

WORKING TOGETHER

OPTING FOR FUTURE-PROOF BUSINESS PARKS

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The Dutch version of the advisory report contains an additional analytical section.





SUMMARY

Business parks are essential for Dutch businesses and society. Unfortunately, for too long they have been a blind spot for the government and have failed to receive the attention they deserve. While political attention to business parks has been growing in recent years, a crucial aspect remains neglected: the businesses at these parks need, and benefit from, more help in becoming more sustainable.

Efforts to improve the sustainability of business parks are unavoidable. Many of the required sustainability measures can be taken independently by the businesses located at these parks, but for a large number of measures, organised cooperation at business park level is more efficient or even essential. The lack of focus on improving the sustainability of business *parks* is therefore a major shortcoming, for both the business owners based there and for Dutch society. It is high time for the government to stand with these businesses and offer them practical and financial support, set clear frameworks and provide long-term clarity.

In this advisory report, the Council for the Environment and Infrastructure (Rli) identifies what is possible in terms of making existing business parks more sustainable, what this can bring to businesses and society, and what government actions are needed to get this process moving.

Added value of sustainable business parks

While sustainability represents a challenge for business owners, it also offers them a solution to problems such as scarcity of raw materials, grid capacity, human resources, space and energy. As a result, sustainable business parks help businesses to become more future proof. Sustainable business practices are becoming the norm and those who are not sustainable will lose their 'licence to operate'.

The Netherlands' approximately 3,400 regular business parks can make a substantial contribution to national sustainability transitions in the coming decades. For example, business parks can make a major contribution to the energy transition by generating renewable energy (using solutions such as solar panels on the roofs of business premises), storing it and sharing it through energy hubs. At the same time, this helps to prevent overloading of the power grid (grid congestion). Business parks can also contribute significantly to the creation of a circular economy, climate adaptation, restoration of biodiversity and improvement of landscape quality and land use.

Importance of working together

Many sustainability measures at regular business parks can only be implemented properly if the businesses at the park work together and/or with other parties at and around the park. This applies, for example, to the sharing of residual flows and reuse of raw materials or measures to mitigate the effects of climate change. Even when sustainability measures are feasible individually, such as insulation measures or greening façades to

cool buildings, it is often cheaper and more efficient to tackle them together. Other sustainability measures require cooperation with government or other authorities in the region to make them successful. Examples include the installation of a heat network to harness residual heat. Organised cooperation is essential. If cooperating businesses can put collective tasks in the hands of a capable park manager, they will no longer need to solve complex issues individually. By working together, the partners involved will also build mutual trust. This will encourage the adoption of sustainability measures and provide business owners with certainty when it comes to the future of their business at that location.

Barriers

Improving the sustainability of business parks therefore presents numerous opportunities. Yet for now, the process is getting off to a slow start. Only a small number of business parks are making serious efforts towards substantial, integrated sustainability solutions. Why is that?

Several barriers play a role here. First of all, the level of organisation at most business parks is low: only 20% of regular sites have some form of organisation. Furthermore, for many businesses, the investments required to become sustainable are too high. Many business owners also lack clarity on the exact goals and timeline of the sustainability operation. They often also experience limited support from the municipality, which lacks the necessary expertise and capacity. Finally, businesses regularly come up against legal provisions and government regulations that delay or even prevent the implementation of measures on business premises.



Recommendations

To better help businesses accelerate the necessary sustainability efforts at existing business parks, a new perspective is needed. Business parks should no longer be seen as a plot of land with business premises on it, but as a collection of business owners forming a whole that can be more than the sum of its parts. It is time to move beyond sustainable businesses to sustainable business *parks*.

We make the following specific recommendations to the government:

1. Central government should outline a *future vision* for sustainable business parks. In this future vision, the government should also pay attention to the importance of spatial planning (potential restructuring and relocation). A timeline with specific interim goals is vital to the realisation of this future vision. We therefore recommend translating the future vision into national, measurable standards for business parks and linking it to a (for now voluntary) *sustainability label* that reflects the level of sustainability of a business park. Such a label will encourage the achievement of national sustainability targets, as well as offering benefits to the businesses involved.
2. Central government should make *organised cooperation* at business parks attractive and eventually mandatory. The government can initially use incentive instruments to achieve this, such as tax advantages and subsidies for collectively set up sustainability projects. A commitment to cooperation could also be a prerequisite for state financial support. In our opinion, this condition should certainly apply to a *national fund for more sustainable business parks*. A fund of this type, which could be created

by pooling existing budgets, will promote an integrated and collective approach at business parks. Eventually, central government will need to impose a requirement on businesses (both owners and users) at business parks to become members of an association representing the park through a *Business Park Organisation Act*.

3. The government will need to ensure a *clear division of roles between the authorities and implementing agencies* involved in making business parks more sustainable. The Ministry of Economic Affairs and Climate Policy should be given a leading role and, in that capacity, set the national frameworks for sustainability targets. The provinces can then coordinate the implementation of the process within the frameworks set by central government. The state will need to make sufficient resources available to provinces to launch efforts to improve the sustainability of business parks. Within this division of roles, municipalities are not only charged with granting permits and drawing up environment plans, but are also the first authority involved in the development and management of business parks. Finally, Regional Development Agencies (RDAs) will then act as centres of expertise for businesses, business park associations and authorities.



1 INTRODUCTION

Business parks offer vital opportunities to make businesses more sustainable, and sustainable business parks offer significant added value to Dutch society. Unfortunately, we are failing to capitalise on these opportunities. This advisory report identifies the opportunities as well as describing the biggest obstacles and how we can overcome them.

1.1 Context

Business owners see major issues on the horizon, such as scarcity of energy and grid capacity, human resources, space and raw materials. On top of this, businesses – whether or not located on a business park – face increasingly stringent European and Dutch laws and regulations to encourage them to operate sustainably. These laws and regulations are aimed at achieving circular and carbon neutral business practices by 2050.

While sustainability represents a challenge for businesses, it also offers a solution to many of the issues just mentioned. For example, businesses can generate and share renewable energy, reducing the burden on the grid. In addition, a nature friendly, pleasant working environment is attractive to employees, making it easier to retain or attract staff. Greater sustainability also means the more efficient use of space and the more effective use and reuse of raw materials.

At the same time, the Dutch government faces far-reaching sustainability challenges: developing a carbon neutral energy system, making the economy circular, adapting cities and regions to climate change, restoring biodiversity, improving landscape quality and using scarce space more responsibly. These are urgent challenges that require radical interventions, including by businesses.

To date, the Netherlands is making too little progress on these challenges: we started late and changes are slow to materialise (Rli, 2019; 2022; PBL, 2022). The same applies to the business sector. The majority of Dutch businesses are behind schedule when it comes to the sustainability targets set by central government, in areas such as energy savings and circularity (Hanemaaijer et al., 2023; Senel et al., 2023).¹ This delay poses an existential threat to the Dutch business sector: the future will be sustainable and those who are not sustainable will lose not only competitiveness but also their ‘licence to operate’.

Most business owners are not lacking in goodwill. Many businesses would like to make their operations more sustainable (CBS, 2022; RVO, 2023; WRR, 2023). And as far as insulating their own premises or making their own production processes greener are concerned, they often manage to do so. However, other sustainability measures are more difficult for an

¹ The Netherlands aims to be a fully sustainable, climate-neutral and circular society by 2050 (Coalitieakkoord, 2021; IenM & EZ, 2016). To achieve this, businesses need to invest heavily in energy savings and drastically reduce their use of primary raw materials. To date, this is far from happening to a sufficient extent to meet the 2030 interim targets and the 2050 final target (Senel et al., 2023; Hanemaaijer et al., 2023). It should be noted that central government has not set separate targets with the specific aim of making business parks more sustainable; see Section 4.2.3.

individual business to implement (Nordkamp et al., 2021). Business owners generally already have their hands full with their core activities. Making their operations more sustainable is an additional challenge, involving complex questions such as: how do I make the business case for solar panels on my premises? Where do I find businesses that can reuse my residual waste? Who can I share my self-generated energy with? Business owners perceive the issues facing them as too big to tackle on their own. Moreover, many necessary measures can only be achieved properly through a collective approach.

Business parks in particular offer plenty of opportunities to achieve such a collective approach, as demonstrated by the existing cooperation on other types of issues. For example, businesses at many business parks collectively hire a security company to prevent break-ins. Such initiatives not only make the business park safer, they are also less expensive for the individual businesses.

Making business parks more sustainable requires a similar form of cooperation between businesses. In practice, however, several obstacles appear to stand in the way of this. For example, only 20% of regular business parks in the Netherlands currently have a joint management organisation (De Kort & Gradussen, 2023a). This is unfortunate for both the businesses in question and for society, because making business parks more sustainable also serves a number of *public interests*.



For instance, sustainability measures at regular business parks can contribute to the energy transition. One example is solar panels on the roofs of business premises, which can generate a significant amount of green electricity. If the businesses then share this energy using an energy hub, they avoid overloading the grid (grid congestion). Another example is climate-adaptive measures, such as collecting and storing excessive amounts of rainwater. Or the space savings that can be made by redesigning business parks, which can benefit both businesses and the rest of society.

In other words, sustainable business parks are crucial for both a sustainable business sector and a sustainable Netherlands. It is high time for the government to stand with these business owners and offer them practical and financial support, set clear frameworks and provide long-term clarity.

What is needed to help business owners implement unavoidable sustainability improvements to businesses located on existing, regular business parks? What does that mean for the future-proofing of businesses and what social added value does it bring? This advisory report addresses these questions.

1.2 Main question

The main question addressed in this advisory report is:

What policies and instruments can be used to accelerate efforts to improve the sustainability of business parks and the businesses located there? And what role should central government, other authorities, market players and society play in this?

1.3 Scope

This advisory report focuses on all existing mixed-use business parks in the Netherlands. These are parks of at least 1 hectare at which three or more businesses are located. We are talking about the regular business parks that can be found in almost every municipality. There are around 3,400 of these business parks in the Netherlands. They occupy 10% of the surface area of the built environment, or 2.4% of the total surface area of the Netherlands. The parks represent around 30% of total value added in the Netherlands and account for 28% of employment.

For years, central government has paid little attention to precisely this group of business parks. The words 'business park' do not even appear in the Climate Agreement (EZK, 2019). Many municipalities have also paid little attention to existing business parks to date.

