

# South African Automotive Benchmarking Club Newsletter

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## Contents

Focus Article: The Time They Are A-Changin' – But has the SA Auto Component Industry? .....2  
News from the regions .....8

The South African Automotive Benchmarking Club (SAABC) is into its 11<sup>th</sup> year of operation. From its origins in 1997 as a regional initiative known as the KwaZulu-Natal Auto Benchmarking Club comprising a handful of firms, it is now a national programme consisting of five regional Chapters with membership hovering around 65.

This focus article of this newsletter will outline the changes at the member firms of the SAABC since its inception by examining a selection of KPIs according to six broad focus areas.

The intention of this newsletter is not to quantitatively conclude how the industry has performed, but rather to ascertain whether the local auto component industry is changing with the times, where the changes have been the largest and also identify where focus is still required.

“News from the regions” will briefly outline the SAABC’s progress in January and February as well as where focus and attention will be during the months of March and April. The newsletter also contains an outline of the upcoming **SAABC Chapter breakfast sessions** as well as the **WCM best practice workshop programme** for 2008.

If there are any comments regarding any of the issues noted in the newsletter, please email the SAABC Project Co-ordinator, Cleopatra Ndlovu, on [saabc@bmanalysts.com](mailto:saabc@bmanalysts.com).

*Focus article...*

## The Times They Are A-Changin' – But has the South African Auto Component Industry?

By Sean Ellis

### Introduction

In 1964 Bob Dylan released an album titled **The Times They Are A-Changin'**. The opening verse from the song by the same name can be used as a metaphor for the automotive industry, globally as well as in South Africa:

*Come gather 'round people  
Wherever you roam  
And admit that the waters  
Around you have grown  
And accept it that soon  
You'll be drenched to the bone.  
If your time to you  
Is worth savin'  
Then you better start swimmin'  
Or you'll sink like a stone  
For the times they are a-changin'*

The SAABC is now officially into its 11<sup>th</sup> year of operation. From its humble beginnings in 1997 with a group of KwaZulu-Natal component firms as well as Toyota SA, membership currently sits at over 60. This includes the participation of two additional OEMs – General Motors and Mercedes-Benz, as well as numerous multinationals and prominent locally owned component manufactures of various sizes, both in terms of turnover and employment.

Considering this milestone (i.e. being its 11<sup>th</sup> year of operation), this newsletter will unpack the changing environment that the local component

industry has found itself in, and how it has responded. This will be undertaken by presenting a selection of KPIs for four selected years over this period – 1998, 2001, 2004 and 2007. The analysis will deal with six focus areas:

- Operational and economic profile
- Cost profile
- Quality profile
- Reliability profile
- Training and absenteeism profile
- External value chain flexibility profile

The data for each of these focus areas will be briefly outlined, with the key findings that emerge highlighted.

The figures analysed in this newsletter are purely to highlight how the local auto component industry’s performance at all levels – downstream, internally as well as upstream – has changed over the last decade. The datasets used for each year are not comparable, but the analysis is nevertheless of persuasive value. The 1998 dataset comprises primarily those firms that made up the KZN Benchmarking Club, with the 2001 dataset consisting of both the KZN firms as well as the PE and Uitenhage based firms that established the Eastern Cape Benchmarking Club in 2001. The 2004 dataset includes the Gauteng and East London regions with the Western Cape region part of the 2007 analysis.

A short summary of the key points that emerge as well as a conclusion finalise the newsletter’s focus article.

## 1. Operational and economic profile

Table 1: Operating profile

	1998	2001	2004	2007	1998-2007 Change
Operating Days / Year	232.50	242.59	241.42	240.28	+3.35%
Shifts / Day	1.77	1.84	1.99	2.13	+20.34%
Hours / Shift	8.69	8.51	8.41	8.43	-2.99%
Total operating hours	3,576.15	3,798.57	4,040.38	4,314.44	+20.64%

When examining the industry’s broader operating profile – operating days per year, shifts per day and hours per shift – it is clear that the biggest change has been in terms of the number of shifts worked per day at firms. In 1998, firms worked 1.8 shifts per day. This increased by just over 20% to 2.1 shifts per day in 2007. As a result, the total amount of operating hours worked at firms increased from 3,576 in 1998 to 4,314 hours in 2007. This translates into firms working 738.3 more hours in 2007 than was the case in 1998.

