Litwin Romania Overview

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1. About Us

- Established in November 2004, by a group of investors from Romania and abroad.
- From March 2006, Litwin RO is part of Litwin EMEA Group, based on Amsterdam, a global provider of innovative turnkey solutions for the oil & gas, power and chemical industries.
- Litwin EMEA is owned by Bateman Litwin N.V., with offices worldwide located.
- Litwin offers 40 years of international experience in implementing complex industrial solutions and a very experienced team of engineers, with working process that fulfil quality standards.

Litwin RO features:
- A group of engineers with 15 – 30 years of experience in engineering and design, as well as in project management, working as a team for 20 years.
- Number of employees: 75.
- Company structure covers all disciplines involved in the development of medium to large projects, both in front end engineering and detail design.
- Cooperating with other EPC companies world wide in split engineering jobs or as a subcontractor for engineering and design.
2. Location

- Office location: Ploiesti
- Ploiesti is located 45 km / 28 miles North from “Henri Coanda” (former Otopeni) International Airport of Bucharest, Romania capital
3. Mission statement

LITWIN RO S.A. is an engineering company for local and global customers. It provides engineering and design services from basic/FEED to detail projects, with professional quality, on time, on budget, at low costs.

REMARKS

LITWIN RO S.A. provide engineering and design services for offshore and onshore oil & gas, chemical & petrochemical, energy & environmental industries and other industrial branches worldwide.

The prime objective of LITWIN RO S.A. is the performance of its activities to the total satisfaction of its customers, whilst giving due consideration to its partners, personnel and shareholders.

This objective is integrated in the mother-Company’s objectives, BATEMAN Litwin N.V., which owns LITWIN RO S.A.
4. Organization Chart

**Legend:**
- DIRECT CONNECTION
- CONTROL / SUPERVISING CONNECTION
- AE – engineer
- AD – designer
- N (M) – department staff without split staff (actual staff)

