Competitive Advantage Generated Through the Global Deployment of a Continuous Improvement Programme

Ed Koch
Head of Manufacturing Development
SABMiller ... some context

Operational Excellence at SABMiller
The SAB Miller Manufacturing Way

Results

Summary
SABMiller ...

some context
200+ brands owned

Presence in 75 countries, across six continents

140+ breweries, 20+ bottling plants, 10+ maltings

Almost 70 000 employees

213 million hectolitres of lager sold

US$26 350 million – group revenue to Mar 10 *

US$4 381 million – EBITA to Mar 10 *

* Not Audited
Where We Operate...
Reported Volumes and Earnings Contribution (March 2010)

- Total Sales Volumes: 261,447 (hl’000)
  - Lager: 212,576
  - Soft drinks: 43,509
  - Other alcoholic beverages: 5,361

Earnings Contribution (EBITA)

- Latin America: 19%
- Europe: 14%
- North America: 31%
- Africa: 12%
- Asia: 2%
- South Africa Beverages: 3%
- Hotels and Gaming: 19%
<table>
<thead>
<tr>
<th>Brand</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grolsch Premium Lager</td>
<td>The Dutch premium quality lager</td>
</tr>
<tr>
<td>Miller Genuine Draft</td>
<td>The original cold-filtered draft beer</td>
</tr>
<tr>
<td>Peroni Nastro Azzurro</td>
<td>Italian style in a bottle</td>
</tr>
<tr>
<td>Pilsner Urquell</td>
<td>The Pilsner from the original source</td>
</tr>
</tbody>
</table>
Key Regional Brands

- Aguila
- Castle
- Miller Lite
- Snow
- Tyskie
SABMiller owns over 200 regional beer brands, including:

- 2M (Mozambique)
- Atlas (Panama)
- Carling Black Label (South Africa)
- Castle Lite (South Africa)
- Club Colombia (Colombia)
- Cristal (Peru)
- Dreher (Hungary)
- Gambrinus (Czech Republic)
- Hansa Marzen Gold (South Africa)
- Haywards (India)
- Kilimanjaro (Tanzania)
- Nile Special (Uganda)
- Pilsener (Ecuador)
- Pilsener (El Salvador and Honduras)
- Šariš (Slovakia)
- St Louis (Botswana)
- Timisoreana (Romania)
- Lech (Poland)
- Velkopopovický Kozel (Czech Republic)
- Zolotaya Bochka (Russia)
SABMiller has a clear strategic focus, at the centre of which are our four strategic priorities:

• Creating a balanced and attractive global spread of businesses

• Developing strong, relevant brand portfolios in the local market

• Constantly raising the performance of local businesses

• Leveraging our global scale
Operational Excellence ...

The SABMiller Manufacturing Way
1. Building pride in the technical fundamentals of our brands.

2. Enhancing our reputation for operational excellence.

3. Developing a reputation for product and packaging innovation.

4. Enhancing the sustainability of our supply chain.
Strategic Operating Practice (SOP)
Reduced Variability & Lead time

Evolution of Operational Excellence in SABMiller

Quality and Production Upgrade Strategy

Best Operating Practice (BOP)
1. Process Control
2. Performance Measurement
3. Plant Availability

Best Operating Practice II (BOP II)
1. OD – Self-sufficient teams
2. Multi-skilling
3. Asset Care & QC at Source

The SABMiller Manufacturing Way

Increasing Performance

**Approach to Operational Excellence**

**Competency and Capability**

- **Phases**
  - **Phase 1:** Prepare and enable change, improve & sustain manufacturing capability
  - **Phase 2:** Continuous improvement of manufacturing capability

**Principles**

- Principles and philosophy that ensures an integrated approach for Operational Excellence in the context of business strategy. Long term thinking with a business case for change.

**Organisational Model**

- Build an organisation to implement and sustain operational excellence including structures, roles and jobs.

**Competency and Capability**

- Enable performance and capability transformation through change leadership and a deliberate approach to learning.

**WCM Work Practice Development**

- Enable continuous improvement through collaboration and development of new competencies.

