



ELENA Completed Project Factsheet

Erasmus - Towards a Sustainable 2020 Campus

Location	Campus Woudestein of the Erasmus University Rotterdam, City of Rotterdam, the Netherlands
Beneficiary	Erasmus University of Rotterdam
CoM signatory	No
Sector	Energy efficiency in public buildings
Total PDS costs	EUR 3,057,510.00
ELENA contribution	EUR 2,751,759.00
Project development services financed by ELENA	<p>The Project Development Services (PDS) which received financing under the ELENA Facility allowed for support to the University for the preparation and development of activities required for the implementation of energy efficiency measures at the same time as the refurbishment of buildings on the University Campus. Such activities also included support and assistance for the publication of tenders required for the refurbishment. As an example, the ELENA PDS were able to support the University in the preparation and publication of the tender for the renovation of the Tinbergen Building (H-Building), the campus main building.</p> <p>In addition, the ELENA PDS provided support for the preparation of technical documentation and assisted the University with the publication of design-and-build tenders for two new NZE buildings (NZEBS) on the campus, this, on an exceptional basis as NZEBs are normally not covered by the ELENA facility. The future energy performance of these buildings, once built, will be significantly lower than if built in accordance with the current standards in the Netherlands.</p>
Description of ELENA operation	<p>The delivery of the ELENA PDS fell into this main elements:</p> <ul style="list-style-type: none"> • Management of a Programme Implementation Unit • Specialist technical services • Specialist legal and procurement services and quality assurance
Timeframe	01 January 2016 – 31 December 2019
Basis for investment identification	The investment programme was prepared based on information provided by the Erasmus University of Rotterdam.
Investment programme description	<p>The investment supported by the ELENA TA activities led to the publication of the tender for the renovation of the Tinbergen Building (H-Building), the main campus building. Further investments, thanks to the ELENA TA support, have also been made in other buildings on the campus such as the P-Building, Bayle building (J-Building), Van der Goot building (M-building) or the Mandeville building (T-Building). These buildings were all fully or partially renovated over the duration of the ELENA TA. The tender for the renovation of the main campus building (the Tinbergen Building (H-Building)) has also been prepared and published. Design-and-build tenders for two NZEB buildings have been prepared and published over the same period. Works on the Heat and Cold Storage system infrastructure on the campus have started and PV plants installed as well.</p> <p>Typical energy savings measures implemented in the investment programme included lighting and controls, heat recovery, voltage optimisation, building management system, energy management software, photovoltaic panels, cavity wall insulation, and envelope insulation.</p> <p>The investment amounts related to the refurbishment of the building represent around 49% while the investment amounts related to the construction of the new NZEB buildings represent 48% of the total investments and the remaining 3% of the investment amounts relates to the installation of RES.</p>

Investment in implementation phase	EUR 67m The refurbishment investments resulted amounted to around EUR 33.3m, while the eligible investments into the new NZEBs (with only 50% of the construction costs accounted for) are estimated at EUR 32m. In addition, investments in RES accounted for around EUR 1.7m.
Results expected to be achieved	The estimated impacts of these investments are as follows: <ul style="list-style-type: none"> • Energy Savings – Annual total energy saved 6.9 GWh/year • GHG reduction – 2 952 t CO₂eq/year • Estimated job creation - 185 FTE
Leverage factor achieved	24
Lessons learnt	<p>One of the things the Erasmus University Rotterdam has learnt from the ELENA project is that proceeding with real estate investments is very difficult to plan ahead for several years considering the intensive use of lecture facilities and the challenges faced for transfer of lecture activities to another location on the campus during the renovation time. This has become clear from the planned renovation of main building on the campus, the Tinbergen Building (H-Building). Because the renovation tender for this could not be concluded successfully, the planning of other investment projects had to be changed and delayed.</p> <p>ELENA TA increased the awareness and ambitions of the University regarding the sustainability aspects for the renovation of buildings. The unsuccessful tender did give Erasmus University the opportunity to take a critical look at the renovation of the Tinbergen Building and to include, as much as possible during the design phase, measures, which will increase energy savings, energy generation and, in the end, the sustainability investments.</p>
Further information sources	https://www.eur.nl/en/news/elena-grant-contributes-sustainable-campus
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