**Table 2: Economic profile**

	1998	2001	2004	2007	1998-2007 Change
<b>Turnover levels (R 000s)*</b>	73,397	144,131	110,216	153,469	+109.09%
<b>Employment levels</b>	289.85	257.8	275.41	356.13	+22.87%
<b>Operating profitability levels (%)</b>	4.96	7.87	10.21	10.90	+119.67%
<b>Output / Employee levels (R 000s)*</b>	253.22	559.08	400.18	430.93	+70.18%

\* Turnover and output per employee levels are inflation adjusted to 1998 levels

Very healthy levels of improvement are evident for inflation adjusted turnover (of 109%) and operating profitability (of 120%) from 1998 to 2007. However, this is not the case for employment that has grown by only 23% for the same period. Importantly, as a result of the very healthy turnover growth and the moderate employment growth, efficiency levels, measured as inflation adjusted output per employee, have increased by almost 70% from R253 thousand in 1998 to R431 thousand in 2008. It is however important to note that both turnover and efficiency levels have been under pressure since 2001.

**Table 3: Export and import overview**

	1998	2001	2004	2007	1998-2007 Change
<b>Export levels (%)</b>	13.48	18.85	23.84	17.10	+26.85%
<b>Import levels as (%)</b>	20.27	32.78	37.10	39.91	+96.89%

Average export levels at SAABC firms increased from 13.5% in 1998 to 18.9% in 2001. This then improved further to 23.8% in 2001, representing an increase of 26.4%. However, the latest available figures for 2007 indicate a decline of almost 30% to 17%. Imports in contrast have continued to grow with the 2007 figure of 40% basically double the level for 1998 of only 20.3%.

## 2. Cost profile

**Table 4: Cost profile**

	1998	2001	2004	2007	1998-2007 Change
<b>Total inventory (Operating days)</b>	64.29	37.33	40.59	34.75	+45.95%
<b>Finished goods (Operating days)</b>	17.64	8.24	11.21	9.6	+45.58%
<b>Work in progress (Operating days)</b>	12.68	7.11	7.42	5.72	+54.89%
<b>Raw material (Operating days)</b>	33.97	21.52	21.97	19.42	+42.83%

When analysing costs at a firm, inventory control provides a sound proxy of overall cost control. In this regard it is encouraging that total inventory stock holding has improved by 46% for the 1998-2007 period. The biggest change is evident for work in progress where levels have improved by 55%. It is worth noting that for all of the cost measures, the biggest change occurred between 1998 and 2001, with total inventory only reducing by 7% from 2001 through to 2007, raw materials by 9.8%, work in progress by a reasonable 19.6% and finished goods holding actually deteriorating by 16.5%.

### 3. Quality profile

Table 5: Quality profile

	1998	2001	2004	2007	1998-2007 Change
Customer return rate (PPM)	3,257	610	701	474	+85.45%
Internal scrap rate (PPM)	4.83	2.19	2.38	3.71	+23.19%

A key performance indicator for the auto industry has been and remains customer return rate. The data presented clearly suggests that significant progress has occurred since 1998 when the average return rate was 3,257ppm. The 2007 figure of 474ppm represents an overall improvement of 85%. 2001 and 2004 levels were 610ppm and 701ppm respectively. Thus, despite levels improving by 85% from 1998 to 2007, figures have only improved by 22% since 2001.

Internal scrap rate, an internal quality measure, has also improved since 1998. From 4.8% in 1998, performance improved by 23% to 3.7% in 2007. However, the data highlights that 2001 internal scrap rate levels were 2.2% with 2004 levels sitting at 2.4%. Therefore, this indicator has in fact deteriorated by almost 70% for the 2001-07 period. This suggests that improved performance to customers, as reflected in the customer return rate figures, is coming at an additional cost to firms.