**President & Chairman**
LITWIN EMEA

**General Manager**
LITWIN RO
IOAN ALECU
+ 1 assistant-secretary

**Human Resources**
CRISTINA PETRESCU

**QA Responsible**
IULIANA ANDRIUC

**HSE Responsible**
CRISTIAN CONSTANTIN
(part-time from previous)

**Economic Manager**
OVIDIU ZEAGU
- 1 economist

**Commercial Manager**
IOAN ALECU
acting

**IT & E Manager**
ADRIAN MANTA
- 1 manager

**Manager of Operations**
DAN CRISTESCU

**Projects Management Team**
- 3 Plc
- 1 Pfe

**Project Control**
ANDREI GONES
- 1 specialist

**Manager of Engineering**
IOAN ALECU
acting

**Filing / Mechanical**
DAN BURIE
- 11 (12) AE + 1 AD

**Stress**
- 1 AE (+1 AE subconventional)

**Civil & Structural**
COSMIN BURIE
acting
- 3 AE + 4 AD

**Electrical**
GICHERE GROST
- 3 AE + 6 AD

**1 & C**
VIOLETA TANF
- 3 AE + 3 AD

**Technical Library & Archive**
CERASELA UNGUREANU
(part-time from previous)

**Process Center Manager**
IOAN IPERACHE

**Process Center Projects Manager**
NICOLAE ROȘCA
- 8 AE + 8 AD

**Basic Design Group**

**Detail Engineering Group**

**Simulation Group**

**Feasibility Study / HAZOP**

**Environmental**
## 5. Management Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Total Professional experience [years]</th>
<th>Total Experience in LRO [years]</th>
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<tbody>
<tr>
<td>Ioan Alecu</td>
<td>General Manager</td>
<td>22</td>
<td>5</td>
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<tr>
<td>Dan Cristescu</td>
<td>Manager of Operations</td>
<td>41</td>
<td>5</td>
</tr>
<tr>
<td>Ioan Iordache</td>
<td>Process Manager</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Dan Burdea</td>
<td>Piping &amp; Mechanical Manager</td>
<td>24</td>
<td>4</td>
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<tr>
<td>Cosmin Buricea</td>
<td>Civil/Structural Manager</td>
<td>17</td>
<td>5</td>
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<tr>
<td>Violeta Tani</td>
<td>Instrumentation &amp; Control Manager</td>
<td>33</td>
<td>4</td>
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<tr>
<td>Gheorghe Grosu</td>
<td>Electrical Manager</td>
<td>36</td>
<td>5</td>
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<tr>
<td>Andra Gojnea</td>
<td>Projects Control Manager</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Ovidia Neagu</td>
<td>Financial Manager</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Adrian Moanta</td>
<td>IT &amp; C Manager</td>
<td>18</td>
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</table>
## Litwin Romania Overview

### 6. Personnel Structure

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Employees Number</th>
<th>Average Work Experience</th>
<th>Details</th>
<th>No. of Employees per type</th>
<th>Average Work Experience per type</th>
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<tbody>
<tr>
<td>Technical</td>
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<tr>
<td>Process</td>
<td>14 employees</td>
<td>20</td>
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<td>9 Engineers</td>
<td>14 Years</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>5 Designers</td>
<td>32 Years</td>
</tr>
<tr>
<td>Piping &amp; Mechanical</td>
<td>22 employees</td>
<td>19</td>
<td></td>
<td>14 Engineers</td>
<td>15 Years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 Designers</td>
<td>27 Years</td>
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<tr>
<td>Architectural &amp; Civil</td>
<td>8 employees</td>
<td>24</td>
<td></td>
<td>4 Engineers</td>
<td>19 Years</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>4 Designers</td>
<td>29 Years</td>
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<tr>
<td>Instruments &amp; Control Systems</td>
<td>7 employees</td>
<td>17</td>
<td></td>
<td>4 Engineers</td>
<td>15 Years</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 Designers</td>
<td>20 Years</td>
</tr>
<tr>
<td>Electrical</td>
<td>4 employees</td>
<td>21</td>
<td></td>
<td>4 Engineers</td>
<td>21 Years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Designers</td>
<td>20 Years</td>
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<tr>
<td><strong>TOTAL (Technical)</strong></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>55 Employees</strong></td>
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<tr>
<td>Project Support</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Project Management</td>
<td>3 Employees</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Project Control</td>
<td>2 Employees</td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL (Project Support)</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>5 Employees</strong></td>
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<tr>
<td><strong>TOTAL (Productive Personnel)</strong></td>
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<td><strong>60 Employees</strong></td>
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<tr>
<td>General Support</td>
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<td></td>
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<tr>
<td>Top Management</td>
<td>2 Employees</td>
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<tr>
<td>Accounting &amp; Administrative</td>
<td>5 Employees</td>
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</tr>
<tr>
<td>(incl. cashier and cleaning)</td>
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<tr>
<td>Legal (subcontractor)</td>
<td>(1 Employee)</td>
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<tr>
<td>IT (partial productive)</td>
<td>3 Employees</td>
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<td></td>
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<tr>
<td>QA (partial productive)</td>
<td>1 Employee</td>
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<tr>
<td>HR</td>
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<td>Secretarial &amp; Document control</td>
<td>3 Employees</td>
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<td></td>
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<tr>
<td>(partial productive)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL (General Support – without legal)</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>15 Employees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL (Litwin Personnel)</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>75 Employees</strong></td>
<td></td>
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</table>
7. Office

Ploiesti office

- Four levels building, long-term leased at low price
- Refurbished in September 2009
- 2000 square meters, with air-condition and IT&C network
- Parking area
- Five minutes from downtown
- Four refineries around six miles
- Building could accommodate for up to 200 employees
8. Targeted Industries and Market Segments

