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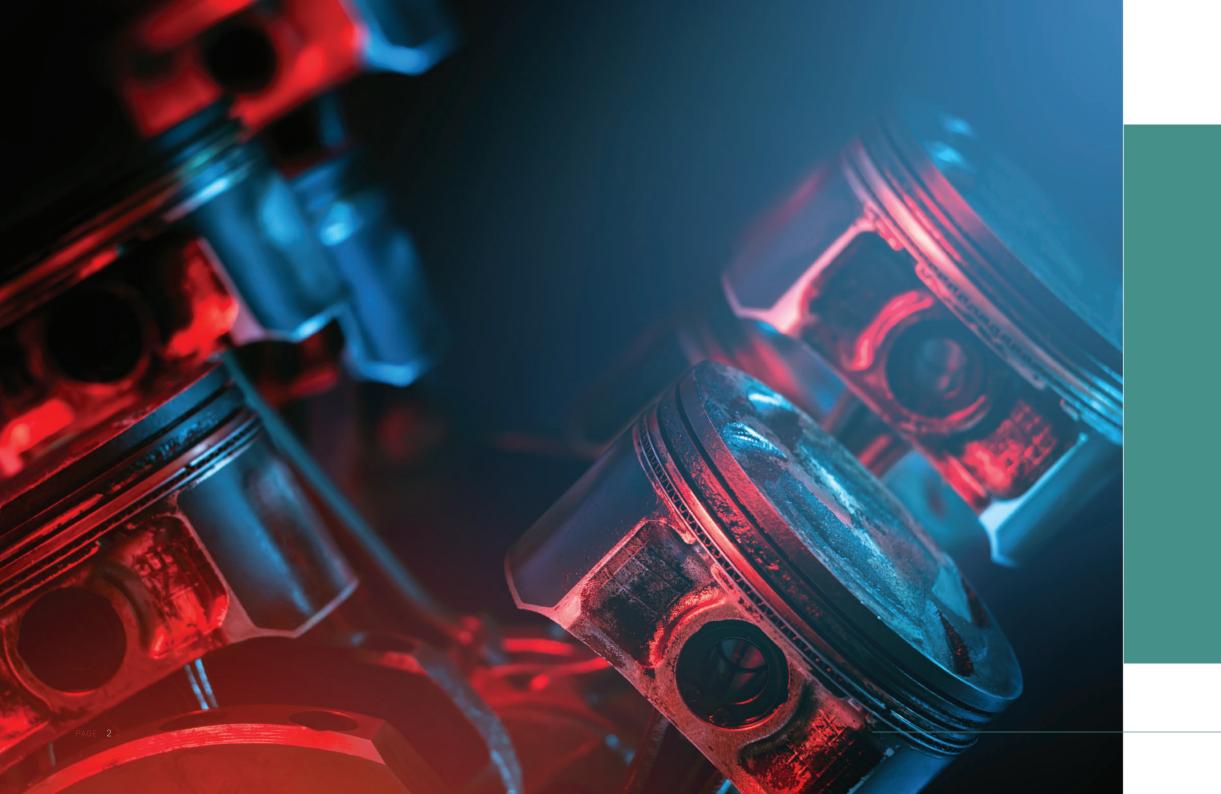














NAACAM and the Department of Higher Education and Training (DHET) are the lead national partners of High Gear, an exciting initiative managed by IYF that is advancing South Africa's public TVET college system.

High Gear draws on industry knowledge and skills imperatives—along with IYF curricula enhancement tools—to strengthen the market relevance of select public TVET college courses. Ultimately, High Gear aims

to demonstrate a model for greater industry involvement in TVET course design and delivery that generates enthusiasm from TVET educators and industry, while also generating positive returns for young people and employers.

The UK Government's Skills for Prosperity
Programme is funding High Gear
implementation in KwaZulu-Natal Province,
and the United States Agency for International

Development (USAID) and the Michael &
Susan Dell Foundation are funding project
implementation in Eastern Cape Province. All
three funding partners are supporting High
Gear's national stakeholder engagement and
learning efforts.

