**Trade union responses to technological changes and production: Towards a proactive approach to production**

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Contents

[A popular Summary 2](#_Toc333862246)

[Introduction 5](#_Toc333862247)

[The decline of industries, job losses and retrenchments. 5](#_Toc333862248)

[A bit of background 7](#_Toc333862249)

[Globalisation, lean production and technological changes 8](#_Toc333862250)

[The ArcelorMittal Vanderbijlpark Plant: A road to a globalising steel plant 8](#_Toc333862251)

[Changing composition of Iscor South Africa’s workforce 10](#_Toc333862252)

[A small permanent workforce 11](#_Toc333862253)

[Fewer workers have become more productive than many workers 12](#_Toc333862254)

[Impact on technological changes on work and workers 13](#_Toc333862255)

[Trade union’s concerns about lack of consultation 17](#_Toc333862256)

[Job security, redeployment and training 17](#_Toc333862257)

[Technological changes and participation 18](#_Toc333862258)

[Solidarity, NUMSA and the Employee Assistance Programme (EAP) 19](#_Toc333862259)

[Research on technological changes and work restructuring 21](#_Toc333862260)

[Education on technological changes in the labour process 21](#_Toc333862261)

[An asymmetrical relationship between wages and production 22](#_Toc333862262)

[Structures geared towards wages 22](#_Toc333862263)

[The South African experience: Spoornet 24](#_Toc333862264)

[Some of the suggestions 28](#_Toc333862265)

[References 31](#_Toc333862266)

# A popular Summary

As workers and trade unions we are always faced with many challenges such wage struggles, poor working conditions, technological changes to production and work reorganisation. As will be shown in this paper, bosses tend to restructure work in ways which ensure that they are able to maximise profits. They introduce new machines, computers, outsource work, use casual labour and workers from labour brokers to extract more profit from us as workers. Key industries such as textiles, clothing, foot wear and steel have been declining since the 1980s. This also has to do with the opening of the South African economy and the process of neoliberal globalisation – which is characterised by the consolidation of big multinationals and attacks on the rights of workers and incomes.

South Africa trade unions have tended to react to work restructuring, rather than being in a position to pre-empt changes. This has given the bosses a free reign over the sphere of restructuring industries and this has led to retrenchments. One of our primary roles as unions and workers is to defend jobs. Quite clearly, the current job losses are posing a serious challenge to this role. For example, workers and unions in Iscor or ArcelorMittal South Africa have lost about 50 000 jobs since 1988.

In clothing, textile and foot wear industries the Southern African Clothing and Textile Workers Union (SACTWU) is beginning to engage the bosses and government on strengthening South Africa’s clothing and textile sector. This has paid some dividends because there has been a decline in job losses. Things change in production and the economy when we intervene as trade unions.

Using the case study of the ArcelorMittall Vanderbijpark Plant, this paper shows that the company introduced technological changes and work reorganisation in order to serve the interests of bosses, namely making profit. As part of global integration, Iscor South Africa was privatised. The union tried to fight privatisation but there were no successes. This remains a challenge because the company as a steel producer can be very strategic in developing South Africa’s industrial base, building and housing construction.

As part of work reorganisation, the plant introduced a number of programmes such as *Omega* and *Re-engineering* in the late 1980s and 1990s. In the same vein, there was unbundling which separated steel and mining in 2002. All this was accompanied by production technology changes. The results of these changes included a drastic reduction of workers, divisions with the union, weakening of the union at the plant, and the outcome that fewer workers are now working harder. We all know that as workers our strengths are in numbers. Losing jobs weakens workers, the unions and their families.

White workers, although they had better opportunities as a result of apartheid policies, were also affected by these changes. Some of them worked as foremen and as human resources officers and these positions were affected by work reorganisation.