**Oil & Gas Market Segment**
- Isocracking Units
- Gas oil Desulphuration Units
- Hydrotreater Units
- Ethylene Plants
- Hydrocracker Units
- Crude & Vaccum Units
- Cocker Units
- FCC Units
- Bitumen Units
- Sulphur Recovery Units

**Power & Energy**
- Detail Design for Utilities Area in:
  - Power Generation
  - Cogeneration
  - Renewable

- Refineries
- Petrochemical plants
- Chemical plants
- Tanks farm
9. Most important strengths and core competencies:

- **Qualified personnel**
  - The man-power of 75 employees (including 16% overhead) allow to compete for mid-size international engineering projects
  - Process, Piping, I&C, Electrical, Civil/Structural multidiscipline team
  - More than half of team exposed to international projects
  - 3D PDS or 3D PDMS design approach ready to use, especially in piping and civil departments
  - English as working language in day by day use by 75% of all staff

- **Personnel work as a team previously**
  - More than 50% are from previous LITWIN Romania JV, established in 1993 or Raytheon/WGR

- **LRO office strategic location**
  - Location in Ploiesti, Romania, in the heart of local oil & gas industry, close to any growing economy from SE Europe, or Russia, Turkey and “-stan” countries
  - Long term leased building, refurbished, four levels full use, with air conditioned and modern IT&C infrastructure, easy adapted for 200 employees

- **Special clients:**
  - Chevron Lummus Global USA,
  - Mustang Engineering USA,
  - Lummus Technology USA,
  - Rompetrol NV

- ISO 9001 certification since 2006, now renewed for 2008 edition of standard
10. HSE Policy

**Policy Statement**

**Health and Safety:**
- adherence to this policy
- establishment of H&S procedures for our project, travel, office and laboratory operations
- proper safety in design of projects
- compliance with regulation and local standards
- insistence on safe operations by our custom fabricators and subcontractors

**Environment:**
- operate our office with energy efficiency
- provide a safe high occupancy transportation for commuters
- actively promote and monitor recycling
- train on well maintained and environmentally sensitive work sites

**Community:**
- being a good and responsible neighbor
- being involved in our community, at the office and project level

**Responsibility Transparency and Accountability**

The responsibility for leading the way in the implementation of this policy on the global level rests with the CEO and other corporate senior managers. In each office and for each project it rests with the senior manager as well.

Every manager has responsibility for his staff and all employees have responsibility for themselves, and their team members

Our performance is routinely checked and reviewed and the findings are presented to all so we maintain accountability and transparency so as to promote continuous HSE improvement

This Policy is an integral part of the BATEMAN Litwin General Policy

**Signed:**

[Signature]

Chairman of the Board and CEO

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**To promote, demonstrate and reinforce our Global Commitment to HSE,**

the Group HSE Policy, signed by the CEO, is prominently displayed, on all sites and in all offices.
11. Selected case studies – Special Clients and Projects
Project Description:

**Client:** CHEVRON LUMMUS GLOBAL LLC

**Contract type:** take or pay, based on lump sum work orders

**Scope:** Engineering services for basic design

**Tasks performed:**
- P&IDs, Line Sizing & Line List, Instrument List, Preliminary Plot Plan

**Schedule:** 2005 – 2010

**Budget:** 100,100 man hours (more than 20 projects)
**Engineering Services regarding Various Petrochemical Projects**

**Project Description:**

**Client:** LUMMUS TECHNOLOGY INC.

**Contract type:** take or pay, based on lump sum work orders

**Scope:** Engineering services for basic design

**Tasks performed:** P&IDs, Hydraulic Calculation, Pump Data Sheets, Line Sizing & Line List, Instrument List, In line Instrument Data Sheets, Preliminary Plot Plan,

**Schedule:** 2006 – 2010

**Budget:** 22,000 man hours (4 projects)
Project Description:

**Client:** MUSTANG ENGINEERING

**Contract type:** lump sum, reimbursable

**Scope:** Detail engineering and design services

**Tasks performed:** Piping, Civil/Structural, Electrical and Instrumentation disciplines involved per SOW in performing specific tasks. All projects were in 3D PDS.