To learn more,

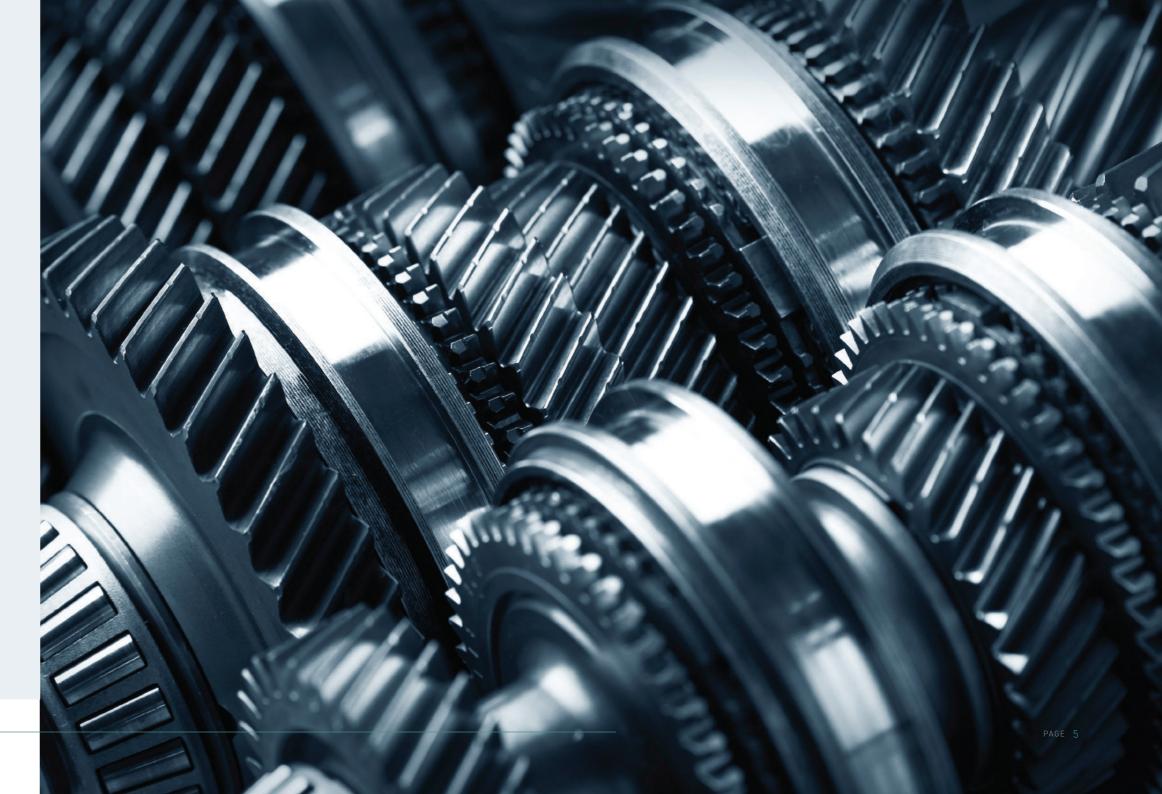
<u>visit the High Gear website</u>

44 EXECUTIVE SUMMARY

This report presents the results of the second High Gear Quarterly Skills Survey conducted by NAACAM. This survey focuses on the existing and likely future critical occupations within the component sector and the impact of skills and occupational gaps on the sector's transformation and localisation objectives in line with the South African Automotive Masterplan (SAAM2035). The survey received 39 responses from NAACAM member companies across a range of tiers, locations, and sub-sectors.

The results of the survey indicate there are numerous hard-to-fill-vacancies (HTFV) across the sector, where an HTFV is defined as a vacancy that an employer was unable to fill within sixs months. Whilst respondents anticipate some change in what the critical HTFVs will be in the future, toolmakers are ranked the top critical occupation both currently and are anticipated to remain so in the future. Lack of experience and skills are motivated to be the main drivers behind the numerous HTFV in the sector. Additionally, component manufacturers on average have a low staff turnover rate, which contributes to the lack of experienced individuals available in the market.

The lack of skills supply in the sector and subsequent HTFVs are creating an obstacle for the localisation and transformation objectives of component manufacturers. Whilst greater representation of equity candidates is required across all occupational levels in the sector, respondents note that as a result of poor skills supply, there is a subsequent short supply of equity candidates. Moreover, whilst nearly 90% of respondents have localisation priorities, skills, along with other factors, presents a substantial barrier to achieving localisation.





ABOUT THE SURVEY AND **METHODOLOGY**

As part of High Gear's comprehensive approach to upgrading the colleges, NAACAM is undertaking a quarterly survey focused on skills and occupational gaps within the automotive component sector. The purpose of the survey is to accurately identify which skills and occupations currently, and

the sustainability of the industry. The outcomes of the gaps have on the transformation and localisation quarterly surveys will inform High Gear's interventions objectives of the component sector. within the TVET colleges.

