### Asset management generates up to 40% savings on maintenance

Vale S11D invested in a digital system that monitors condition of more than 6,000 assets of its plant.

#### SITUATION

Vale S11D, biggest mining project (11BUSD CAPEX) requires maintenance decision support

- An open-pit mine, factory, railway and port
- Ore is moved via a half-dozen stackers and a sprawling, 9-km conveyor system dubbed the Long-Distance Belt Transporter
- Monitoring each stage of the various processes involved in the operation is a gigantic project

#### SOLUTION

**Asset Management System**

- Monitoring libraries for long-distance conveyors, crushers, stackers, reclaimers to apply best practices, proactive maintenance strategies
- Condition monitoring of more than 6,000 plant assets: process equipment, electrical, IED, instrumentation, automation, IT, control and mechanical meshes, control loops

#### SCOPE OF DELIVERY

- **ABB Ability™ System 800xA**
- **ABB Ability™ Asset Vista Condition Monitoring for mining** (monitoring libraries, vibration screens)
- Interface and information exchange for existing maintenance systems (EAM / CMMS):
  - SAP – Corporate Maintenance Software
  - CSI / Emerson Vibration Monitoring System (vibration and temperature)

#### SUCCESS

Unified interface for maintenance information

- Decision-making tool enables considerable reduction of maintenance costs, increase of availability, decrease of unplanned shutdowns
- Accessible both in control center and maintenance areas through PCs, notebooks, tablets and cell phones, provides flexibility to make changes
- Management dashboards and reporting

#### BENEFITS

<table>
<thead>
<tr>
<th>Safety</th>
<th>OPEX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>40%</strong></td>
</tr>
</tbody>
</table>

---