**Schedule:** 2006 – 2010

**Budget:** 209,000 man hours (6 major projects + more small projects)
# 12. References List

<table>
<thead>
<tr>
<th>Client</th>
<th>Project Name</th>
<th>Project location</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MUSTANG ENGINEERING</strong></td>
<td>- Coffeyville Refinery – CCR Platformer Unit Gasoline Hydrotreater&lt;br&gt;- Placid Refinery – New Gasoline Hydrotreater Unit&lt;br&gt;- Sinclair Refinery – Gasoline Hydrotreater Unit&lt;br&gt;- P&amp;ID’S updating for Ethoxylation Unit Revamp&lt;br&gt;- Fortron Industries – DB6 Expansion&lt;br&gt;- Celaenese/Bishop Facility – Weak Formaldehyde Recovery Unit</td>
<td>USA – COFFEYVILLE, KANSAS&lt;br&gt;USA – TULSA&lt;br&gt;USA – SINCLAIR&lt;br&gt;USA – CLARIANT CLEAR LAKE&lt;br&gt;USA – WILMINGTON&lt;br&gt;USA – BISHOP TEXAS</td>
<td>Engineering &amp; Design&lt;br&gt;Engineering &amp; Design&lt;br&gt;Engineering &amp; Design&lt;br&gt;Detail Design&lt;br&gt;Detail Design&lt;br&gt;Detail Design</td>
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<tr>
<td><strong>LUMMUS TECHNOLOGY</strong></td>
<td>- Ethylene Plant, Tianjin&lt;br&gt;- Ethylene Plant, Zhenhai&lt;br&gt;- FCC Unit, Paradip, INDMAX&lt;br&gt;- FCC Unit, BRPL, INDMAX</td>
<td>China&lt;br&gt;China&lt;br&gt;India&lt;br&gt;India</td>
<td>Basic Engineering Services&lt;br&gt;Basic Engineering Services&lt;br&gt;Basic Engineering Services&lt;br&gt;Basic Engineering Services</td>
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## 12. References List (cont.1)

