

## ELENA Fact Sheet



Location	Eastern part of the Central Denmark Region (Østjylland). Four municipalities - Odder Municipality, Aarhus Municipality, Syddjurs Municipality and Norddjurs Municipality
Beneficiary	Aarhus Letbane I/S (Aarhus Light Rail I/S)
CoM signatory	The majority owner of Aarhus Light Rail I/S – The Municipality of Aarhus - signed the Covenant of Mayors on January 19th 2009.
Sector	Public Transport
Total PDS cost	EUR 2,549,000
Elena contribution	EUR 1,911,750 (75%)
Project development services (PDS) financed by ELENA	<p>ELENA will support Aarhus Light Rail I/S with additional resources to improve both quality and energy efficiency of the transport system:</p> <ul style="list-style-type: none"> <li>• ELENA will support studies to find the best energy efficient solutions for the power supply of the system, covering both urban and suburban environments, where the power supply systems are different.</li> <li>• ELENA will support the research of innovative technical solutions on how to transform a traditional local freight and passenger rail line into a light rail network with rail freight capability.</li> <li>• ELENA will provide support to strengthen the current organisation. Due to the complexity of the project Aarhus Light Rail I/S has to hire more people - primarily specialist and lawyers - to ensure the necessary permits and agreements with the stakeholders and organisations involved in the project. Aligning the stakeholders is crucial to achieve a successful implementation of the project, which will be able to finish and operate on time.</li> <li>• ELENA will bring additional support from external experts to fill the gap between internal expertise and standard solutions and the complexity and specificity of the activities to be carried out.</li> </ul>
Description of ELENA operation	The ELENA support will allow the recruitment of both internal and external technical assistance. The coordinated approach for the integration of the existing railway lines into light rail

	<p>operation is divided into two work packages:</p> <ol style="list-style-type: none"> <li>1. WP1: Preparation for technical integration for freight trains and light rail;</li> <li>2. WP2: Studies and integration of innovative solutions for energy efficiency and power supply.</li> </ol>
Timeframe	June 2013 - June 2016
Basis for investment identification	<p>The goal is that the innovative approach of forming a Light Rail Transit Corporation will benefit the future expansion of a light rail network in the eastern part of the Central Denmark Region. The key objectives of the implementation are:</p> <ul style="list-style-type: none"> <li>• A cooperative approach among several municipalities;</li> <li>• An innovative and holistic planning approach;</li> <li>• Innovative solutions to technological challenges;</li> <li>• Sustainable energy consumption;</li> <li>• CO2 neutral maintenance facilities.</li> </ul>
Investment programme description	<p>The Aarhus LRT, stage 1 consists of upgrading, integration and electrification of two older railway lines Odder Railway (Aarhus - Odder) and Grenaa Railway Line (Aarhus – Grenaa) with 12 km of new double tracks from Aarhus Central Station, running along the central harbour area and North to Lisbjerg and Lystrup. Furthermore, a new Control and Maintenance Centre has to be constructed, and 23 new light rail trains purchased.</p>
Investment to be mobilized	<p>The total cost of the investment is estimated at MEUR 319.5 for years 2013-2018 although the part linked to ELENA is only the one committed during 2013-2016 which is about MEUR 230.2</p>
Expected results	<p>It has been estimated that the project will result in a saving of 466 GWh and 73 kton of CO2 over the ten-year period from 2016 to 2025, which corresponds to an average annual saving of 47 GWh and 7.3 kton CO2.</p>
Leverage factor (Minimum 20)	120
Market replication potential	<p>The Aarhus LRT project is the first of its nature in Denmark and the project will have substantial interest among the other cities planning to implement similar light rail projects. Lessons learned from stage 1 of the project will be utilised in the later stages of the project in the Aarhus region, where the light rail transit network will connect the surrounding municipalities.</p>
Project status	Approved