This second High Gear Quarterly Skills Survey focuses on identifying HTFVs in the sector and understanding

potentially in the future, present the largest risk to what impact the identified skills and occupational



FOR THIS SURVEY AND REPORT, A SKILLS GAP IS DEFINED AS THE INSTANCE IN WHICH A PERSON IS FILLING THE POSITION, BUT TOP-UP TRAINING IS REQUIRED, AS A RESULT OF CHANGES IN THE INDUSTRY.

FOR THE SURVEYS. FOCUS GROUP 1 HAD REPRESENTATION FROM SIX COMPANIES, WHILST FOCUS GROUP 2 HAD REPRESENTATION FROM FIVE COMPANIES, EACH WITH A SPREAD ACROSS LOCATION, SUB-SECTOR, AND TIERS.

02

WAS UNDERTAKEN BY WAY OF



METHODOLOGY

WAS ADOPTED TO DEVELOP THE QUESTIONNAIRE.

A TWO-PHASE RESEARCH METHODOLOGY

The survey was designed and administered by NAACAM. The survey was sent to the full NAACAM membership on the 2nd of June 2021 and responses were closed on the 18th | surrounding the theme of the of June 2021. NAACAM's membership survey. The survey was administered base comprises 136 companies from a through the online survey platform range of locations, tiers, sub-sectors. SurveyMonkey and subsequently sizes, and ownership structures.

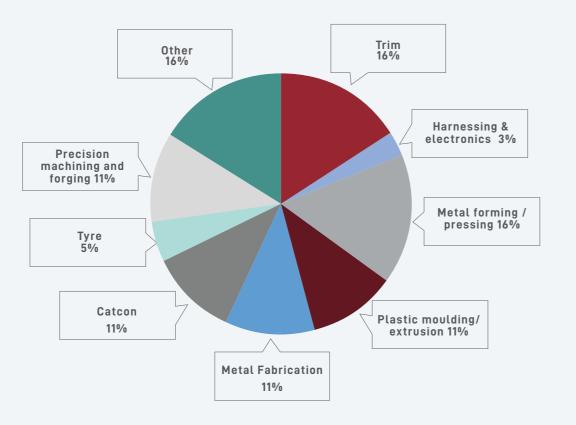
Mixed methods research was utilised for the survey, with the questionnaire being comprised of a range of both qualitative and quantitative questions analysed by NAACAM.

UNDERSTANDING THE SAMPLE

The second High Gear Skills Survey received 39 responses from NAACAM member companies. This sample included 28 companies that participated in the previous quarter's survey and 11 new participants. The survey was predominately completed by HR Managers/Directors (38.5%), Executive Directors (25.6%), and Training Managers (18%).

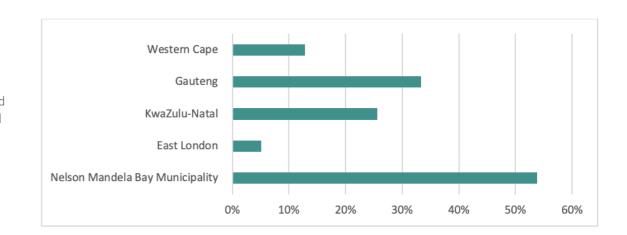
1. Subsectors

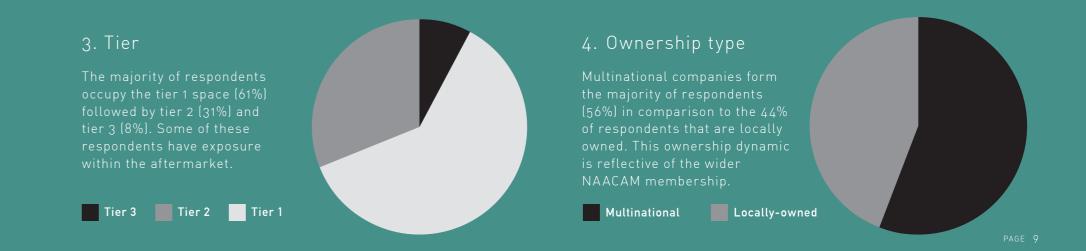
The sample includes representation from all South Africa's core automotive component subsectors. Metal forming and pressing, and trim have the largest representation within this survey, followed by 'other', metal fabrication, precision machining and forging, and plastic moulding and extrusion.



2. Locations

Over 50% of respondents (54%) have a plant within the Nelson Mandela Bay Municipality (NMBM). Gauteng and KwaZulu-Natal (KZN) have respectively the second and third largest representation in the survey. 7 of the 39 respondents have plants across multiple locations.