**Processes to Enhance Performance**

- Processes to Enhance Performance including teamwork, standard work, waste elimination and other work practices.
Deployment of the Manufacturing Way via a decentralised collaborative model
Partnership with CCI

- SABMiller’s partnership with CCI extends more than 20 years.

- Currently CCI actively consults in over 50 of SABMiller operations.

- It is fair to say that CCI has supported SABMiller’s global expansion by providing thought leadership and consulting support into the operational excellence approach. *Operational excellence has been fundamental in driving SABMiller’s growth.*
Results of the SABMiller – CCI Partnership
The Global Evaluation of Manufacturing (GEM)

- Excellent processes leads to excellent and sustainable results.

- Therefore SABMiller measures operational excellence in terms of both the “what” we achieve (Results) as well as the “how” we go about achieving our results (Work Practices and Processes).

- The GEM is intended to measure the maturity of Work Practices.
• The Global Evaluation of Manufacturing is a SABMiller customised version of the TRACC Assessment tool.

• The content was customised by SABMiller to include our own learning and knowledge.

• The tool was developed and is supported by CCI.
The SABMiller Manufacturing Way

Key elements ...

The following slides illustrate some of the key elements of our approach to operational excellence.
Definition of Performance Management
Core to our culture and our ways of working, performance management is how we manage the performance of teams and individuals against goals through personal accountability, which drive execution of the business strategy in a way that shapes a high-performance, high-engagement culture and ensures sustainable business performance.
Organisational Model
Shift Team Work Practices

- Pre-shift meetings
- One-on-one shift hand-over (at work stations)
- Team goal setting and performance measurement
- Operating fundamentals
- Improving flexibility
- Asset Care and Autonomous Maintenance
- Participation in focused improvement and problem solving
- Operator-based quality control at source
Standardised work to identify, monitor and control the “optimum” conditions under which a manufacturing operation will be failure and defect free at optimum cost and service.

**Daily** Level 3 meeting of department and area managers covering safety, production to plan, quality and cost
Our learning and collaboration model is linked to some of the fundamental principles of the Manufacturing Way, namely:

- Operational Excellence is entirely dependent upon a resolute process of continuous improvement.
- Performance and practice are measured against internal and external benchmarks.
- Organisational Learning and Collaboration are important aspects of the improvement process.
- Individual competence and development is promoted.
Competence and Capability
Developing Individual Competence

Making learning accessible, rapidly

The Manufacturing Way on eLearning

A solid foundation for all manufacturing employees and managers to achieve operational excellence.
WEBrew
The Manufacturing Global Key Performance Indicators (KPI) Process enables benchmarking.

Principles

- **Focus:** the Global KPI’s are limited to 15 measures.
- **Balance:** measures are spread across the key manufacturing drivers.
- **Common measurement:** a defined set of procedures and rules.
- **Benchmarking Focus:** drives continuous improvement in a sustainable way
**Sustainability** (Water Usage, Energy Usage)

**Quality** (Brewery Hygiene, Consumer Predictive Index, Flavour Stability Index, Packed Product Quality, Total Packaged Oxygen)

**Productivity** (Unadjusted Factory Efficiency, Machine Efficiency)

**Cost** (Total Cost of Manufacturing, Cost of Maintenance, Macro Extract Loss, Container Loss)
MONTH TO DATE SIC REPORT

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<th>Description</th>
<th>Units</th>
<th>budget</th>
<th>Actual</th>
<th>Actual</th>
<th>Actual (Temps)</th>
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<td>0.0%</td>
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<td>80</td>
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<td>106</td>
<td>93</td>
<td>75</td>
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<td>67%</td>
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<td>51%</td>
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<td>52%</td>
<td>46%</td>
<td>59%</td>
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<td>CQI: Clarity</td>
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<td>100%</td>
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<td>95%</td>
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<td>90%</td>
<td>96%</td>
<td>92%</td>
<td>53%</td>
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<td>CQI: Foam</td>
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<td>36%</td>
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<td>39%</td>
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<td>PPQA - Cans 6 Sigma</td>
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SERVICE