We tried to intervene by calling for more consultation, redeployment of workers, training and participation in forums at the plant but all these efforts did not save jobs. We have to retrace our steps and draw some lessons so that we do not repeat the same mistakes. While wage struggles are important because we know that under apartheid we were paid lower wages compared to our white counterparts, wages alone cannot define our struggle. To borrow from the military language, we have to fight on all fronts. The outcome of isolated wage struggles is that bosses may give us wage increases but at the same time they can then restructure work in a manner that reduces the number of workers. In other words, they can give us something and then take it away.

Thus our struggles have to include struggles for wages and control of production which includes technological changes, outsourcing, plant layout, health matters, safety, team work and production methods. In fact, National Union of Metalworkers of South Africa (NUMSA) believes in socialism and workers’ control of the economy and production because workers are producers of wealth. Besides a need to respond to work reorganisation and technological changes, we also have to engage with production because we have a long-term goal which entails workers control of production. So far we have been responding reactively to changes in production technology and work reorganisation and the case of ArcelorMittal in Vanderbijlpark shows that.

Our sister union from Germany – IG Metall – has also been faced with similar challenges. Bosses have also restructured work in Germany with the view to dominate the workplace and undermine the union. As usual, there were debates about how to respond to these changes. However, the union managed to develop a proactive approach to work restructuring by using the Works Councils, industry based bargaining, mobilisation of membership, research and by building permanent union structures that focus on responding to technological changes. In some cases, workers and the union were involved in restructuring workplaces with the view to saving jobs and increasing productivity and which did save jobs. Workers were also able to fight for reduced working hours without any change in wages. In that way jobs were shared.

In the late 1970s and early 1980s there were attempts at developing a proactive approach to technological change and work reorganisation in South Africa. Labour support organisations, engineers, scientists and students were involved in helping trade unions and workers in dealing with new technology and health and safety issues. NUMSA established Research and Development Groups (RDGs) which did research with the view to strengthen the union’s position on work reorganisation. Changes in national politics and the departure of union personnel and shop stewards to business and government undermined this work. Our focus as unions has tended to be on wage struggle at the expense of production. The results of this strategy is that management ends up having total control over production and is able to restructure work in line with its interests.

Since 2009 NUMSA together with partner organisation and progressive academics have conducted research into work reorganisation. This research is important in the sense that it examines how the union has historically approached work reorganisation and how to bring back politics of production to the union. One of the key recommendations of the research is to bring back the RDGs so that some workplace based research can helped the union in handling production. In some cases, the RDG have already started working.

The case study of ArcelorMittal also has some recommendations which include building the union’s capacity to respond to production, research, training organisers, shop stewards and officials in handling production, establishing a unit which deals with technological change and production, employing scientists and engineers, ensuring that all structures of the unions discuss production and building solidarity with workers in South Africa and other countries.

Comrades will have other suggestions and these will definitely help the union and workers in ensuring that we fight from all fronts. We all know that bosses have time, resources and energies to restructure work at the expense of workers. Workers also need to use their limited resources efficiently and effectively so that they can also proactively respond to changes in work. This will require a reorientation of trade unions so that they can struggle for wage increments and the transformation of production at the same time.

This popular summary has provided comrades with the main argument and discussions of the paper. Comrades are encouraged to read the paper because part of developing a proactive approach involves struggling with the process of reading, absorbing and engaging knowledge. The paper can also be discussed at union meetings such as shop steward committees. Comrades can also form study groups to discuss the paper and other documents. Lenin used to say, “Knowledge is too important to be left in the hands of the bosses”.

# Introduction

Scannel (1993:115) brings the news to the world wide trade union movement by raising this point sharply, “If production decisions are left completely in the hands of management, with unions restricting their role to bargaining over the impact, then organized labor will become adept to negotiating funeral arrangements”. Negotiating retrenchment packages as a result of displacement of workers by new technology and reorganisation of production represents a setback in workers’ struggles because part of the job of trade unions is to defend workers’ interests and jobs. We also have to take into account that capitalists will always introduce changes in production process because they are driven by a desire to increase their profit margins in globally competitive markets. In fact, Marx (1888:3) in the Communist Manifesto makes this point, “The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society”. The argument of the paper is that trade unions have to develop a proactive approach to production so that they can also contest managerial control of production.