HIGH GEAR SURVEY 2: MAIN FINDINGS

Occupational Gaps

There are mixed levels of agreement with merSETA hard-to-fill vacancies (HTFV), where a HTFV is defined as a vacancy that an employer was unable to fill within six months

merSETAs HTFVs:

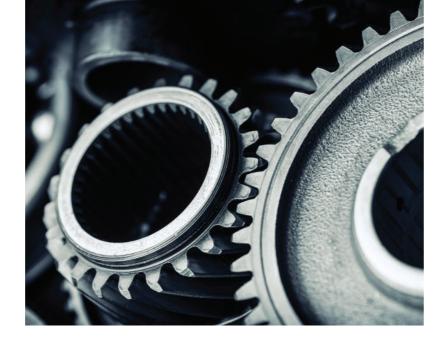
- Firstly, there are those occupations that are required by the whole sector and are an HFTV.
- Secondly, some occupations are only required within certain subsectors (i.e., there is a high N/A response), yet a high proportion of those who require that specific occupation have noted it to be an HTFV.

Looking across the full sample, there are mixed responses to the merSETA's HTFV list. Maintenance technicians (64.71%) and toolmakers (50%) are the

There are two important lenses to look through when only two occupations to receive 50% or more of assessing whether the component sector agrees with respondents agreeing that the occupation is hard-tofill. Millwrights (47.06%) and mechanical engineers (45.16%) received just under half of the respondents recording them as HTFVs.

> A more accurate indication of HTFVs arises if you assume respondents who selected N/A do not make use of the occupation within their company and are thus removed from the sample. This gives an indication of the second lens mentioned above.

With this adjusted sample, electronics engineers, mechatronics technicians, and maintenance technicians appear as the most noted HTFV, with over 70% of companies that require these occupations



noting them as HTFVs. Other HTFVs that have over 50% of companies agreeing with merSETA's findings are toolmakers, mechanical engineers, mould setters, millwrights, and tooling machinists.

Looking across the sample, multinational companies tend to have a higher reporting of HTFV. Along with the above mentioned HTFVs, over half of respondents representing multinational companies note mould setters (75%), toolmakers (64.7%) industrial engineers (58.8%), millwrights (56.3%), tooling machinist (55.6%), and plastic injection moulders (50%) as HTFVs. Similarly, across locations, those in Gauteng and KwaZulu-Natal have a higher reporting of HTFVs.

•	I.,	1	
	Yes	No 33.33%	N/A 16.67%
Toolmaker (Tool and Die Maker)	50.00%		16.67%
	(60.00%)	(40.00%)	
Plastic Injection Moulder	19.35%	22.58%	58.06%
	[42.86%]	(57.14%)	
Mechanical engineer	45.16%	41.94%	12.90%
3	(51.85%)	(48.15%)	
Electrical Engineer	27.59%	34.48%	37.93%
	[44.44%]	(55.56%)	
Electronics Engineer	43.75%	6.25%	50.00%
	(87.50%)	(12.50%)	
Fitter & Turner	30.30%	51.52%	18.18%
	(37.04%)	(62.96%)	
Millwright	47.06%	41.18%	11.76%
	(53.33%)	(46.67%)	
Mould Setters	33.33%	20.00%	46.67%
	(62.50%)	(37.50%)	
Metal Plate Bending	7.14%	25.00%	67.86%
	(22.22%)	(77.78%)	
Tooling Machinist	35.48%	29.03%	35.48%
3	(55.00%)	(45.00%)	
Mechatronics Technicians	45.45%	15.15%	39.39%
	(75.00%)	(25.00%)	
Maintenance Technicians	64.71%	26.47%	8.82%
	(70.97%)	(29.03%)	
Industrial engineers	40.63%	50.00%	9.38%
	[44.83%]	(55.17%)	



Of the 39 respondents, 14 listed other occupations they found to be HTFVs. Of note is the frequent mention of sales personnel, PLC and automation technicians and specialist, and project specialists and managers. All other mentioned occupations can be found in Appendix A

1. SOME CHANGE BETWEEN CURRENT AND FUTURE CRITICAL OCCUPATIONS IS ANTICIPATED, HOWEVER, TOOLMAKERS REMAIN THE TOP-RANKED CRITICAL OCCUPATION IN BOTH PERIODS.

The analysis between the respondents' ranking of current and future critical occupations indicates that changes in critical occupations are anticipated. Toolmaker is the only occupation expected to remain within the top three most critical occupations for the be attributed to Tier 1 suppliers changing their whole industry.