The Netherlands also has around 400 *non*-mixed business parks, however that is not the focus of this advisory report. The reason for this is that specific government policies already exist for this relatively small category of business parks, which are made up exclusively of offices, distribution



centres, high-tech campuses or industrial clusters. Business parks that are currently under development also fall outside the scope of this report. Our central question is less relevant to these new parks, as most are already subject to sustainability requirements at the outset. However, *compliance* with these requirements remains an issue. We therefore consider that this advisory report, while focusing on existing business parks, is also of value when developing new business parks, partly due to the length of time required to develop a new park.

We have also chosen to delimit the term ‘sustainability’. Our report covers the sustainability challenges that affect business parks the most. They are:

1. the energy transition (including the transition to sustainable mobility)
2. the creation of a circular economy
3. climate adaptation
4. restoration of biodiversity
5. improving landscape quality and use of space.

Sustainability in terms of reduced air, water and soil pollution is beyond the scope of this report, as European rules in this area mainly prescribe measures that are the responsibility of individual businesses. In this report, we focus specifically on *collective* sustainability targets. Given our focus on ecological aspects of sustainability, other aspects of sustainability, such as social inclusiveness, are not taken into consideration either.

1.4 Our approach

For the purpose of drawing up this advisory report, we spoke to a large number of business owners, officials, academics and other stakeholders. We made working visits and organised several expert meetings.

We asked research and consultancy firm Stec Groep to (a) collect figures on existing, regular business parks within our scope, and (b) produce an overview of the different organisational forms and governance models at business parks (De Kort & Gradussen, 2023a; 2023b). The two resulting reports can be found on our website (only available in Dutch).

Finally, we asked Karel Van den Berghe (TU Delft) to write an essay on relevant social, economic, ecological, technological and geopolitical developments that will affect Dutch business parks over the next 15 to 20 years. This essay is also available on our website (only available in Dutch).

1.5 Relationship with other Rli advisory reports

The Rli has released a number of publications in the past that share common ground with the subject of this report. Relatively recent publications that can be mentioned in this context are *Towards a sustainable economy* (2019) and *Circular economy: from wish to practice* (2015). An older advisory report on business parks is *Work landscapes* (2006, only available in Dutch), published by the Council for Housing, Spatial Planning and the Environment (VROM-raad), a predecessor of the Rli. Other Rli publications worth mentioning are *Give direction, make space!* (2021a) and *Nature-Inclusive Netherlands* (2022).



1.6 Reader's guide

Part 1 of this report is structured as follows.

In Chapter 2, we outline characteristics of a sustainable business park in 2050. We also identify the added value of such sustainable business parks, based on their potential contribution to the various transitions the Netherlands is facing.

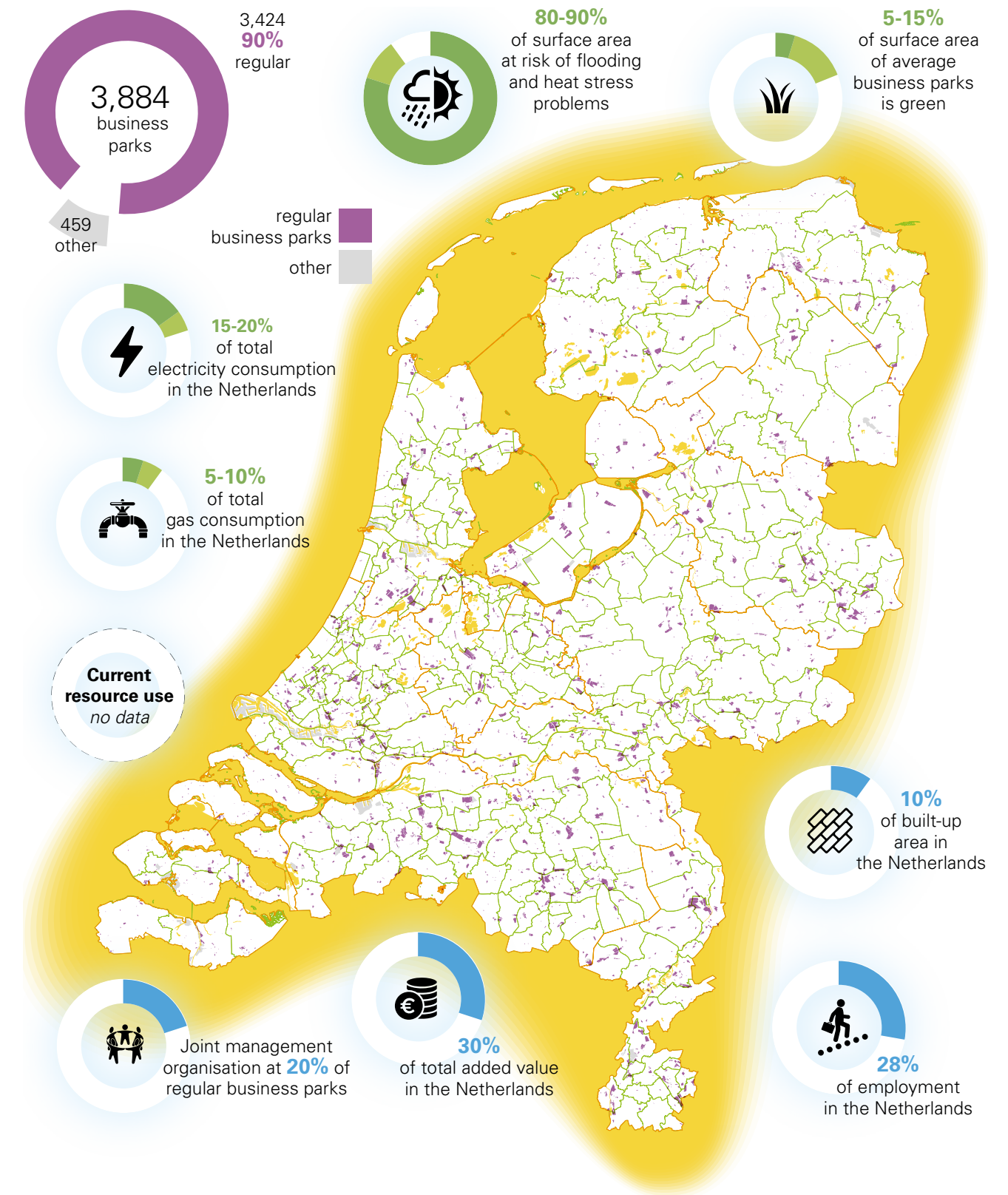
In Chapter 3, we show how businesses at business parks can seek to cooperate when taking sustainability measures: with each other and with other parties. We explain the importance of different levels of cooperation using specific sustainability measures.

In Chapter 4, we look at why the sustainability process has so far been slow to take off at business parks. We discuss the main factors holding back improvements to the sustainability of business parks.

Finally, in Chapter 5, we make a number of specific recommendations to central government to accelerate sustainability improvements to regular business parks.

Our findings from Part 1 are further substantiated in Part 2 of this report (Part 2 is only available in Dutch).

Figure 1: Facts and figures on regular business parks





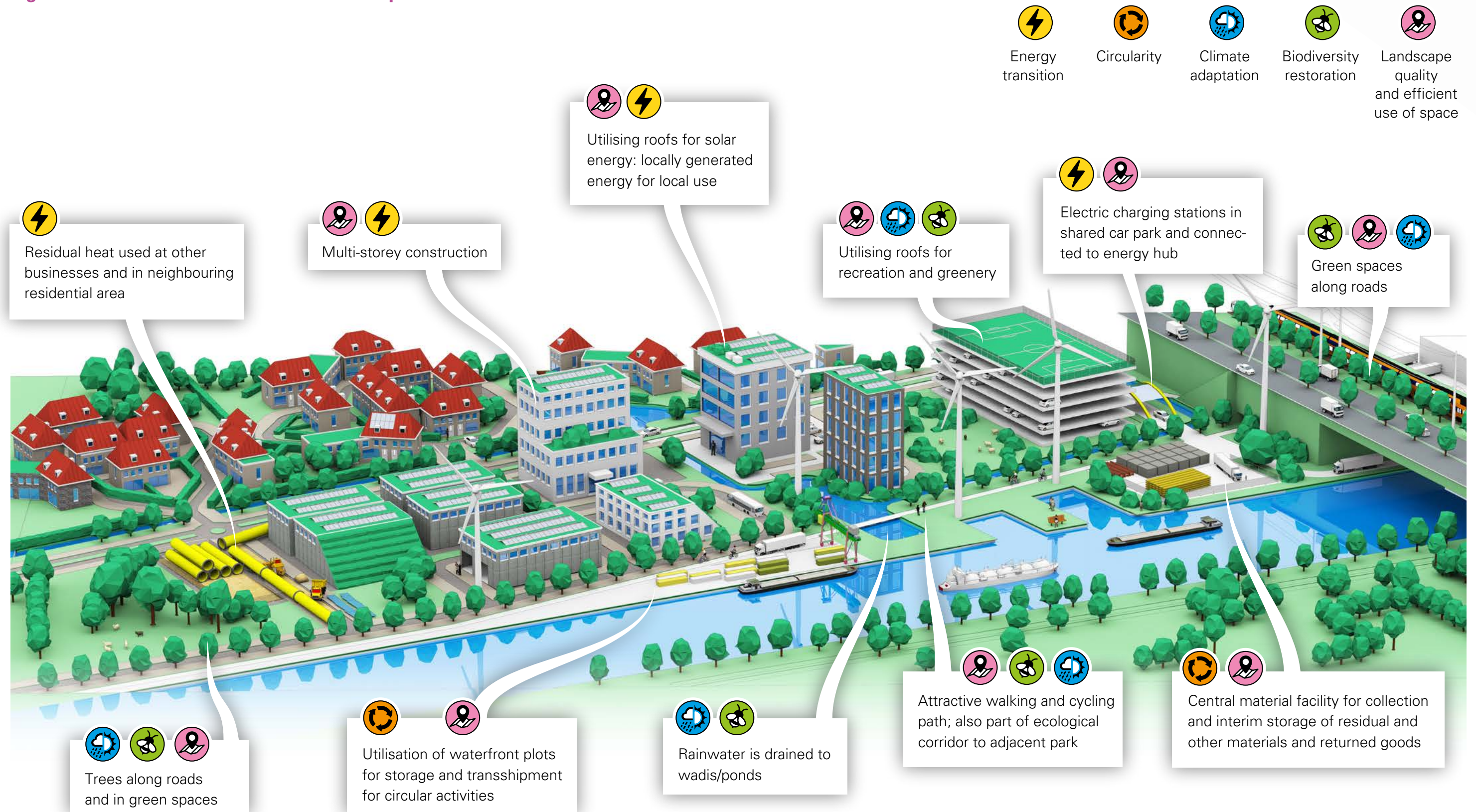
2 ADDED VALUE OF SUSTAINABLE BUSINESS PARKS

Between now and 2050, all business parks in the Netherlands will need to become more sustainable. This process forms part of the major sustainability targets set out in both national and European laws and policies. A future-proof business park is therefore, by definition, a sustainable business park. In this chapter, we outline what a sustainable business park could look like in 2050. We also describe how sustainable business parks can potentially contribute to the various transitions facing the Netherlands.