Thus in this paper I seek to highlight the importance of trade union engagement in production, namely the process of producing commodities like steel and automobiles, as part of a broader working class strategy which is aimed at pushing back the frontiers of capitalist control of the labour process. I start by providing a brief overview of industries’ restructuring in South Africa and I also show that capital has an upper hand in work reorganisation and general restructuring, especially in cases where trade unions adopt a reactive approach to technological changes and general industry restructuring. I then examine trade union responses to changes in technology and production at ArcelorMittalVanderbijlpark in the period between 1989 and 2011. Subsequently, using international experiences of IG Metall and other unions, the paper teases out a possible proactive approach to technological changes and production issues within the South African context[[1]](#footnote-1).

# The decline of industries, job losses and retrenchments.

Writing about the decline of the clothing and textile industries, Vlok (2006) argues that these industries have seen a significant loss of jobs. According to SACTWU, more than 55,500 jobs have been lost since 1996 and in 2006 the official statistics showed a 37% reduction in employment since 1996. Global competition and the opening of South African markets contributed to job losses and the decline of the textile and clothing industry, so argues Vlok (2006).

Vlok (200:64) states that the clothing, textiles, footwear and leather industries have been declining “for some time” and this is caused by a combination of factors, namely “Rand strength and volatility; underinvoicing and illegal imports; Competitiveness challenges; skills deficits and limited economies of scale in parts of textiles”. It can also be argued that the lack of a proactive approach from the union may have also contributed to job losses.

Since then SACTWU has been engaging the industries, employers and government with the view to save jobs. The union report, that is based on actual job loss data collected and tracked on the union’s job loss database, shows “a 30.1% decrease in job losses in 2010 compared to 2009. In 2010, a total of 10143 job losses were recorded, compared to 14516 in 2009” (SACTWU 2011:1). The union attributes this slow down in the number of jobs lost to the following factors: namely its ‘Save Jobs’ Campaign measures, government support and rising labour costs and prices in China. In other words, the union had to intervene in production processes as well as the point of sale of commodities in order to minimise job losses in the industry.

Reflecting on job losses that face workers and those in the manufacturing sector in particular, NUMSA states,

The Numsa 9th National Congress held in Durban on 4 – 8 June 2012 takes place in the context of a severe and deep international capitalist recession which confronted us as we emerged out of the Numsa 8th National Congress in October 2008. As a result of this global capitalist financial crisis, about 1.7 million jobs in the South African economy were sacrificed, mainly in the manufacturing sector.” (NUMSA 2012a: 8).

Based on the arguments of SACTWU, NUMSA, labour studies scholars and researchers, there is consensus that post-apartheid South Africa has been characterised by democratisation and the opening of political space for the labour movement, on one hand. On the other, this has been accompanied by the opening of the economy to global markets, the decline of the manufacturing sector, factory closures, unemployment, retrenchments, job losses and work reorganisation (see Buhlungu 2010; Webster et al 2009; Mashilo 2010; Masondo 2010).

Quite clearly, neoliberal globalisation, work reorganisation, technological changes and current wealth distribution patterns continue to benefit a tiny capitalist class. “At least 80% of human beings live on less than $10 a day. The poorest 40% of the world accounts for 5% of global income. The richest 20% accounts for 3 quarters of the global income”, according to NUMSA, (2012 b: 11). South Africa also remains the most unequal society in the world (Coovadia 2012).

The works of Webster *et al* (2009), Mashilo (2010) and Masondo (2010) are an important record which seeks to assess NUMSA’s history of engaging with work reorganisation since the 1980s. The general finding of all the mentioned authors is that the union has not prioritised production as a collective bargaining subject. Instead, wages tend to dominate the politics of the unions. While wages are important as part of struggles for redistribution of wealth, wage struggles need to be accompanied by struggles for how wealth is produced.

