 has defined key performance indicators to evaluate the programme, including the realised projects and their impact, the improvement of the market conditions and the created economic activity. Recently, two monitoring reports were published, focussing on the building concepts (TNO 2015a) and resident satisfaction (TNO 2015b) of various projects. The main conclusion is that the promised performance is reached and residents are satisfied. The building quality and transparency about information and responsibilities is key for resident satisfaction. Reducing energy consumption of appliances is important in reaching the zero-energy targets.

Policy innovation

The Energiesprong programme targets the market conditions for energy-neutral buildings. This is achieved by increasing cooperation between a range of stakeholders, such as knowledge institutions, market players and the government. The key is creating a network of different clusters and associations to stimulate the market for nearly zero energy buildings. The development of the market conditions is enhanced by creating deals between suppliers and clients that won't happen without their involvement and by identifying requirements for rules and regulations, crucial for market success.

Lessons learnt 1: Success factors

One of the successes of the programme is the ‘Stroomversnelling’ deal, which is focussing on the realisation of 111,000 Nul op de Meter residences (Net zero-energy houses) by 2020. Closing deals between parties on the supply and demand sides (e.g. construction companies and housing associations) has proved to be an effective way to experiment and open new market opportunities. Besides the involvement of a coordinating organisation, the involvement of (local) governments has proved to be key to the success of the programme. Without room for experiments and openness to discuss barriers, the deals would not have been realised.

The experience with the Energiesprong is shared among other countries in Europe. Also in the United Kingdom an Energiesprong programme is being started with the objective to close a similar deal in the market for renovation (EnergiesprongUK 2015). In France discussions are on going between corporations, building companies and governments. Similar to the Dutch Energiesprong, the ambition of Energiesprong UK is to change the market conditions to make net zero-energy housing a reality. The result they aim for is (EnergiesprongUK 2015):

- Quality: Long-term warranty net zero energy performance house.
- Non-intrusive: Refurbishment within one week.
- Affordable: Financeable from energy costs savings.
- Look and Feel: Make the neighbours jealous.

Lessons learnt 2: factors to avoid and possible further improvements

The Energiesprong aims to improve market conditions from within. It is therefore key to deal with long-term plans in a dynamic way. The programme as a whole should not be treated as a group of individual projects, but should respond to the market. One example is the tendering program for the retail sector, consisting of support for feasibility studies and implementation. As a result of less promising results from the feasibility studies, the interest in the second phase was limited. The second phase of the programme was therefore closed earlier. Similarly the programme for owner associations (VvE) was postponed as a result of various barriers.

References and further information

- Energiesprong (2011) Energy Leap (Energiesprong) Long-term Plan – Update 2011. Available at: <http://energiesprong.nl/wp-content/uploads/downloads/2013/02/Energiesprong-longtermplan-def1.pdf>
- Energiesprong (2012) Meerjarenplan Energiesprong – Update 2012. Available at: <http://energiesprong.nl/wp-content/uploads/downloads/2013/02/Energiesprong-Meerjarenplan-Update-20121.pdf>
- Energiesprong (2014) De beweging groeit, de beweging bestendigt – Jaarrapportage 2014. Available at: http://energiesprong.nl/wp-content/uploads/2015/05/Jaarrapportage_EnergieSprong_2014_def.pdf
- Energiesprong (2015a) Transition Zero – White Paper international scaling energiesprong. Available at: http://www.energiesprong.eu/wp-content/uploads/2015/07/EnergieSprong-Transition_Zero_document.pdf
- Energiesprong (2015b) <http://www.energiesprong.nl>
- EnergiesprongUK (2015) <http://www.energiesprong.eu>
- TNO (2015a) Resultaten uit monitoring over: Concepten nul op de meter en 80% besparing
- TNO (2015b) Resultaten uit monitoring over: Tevreden bewoners

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The Project

In 2006, the European Union adopted the Directive on energy end-use efficiency and energy services ("ESD"). The Directive sets an indicative energy saving target of 9 % by 2016 as well as obligations on national authorities regarding energy savings, energy efficient procurement and the promotion of energy efficiency and energy services. It requires Member States to submit three National Energy Efficiency Action Plans (NEEAPs), scheduled for 2007, 2011 and 2014.

The Energy-Efficiency-Watch Project aims to facilitate the implementation of the Energy Efficiency Directive. This Intelligent Energy Europe project tried to portray the progress made in implementation of energy efficiency policies since the Energy Service Directive via NEEAPs screening and an extensive EU wide expert survey.

www.energy-efficiency-watch.org

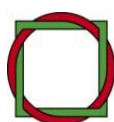
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List of Abbreviations

EE – Energy Efficiency, **EED** – Energy Efficiency Directive, **EPC** – Energy Performance Certificates, **EPDB** – Energy Performance of Buildings Directive, **ES&A Targets** - Energy Savings and Action Targets, **ESCO** – Energy Service Company, **ESD** – Energy Service Directive, **EU** – European Union, **EEW** – Energy-Efficiency-Watch, **MEPS** – Minimum Energy Performance Standards, **MRV** – Monitoring, Reporting and Verification, **MURE** – Mesures d'Utilisation Rationnelle de l'Energie, **NEEAP** – National Energy Efficiency Action Plan, **R&D** – Research and Development



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