2.1 Future vision of sustainable business parks

The approximately 3,400 regular business parks in the Netherlands are diverse in nature and size. They will each go through a specific sustainability journey over the next three decades. What they look like in 2050 will therefore vary. We nevertheless try in this section to list some common features of a fully sustainable business park.

Figure 2: Outline of a sustainable business park



We do so with some reservations, as new developments will undoubtedly emerge whose impact we cannot currently assess. For example, it is uncertain what the biggest ecological issues will be in the coming decades and what technological solutions will have been devised by then. Still, it is important to define, with today's knowledge, what a sustainable business park is and is not. After all, business owners, authorities and other stakeholders need something to work towards to know what to invest in. Figure 2 illustrates a number of relevant features of a sustainable business park. The outline is not intended to be a fixed endpoint, because, as mentioned, the features of sustainability are subject to change.

As figure 2 shows, businesses at a sustainable business park use as little energy as possible and self-generate as much energy as possible. Roofs are fitted with solar panels and excess residual heat is shared via a heat network with other businesses at the park and with neighbouring residential areas, hospitals or swimming pools. The businesses make a profit on their locally generated energy through their own energy hub at the park and the linked energy trading platform. Moreover, grid congestion is eliminated and there is sufficient room for new connections to the electricity grid. Businesses share information on raw material flows and material passports, creating a circular flow of resources as much as possible in the region. Space has already been reserved at the park – if necessary and possible – for the loading and unloading of inland vessels carrying bulk and semi-manufactured goods. Rainwater is directed to green spaces at the park, where it can infiltrate the ground, with or without the help of a communal

wadi.² These green spaces are part of the ecological design of the park. They border on the cycling and walking route that runs – where possible – through the park and can also be used by residents of the neighbouring district. Trees at the park provide a cooling effect, which means that the business park is a pleasant place to be even on hot days, air-conditioning systems do not have to work overtime and traffic barriers continue to function.

The main parking area is collective, creating more space elsewhere at the park for greening. The car park is equipped with fast electric charging stations. Charging is also relatively cheap, as the stations are linked to the energy hub, which recharges lorries' batteries when there is an energy surplus. Space has also been saved at the park by extending an existing office building in height and by locating a sports facility on the roof of another building. These space savings give businesses the opportunity to expand, reducing the need to relocate.

A sustainable business park is more future proof. Some of the ways in which businesses, both owners and users, see this reflected include an increase in property values and in the appreciation of the working environment by both employees and customers.

² Wadi stands for Water Drainage and Infiltration. A wadi (originally an Arabic word) retains and purifies rainwater, after which the water infiltrates the subsoil. A wadi helps against flooding and drought.



2.2 Potential of sustainable business parks

Regular business parks that have been made more sustainable have the potential to contribute to five sustainability targets being pursued in the Netherlands: the energy transition, developing a circular economy, climate adaptation, biodiversity restoration and improving landscape quality and spatial efficiency. Relatively little hard data is currently available on the total national scale of this potential contribution for many of the components (Senel et al., 2023; De Kort & Gradussen, 2023b). However, the data we present below gives an idea of what is feasible.

Some of the figures we report below do not refer to the sustainability contribution of all regular business parks combined, but to that of one or more business parks in a particular region. We discuss them anyway because the figures have indicative value for the effect of certain sustainability measures.

2.2.1 Potential contribution to the energy transition

The contribution that sustainable business parks can make to the energy transition covers various aspects: sustainable electricity generation, preventing overloading of the electricity grid ('grid congestion'), making mobility and transport more sustainable, developing heat networks and, of course, reducing CO₂ emissions. We discuss these aspects below.

Sustainable electricity generation

Research carried out on our behalf by Stec Groep shows that around 40% of the roof area of business premises at regular business parks is suitable for

solar panels.³ If this roof area were fully utilised for solar power generation, it would meet 30–35% of the total electricity demand at regular business parks. This means that sustainable business parks have the potential to produce an amount of green energy that meets around 6% of national demand (De Kort & Gradussen, 2023b).

Similar calculations available for business parks in specific regions show that the expected potential there may be even higher. For example, business parks in the municipality of Utrecht could potentially generate renewable energy that meets 95% of the total electricity demand at these parks (Naber et al., 2021). The outlook is also positive for the province of Limburg. It has been calculated that almost 50% of Limburg's 2030 climate target can be met if 20% of the roofs at business parks are used to generate solar energy (Ondernemend Venlo Businessparken, 2021).

Preventing grid congestion

The Dutch electricity grid is becoming overloaded as we use more and more electricity, which is also increasingly coming from decentralised sources with weather-dependent production levels. This grid congestion is slowing down the transition to renewable energy, as in many regions the power grid can no longer handle new connections for supplying sustainably generated energy. *Preventing* grid congestion is therefore important for the success of the energy transition. Business parks can contribute to this if they start functioning as an *energy hub*.

³ This concerns the roofs of post-2005 business premises, which are in principle suitable for solar panels.



What is an energy hub?

An energy hub is a defined area where parties share locally generated power and use existing grid capacity more efficiently. Arrangements and provisions are made for regulating energy supply and demand within the area (congestion management and 'peak shaving'). Surpluses are stored temporarily, for example in batteries.

Royal HaskoningDHV calculated the potential of energy hubs at business parks for the eastern Netherlands region in 2022.

Estimate of the potential of energy hubs at 50 business parks in the eastern Netherlands region

The eastern Netherlands region has around 700 regular business parks. For 50 of these, Royal HaskoningDHV estimated the potential added value of an energy hub. The calculation showed that a total of 2.5 gigawatts of locally generated solar energy and 4 terawatt hours of locally generated wind energy could be integrated into the regional grid. This can be achieved through a combination of energy storage in batteries, making production processes more flexible and investing in storage capacity. All in all, this approach makes better use of grid capacity. As a result, grid operator Liander would no longer need to expand its substations to improve grid efficiency, saving an estimated €270 to €350 million. This has the potential to reduce CO₂ emissions from current electricity consumption by 18–27% at the 50 business parks studied. In absolute terms, that is 1.0 Mton of CO₂ emissions per year. This could achieve

35–50% of the total Regional Energy Strategy (RES) ambition of the eastern Netherlands region (Royal HaskoningDHV, 2022).

The Royal HaskoningDHV study did not estimate the added value that energy hubs have for individual businesses. However, several similar examples show that a positive business case is achievable. For instance, flexible prices for energy use and supply reduces energy costs on balance. Plus the businesses also receive lower rates with Liander (grid operator) for electricity transmission. An energy hub also provides additional space on the power grid, which can be used to expand existing businesses or establish new ones. Moreover, an energy hub could, in time, make it easier for businesses to make the transition to a natural gas-free energy supply.

More sustainable mobility and transport

Business parks that generate a lot of sustainable energy and act as energy hubs also have the potential to contribute significantly to facilitating the electrification of the Netherlands' vehicle fleet. Passenger cars, vans, forklifts and some of the trucks currently running on fossil fuels will be replaced by electrical vehicles in the coming years. All this is expected to require an additional 15–20% of electricity by 2050 compared to the current electricity demand in the Netherlands. Much of this additional electricity demand is going to come from business parks (Refa et al., 2022). Logically, most of this power will also be generated there. Business parks can thus become an epicentre of the future network of electric charging stations. In



addition, larger trucks are likely to run on hydrogen (Rli, 2021b). Business parks can play a key role in a network of hydrogen refuelling stations.

Development of heat networks

Sustainable business parks can also contribute to the energy transition through the use of residual heat. Currently, a lot of residual heat from production processes still goes to waste on business parks. The heat often literally blows out of the building. On top of this, the spaces in question often require additional ventilation or cooling, leading to even more energy consumption. The installation of heat networks is therefore a sustainability effort that has great potential. By supplying residual heat, business parks can meet the energy needs of parties such as neighbouring businesses and/or residential areas.

Several locations in the Netherlands currently already have heat networks in place or plans in development. For example, the municipality of Urk has plans for a heat network that would channel excess heat from fish processing plants to neighbouring residential areas. This heat network is an important step towards a natural gas-free Urk (Gemeente Urk, 2021). According to estimates, this collective approach would reduce power consumption at the business park and in the relevant residential area by 25% compared to individual space heating solutions (De Noordoostpolder, 2023a; 2023b).

Reducing CO₂ emissions through energy savings

A lot of CO₂ emissions can also be avoided at business parks through energy-saving measures. These are measures that individual businesses can take (such as façade, roof, pipe and floor insulation, energy-efficient doors and window frames, energy-efficient ventilation systems and heat pumps) but that also help determine the potential to improve sustainability at the business park. One of the positive effects of energy savings is that they help to prevent grid congestion (Senel et al., 2023). Overall, there are still some 'climate benefits' to be gained at business parks through energy savings. In 2021, it was calculated that at least two-thirds of the CO₂ reduction target from the sectoral climate agreement for the built environment can be achieved at business parks with these types of energy-saving measures, some of which are not currently a legal requirement (Nordkamp et al., 2021).

2.2.2 Potential contribution to making the economy circular

Regular business parks offer considerable 'circular potential', as they are home to a significant proportion of the Dutch manufacturing industry, as well as being locations where resource and raw material flows can be combined. Business parks can thus be a crucial link in the collection, reuse, reconditioning or recycling of products (De Kort & Gradussen, 2023b). This will, however, require additional space for storage and transshipment sites for resource and raw material flows, as well as for collection sites such as central material facilities at business parks (Rood & Evenhuis, 2023). An estimated 870 hectares of additional space will be needed in total by 2030 (Rienstra, 2022).