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<tr>
<th>Client</th>
<th>Project Name</th>
<th>Project location</th>
<th>Scope</th>
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</thead>
</table>
| CHEVRON LUMMUS GLOBAL (CLG) | - Hydrocraker Unit, Kherson  
- Hydrocraker Unit, Gdansk  
- Hydrotreater Unit, Fort Hills Oil Sands  
- Hydrotreater Unit, CPC RDS  
- LC Finner Unit, North West  
- Hydrocracker Unit, Nizhnekamsk  
- Hydrocracker Unit, Engen  
- DHC&MHC Hydrocracker Unit, Jubail  
- Hydrocracker and Hydrotreater Unit, Tuape, Rosneft  
- LC Finner Unit, Caltex  
- Hydrocracker Unit, MOL  
- Hydrocracker Unit and Hydrogen Plant,Komsomolsk  
- Isodewaxing Unit, Taneko  
- Hydrocracker Unit, Mazelkiiu  
- Hydrocracker Unit, Statsolite Maatschappij  
- Hydrocracker Unit, Fort Hills  
- Diesel Hydrotreating and Gas Oil Hydrocracking, Irving Oil  
- Hydrocracker Unit and Hydrogen Plant, Achinsk  
- Novokuybyshevsk Refinery | Ukraine  
Poland  
Canada  
Taiwan  
Canada  
Tatarstan  
South Africa  
Saudi Arabia  
Russia  
Korea  
Hungary  
Russia  
Russia  
Lithuania  
Suriname  
Canada  
Canada  
Russia  
Russia | Basic Engineering Services  
Basic Engineering Services  
Basic Engineering Services  
Basic Engineering Services  
Basic Engineering Services  
Basic Engineering Services  
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Basic Engineering Services |
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<tbody>
<tr>
<td><strong>ROMINSERV – ROMPETROL GROUP</strong></td>
<td>- Jet FuelHydrotreating (Petromidia Refinery)</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
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<td></td>
<td>- Piping Revamp in FCC Unit (Petromidia Refinery)</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
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<td>- FCC cooling towers revamp (Petromidia Refinery)</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
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<td></td>
<td>- Hydrogen Purification Unit (Petromidia refinery)</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
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<tr>
<td></td>
<td>- Upgrading Loading and Transfer Capacity of Petromidia 9 Berth</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
</tr>
<tr>
<td></td>
<td>(Petromidia Refinery)</td>
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<tr>
<td><strong>TUPRAS</strong></td>
<td>- Gasoline Specification Improvement Project GSIP-Izmir Refinery</td>
<td>Turkey</td>
<td>Engineering &amp; Design</td>
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<td>- Oxygenate Tanks, Loading and Transfer System</td>
<td>Turkey</td>
<td>Engineering &amp; Design</td>
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<td><strong>LITWIN FRANCE</strong></td>
<td>- SP1BIS PROJECT</td>
<td>Algeria</td>
<td>Engineering &amp; Design</td>
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<td>- LEUNA-MMA Project</td>
<td>Germany</td>
<td>Engineering &amp; Design</td>
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<td></td>
<td>- Lavan FEED Project</td>
<td>Iran</td>
<td>Engineering &amp; Design</td>
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<td><strong>BATEMAN KAZAKSTAN</strong></td>
<td>- PKKR –Kumkol South EOR Project – Hydrocarbon Miscible Flood</td>
<td>Kazakhstan</td>
<td>Front End Engineering Design</td>
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<td><strong>ENERENCO – ITALY</strong></td>
<td>- Pancevo Refinery</td>
<td>Serbia</td>
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<tr>
<td>SAINT GOBAIN – ISOVER</td>
<td>- Mineral Wool Unit</td>
<td>Romania</td>
<td>Basic Engineering services</td>
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<tr>
<td>PENSPEN INTERNATIONAL</td>
<td>- Vibration Study and Stress analysis for 14” Header to H2S Strippers</td>
<td>UAE</td>
<td>Engineering</td>
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<tr>
<td>PETROSTAR</td>
<td>- IDO Flowstation Electrical&amp; Instrumentation Building</td>
<td>Nigeria</td>
<td>Engineering &amp; Design</td>
</tr>
<tr>
<td>KNORR - UNILEVER</td>
<td>- Aeration Unit</td>
<td>Romania</td>
<td>Engineering &amp; Design</td>
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</tbody>
</table>
| ALCON NIGERIA | - Design of HP Flare KOP Drum Vessels (Mechanical Calculation & Shop Drawing)  
- Design and atmospheric KO Drum (Mechanical Calculation & Shop Drawing) | Nigeria | Engineering & Design |
| JACOBS France | Pirelli Unit- Feasibility Study | Romania | Engineering |
| OMV-PETROM | Stress analysis- Arpechim Refinery | Romania | Engineering |
**Contact info**

<table>
<thead>
<tr>
<th><strong>Company Name:</strong></th>
<th><strong>S.C. LITWIN RO S.A.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLOIEŞTI:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Address:</strong></td>
<td>27 Toma Ionescu Street, Ploiesti, Prahova, Romania</td>
</tr>
<tr>
<td><strong>Phone:</strong></td>
<td>+40 244 407 448, +40 344 401 245</td>
</tr>
<tr>
<td><strong>Fax:</strong></td>
<td>+40 244 407 449</td>
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<table>
<thead>
<tr>
<th><strong>Contact Name &amp; Function:</strong></th>
<th><strong>Ioan ALECU - General Manager</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E-mail:</strong></td>
<td><a href="mailto:office@litwin.ro">office@litwin.ro</a></td>
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<tr>
<td><strong>Website:</strong></td>
<td><a href="http://www.litwin.ro">www.litwin.ro</a></td>
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