Whilst mechanical engineer and maintenance technician are currently ranked the second and third most critical occupation, they slip to the fourth

and fifth rank when anticipating future critical occupations. Rising in prominence, on the other hand, are mechatronics technicians and millwrights. It is likely that this increased prominence may manufacturing process requirements in line with more sub-sector specific. Thus, for the sector at large, they technically complex vehicle system components being are less critical, however, when looking at the specific designed by OEMs. Additionally, it is worth noting the rising importance of electronics engineers in the

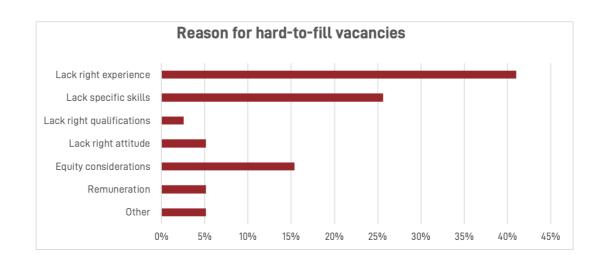
coming years given the onset of the 4th industrial revolution.

The bottom-ranked occupations, however, remain constant across both periods. It is important to note for these specific occupations that they are generally subsectors, their importance rises.

Rank	Current	Future		
1	Toolmaker	Toolmaker		
2	Mechanical engineer	Mechatronics technician		
3	Maintenance technician	Millwright		
4	Electrical engineer	Mechanical engineer		
5	Millwright	Maintenance technician		
6	Fitter & turner	Electronics engineer		
7	Mechatronics technician	Electrical engineer		
8	Industrial engineer	Fitter & turner		
9	Plastic injection moulder	Plastic injection moulder		
10	Electronics engineer	Industrial engineer		
11	Tooling machinist	Tooling machinist		
12	Mould setter	Mould setter	Mould setter	
13	Metal plate bending	Metal plate bending		



2. A LACK OF EXPERIENCE AND SKILLS ARE THE TWO LARGEST FACTORS CONTRIBUTING TO A PROTRACTED RECRUITMENT PERIOD FOR SPECIFIC OCCUPATIONS



Overwhelmingly, when asked for the reasoning behind HTFVs, respondents indicated it was a result of candidates lacking the correct experience behind struggling to fill vacancies. (41.0%) or lacking the correct skills (25.%). For some respondents (15.4%), equity considerations also presented a significant challenge to filling vacancies within their companies.

When looking across the numerous sub-samples, the rankings generally remain the same. However, within NMBM, whilst the lack of the right experience remains the top-ranked reason, over

20% of respondents with a plant in this location believe equity considerations are the main reason

At an entry level, the results illustrate the critical need for graduates to be equipped not only with the necessary skills when entering the workplace, but importantly, to have had sufficient workplace exposure to help alleviate some of the reasons



PAGE 12 PAGE 13 3. A LARGE MAJORITY OF COMPANIES HAVE A VERY LOW STAFF TURNOVER ACROSS ALL OCCUPATIONAL LEVELS, HOWEVER, 'ARTISAN' IS THE OCCUPATIONAL LEVEL WITH THE HIGHEST RATE OF TURNOVER. TED, HOWEVER, TOOLMAKERS REMAIN THE TOP-RANKED CRITICAL OCCUPATION IN BOTH PERIODS.

A potential reason as to why companies struggle to find candidates with the correct experience and skills is due to the low staff turnover rate within the industry. This means that those with the necessary experience do not often enter the job market.

Across the respondents, the rate of staff turnover is very low, with 90% of respondents reporting a turnover rate of between 0 - 5%, and a further 10% having a turnover rate of between 6 - 10%. Those with a slightly higher turnover of 6-10% are all local companies.

Despite the average staff turnover rate being between 0 – 5%, the rate by occupational level varies more significantly. Turnover of 'supervisors' and 'managers' for over 94% of respondents falls within the 0 – 5% range. Similarly, although many companies indicated the 'customer service agent' role is not applicable for their company, those that do have these agents generally reported a turnover of between 0 – 5%. In the 'professionals' occupational level, 10,8% of respondents report a turnover rate of 6-10%, while for the 'artisan' occupational level, 21,6% of respondents report the same turnover rate.

Rate of staff turnover by occupational level

	0-5%	6-10%	11-15%	16-20%	Greater than 20%	N/A
Managers	94,44%	0,00%	2,78%	0,00%	0,00%	2,78%
Professionals	81,08%	10,81%	0,00%	2,70%	0,00%	5,41%
Supervisors	97,14%	0,00%	0,00%	0,00%	0,00%	2,86%
Artisans	67,57%	21,62%	0,00%	0,00%	2,70%	8,11%
Customer Service Agents	62,16%	0,00%	2,70%	0,00%	0,00%	35,14%

Table description: table shows the proportion of respondents who report a specific staff turnover rate for each occupational level.