At present, no regular business parks are fully implementing circular principles. The main focus is still on processing and recycling waste. However, there is some brainstorming and experimentation going on here and there. Circulair Friesland (2022) is working with a number of municipalities and business parks to create roadmaps for circular business parks, which involves identifying opportunities to connect resource and raw material flows. Businesses at business parks in Tilburg have liaised with the municipality to explore ways of including circularity in the redevelopment of the business parks (Van Wijk, 2022). In Haarlem's Waarderpolder, businesses are exploring opportunities to use residual streams (see box).

Ideas on the circular business park

The Waarderpolder business park in Haarlem wants to become a circular business park. A number of initiatives have recently been launched. One involves a furniture transport company at the park. This company has containers full of cardboard, plastic, foam and other packaging materials left over every week. The business has a high-quality solution to the disposal of this waste, namely offering it to other local businesses. Foam, for example, is a highly sought-after product at a nearby craft supplies store. In addition, several parties at the business park have leftover wood dust, sawdust and wood shavings. Waarderpolder park management manages this 'residual flow' and seeks sales channels for larger volumes. (Cirkelstad, 2022)

2.2.3 Potential contribution to climate adaptation

On a hot summer day, the temperature at business parks is high. Employees and visitors are then at risk of heat stress and equipment can be damaged. Heavy rainfall can also often lead to problems at business parks, which are not usually designed to handle large quantities of rainwater. Increasingly extreme weather events are expected to become a problem on 80–90% of the surface area occupied by business parks in the coming decades (Arcadis et al., 2021). There is therefore a clear need to mitigate heat stress and flooding through climate adaptation at business parks. The call by the Minister of Infrastructure and Water Management for a focus on water and soil can play a role here (IenW, 2022).

Most business parks have sufficient potential for effective measures. Greening the site by planting trees and shrubs can reduce the temperature at a business park by several degrees, thus improving the environmental quality for employees and visitors (Arcadis et al., 2021). Replacing unnecessary paving around buildings with planting can simultaneously reduce the risk of flooding. The use of wide street profiles with plenty of space for water storage is also an effective flood-prevention measure (Arcadis et al., 2021). There are many gains to be made here: in the province of South Holland, only 1% of the surface area of business parks features blue-green infrastructure. The Dutch average is higher: 5 to 15%, depending on the age of the park and type of business activity (De Kort & Gradussen, 2023b).



2.2.4 Potential contribution to biodiversity restoration

Some 580 of the total 3,400 regular business parks in the Netherlands are located within one kilometre of a Natura 2000 site. These business parks have the potential to contribute directly to biodiversity restoration, for example by ensuring good ecological connections (De Kort & Gradussen, 2023b).

However, regular business parks located further away from nature reserves can also promote biodiversity restoration. Overall, regular business parks cover 10% of the built-up area of the Netherlands and are often located on the outskirts of cities or villages (De Kort & Gradussen, 2023b). This means that they can serve as a 'stepping stone' for plants, animals and insects. Measures aimed at restoring biodiversity can also help to reduce or prevent heat stress and flooding.

How can a business park contribute to biodiversity restoration?

Business parks are not nature reserves, but they can provide habitat for plants and animals. The layout and management of the site can be adapted in collaboration with ecologists. The appropriate greening for the immediate surroundings may vary. But on the whole, biodiversity develops naturally when favourable conditions are created. This can often be done with relatively simple measures, such as:

- replacing fences with green boundaries (hedges, hedgerows)
- providing nesting facilities for swallows, sparrows, birds of prey and bats

- creating wildflower verges and plots for butterflies and bees and installing 'insect hotels'
- preserving old trees, avenues, hedgerows and hedges
- digging natural watercourses and pools for frogs, toads and salamanders.

Source: Blanken & Lössbroek, 2016; Maatje & Kreveld, 2020

An additional benefit of greening measures (more green structures and water features) is that they increase the economic value of property at a business park by 4–8%. If we assume that the 3,400 regular business parks in the Netherlands together represent a property value of around €210 billion, this means a potential total property value increase of €8 billion to €17 billion (Arcadis et al., 2021; De Kort & Gradussen, 2023b).

2.2.5 Potential contribution to landscape quality and efficient use of space

Landscape quality

Business parks are not usually areas of outstanding natural beauty. There is generally little greenery or water in sight, the buildings are bland and uniform ('big boxes') and the environment exudes an atmosphere of anonymity where humans appear to be out of place.

However, several examples show that business parks can be made a lot more attractive with targeted measures. Examples include planting native



trees, wild plants and shrubs on the site, or surrounding the site with hedgerows.

Particularly in combination with climate adaptation measures, such as removing unnecessary paving around buildings, these kinds of interventions can ensure that business parks start to contribute to the scenic quality of an area (Stec Group & DENC, 2022). This creates an attractive working environment and often, at the same time, more support from local residents.

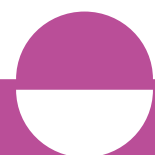
Spatial efficiency

Regular business parks can also contribute to more efficient use of scarce space. The redesign of business parks could potentially achieve space savings of 5–10% (De Kort & Gradussen, 2023b). Restructuring⁴ could achieve space savings of as much as 20%. These space savings can be achieved through measures such as multi-storey construction, however, the maximum building height rules will then need to be adapted to make this possible. Space savings can also be made by opting for stricter zoning rules and more strictly separating businesses that fall into higher and lower environmental categories⁵ (Beekmans et al., 2020; De Kort & Gradussen, 2023b). Measures such as these free up surface area that can be used for business expansion, the extra space needed for the circular economy, establishment of new businesses or residential development.

⁴ Restructuring involves relocating businesses, demolishing old business premises and sometimes reorganising the site. Redesign is limited to redesigning the public space at a business park. Space savings can sometimes be made during this process, for example by reducing parking.

⁵ In its environmental policy, the government uses an environmental categorisation system whereby business activities are classified according to their level of environmental impact. A higher environmental category means a higher environmental impact.

The province of Utrecht recently explored how much space can be saved through restructuring at the province's business parks without increasing the surface area. The result was that an estimated 25% of the additional space needed by the province to accommodate businesses can be created on existing sites (Provincie Utrecht, 2023).





3 IMPORTANCE OF WORKING TOGETHER

Many sustainability measures at regular business parks can only be effectively implemented if the businesses at the park *work together*: with each other and/or with other parties at and around the business park. Even if measures can be taken by an individual business, it is often cheaper and more efficient to implement them as a group. In this chapter, we explain the importance of different levels of cooperation on the basis of specific measures.

3.1 Levels of cooperation

There is no template for making a business park more sustainable. There is a wide variety of measures to choose from, which differ in terms of complexity.

Some sustainability measures can be taken by an individual business, independently of measures taken by other businesses at the park and independently of adaptations in the surrounding regional public space. Examples include insulation measures or the installation of green façades to cool buildings in summer. Other sustainability measures can only be implemented by the business park as a collective. Examples of such

measures include an energy hub and the ecological design of the park. Where measures can be taken individually, a joint approach may also lead to acceleration and financial economies of scale, for example in procurement or management. Finally, the success of some sustainability measures depends on cooperation with other companies, business parks or authorities in the region. Such measures include those that require space to be set aside on the business park. They often require the intervention of the municipality, which, as owner of the public space and party responsible for the Environment Plan, must grant the necessary permits. Measures that are implemented in public spaces, such as using green energy for street lighting, are also ultimately decided by the municipality or a regional government body.

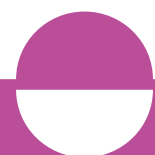
Table 1 shows some examples of measures categorised by the level of cooperation required.

Table 1 gives an idea of what is involved in making a regular business park more sustainable and what forms of cooperation may be required for the different types of measures. Figure 3 also provides insight in this area. The extent of the contribution that measures make to the sustainability targets varies by level. The measures are vital at all levels, however, in order to meet the national targets. Moreover, the measures help businesses find solutions to major issues they face, such as scarcity of energy and grid capacity, human resources,⁶ space and raw materials.

Table 1: Selection of examples of sustainability measures in relation to required cooperation

Aspects	Level of cooperation		
	Business independently	Jointly at business park level	Jointly at regional level
Energy transition	Electrification of business processes Installation of solar panels	Sharing sustainably generated energy and avoiding grid congestion using an energy hub	Including potential of business parks in Regional Energy Strategy
Circular economy	Designing processes to repair and reuse products and use secondary raw materials	Setting up repair workshops and spaces to share residual flows and equipment	Anticipating circular activities by setting aside space
Climate adaptation	Using instead of removing rain-water	Setting aside space for joint water infiltration and collection	Placing a focus on water and soil in restructuring activities
Biodiversity	Creating nesting opportunities and planting native vegetation	Agreements on collective ecological management	Ensuring ecological corridors
Landscape quality and use of space	Providing facilities for combining charging and parking	Developing collective facilities such as shared parking with charging stations	Ensuring water transport options when carrying out restructuring activities

⁶ Sustainability measures also ensure a pleasant working environment. Future-proof business parks are therefore attractive places to work, making it easier for businesses to retain or attract staff.



3.2 Relationship between measures at various levels of scale

The division into three levels of cooperation we applied in the previous section for the sake of clarity is not always clear-cut in practice. Which measures are better taken individually and which are better taken collectively may vary from situation to situation. Whether a measure is feasible at business level may depend, for example, on how much capacity a business can free up. Often, the choice of a certain level of cooperation also depends on the situation at the business park: which other businesses are present, what is the level of organisation? The situation at regional government level can also play a role in determining the manner of cooperation: are there enthusiastic leaders willing to take control, are funds available? In short, what is managed collectively in one place sometimes requires an individual approach in another and vice versa.

However, many of the measures that can be taken by individual businesses are ultimately related to decisions made by other businesses or groups of businesses or made at regional level. For example, the collective procurement of insulation materials can be economical. The business case for installing solar panels may also be dependent on the ability to share the surplus power generated. And the installation of nesting boxes on a business façade has a much greater effect if the surrounding area is also greened and/or if trees are planted. Working together, even where not strictly necessary, can therefore make the business case more feasible and increase effectiveness. Other measures may only make sense if additional measures are taken simultaneously at other levels of scale.

Figure 3: Examples of sustainability measures in relation to required cooperation



Examples include the focus on soil and water advocated by the government (IenW, 2022). In order to place a stronger focus on water and soil, the local business park approach must be linked to a regional approach to business park layout and design.