### 4. Reliability profile

Table 6: Reliability profile

	1998	2001	2004	2007	1998-2007 Change
Customer deliveries not on time and in full (%)	7.77	6.61	6.94	5.46	+29.76%
Supplier deliveries not on time and in full (%)	21.08	14.85	11.76	10.73	+49.10%

Customer deliveries not on time and in full (OTIF) have improved by 30% since 1998, when the figure was 7.8%, to 5.5% in 2007. Supplier delivery performance has improved significantly by almost 50%. However, while the overall progress that has been made for both KPIs is very encouraging, the latest customer figure still highlights that 1 in every 20 deliveries are missed by SAABC firms, with supplier performance, despite improving; nearly double the equivalent downstream figure where an average of 1 in every 10 deliveries is late.

## 5. Training and absenteeism profile

Table 7: Training profile

	1998	2001	2004	2007	1998-2007 Change
Training spend as % remuneration	1.50	1.91	2.09	1.84	+22.67%
Formal off-line training – Average (Days)	1.85	3.80	2.39	2.47	+33.51%
Formal off-line training – Management (Days)	2.63	3.28	2.55	3.47	+31.94%
Formal off-line training – Supervisor (Days)	4.45	5.66	2.87	4.67	+4.94%
Formal off-line training – Production (Days)	1.53	4.03	2.43	2.40	+56.86%
Employees not at ABET level 3	20.46	37.97	19.78	15.81	+22.73%

Training and skills development is a clear requirement for any industry wishing to upgrade and improve its overall competitiveness. It is thus important to analyse the extent to which SAABC member firms have been investing in their employees. In this regard it is evident that in 1998 only 1.5% of remuneration was spent on training, with production workers in particular receiving low levels of focus in the form of off-line training. There has been an increase in expenditure to around 2% in 2001, 2004 and 2007, with this appearing to be primarily related to an increased focus on production workers (also supported by ABET figures), which is encouraging. However, far more attention is required in this area.

To further unpack the skills focus, basic education levels at SAABC firms, represented by those employees not at ABET level 3; have improved by 22.7% since 1998. From around 20% of employees not being able to read simple work instructions and undertake calculations, the 2007 level has improved to 15.8%, although this is still far from ideal, with 1 in 7 workers still not basically numerate or literate.

Table 8: Absenteeism profile

	1998	2001	2004	2007	1998-2007 Change
Absenteeism (%)	4.51	4.03	3.52	3.39	+24.94%

When analysing commitment at firms, absenteeism is a sound proxy measure. For the SAABC firms, steady progress is evident in terms of this indicator since 1998. From 4.5%, levels have improved consistently through to 3.4% in 2007. This represents an overall improvement of 25% for the period.

## 6. External value chain flexibility profile

Table 9: Customer delivery frequency profile

	1998	2001	2004	2007	1998-2007 Change
Daily/Daily+	36.11	35.78	42.25	42.77	+18.44%
Every 2-3 days	22.22	28.44	20.16	15.63	-29.66%
Weekly	27.78	20.18	26.74	30.97	+11.48%
Bi-weekly	5.56	10.09	4.26	4.42	-20.50%
Other	8.33	5.5	6.59	6.19	-25.69%

Customers are demanding more frequent deliveries from SAABC member firms. This is clearly illustrated by the changing profile of deliveries made to major customers from 1998 through to 2007. In 2007, 43% of all deliveries made to the top 5 customers occurred on a daily/daily+ basis. This is almost 20% more than were made on a similar basis in 1998. There has also been an increase in the number of weekly deliveries and a decrease in those made on a bi-weekly or worse basis.

Table 10: Supplier delivery frequency profile

Year	1998	2001	2004	2007	1998-2007 Change
Daily/Daily+	11.76	25.21	16.73	20.38	+73.30%
Every 2-3 days	8.82	16.52	14.64	12.77	+44.78%
Weekly	26.47	28.70	33.89	33.97	+28.33%
Bi-weekly	29.41	11.30	10.46	13.04	-55.66%
Other	23.53	18.26	24.27	19.84	-15.68%

It is encouraging that there has been an overall improvement in the frequency of deliveries made by major suppliers for the 1998-2007 period. However, it is clear that suppliers still deliver far less frequently to SAABC firms than SAABC member firms deliver to their major customers. This suggests that a high level of time-associated supply chain costs are being incurred by SAABC member firms.