4. CAREER GROWTH, BOTH WITHIN AND OUT OF THE SECTOR, ARE THE TWO LARGEST REASONS BEHIND EMPLOYEES LEAVING A COMPANY

- 1. Career growth (move within the sector)
- Career growth (move out of the sector)
- Remuneration
- . Retirement
- 5. Unable to perform occupation-specific duties
- 6. Emigration

When asked to select the main reason for staff turnover within their business, most respondents (56.4%) reported individuals were leaving companies due to career growth.

Of the 56.4% respondents, 59.1% indicated that individuals were moving to other companies within the automotive sector and the remaining 40.9% said their ex-employees were moving to positions outside of the sector. Though no respondents reported emigration as the main reason for their staff turnover, 17.9% reported remuneration as the core driver behind employees exiting their company.

Whilst for most sub-samples, career growth both within and out of the sector remain the top two reasons for staff turnover, remuneration is ranked as the second biggest cause of staff turnover within NMBM and Gauteng, whilst at local companies, remuneration is the most frequently selected top reason behind staff turnover in the region.



TRANSFORMATION IN THE COMPONENT SECTOR

Note: the sample size in the transformation and localisation sections decreases to 32 companies as 7 companiesomitted all localisation and transformation questions.

To understand whether transformation is taking place within companies and the impact skills has on transformation objectives, a series of questions were asked to gain insight into company recruitment plans and whether equity considerations played a role in recruitment.

The composition of equity candidates across different occupational levels is contained within Appendix B.





7. GREATER REPRESENTATION OF EQUITY CANDIDATES IS REQUIRED IN THE SECTOR, ESPECIALLY ACROSS THE LEADERSHIP, MANAGEMENT, AND ARTISAN/SKILLED LEVELS

The composition of the sample's labour force at different occupational levels indicates the need for and importance of equity considerations when recruiting.

Leadership:

Across the leadership occupational level, over 50% of respondents indicated that Black persons fill just 0 – 10% of these roles. An even larger proportion of respondents report minimal numbers of women, youth, and disabled persons in leadership roles.

Management:

There is greater representation of equity candidates across professional and management roles, however, still over 50% of respondents report that women, youth, and disabled persons hold less than 10% of these roles.

Artisan and skilled:

Similar to the management occupational level, the artisan and skilled occupations show some greater

levels of diversity in comparison to leadership roles.

When looking at the artisan occupation individually, there is a,

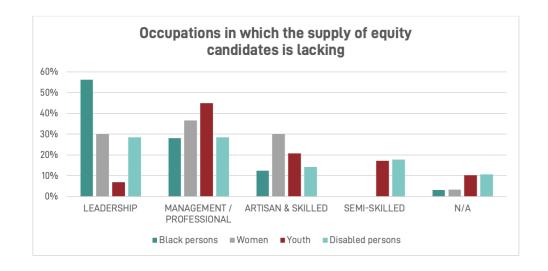
nevertheless, limited representation of women and disabled persons.

Semi-skilled:

The semi-skilled occupational level shows the greatest degree of diversity. For 68.8% of respondents, Black persons on hold over 60% of these roles. Nevertheless, nearly half of respondents report women and youth occupy under 20% of semi-skilled roles within the companies and there is even less representation of disabled persons. It is likely that disabled persons will be under-represented in this occupational cohort, primarily due to the nature of manufacturing operations.



8. RESPONDENTS REPORT A LACK OF SUPPLY OF EQUITY CANDIDATES ACROSS ALL OCCUPATIONAL LEVELS



Following a similar pattern to the results above, respondents have indicated there is a lack of supply of equity candidates across all occupational levels, most notably across leadership and management levels. Over half of the sample (56.25%) indicated that the supply of Black persons for leadership roles is lacking, whilst 28.1% of respondents also find Black candidates for management roles are similarly in short supply.

Though women were most notably absent in leadership roles, more respondents (36.67%) believe there is a short supply of women for management roles than for leadership roles (30%).

The same applies to youth, with just 6.9% of respondents reporting a short supply of youth for leadership roles whilst 44.83% struggle to find youth candidates for management roles. This is potentially due to the nature of leadership roles, meaning respondents are not looking for youth candidates as they want greater experience within their leadership.

When looking at the supply of disabled persons for jobs in the industry, despite such candidates occupying a very small space in the industry, on average a smaller proportion of respondents report them to be lacking in supply when compared to the other equity categories.