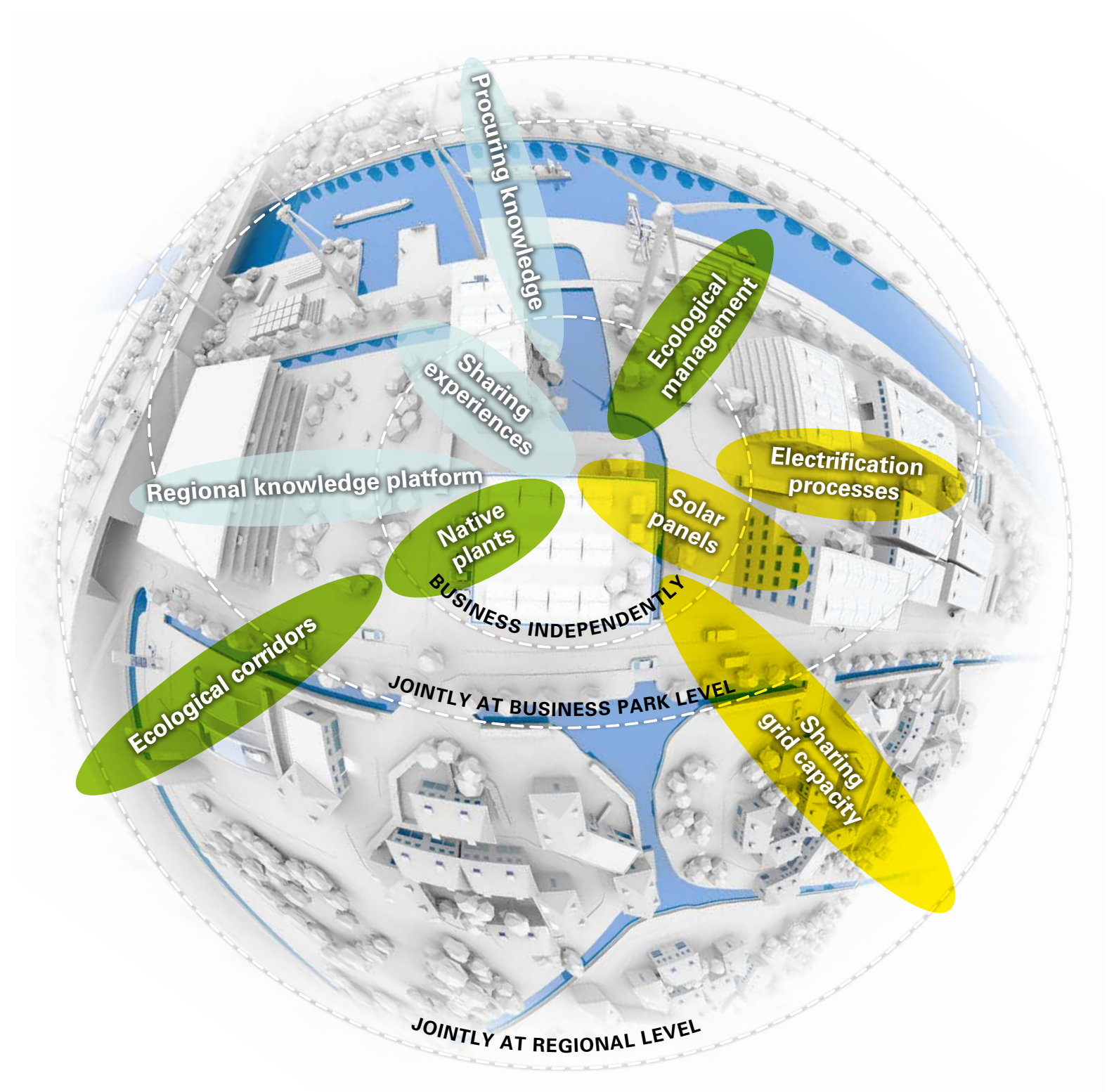
Consistency between the different levels of scale requires a clear framework within which the different parties can jointly seek effective solutions to sustainability issues. This calls for a shared view on making business parks more sustainable, but also for a provincial strategy for the physical environment that incorporates regional sustainability targets and takes into account water management targets, regional logistics targets and transport corridors.

Figure 4 shows how different levels of scale can be relevant when implementing sustainability measures.

As an explanation of figure 4, we briefly elaborate on three examples below:

- Almost all sustainability measures at business parks require (often technical) knowledge to implement them properly. Several knowledge platforms have been set up at regional and national level for this purpose, where business owners can gather the necessary information. However, gathering knowledge can be time-consuming for individual business owners and can be achieved more efficiently on a collective basis through business park management organisations. Sharing experiences is also important, especially those of frontrunners.

Figure 4: Links between levels of scale in efforts to improve sustainability at business parks



- While the installation of solar panels for energy generation is mostly done at the level of individual businesses, businesses depend on collective measures at a business park to share the generated energy through an energy hub. Moreover, if businesses need additional grid capacity (because they want to expand or electrify processes), they are dependent on grid operators working at regional level.
- To increase biodiversity at a business park, individual businesses can provide nesting sites. But such a measure is only truly effective if the business park collectively provides a foraging area with sufficient greenery and if the region provides ecological corridors to one or more nature reserves in the vicinity.

As these examples clearly demonstrate, improving the sustainability of business parks often requires a joint effort at different levels of scale.

3.3 Benefits of forming an organisation

Once cooperation at a business park is firmly established, for example by forming an association, the benefits extend beyond improving sustainability. By working together, the partners involved build trust in each other, as illustrated by the development experienced by the Schiebroek business park located north of Rotterdam.

Cooperation as a driving force: the situation at Schiebroek business park

The cooperation between the companies at Schiebroek business park near Rotterdam started on a small scale with making the park clean, maintained and safe. That successful initiative then provided a breeding ground to start working together in other areas such as sustainability. The BIZ plan 2021–2025⁷ lists a number of planned activities, including increasing the collective generation of sustainable energy and offering specific support to businesses and owners in the area of sustainability. (De Kort & Gradussen, 2023a; Stichting BIZ Schiebroek, 2020)

Another advantage of organised cooperation is that a business park has a single point of contact with municipal and regional authorities. This gives the business owners involved more control: they are no longer the subject of discussions but rather party to the discussions.

Where cooperation at a business park results in visible improvements in quality, the businesses involved gain more confidence in the value and future of the business park. This makes them more willing to make further investments in improving the sustainability of property, business processes and other quality aspects.

⁷ This is a five-year plan on which activities of the local Business Improvement District (BIZ) are based. See Section 4.2.1 for a further explanation of what a BIZ involves.



Organised cooperation at business parks can therefore have significant positive side effects. The bottom line is that placing collective tasks in the hands of an association relieves the burden on cooperating businesses, particularly if the association hires a professional park manager. These tasks do not have to relate exclusively to sustainability (how do we exchange energy flows?) but can also relate to safety (how do we secure our business park as efficiently as possible?) and participation in policy processes (how do we ensure our voice is heard among local administrators?). In all such issues, organisation is essential. There is a good reason why many new business parks impose a compulsory contribution towards an organisation representing the businesses at the park. In some cases, this is also linked to compulsory membership. Members have a say in matters such as how the money is spent.





4 BARRIERS TO MAKING BUSINESS PARKS MORE SUSTAINABLE

Improving the sustainability of regular business parks offers a lot of added value for both businesses and the rest of society. Yet the sustainability process is getting off to a slow start. We set out the main obstacles in this chapter.

4.1 Some frontrunners, few followers

Many businesses are making efforts to improve their sustainability in one way or another (CBS, 2022). But several studies suggest that very little progress is currently being made in improving the sustainability of business *parks* (Nordkamp et al., 2021; Senel et al., 2023). Most of the few sustainability initiatives that are already being implemented at business parks focus on addressing energy issues and, to a lesser extent, measures to adapt the parks to climate change. Relatively little attention is being paid to other sustainability issues.

The number of business parks that are making serious efforts towards substantial, integrated sustainability solutions is negligible. However, there

are some inspiring and encouraging exceptions. One example is the Grote Polder business park in Zoeterwoude (see box).

Frontrunner: Grote Polder business park

Grote Polder is a business park in Zoeterwoude. The park has had a successful Business Improvement District (BIZ) since 2010⁸: 95% of businesses are members of the BIZ. The BIZ status was renewed for a second time in 2020, with 85% of the 154 businesses at the park casting a vote: 97% voted in favour.

The main role of the BIZ is that of driver, information provider and organiser of meetings. In the first phase, the BIZ looked at the safety, accessibility and appearance of the business park. After this it worked with the municipality to address public green space, biodiversity, mobility and sustainability at and around the park. The BIZ has also carried out research into the costs and benefits of climate adaptation measures.

Cooperation on energy and water storage measures is on the agenda. In February 2023, the BIZ released the future vision 'Kompas Grote Polder 2040'. This document sets out ambitions in the areas of space for businesses, the energy transition, sustainable mobility and accessibility, and the labour market. (BIZ Grote Polder, 2023)

⁸ On 1 May 2009, the BIZ Experiments Act came into force and the first business investment zones were established, including the one at Grote Polder. The Business Investment Zones Act came into force on 1 January 2015.

However, as mentioned above, positive examples like these are scarce: they are frontrunners. The 'bulk' of the 3,400 regular business parks in the Netherlands are still at the early stages of addressing their sustainability challenges. In section 4.2 below, we discuss the main factors that form a barrier to improvements to the sustainability of business parks at collective level.

4.2 Overview of barriers

4.2.1 Low level of organisation

The fact that collective sustainability measures at most business parks have so far failed to materialise is largely due to the lack of formalised cooperation at these parks. Many measures require a collective approach and, given their scale, an organised partnership. However, the level of organisation at business parks has been low for decades and is currently around 20% (De Kort & Gradussen, 2023a).

Why is formalised cooperation at business parks so difficult to achieve? Our analysis suggests that the following factors play a role:

- Initiating cooperation and setting up an organisation takes *a lot of time and commitment*. Many businesses cannot free up capacity for this as they have their hands full with their day-to-day business operations. To initiate formalised collaboration, someone has to approach businesses, enthuse people, call the first meeting, develop plans and so on. There is a need for professionals, such as park managers, to shape this process.