<table>
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<tr>
<th>Description</th>
<th>Production Volume - Plan</th>
<th>Production Volume - Actual</th>
<th>Weekly Order Fulfillment</th>
<th>FE</th>
<th>OEE</th>
<th>ME</th>
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<tbody>
<tr>
<td>ALL BREWERIES</td>
<td>544,160</td>
<td>537,103</td>
<td>95.0%</td>
<td>63.7%</td>
<td>74.7%</td>
<td>80.3%</td>
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<td>Park Hill</td>
<td>608,321</td>
<td>572,248</td>
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<td>69.4%</td>
<td>79.4%</td>
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<td>Eden</td>
<td>632,359</td>
<td>608,823</td>
<td>84.1%</td>
<td>54.5%</td>
<td>67.7%</td>
<td>77.9%</td>
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<td>Trenton</td>
<td>945,068</td>
<td>694,462</td>
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<td>57.2%</td>
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<td>Golden</td>
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<td>Ft. Worth</td>
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<td>Irwindale</td>
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<td>Milwaukee</td>
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<td>Shenandoah</td>
<td>5,278,602</td>
<td>4,740,848</td>
<td>87.7%</td>
<td>50.1%</td>
<td>67.8%</td>
<td>71.7%</td>
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</table>

Shopfloor Management
Standardised work to identify, monitor and control the “optimum” conditions under which a manufacturing operation will be failure and defect free at optimum cost and service.
Loss Analysis: the difference between *Focused Improvement* and Continuous Improvement

Example below is from Kaluga Brewery, Russia
Autonomous Maintenance forms part of the Asset Management programme to ensure conditions for equipment operation and care are standardised and effective.
Work Practices
Sustainable Development

- discourage irresponsible drinking
- brew more beer but using less water
- reduce our energy and carbon footprint
- create a vibrant recycling and reuse economy
- work towards zero waste operations
- have supply chains that reflect our own values and commitment to SD
- bring benefit to the communities we serve
- respect human rights
- reduce the impact of HIV and Aids in our sphere of influence
- be transparent in our response to these environmental and social trends
Recovery of biogas from waste water treatment
Results ...
Performance Improvement
El Salvador Water and Energy

Water HL/HL

Thermal Energy MJ/HL
Performance Improvement

Italy Birra Peroni Water Usage

1 hl/hl = 293K €
TPO measure the oxygen content in package. Oxygen leads to poor flavour stability in beer and it is critical to keep it as low as possible.
Performance Improvement
Honduras Factory Efficiency

15% Factory Efficiency improvement in 4 years
Total maintenance labour hours initially increased to improve performance and bring lines into the "Zone of Maintainability". Thereafter labour hours and spend was reduced but performance continued to improve – indication of more efficient maintenance.
In a rapidly growing business, investment in asset management people and processes has effectively delayed investment in further capacity by *four years*!
Growth in GEM* Maturity

*The Global Evaluation of Manufacturing (GEM)
Consolidated ranking across 15 globally measured KPI's
Summary ...
Key Learning on our Journey

- Senior leadership belief in, and engagement with the process.
- A team based organisational design (structure, roles, practices) is most effective for delivering continuous improvement.
- Policy deployment through a structured performance management process.
- Optimise the system or process, not the functional area.
- Operational Excellence is entirely dependent upon a resolute process of continuous improvement.
Key Learning on our Journey

- Benchmarking performance and practice internally and externally.
- Strong partnership with thought leaders and outside experts are important to build internal capability and to maintain an external perspective.
- Organisational learning and collaboration are important aspects to the improvement process.
- Individual competence and development is crucial.
- We are still on the journey ... we are still learning.

The SABMiller Manufacturing Way
“Organization doesn't really accomplish anything. Plans don't accomplish anything, either. Theories of management don't much matter. Endeavors succeed or fail because of the people involved. Only by attracting the best people will you accomplish great deeds.”

General Colin Powell
Chairman (Retired), Joint Chiefs of Staff
Army of the United States of America
Thank you!

Questions?