9. POOR SKILLS SUPPLY IS NEGATIVELY IMPACTING THE TRANSFORMATION OBJECTIVES OF COMPANIES, WITH QUALITY AND RELEVANCE OF EDUCATION BEING THE SINGLE LARGEST FACTOR CAUSING THE POOR SKILLS SUPPLY

Acknowledging that there needs to be greater representation of equity candidates within the workplace, numerous respondents have pointed to skills supply being a significant barrier in promoting their company's transformation objectives. The poor pipeline of skilled individuals results in prolonged recruitment time, heightened staff turnover, and a general reduction in the competitiveness of local manufacturers. This further renders the motivation for greater investment in skills development both by the public and private sectors.

Factors most negatively affecting skills supply:

- 1. Quality and relevance of education
- 2. Remuneration in comparison to other sectors
- 3. Appeal and attractiveness of jobs in the component sector
- 4. Geographical location
- 5. Access to education
- 6. Regulatory framework



LOCALISATION IN THE COMPONENT SECTOR

10. THE LARGE MAJORITY OF RESPONDENTS HAVE IDENTIFIED LOCALISATION OBJECTIVES. HOWEVER. THE LACK OF SKILLS WITHIN THE SECTOR PRESENTS THE LARGEST BARRIER TO LOCALISATION.

Noting SAAM35's target of reaching 60% local content by 2035 and understanding the results from the first two High Gear surveys which indicate there periods pertain to the OEM sourcing cycles and are substantial skills and occupation gaps across the industry, it is critical to understand whether these gaps act as an impediment to achieving 60% local content.

Localisation priorities

87.5% of respondents currently have identified localisation priorities for their organisation. These

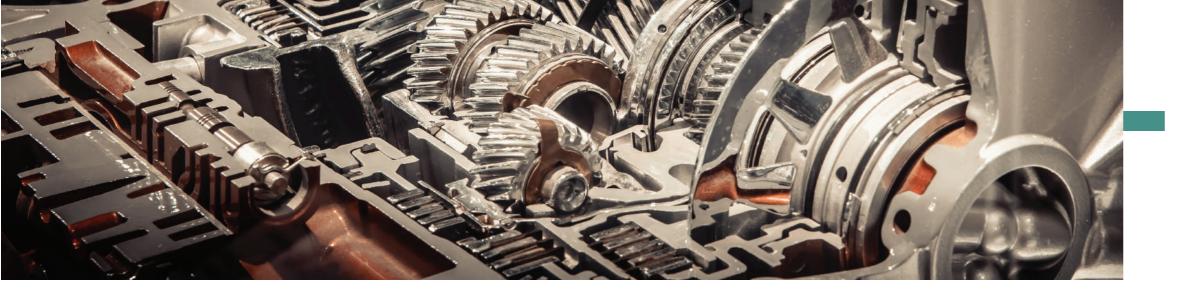
priorities fall within the short (42.9%), medium (64.3%), and long term (53.6%) – these timing start of production on new vehicle models Of those localisation: that have no localisation priorities, the majority report access to the appropriate grades and pricing of raw material inputs as the major constraint to supporting further localisation.

Barriers to localisation

Despite most companies having localisation

priorities, the industry has seen little movement towards SAAM35's 60% local content. Noting this, respondents ranked their largest barriers to

- Skills
- Access to technology and licensing
 - Access to raw materials
- OEM endorsement
- Access to tooling
- Access to local testing
- Tier 1 endorsement



Notably, skills are ranked the single largest barrier to localisation. This is the case across tiers and locations. There is, however, some minor variation across ownership types. For locallyowned companies, skills proved to be their biggest • The South African automotive sector lacks barrier to localisation whilst access to technology and licensing and skills are jointly ranked as the activities in the localisation space, it is clear that skills are a cross-cutting barrier to localisation. Should a South African component supplier be able to navigate the other discreet barriers, they will always be constrained by a lack of appropriate automotive tests and requisite skills to conduct skills to embed technology, raw materials and testing infrastructure, and thereby prevent localisation from occurring.

For localisation to occur, the locally produced alternative needs to be cost-competitive. Numerous supply of skills across critical occupations, the lack of the other listed barriers to localisation are a function of skills:

- toolmakers and in some instances, the skills to maintain and refurbish tools. Consequentially many of individuals to meet the localisation and growth largest barriers for multinationals. From NAACAM's companies import tools or rely on foreign nationals ambitions of the component sector. to be employed on short-term contracts - both of which drive-up the final part prices, and reduce a South African supplier's ability to compete globally. is a significant barrier to localisation, the other
 - these tests, hence companies have their products tested overseas. Once again, this adds to the quoted price.