- There is a *lack of knowledge and experience* to set up and formalise cooperation. How do you make people enthusiastic? What type of organisation should you set up and what are the pros and cons? How do you divide the costs? Most business owners have not been faced with these types of questions before. The collective measures to be taken also require specific knowledge that many, especially smaller, businesses do not have in-house. Moreover, these businesses often do not have the necessary capacity and/or financial resources to bring this knowledge in-house - if it is available at all, given the scarcity of advisers. There is a need for a sound knowledge infrastructure to provide authorities, businesses and others with practical knowledge, coordinate knowledge development and share good practices.
- It takes time and effort to bridge *diverging interests*. A young business owner who has just bought a warehouse is more willing to invest in sustainability measures than one who is not far from retirement. And a local business owner who owns/leaseholds a plot of land has a larger stake in making the park more sustainable than someone who rents business premises from a foreign investment company⁹ In the latter case, there is often a 'split incentive' dilemma: the costs of sustainability measures are borne by the owner/leaseholder, while the user/tenant benefits from the results. This kind of conflict of interest means that it often takes more than voluntary action to get parties at a business park to join forces to implement sustainability improvements.
- For businesses, *making their business parks more sustainable is not always a priority*. Many business owners want to have the basics – clean, maintained and safe – in order first before they get around to sustainability. This is understandable in light of the lacklustre state of some business parks. Almost one fifth of the regular business parks in the Netherlands are obsolete.¹⁰ Of these, one third face technical obsolescence, due in part to overdue maintenance (De Kort & Gradussen, 2023b). This overdue maintenance needs to be addressed first, as far as the businesses involved are concerned.
- To date, the *BIZ scheme set out in central government policy has proven ineffective*. The scheme has produced very little results in terms of higher levels of organisation at business parks. Under the BIZ scheme, businesses collectively pay for improvements at their business park or shopping area through a municipal levy. Those who are members of the association or cooperative linked to the BIZ have a say in spending. Those who are not members pay but do not take part in decision-making. By 2023, there were only 77 BIZs at the 3,800 regular and non-regular business parks (Schep & Pen, 2023). Some provinces and municipalities have taken additional measures to increase the level of organisation. For example, the province of South Holland only offers the energy subsidy scheme to an organised group of businesses and the municipality of Amsterdam is very active in supporting the formation of Business Improvement Districts. These

⁹ 70% of business owners at regular business parks own their premises, 30% are tenants (De Kort & Gradussen, 2023a).

¹⁰ Obsolescence includes technical obsolescence (such as overdue maintenance and defects in technical facilities), economic obsolescence (such as unsaleable buildings and plots), social obsolescence (for example deficiencies in social safety and working conditions) and spatial obsolescence (such as non-efficient layout and utilisation of space); see De Kort & Gradussen, 2023b.



measures have had some effect in shopping areas, but hardly any at business parks (Schep, 2023).

4.2.2 Too much investment required

Some collective sustainability measures, such as the installation of an energy hub or a heat network, are extensive and thus costly, but socially desirable. Many business parks cannot bear these costs, even if all businesses contribute. This means that the commercially unprofitable project costs would need to be publicly funded. Funding may also be needed for the payback period, or there may be issues around split incentives (Arcadis et al., 2021). However, national funds available for sustainability targets, such as the Climate and Transition Fund and the Sustainable Energy Incentive Scheme SDE++, are currently not sufficiently targeted at business parks.

4.2.3 Lack of clarity on goals and timeline

Business owners located at business parks are unsure what the government expects from them in terms of sustainability measures in the medium term.¹¹ Central government has not set any specific or measurable targets for making business parks more sustainable. A key driver for collective investment is thus missing.

The lack of clarity in government frameworks, including in terms of timeline, means that it is difficult to make a business case at business parks. Many

business owners are stalling. “Because otherwise we will have installed solar panels and later hear that a green roof needs to be installed under them - and we’ll need to start from scratch again.” Others are held back by the large amount of existing and new regulations and legislation they are faced with: “With this tsunami of regulations from Brussels, The Hague or the municipality, I can’t see the wood for the trees.”

Another problem is the availability of data. Monitoring of sustainability improvements at businesses and business parks is negligible at national level.

4.2.4 Government policy is fragmented and not targeted

In recent years, central government has not had an understanding of what business parks can contribute to national sustainability targets. This has meant that opportunities have been missed. Although the government has recently started to pay more attention to business parks, there is still no central government policy that focuses specifically on making business parks more sustainable and that brings together the various sustainability targets. The policy is fragmented into four government programmes spread across three ministries. There is little coordination between them. By extension, the division of tasks between the different layers of government is also fragmented and unclear. They therefore do not always know who is in charge and businesses do not know where to turn with their questions.

¹¹ This applies to a lesser extent to energy transition measures.



As a result, central government has no overarching future vision for sustainable business parks and therefore also no coherent policy to realise that future vision. According to the government, what is a sustainable business park and what is not? What is their relevance and position in society? A vision on this is lacking, preventing the effective pooling of policy programmes and funds. Consequently, there is very little focus on an integrated approach and the merging of sustainability targets.

The lack of national frameworks has repercussions at local level. Municipalities compete with each other to get businesses to locate within their municipal boundaries - with the unfortunate side effect of a 'race to the bottom' in some areas in terms of the sustainability requirements set (CRa, 2019). In addition, local regulations are often contradictory.

4.2.5 Insufficient knowledge and capacity among municipalities

Most municipalities are ill-equipped to make business parks more sustainable. On the one hand, they have a lot of knowledge of the businesses and the situation at the business parks within their municipal boundaries and have an influence as a licensing authority and manager of public spaces. On the other hand, however, they lack the capacity, budgets and knowledge to effectively manage sustainability at the parks. Business parks are not always given the political priority they deserve, and there is often more focus on developing new business parks than on maintaining and future-proofing existing business parks.

The current situation calls for pooling of knowledge and capacity and management at provincial level. After all, making business parks more sustainable requires not just a local but also a provincial perspective (EZK, 2022a). Regional coordination is important in view of factors such as spatial planning issues involved in the restructuring of business parks, the incorporation of business parks into energy networks, the connection of business parks to ecological structures and the creation of extra space that the development of the circular economy requires (Rood & Evenhuis, 2023). Municipalities are not the most appropriate level of government for this.

4.2.6 Uncertainty due to growing pressure on space and lack of restructuring and spatial planning

Many business owners face uncertainty about the survival of 'their' business park. Between 2016 and 2021, 148 of the total 3,800 business parks in the Netherlands¹² disappeared, partly due to encroaching housing construction (VNO-NCW, 2023). Pressure on space increases uncertainty about the future for a business in a given location, which inhibits investment in sustainability.

Efforts to improve the sustainability of a business park often go hand in hand with restructuring or even relocation of businesses. At times, plots need to be bought up and redeveloped to create 'flexible space' or demolish outdated buildings. Restructuring and relocation will become increasingly important in the development of the circular economy (Rood & Evenhuis,

¹² This concerns all business parks, not just the regular business parks that are the focus of this report.



2023). The market is not always willing or able to bear that risk, causing restructuring and therefore sustainability to stall. Restructuring companies (see box) can play a positive role here, however their scope and clout is too limited in many cases.

Herstructureringsmaatschappij Overijssel

In the province of Overijssel, the Herstructureringsmaatschappij Overijssel (Overijssel Restructuring Company, HMO) has been operating since 2009. The organisation's objectives include revitalising obsolete business parks. HMO does this by acting as a coordinator, remediator, investor, adviser, manager and driver in buying up and restructuring business parks. The province owns all of the shares in HMO. HMO's aim is to persuade the market to invest. Over 10 years, HMO has raised around €600 million in private investment. In addition, HMO (with a start-up capital of €7.5 million) has been able to deploy more than €100 million of investments on a revolving basis.¹³ This has led to the successful restructuring of 900 hectares of business parks. The process has also created over 1,000 jobs.

(Herstructureringsmaatschappij Overijssel, 2023)

¹³ 'Revolving' means that the loaned funds are returned and then made available again for new loans.

4.2.7 No central reciprocal points of contact

Businesses located at business parks lack a central point of contact with local and regional authorities. They often have to talk to officials from a number of departments (usually Economic Affairs, Sustainability and Spatial Planning) at the municipality or province to get something done. This takes a great deal of time and energy.

Conversely, local authorities lack a central point of contact at business parks. The officials of a municipality often sit around the table with dozens of business owners instead of with the board of an organisation that represents the business owners. This also takes a great deal of time and energy.

4.2.8 Policy-related and legal obstacles

Several policy-related and legal obstacles stand in the way of rapid sustainability improvements. For example, provisions in the Electricity Act are an obstacle to sustainability initiatives at business parks. The law does not allow the end user to take on a bigger role (such as flexible use and supply or local use of locally generated energy). As a result, it is difficult to make more efficient use of existing grid capacity. The Energy Bill (EZK, 2023a) and the National Energy System Plan (EZK, 2023b) largely provide for the removal of these barriers, but this legislative process is also slow.

The fragmentation of knowledge and a lack of standards also hamper sustainability improvements at business parks. Sustainability improvements are associated with innovations that require updates to existing technical



standards and building codes. This applies, for example, to the installation of solar panels on the roofs of business premises, possibly in combination with the installation of thermal insulation in the roof or greening the roof and façade. Allowing these interventions will mean revising construction and fire safety standards, as well as changes to fire and permit regulations. These processes are unnecessarily slow, partly because the required knowledge is not pooled on the government side. It also increases costs, because in the absence of standards, insurers charge higher premiums due to uncertainty about safety (Nordkamp et al., 2021).





5 RECOMMENDATIONS

In this chapter, we make a number of specific recommendations to central government to accelerate sustainability improvements to existing regular business parks. At their core, our recommendations revolve around three observations, each of which requires action by central government: (1) there is a need for a future vision for business parks with measurable goals and a timeline; (2) compulsory organisation at business parks is unavoidable if it does not come about naturally and (3) a clear division of roles is needed between the bodies involved in making business parks more sustainable.

Together, these three action points reflect the key message of our report: it is time for a new perspective on business parks. Business parks should no longer be seen as a plot of land with business premises on it, but as a collection (if not a community) of business owners that form a whole that is more than the sum of its parts. A sustainable business park provides a platform for cooperation. Cooperation between businesses, cooperation with authorities and cooperation with other stakeholders ranging from grid operators to insurance companies. At a business park, businesses are located in close proximity to each other and that offers opportunities – including in areas other than sustainability.

Figure 5: Recommendations at a glance



It means that networks can emerge in which businesses come together, help and complement each other. It means that businesses can jointly hire a park manager (on a part-time basis) to help and support them in taking measures. And it means that local government has a strong partner to help businesses become more sustainable and shape societal transitions.

In short, it is time to move beyond sustainable businesses to sustainable business *parks*.

Figure 5 summarises our recommendations to central government. In the remainder of this chapter, we go on to explain the recommendations in greater detail.

