



Inspirational story	A blueprint for heat/cold exchange for business parks in Venlo	INST-02
Country	Netherlands	
Energy efficiency measures	Heat/cold exchange	
SME sector	Mixed – business parks	
Why	To demonstrate that it works better to make business parks more sustainable collectively, rather than individually, is the mission of the Sustainable Business Parks project in Venlo, which is focused on energy and climate adaptation. With a blank sheet as a project plan, €1.8 million was raised from the EU's European Regional Development Fund and the province of Limburg in 2019 for collective energy and climate adaptation sustainability projects. Among other things, five pilot projects to be implemented before the end of 2023, will demonstrate that collective sustainability works better than individual sustainability. The project is led by a project manager.	
How	<b>Approach</b>  The project started with the preparation of a so-called data X-ray of the 20 participating business parks in Venlo. For this purpose, available data on energy and climate was used. Based on the results, an analysis was made of which business parks were suitable for a pilot project to test and demonstrate smart energy concepts that enable combined energy generation and exchange. When identifying projects, it was decided to focus on residual heat, due to the risk of grid congestion when expanding the number of solar panels. During the study, insight was gained into the amount of heat and cold available from companies and whether a match can be made between supply and demand between two or more companies. With the help of this information, an initial insight was obtained that should lead to reuse of residual heat within the two companies and, where possible, exchange of residual heat and cold between the companies, resulting in reduction of CO <sub>2</sub> emissions. In addition to investigating technical feasibility, financial feasibility was also examined. One of the pilot projects identified with the help of the data X-ray is the use of residual heat from Aviko's production process by the neighbouring construction hardware manufacturer AMI.	





	<p><b>Setbacks</b></p> <p>A lack of data and preliminary research funding was a barrier in getting the projects up and running. Therefore, the project manager of Stichting Duurzame Bedrijventerreinen started compiling these data x-rays to obtain enough information, however due to a lack of available data it was difficult to properly capture all relevant information. As a result of the data X-rays, projects were identified, after which the conversation with companies started. In conversation with the companies, more knowledge and data were obtained on business processes and operations, and commitment was obtained to start collaborations. As a trusted partner, the project leader of Stichting Duurzame Bedrijventerrein brought parties together, gave advice and supported them throughout the process. Although the preliminary research was intensive and took about a 6 - 12 months, a group of frontrunners is now setting the entire ecosystem in motion. Based on the experiences of these frontrunners, the Foundation is working on a blueprint that can later be deployed at other business parks as well, which will eventually lead to a more programmatic approach.</p>
Whom	<p>Collaboration is a key element in this project. Primarily because it shows that working together on sustainability works better than individual sustainability, by the motto: "On your own you will go faster, together you go further." The energy exchange between large company Aviko and SME company AMI shows how cooperation between large companies and SMEs can boost sustainability. When there is a large company with clear strategic goals to become more sustainable, and also more investment power, and there is a nearby MBK with a sustainable image and/or ambitions to become more sustainable, forces can be combined and added value can be created together. Cooperation has also been important in the process of starting up the projects. A major installer for example contributed to the research on the possibility of energy exchange between participating companies. As part of this research, knowledge was gathered on business processes and operations and discussions were held on the possibilities and commitment to set up projects.</p>
What	<p>Recently, project plans for the use of waste heat have been submitted to Stimulus (the grant provider). By mid-November 2022, the Foundation expects to receive a definite answer on the award of the OPZuid Mrets grant application. If the plans are approved and implemented, residual heat from Aviko's production processes will no longer be blown into the air, but will be sold to the neighbouring AMI, which will use the heat to producing construction hardware. This energy exchange achieves a 55% reduction in gas consumption at AMI. With gas prices currently skyrocketing, this leads to substantial cost savings at AMI. Aviko receives financial compensation for the residual heat. However, their main driver is to be able to contribute to the reduction of CO<sub>2</sub> emissions, and their example may inspire others to follow. Within Cosun, Aviko's</p>





parent company, this project is seen as an iconic project and there are considerations on whether this can be realised at more production sites.

### Lessons learned

Whereas a few years ago, the business case of a sustainability project was the leading factor for starting a project, a new trend is taking place. Improving the quality of life and the working environment of the business park and contributing to curbing climate change are becoming increasingly important when making choices. For future projects, more preparation in the preliminary phase would be advisable. With greater availability of specific data, a view on possible projects can be formed more easily. If this view is there from the start, a project can be set up in a structured and more concrete way. If targeted funding is applied for a specific project, this will also provide more certainty for entrepreneurs, instead of when the project still needs to be defined and the project plan approved. Another suggestion to speed up the sustainability of business parks is to work programmatically on the themes of energy, climate and circularity. A team of experts and implementing organisations specialising in energy can pool knowledge, skills and approaches to implement joint sustainability projects on business parks.

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