Hence when combined with a general unstable of efficiency and addition incurred costs makes the local supplier uncompetitive and thus prohibits localisation. This indicates the vital need for the development of an appropriately skilled pipeline

Importantly, however, whilst skills in-and-of-itself • South Africa lacks the necessary approved factors further contribute to creating a significant barrier to localisation.

CONCLUSION & NEXT STEPS

The results of the second High Gear survey clearly illustrate that along with the skills gaps identified in the first survey, occupational gaps similarly exist and pose a threat to the component supply chain and competitiveness. Moreover, the occurrence of these skills and occupational gaps presents a larger barrier for both the transformation and localisation objectives of component manufacturers.

Respondents have overwhelmingly pointed to the need to tackle skills development and experience in potential candidates looking to fill critical roles, as well as promote the attractiveness of the industry to encourage skilled individuals to enter the component sector. The prominence of toolmaking as a critical occupation both currently and in the future provides a clear directive that interventions need to place some focus on developing the pipeline of skilled toolmakers entering the sector.

To this end, High Gear is taking the following steps to create a demand-driven TVET system that offers quality courses that are aligned with industry:

- 1. Develop an enhanced demand-driven TVET system through course upgrades, lecturer upgrades and greater workplace exposure for both students and lecturers.
- Creation of a 'career experience platform' to provide students with sound career guidance regarding jobs in the industry and promote 'attractiveness' of the component sector

In alignment with the findings of the HTFVs in the sector, High Gear is focusing on profiling numerous HTFVs on the careers experience platform, as well as upgrading the courses for these professions within TVET colleges





ABOUT NAACAM?

NAACAM is recognised as the voice of the South African automotive component industry both domestically and internationally. As a member driven organisation we are at the forefront of industry leadership, representation and stakeholder engagement for automotive component manufacturers. NAACAM devotes much resources towards positively impacting the localisation, transformation and supplier development environment in SA.

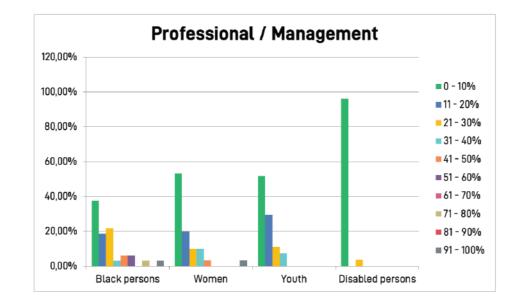
APPENDIX

APPENDIX A: ADDITIONAL HARD-TO-FILL VACANCIES

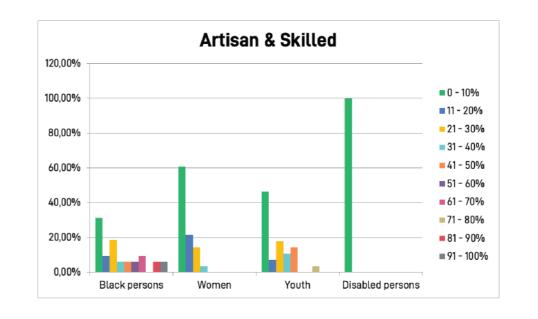
Hard-to-fill vacancy	Frequency of reporting
Sales	5
Project specialist and manager	2
PLC and automation technician/specialist	2
Quality control inspectors	1
HSE officer	1
Process technician	1
Die maintenance specialist	1
Foundry setters	1
Foundry specialist	1
Metallurgist	1
Plant digitalisation specialist	1
R&D manager	1
Production foreman/supervisor/ manager	1
Well-skilled operators	1

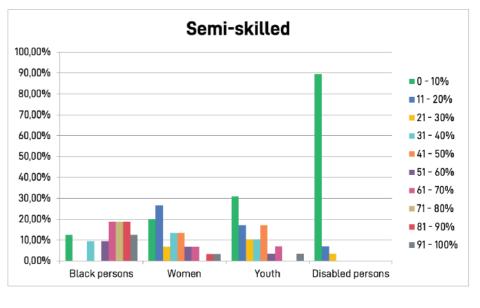
APPENDIX B: REPRESENTATION OF EQUITY CANDIDATES ACROSS DIFFERENT OCCUPATIONAL CATEGORIES

Leadership 100,00% 90.00% 0 - 10% 80,00% ■11 - 20% 70,00% 21 - 30% 60,00% **31 - 40% 41 - 50%** 50,00% **■**51 - 60% 40,00% **61 - 70%** 30,00% **71 - 80%** 20,00% **81 - 90%** 10,00% **■ 91 - 100%** Black persons Women Youth Disabled persons



APPENDIX B: REPRESENTATION OF EQUITY CANDIDATES ACROSS DIFFERENT OCCUPATIONAL CATEGORIES













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