5.1 Formulate a future vision for business parks with measurable targets and a timeline

Recommendation 1.1 Formulate a future vision for business parks

It is crucial to have a future vision for business parks. This gives stakeholders something to work towards and increases their willingness to invest. What is a sustainable business park and what is not? How can business parks and the businesses located there contribute to the Netherlands' sustainability targets? Central government needs to set this out in a clear vision, as it has previously done for making heavy industry sustainable by 2050 (EZK, 2020). The letter recently sent to the House of Representatives by the Minister of Economic Affairs and Climate Policy

(EZK) on an innovative and sustainable perspective on the Dutch economy (EZK, 2023c) lacks such a vision for business parks. The minister devotes only one sentence to business parks in this letter.

The five key sustainability targets in this report should serve as a guiding principle in the preparation of the future vision: the energy transition, developing a circular economy, climate adaptation, restoring biodiversity and improving spatial efficiency and landscape quality.

The government will also need to pay attention to spatial planning in the future vision. Business restructuring or relocation can play an important role in ensuring that businesses in the same environmental category are located together, which can save space. Spatial planning merits extra attention in the development of a circular economy, particularly as the circular economy will most likely require more space and there will sometimes also be a need for specific work locations, such as plots along waterways and plots that fall into a high environmental category (Rood & Evenhuis, 2023). In addition, for understandable reasons, business owners need clarity on the survival of their business parks (for instance laid down in planning and environment strategies).

Recommendation 1.2 Develop a sustainability label for business parks with a clear timeline for periodic tightening of nationally set goals

Central government should translate the above future vision into a limited number of measurable goals for business parks, laid down in national laws and regulations. Their achievement should be linked to a clear timeline,



in which the goals are tightened in a predictable way. Here, too, the government will need to stand with business owners. The lack of clarity experienced by business owners regarding the sustainability requirements imposed on them can be largely removed with a sustainability label. Setting measurable goals, contained within a clear timeline, provides business owners with clarity on what is required of them now and in the future. Most of them want to become more sustainable, but to do so they need clear frameworks that are the same for everyone (see also WRR, 2023).

A national sustainability label for business parks is an instrument that aims both to encourage sustainability of business parks and to serve businesses. A label establishes clear goals and a timeline. In this label, central government defines the criteria for the highest label (for example label A, which stands for ‘fully sustainable’) to the lowest label (for example label G, which stands for ‘not sustainable’). The government also indicates which label is the legal standard at any given time and when laws and regulations require a ‘label jump’ to a higher label. This way, businesses at business parks know where they stand, both now and in the future. In other words, a sustainability label relieves the burden on business owners. The sustainability label covers the collective aspects of the business park.

One advantage of a sustainability label is that it can reward frontrunners. For instance, banks and insurers can link favourable financial conditions to a high sustainability label, as already happens with business parks that have a safety mark. A high label indicates that a park is future-proof, for example because measures have been taken that are cost saving, but also because

customers, suppliers and investors are increasingly demanding more sustainability. A sustainability label helps them find their way to businesses at sustainable business parks. The government itself could also financially reward frontrunners with a high sustainability label, for example by adding a high label to the conditions for subsidy provision. A sustainability label is a tried and tested instrument: central government already uses the mandatory energy label for buildings. In 2018, the government announced that from 1 January 2023, all office buildings larger than 100 square metres would need to have an energy label C to remain in use. The mandatory energy label C for offices has led to accelerated improvements in office energy performance and higher property values (Eichholtz et al., 2023).

We realise that developing a sustainability label takes time, both because national standards for business parks are yet to be established and also because the label still needs to be developed. Experience will also need to be gained with such a system. We therefore recommend that a sustainability label for business parks should initially be voluntary. In the longer term, when the sustainability label has proven itself and business parks have a sufficient level of organisation (see recommendation 2), the pros and cons of making a sustainability label for business parks mandatory should be assessed. Incidentally, instruments other than a label could also be appropriate, as long as they include the goals and timeline.

As mentioned, a sustainability label helps business owners. However, central government also benefits from a sustainability label because it can accelerate the realisation of national sustainability targets. In addition,



a national sustainability label prevents policy competition between municipalities and combats the proliferation of private labels and the associated lack of clarity. A number of existing instruments (BREEAM-NL Area, National Assessment System for a Green Climate-Adaptive Built Environment) could be good building blocks for our proposed sustainability label. It is important to note that these instruments do not yet cover all aspects of sustainability, while instruments such as BREEAM-NL Area are more detailed and comprehensive than we envisage.

Recommendation 1.3 Identify and remove policy-related and legal obstacles to sustainability improvements

As discussed in Chapter 4, there are several legal and policy-related obstacles to the process of improving sustainability. We recommend that the government remove the following complications as soon as possible:

- The Gas Act and the Electricity Act contain provisions that currently make mutual energy sharing at business parks difficult.
- There are no up-to-date safety standards or norms for installing solar panels on business premises, for example. This prevents businesses from effectively undertaking sustainability improvements at business parks.
- Up to now, knowledge and experience has not been sufficiently pooled. This hinders insurers and the fire service in assessing risks and municipalities in issuing permits.

In our view, central government should periodically take stock of these and other obstacles and remove them where possible. The government can most effectively do this in cooperation with experts, Regional Development

Agencies (RDAs) and industry associations such as the Dutch Federation of Small and Medium-Sized Enterprises (MKB Nederland).

5.2 Make forming an organisation attractive and ultimately mandatory

Cooperation between business owners at business parks has so far been slow to take off due to a lack of organisation. Despite years of appeals from the field and advice from authoritative bodies (VROM-raad, 2006; THB, 2008), central government has for a long time relied on voluntary organisation. However, this has achieved little. There is unlikely to be a sufficient degree of voluntary organisation at business parks in the near future. The need for such organisation, however, is urgent. Cooperation between businesses (owner/leaseholder and tenant/user) is crucial in order to capitalise on the added value of business parks (see Chapter 3). We therefore consider it imperative that central government adopts policies to improve the level of organisation at business parks. Policy should first persuade and support businesses at business parks to engage in organised cooperation, and eventually oblige them to do so.

Organisation not only accelerates sustainability improvements at business parks, but also has significant, positive side effects. The result of organisation is that businesses start to collaborate more where necessary, are supported in carrying out these joint activities and are able to place collective tasks in the hands of a professional park manager. The cooperation may relate to sustainability challenges (how do we exchange energy flows?) but also security issues (how do we secure our business park



as efficiently as possible?) or policy influence (how do we ensure our voice is heard among local and other administrators?). What is certain is that sustainability is not the only shared challenge facing business owners at business parks in the coming decades. Organisation will play a crucial role in meeting all these challenges. Organisation leads to mutual trust, greater willingness to invest, vision building (what do we want to achieve together?) and a point of contact supported by the business park for authorities and other stakeholders. There is a good reason why many new business parks require compulsory membership of an organisation representing the businesses at the park, which is rarely considered objectionable. It is high time to demand the same from businesses at existing business parks.

Recommendation 2.1 Tempt businesses to cooperate and form an organisation

Central government should make cooperation at business parks attractive. This can be done through fiscal policies, for example by granting financial benefits to businesses that have joined together in a formal partnership. Cooperation can also be made attractive through procedural measures. For example, by granting priority when processing permit applications for business parks when the application is submitted by an organised association. Finally, the subsidy instrument can be used: authorities can grant subsidies only to projects applied for by a business park as a collective.

Recommendation 2.2 Support the formation of an organisation with start-up subsidies and knowledge

Central government should provide practical support and subsidies to businesses that want to set up an organisation for their business park. Such subsidies should have a duration of at least two years to give the organisation time to develop properly.

Part of the subsidy can be earmarked for the mandatory hiring of a certified park manager. Regional Development Agencies (RDAs) could organise the certification of park managers or, in a lighter scenario, keep a register of park managers. This task is in keeping with the role that RDAs can play (see Section 5.3).

Recommendation 2.3 Encourage collective projects with a national fund to improve the sustainability of business parks

Central government should pool the budgets of existing sustainability programmes for businesses and business parks into a national fund. This fund can then be used to subsidise large-scale, collective measures at business parks, such as the installation of a heat network or an energy hub. Central government should make it a condition that the business park has organised itself into an association represented by a certified park manager. The business park could also be required to have a sufficiently high sustainability label.

The fund we are proposing will make it possible to take big steps relatively quickly towards making business parks more sustainable. The fund's



investments will also have a positive impact on individual business owners' willingness to invest, since they will obtain clarity on how the transitions will affect their business park and the additional investments they still need to make.

Recommendation 2.4 Legally require business parks to form an organisation

Business parks that do not voluntarily organise themselves in the first instance will eventually need to be obliged to do so by law. This will require a Business Park Organisation Act. The drafting stage of such an act takes several years; the legislator must therefore start work in good time for the obligation to take effect in 2030.

The provisions of the act must include the requirement for both owners/leaseholders and users/tenants at a business park to become members of the association representing the business park. This is necessary because these parties may have differing interests. An owner/leaseholder, for example, has little interest in sustainability solutions relating to energy use, while the user/tenant, in turn, benefits little from modifications to the business premises for water capture and retention.

The association should be given two specific obligations. First, it must hire a certified park manager. Second, it must produce or commission an action plan to improve the sustainability of the business park. The key question is how the business park plans to become more sustainable in accordance with the laws and regulations and how it will meet any additional

sustainability targets set by the province (see Section 5.3). The municipality is the main consultation partner here, being the permit authority and owner of the public space at the business park. The action plan is coordinated with regional stakeholders such as the water board, the province, the grid operator and local residents. The costs incurred by the association can be shared pro rata (for example based on plot size) or according to the profit principle (in which case the contribution would depend on the benefit enjoyed by that party from a particular collective measure).

We consider a legal requirement to form an organisation a necessary and proportionate means to improve the sustainability of business parks.

5.3 Ensure a clear division of tasks and give provinces a central role

As the 'workshop of the economy', business parks play a pivotal role in society. A whole range of authorities and institutions are therefore involved in making business parks more sustainable. A clear division of roles between these parties is crucial to a smooth and streamlined sustainability process.

