

<p><b>IP Engenharia, S.A.</b></p> <p>Rua José da Costa Pedreira, 11 1750-130 LISBOA Tel.: (351) 21 751 17 00 Fax: (351) 21 754 06 00 E-mail: info@ipengenharia.pt Web site: www.ipengenharia.pt</p>	<p><b>Corporation Form</b> Joint-Stock Company</p> <p><b>Registered Capital</b> 1.500.000 Euros</p> <p><b>Board of Directors</b> Rui Lopes Loureiro, Electrical Engineer, Chairman Alberto Manuel de Almeida Diogo, Degree in Business Organization, Administrator Amílcar Álvaro de Oliveira Ferreira Monteiro, Civil Engineer, Administrator</p> <p><b>Directors</b> José Alves Monteiro, Civil Engineer, C.E.O. João Carlos Lopes Rebelo, Civil Engineer, Director Luís Cipriano Ferreira, Electrical Engineer, Director</p> <p><b>Permanent Personnel</b> Total: 180</p> <p><b>Turnover (2011)</b> 15.030.000 Euros</p> <p><b>Main Associations</b></p> <ul style="list-style-type: none"> <li>• ADFER – A. P. para o Desenvolvimento do Transporte Ferroviário</li> <li>• APNCF – A. P. Normalização e Certificação Ferroviária</li> <li>• APPC – Associação Portuguesa de Projectistas e Consultores</li> </ul> <p><b>Certifications</b></p> <ul style="list-style-type: none"> <li>• NP EN ISO 9001:2008</li> </ul>	<p><b>IP Engenharia</b></p>
<p><b>PORTUGUESE ASSOCIATION OF ENGINEERING AND MANAGEMENT CONSULTANTS</b></p> <p><b>APPC</b></p> <p>Last update: 14-07-2015</p>	<p><b>General Description</b></p> <p>REFER Engineering S.A., previously named Ferbritas - Empreendimentos Industriais e Comerciais S.A., is a consultancy company specialized in transport engineering in the railway sector, wholly owned by REFER, the Portuguese state-owned public company responsible for the construction and operation of Portugal's national railway network. Refer Engineering is one of Portugal's market leaders in Transportation Engineering with extensive know-how in the main following areas: transport studies; engineering design; project management and technical inspections. The company is also able to provide its clients with institutional services and railway consultancy, including procurement and tender documents, technical appraisal, assessments and audits.</p> <p>Within the REFER group, Refer Engineering has access to over 3.000 staff, with wide experience and expertise, covering the full project cycle, from inception to operation, encompassing top class railway telecommunications services and advanced commercial and railway real estate solutions.</p> <p>Our Quality Management System looks to NP EN ISO 9001:2008 requirements. All company activities either are, or are in the process of, SGC ICS certification. The following areas are already certified: Project Management; Construction Site Supervision and Safety Management; Quality Control of the manufacture and supply of railway materials, equipment and catenary.</p> <p><b>Main Expertise</b></p> <ul style="list-style-type: none"> <li>• Conventional and HS railways;</li> <li>• Light rail;</li> <li>• Transport and infrastructure planning;</li> <li>• Railway engineering in the following domains: operation, track alignment, civil works, geotechnics, earthworks, drainage, catenary, sub-stations, signalling and telecommunications, quality control of railway materials and equipment;</li> <li>• Construction management and supervision;</li> <li>• Quality control of the manufacture and supply of railway materials</li> <li>• Integrated management and specialized construction supervision;</li> <li>• Environment, Quality and Safety Management;</li> <li>• Geographic information systems (GIS)</li> </ul> <p><b>Services</b></p> <ul style="list-style-type: none"> <li>• Consulting services</li> <li>• Technical support</li> <li>• Transport demand studies</li> <li>• Market studies</li> <li>• Operation</li> <li>• Technical, economic and financial Feasibility Studies</li> <li>• Engineering projects and design</li> <li>• Multidisciplinary project management</li> <li>• Construction supervision</li> <li>• Expertise in construction survey</li> <li>• Management of the manufacture and technical delivery of railway components</li> <li>• Dynamic management of cadastral information</li> </ul> <p><b>Significant Last Works</b></p> <p><b>Studies and Consulting</b></p> <ul style="list-style-type: none"> <li>• Feasibility study of a Dedicated Right-of-way system for Lisbon City North Ring;</li> <li>• Technical, economic, financial and market feasibility study of Algarve Railway System;</li> <li>• Feasibility study for the railway connection Cartaxo/Setil – Coruche – NAL in the scope of the accesses to the New Lisbon Airport (NAL);</li> <li>• Preliminary assessment for railway accesses to Viana do Castelo Port feasibility;</li> <li>• Elvas Logistic Platform Masterplan;</li> <li>• Mondego Light Railway – Coimbra – demand, operation and urban integration studies</li> <li>• Technical advice for articulated of conventional and high-speed networks;</li> <li>• Feasibility study for the railway connection between Sul Line and Trafaria Port;</li> </ul> <p><b>Railway Projects</b></p> <ul style="list-style-type: none"> <li>• Upgrading Norte Line – Alfarelos/Pampilhosa section</li> <li>• Cascais Line: Renewal;</li> <li>• Quadrupling of Cintura Line;</li> </ul> <p><b>Construction Management and Supervision</b></p> <ul style="list-style-type: none"> <li>• Construction of Barcarena and Cacém stations, including rail-road interfaces and quadrupling of this section of Sintra Line;</li> <li>• North–South rail access in Lisbon metropolitan area;</li> <li>• Sintra Line: Upgrading of Rossio Tunnel;</li> </ul> <p><b>Technical Inspection</b></p> <ul style="list-style-type: none"> <li>• Quality Control of the manufacture and supply of railway materials, equipment and catenary;</li> </ul> <p><b>International Experience</b></p> <ul style="list-style-type: none"> <li>• Nacala Railway Terminal (Mozambique) – detail design in the specialties of permanent ways and earthworks;</li> <li>• Sena Line (Mozambique) – Ultrasonic rail inspection;</li> <li>• Nacala's Corridor (Mozambique) – Realignments Study of section 7;</li> <li>• Detail Design of a new railway line in Algeria (Boughezoul-Djelfa), within a JV with TPF Planege;</li> <li>• RER-B Paris suburban – Operation study;</li> <li>• Portlaois Traincare Depot - Dublin and Cork – Ireland</li> <li>• Upgrading of El Gourzi / Biskra /Tougourt – Algeria within a JV with Somafel</li> </ul>	