## Summary

The intention of this focus article is to provide a brief insight into the changing environment that automotive component suppliers in South Africa find themselves in (by analysing downstream measures), and to also analyse how they have responded, internally as well as through their supply chain.

Based on available SAABC benchmark datasets for 1998, 2001, 2004 and 2007, it is evident that customer demands have increased and that the industry has made significant progress in terms of meeting these requirements. This is highlighted by the progress evident for customer return rates, customer deliver reliability and customer delivery flexibility. In addition, progress is also apparent in terms of the internal and upstream measures analysed. However, to a large extent upstream performance is still significantly behind downstream levels. In addition, for several of the measures

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analysed, notable progress is apparent between 1998 and 2001, with improvements through to 2007 far less impressive.

## Conclusion

The analysis undertaken suggests that while SAABC firms are making progress in terms of meeting increasingly onerous customer demands, the level of 'customer satisfaction' being achieved is at a cost. Thus, if firms do not **'start swimmin'**, they will **'sink like a stone, for the times they are a-changin'**. More specifically, clear opportunities still exist, especially in respect of internal quality, work in progress and especially finished goods holding, customer delivery performance and specifically around supplier development!

## News from the regions...

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By Sean Ellis, Chief Facilitator: SAABC

### The Past

- 2008 has started comparatively slowly in terms of firm-level benchmark activities. Only two **process benchmarks** took place in January and February for Dorbyl Automotive Technologies in Port Elizabeth and Smiths Plastics in KwaZulu-Natal. A couple of **benchmark assessments** and **presentations** have also been finalised.
- Reasons for the slow start-up appear related to many SAABC member firms requesting that benchmark activities be postponed by one to two months as the grapple with start of year issues and industry pressures, and also due to the early Easter holidays. The delayed activities are expected to be caught up during the next couple of months.
- In line with the limited firm-level benchmark activity, only one **workshop** was held. This formed part of the World Class Manufacturing (WCM) programme and dealt with the issue of JIT. It took place at **EMCON Technologies** on Tuesday, 26<sup>th</sup> February 2008. A special thank you is extended to EMCON and their management team for hosting the session, as well as all those that attended.
- Besides the aforementioned activities, a large amount of focus in January and February has been on updating the SAABC database and refining the overall methodology, as well as scheduling the WCM programme for the year. In terms of the firm-level benchmarking, firms are requested to note the following changes for 2008 activities:
  - Firms will no longer be assessed against 'average' performance levels but rather in relation to the upper quartile (i.e. top 25% level) figure for all comparators. This will provide firms with a far stronger 'benchmark' against which to compare their performance, as well as which to target in terms of future competitive progress that needs to be achieved
  - The cost/waste calculation analysis, as outlined in the previous two newsletters, will be included in all future benchmark assessments
  - The firm-level benchmark assessments are to be far more focused, dealing primarily with the key issues that emerge from the benchmark exercise and that the firm needs to consider in order to upgrade their overall operational competitiveness performance
- As mentioned, the WCM best practice workshop schedule for 2008, which will focus of JIT, TQM and CI respectively, is being compiled. Several firms have been contacted in each

region and requested to host the various sessions. The preliminary WCM schedule for 2008 is:

<b>SAABC WCM Best Practice Workshop Programme - 2008</b>			
<b>Chapter</b>	<b>JIT</b>	<b>TQM</b>	<b>CI</b>
<b>KwaZulu-Natal</b>	Feltex Automotive Trim (22 <sup>nd</sup> April)	Pi Shurlok (14 <sup>th</sup> – 18 <sup>th</sup> July)*	TBA
<b>Port Elizabeth</b>	Faurecia Interior (June)*	Bel-Essex Engineering (7 <sup>th</sup> – 11 <sup>th</sup> July)*	Dorbyl Auto System (13 <sup>th</sup> – 17 <sup>th</sup> October)*
<b>Gauteng</b>	Inergy Automotive (Date to be confirmed)	ZF Lemforder (21 <sup>st</sup> May)	Shatter. GaRankuwa (4 <sup>th</sup> September)
<b>East London</b>	Faurecia Interior (12 <sup>th</sup> – 16 <sup>th</sup> May)*	TBA	TBA
<b>Western Cape</b>	EMCON Technologies (26 <sup>th</sup> February)	Senior Automotive (July)*	TBA

\* Final date to be confirmed

- A special word of thanks is extended to those firms that have already committed to and will commit to hosting one of the sessions. Invites will be sent off to all member firms prior to the sessions.

### The Present and Future

- Going forward, firm-level activities for March and April are expected to start to slowly increase. At present ten process benchmarks are scheduled, with four planned for March and the rest for the upcoming months.
- Besides the firm-level benchmarking, April will see the commencement of the SAABC Chapter breakfast sessions. These will be held for all five Chapters with the first taking place on the 3<sup>rd</sup> April in the Gauteng and the last in East London on the 13<sup>th</sup> May:

<b>Is the South African Auto Components Industry on the Right Track? Situating the Local Industry within the Global Environment</b>	
<b>Workshop agenda</b>	<b>Workshop particulars</b>
<ul style="list-style-type: none"> <li>• <b>Welcome and Introduction</b></li> <li>• <b>Regional Chapter Address</b></li> <li>• <b>Breakfast</b></li> </ul>	<p><b>Gauteng Chapter</b> Rosslyn Supplier Park Thursday, 3<sup>rd</sup> April 2008</p>
<ul style="list-style-type: none"> <li>• <b>International and local auto trends to 2012</b> – The importance of policy certainty and firm-level competitiveness progress</li> </ul>	<p><b>Port Elizabeth Chapter</b> Protea Hotel Edward Friday, 4<sup>th</sup> April 2008</p>
<ul style="list-style-type: none"> <li>• <b>Who is in the fast lane?</b> – Competitiveness progress of the SA auto components industry versus Central European competitors</li> </ul>	<p><b>KwaZulu-Natal Chapter</b> Kloof Country Club Thursday, 10<sup>th</sup> April 2008</p>
<ul style="list-style-type: none"> <li>• <b>SAABC Regional Chapter Issues</b> <ul style="list-style-type: none"> <li>• Benchmarking Methodology</li> <li>• Cluster Activities</li> <li>• Growth in database</li> <li>• Confirmation of Chapter EXCO</li> <li>• Election of Chapter Chair</li> </ul> </li> </ul>	<p><b>Western Cape Chapter</b> Belmont Square Conference Centre 17<sup>th</sup> April 2008</p>
<ul style="list-style-type: none"> <li>• <b>Workshop Summary and Closure</b></li> </ul>	<p><b>East London Chapter</b> East London Golf Club Tuesday, 13<sup>th</sup> May 2008</p>

- Dr. Justin Barnes will be the guest speaker at the breakfast workshop. Invites have been sent out and all member firms are encouraged to attend the session in their respective region, and also encouraged to encourage non-member firms to attend.
- An additional activity that has been arranged for April is a visit to the newly established **Tooling Centre of Excellence**, located at the Coastal KZN FET College in Durban, KZN. The centre's objective is ***“to establish a World Class Tooling Center of Excellence equipped with State-of-the-art Technology in order to enhance the National Tooling Standard through Education & Training”***. The visit is scheduled for the **8<sup>th</sup> April 2008** and any firm that wishes to attend or requires any additional information on the centre can contact Vicky McNicoll, telephonically (031 765 3870) or via email ([vicky@bmanalysts.com](mailto:vicky@bmanalysts.com)).
- For more information on any of the SAABC activities outlined in **“News from the regions...”**, please contact the Project Co-ordinator, Cleopatra Ndlovu, telephonically (031 765 3870) or via email ([saabc@bmanalysts.com](mailto:saabc@bmanalysts.com)).