Recommendation 3.1 Stop compartmentalisation within national government: designate the Ministry of Economic Affairs and Climate Policy as lead ministry

Three ministries are currently involved in making business parks more sustainable: the Ministry of Infrastructure and Water Management (IenW),



the Ministry of the Interior and Kingdom Relations (BZK) and the Ministry of Economic Affairs and Climate Policy (EZK). Experience shows that this kind of compartmentalisation can hinder expeditious policy implementation. We therefore recommend designating the Ministry of Economic Affairs and Climate Policy as the lead ministry. After all, supporting businesses - an important part of the sustainability operation at business parks - is one of the primary tasks of the Ministry of Economic Affairs and Climate Policy. The energy transition also comes under the responsibility of this ministry. Close co-ordination with the ministers and state secretaries of Infrastructure and Water Management (on policies relating to water and soil, environment, circular economy and climate adaptation) and with the Minister for Housing and Spatial Planning (on spatial aspects) remains essential. Spatial interventions play an important role in the creation of sustainable business parks.

We furthermore recommend that the Making Business Parks More Sustainable Programme, which currently falls under the Ministry of the Interior and Kingdom Relations, is continued and placed under the Ministry of the Economic Affairs and Climate Policy. We also recommend that the proposed national fund for making business parks sustainable (see recommendation 2.3 above) should be managed by the Ministry of Economic Affairs and Climate Policy. Combining existing subsidy budgets (for example for the installation of heat networks or energy hubs at business parks) in this fund (see recommendation 2.3) also avoids compartmentalisation.

Recommendation 3.2 Create a clear division of tasks and provide financial support

We propose to divide the roles and tasks involved in making business parks more sustainable between the relevant levels of government and the RDAs as follows:

Table 2: Roles and tasks of authorities and RDAs

Authority/ institution	Roles and tasks
Central government	<i>Framework setter</i> Formulate a future vision for sustainable business parks, translate sustainability challenges into laws and regulations, develop a sustainability label with predictable periodic tightening, oversee national monitoring.
Provinces	<i>Coordinator of implementation within central government frameworks</i> Determine the geographical boundaries of business parks, if necessary set up associations of businesses and appoint administrators, if necessary impose additional sustainability requirements, determine which business park will be established and remain where and with what function, review business park action plans, ensure minimum sustainability labels are obtained and enforce them.
Municipalities	<i>Permit authority and local consultation partner for business parks</i> Issue local permits for business parks, draw up environment plans, own public spaces in business parks, draw up action plans together with business parks.
RDAs	<i>Centre of expertise for authorities, businesses and business park associations</i> Establish knowledge infrastructure, share best practices.



The role of coordinator is in line with the role of provinces in environment and planning policy. In practice, provinces may be able to partly delegate or implement the tasks described above in programmes with a coalition of stakeholders or in collaboration with ‘Werklandschappen van de Toekomst’ (working landscapes of the future): a broad movement of parties working towards future-oriented, green, healthy and climate-proof business parks with innovations in various fields. The provinces could also potentially assign some of their tasks to metropolitan or other regional networks or engage RDAs for this purpose. The RDAs have regional knowledge and form a nationwide network, enabling exchange of knowledge and experiences. RDAs and their umbrella organisation RDA Netherlands can thus provide a good basis for strengthening a knowledge infrastructure. It is recommended that they make use of existing knowledge institutions in doing so. This knowledge infrastructure will be badly needed in the coming years.

In addition, where necessary, provinces should set up or strengthen restructuring companies, with financing preferably arranged through revolving funds (such as Herstructureringsmaatschappij Overijssel; see box in Section 4.2.6). Business parks are dynamic and commercial property has a relatively short lifespan. Restructuring of business parks therefore requires ongoing attention.

Provinces will also need to seek cooperation and dialogue with municipalities. Municipalities play a crucial role because they have a lot of specific local knowledge and are directly involved in business parks, partly due to the powers they have as local authorities.

The roles we have assigned to provinces, municipalities and RDAs above represent an extension to their current remit. They will need sufficient financial leeway to fulfil these roles. Central government will need to ensure that all levels of government involved have sufficient budget to fulfil their roles properly. Large sums of money will be required to boost efforts to improve the sustainability of business parks. We recommend that central government draw up an inventory of the investment needed for the sustainability targets over time for all levels of government. It is important to note that public investment will be followed by investment from private parties, who will see financial opportunities as property values will increase.

5.4 In conclusion

Many businesses located on regular business parks recognise the urgency of making ‘their’ park more sustainable. Yet at the vast majority of business parks, the necessary sustainability efforts have for years been slow to take off. We believe that cooperation at various levels of scale is crucial to kick-starting the sustainability process. Business owners at business parks urgently need more help from the government in this context. Making the formation of an organisation at regular business parks a legal requirement is, in our view, an indispensable part of that assistance.

Mandatory organisation may come across as a considerable restriction on the freedom to do business. However, the need to rapidly improve the sustainability of business parks is great. Businesses at these parks face major issues ahead, such as scarcity of energy and network capacity (grid



congestion), human resources, space and raw materials. They cannot solve these issues alone. This is precisely why we believe that the government should not only outline a clear future vision and provide clarity on the specific sustainability requirements, but also introduce a legal obligation to form an organisation.

The vast majority of businesses see sustainability as a solution and embrace collaboration where it adds value. After all, sustainable business parks also offer economic benefits. Moreover, all businesses, whether or not located at a business park, are forced by increasingly stringent European and Dutch legislation to constantly improve the sustainability of their production processes. Ultimately, all businesses will need to be circular and carbon neutral by 2050. Some of the required measures can be taken jointly by businesses at a business park, which is more efficient than if they had to do it individually on their own.

Most business owners we spoke with are looking forward to the provision of government frameworks to bring about cooperation at their business park. They see compulsory membership of an association that collectively tackles necessary sustainability issues with them and on their behalf as enhancing their potential. They want to work together on future-proof business parks.



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OVERVIEW OF RLI PUBLICATIONS

2023

Adviezen in beeld, June 2023 (Rli 2023/03). Not translated.

Good Water, Good Policy. ['Goed water goed geregeld']. Mei 2023
(Rli 2023/02)

Every region counts! A new approach to regional disparities [Elke regio telt!
Een nieuwe aanpak van verschillen tussen regio's]. March 2023 (Rli 2023/01)

2022

Finance in transition: towards an active role for the financial sector in a
sustainable economy ['Financiering in transitie: naar een actieve rol van de
financiële sector in een duurzame economie']. December 2022 (Rli 2022/05)

Towards a sustainable food system: a position paper on the framework law.
December 2022 (Rli/EEAC)

Splitting the atom, splitting opinion? Decision-making on nuclear energy
based on values. ['Splijtstof? Besluiten over kernenergie vanuit waarden'].
September 2022 (Rli 2022/04)



Providing shelter: maximising the performance of housing associations.
[‘Onderdak bieden: sturen op prestaties van woningcorporaties’]. May 2022
(Rli 2022/03)

Adviezen in beeld. April 2022 (Rli 2022/02)

Nature-inclusive Netherlands: nature everywhere and for everyone.
[‘Natuurinclusief Nederland: natuur overal en voor iedereen’]. March 2022
(Rli 2022/01)

2021

Farmers with a future. [‘Boeren met toekomst’]. December 2021 (Rli 2021/06)

Give direction, make space! [‘Geef richting, maak ruimte!’]. November 2021
(Rli 2021/05)

National Growth Fund. [‘Investeren in duurzame groei’]. October 2021
(Rli 2021/04)

Towards an integrated accessibility policy. [‘Naar een integraal
bereikbaarheidsbeleid’]. February 2021 (Rli 2021/03)

Digitally Sustainable. [‘Digitaal duurzaam’]. February 2021 (Rli 2021/02)

Hydrogen: the missing link. [‘Waterstof: de ontbrekende schakel’].
January 2021 (Rli 2021/01)

2020

Access to the city: how public amenities, housing and transport are key
for citizens. [‘Toegang tot de stad: hoe publieke voorzieningen, wonen en
vervoer de sleutel voor burgers vormen’]. October 2020 (Rli 2020/06)

Stop land subsidence in peat meadow areas: the ‘Green Heart’ area as an
example. [‘Stop bodemdaling in veenweidegebieden: Het Groene Hart als
voorbeeld’]. September 2020 (Rli 2020/05)

Green Recovery. [‘Groen uit de crisis’]. July 2020 (Rli 2020/04)

Changing Tracks: Towards Better International Passenger Transport by Train.
[‘Verzet de wissel: naar beter internationaal reizigersvervoer per trein’].
July 2020 (Rli 2020/03)

Soils for Sustainability. [‘De Bodem bereikt?!’]. June 2020 (Rli 2020/02)

A Grip on Hazardous Substances. [‘Greep op gevaarlijke stoffen’].
February 2020 (Rli 2020/01)

2019

Towards a Sustainable Economy: The Governance of Transitions. [‘Naar
een duurzame economie: overheidssturing op transitie’]. November 2019
(Rli 2019/05)



Desirable Tourism: Capitalising on Opportunities in the Living Environment. [‘Waardevol toerisme: onze leefomgeving verdient het’]. September 2019 (Rli 2019/04)

European Agricultural Policy: Working Towards Circular Agriculture. [‘Europees Landbouwbeleid: inzetten op kringlooplandbouw’]. May 2019 (Rli 2019/03)

Aviation Policy: A New Approach Path. [‘Luchtvaartbeleid: een nieuwe aanvliegeroute’]. April 2019 (Rli 2019/02)

The Sum of the Parts: Converging National and Regional Challenges. [‘De som der delen: verkenning samenvallende opgaven in de regio’]. March 2019 (Rli 2019/01)

2018

Warmly Recommended: Towards a Low-CO₂ Heat Supply in the Built Environment [‘Warm aanbevolen: CO₂-arme verwarming van de gebouwde omgeving’]. December 2018 (Rli 2018/07)

National Environment and Planning Strategy: Litmus Test for the New Environmental and Planning Policy [‘Nationale omgevingsvisie: lakmoesproef voor de Omgevingswet’]. November 2018 (Rli 2018/06)

Accelerating Housing Production, While Maintaining Quality [‘Versnellen woningbouwproductie, met behoud van kwaliteit’]. June 2018 (Rli 2018/05)

Better and Different Mobility: Investing in Mobility for the Future [‘Van B naar Anders: investeren in mobiliteit voor de toekomst’]. May 2018 (Rli 2018/04)

The Healthy City: Delivering Health Through Environmental and Planning Policy [‘De stad als gezonde habitat: gezondheidswinst door omgevingsbeleid’]. April 2018 (Rli 2018/03)

Sustainable and Healthy: Working Together Towards a Sustainable Food System [‘Duurzaam en gezond: samen naar een houdbaar voedselsysteem’]. March 2018 (Rli 2018/02)

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