GS1 Australia engagement in mining
Paraburadoo, The Pilbara
Commodity prices

<table>
<thead>
<tr>
<th>Year</th>
<th>Price in U.S. dollars per dry metric ton unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>30</td>
</tr>
<tr>
<td>2004</td>
<td>36</td>
</tr>
<tr>
<td>2005</td>
<td>62</td>
</tr>
<tr>
<td>2006</td>
<td>73</td>
</tr>
<tr>
<td>2007</td>
<td>80</td>
</tr>
<tr>
<td>2008</td>
<td>145</td>
</tr>
<tr>
<td>2009</td>
<td>97</td>
</tr>
<tr>
<td>2010</td>
<td>146</td>
</tr>
<tr>
<td>2011</td>
<td>168</td>
</tr>
<tr>
<td>2012</td>
<td>128</td>
</tr>
<tr>
<td>2013**</td>
<td>135</td>
</tr>
<tr>
<td>2014**</td>
<td>97</td>
</tr>
<tr>
<td>2015**</td>
<td>55</td>
</tr>
</tbody>
</table>

© Statista 2016
Key driver

The slump in commodity prices has caused strategic shift from top line production volumes to bottom line production costs

Back office and supply chain improvement opportunities:
- Inventory management & control
- Visibility & tracking of materials
- Improved management of fixed and returnable assets
- Improved materials receiving and dispatching times
- Improved master data and procurement processes

$ per tonne
Strategic Alliances

Member-based organisation of minerals companies and suppliers which develops, brokers and facilitates collaborative research projects.

The Global Mining Standards and Guidelines Group facilitates global mining collaboration on solutions to common industry problems, needs and technology through standards, guidelines and best practices.
Importance of leverage

Rio Tinto

World's second largest supplier of iron ore

*But also...*
Australia’s largest private rail operator

**Assets include:**
191 locomotives
11,500 wagons
1,700 kilometres of track
What have we done so far...

1:1 projects
- Fortescue Metals Group supply chain transformation
  - GS1 identifiers on all products throughout their value chain.
  - Development of vendor guidelines;
  - Supplier engagement to commence early 2017
- Rio Tinto supply chain discovery workshop

AMIRA International
- Aim to establish work group or industry project
- Leverage above projects
Some challenges for us

- Low level of knowledge about GS1
- Importance of getting early engagement right
- We don’t know what we don’t know
Technical Industries in Australia is known as Heavy Industry

Current engagement with Mining, Rail and Construction sectors

Membership growth expected to come over the coming years

In Australia Mining & Rail go hand in hand

All three sectors have similar issues re visibility of materials

GS1 Australia well placed to advance adoption of our standards in these sectors