Konrad Siegel, a former worker at a plant that produces agricultural equipment in Germany, is now involved in helping the unions to respond to work reorganisation in Germany and other parts of the world. He argues that trade unions should worry about production because, among other things, unions can ensure that productivity and work reorganisation minimise damage to workers. In other words, it is a union’s job to struggle for safe work, sharing of productivity gains and jobs, especially in a global context characterised by easier movement of capital. According to Siegel (2012, interview), “productivity does not necessarily lead to job losses”. In some cases, “productivity can lead to saving jobs and increased income for workers” (Siegel, 2012, interview).

He warns, “Of course... capitalists may want to narrow workers’ proportion of gain. It is always a class struggle. Unions must always be aware of this class interest (cited in Forrest 2009:55).

To sum up this section of the paper, a reactive trade union response to production leads to unions becoming skilled negotiators of workers’ “funeral arrangements” (see Scannel 1993:115). Therefore in order to defend workers’ interests and jobs trade unions have to adopt a proactive approach which seeks to deepen the union’s understanding of developments in an industry and the global and national dynamics which influence industries and plants (Masondo, 2010 on a proactive approach).

I shall now present the case study on “Trade Union Responses to Technological Changes at ArcelorMittal Vanderbijlpark, 1989 - 2011” to demonstrate the importance of union involvement in production issues. Subsequent to that there will be a reflection on how IG Metall has approached production issues. Towards the end of the paper, I shall pull together key lessons from the case study and experiences of IG Metall with the view to helping the union in engaging production issues.

# A bit of background

The ArcelorMittal Vanderbijlpark Plant is situated in the town of Vanderbijlpark in Gauteng Province, about 70 km south of the city of Johannesburg (Prinsloo 1993). The Vanderbijlpark Works is the largest inland steel mill in sub-Saharan Africa, with two blast furnaces, three electric arc furnaces and three basic oxygen furnaces. In 2010, the plant employed 4 616 people (ArcelorMittal South Africa 2010). The ArcelorMittal Vanderbijlpark Plant employs almost 50% of ArcelorMittal South Africa’s workforce. The head office of the ArcelorMittal South Africa is at the Vanderbijlpark plant (ArcelorMittal South Africa 2010).

ArcelorMittal South Africa's global standing is further enhanced by being part of the world’s largest steel producer, the ArcelorMittal International Group which employees 316 000 people on a global scale. ArcelorMittal International has a plant presence in 27 countries in Europe, the Americas, Asia and Africa (ArcelorMittal 2012:1). IMF General Secretary, MeMarcello Malentacchi, provides a global overview of the steel industry at the beginning of the 21st century. He further speaks about a fundamental change in the international steel industry which includes privatisation of steel firms and the emergence of global steel companies (MeMarcello Malentacchi cited in Bacon, Blyton 2000:1).

The origins of the ArcelorMittal Vanderbijlpark Plant can be traced back to Iscor South Africa in Pretoria. Iscor South Africa was established as a state company in 1928 in terms of the Iron and Steel Industry Act. The objective of establishing the factory was, firstly, to produce iron and a range of steel products from indigenous raw materials. This was part of an industrial strategy for developing local industries that relied upon steel and iron products. Secondly, it was established as part of an attempt to create employment opportunities for white workers (Morris & Kaplan 1976).

The two main unions that are organising workers at the plant are NUMSA, a predominantly black union, and Solidarity, a predominantly white union. NUMSA membership at the plant is generally semi-skilled with a sprinkling of skilled workers. On the other hand, Solidarity’s membership tends to be in skilled positions such as artisans and production workers (Hlatshwayo 2012). The two unions had to respond to technological changes in a context of neoliberal globalisation.

# Globalisation, lean production and technological changes

Neoliberal globalisation has also been accompanied by lean production and technological changes which tend to have negative effects on workers, namely redundancies, retrenchment and the intensification of work (Hlatshwayo 2003; Mashilo 2010).

Bacon and Blyton define globalisation within the context of the steel industry,

In practice, ‘globalisation’ encapsulates many different aspects of change notably: structural changes in trade, economics, products and **technology** (my emphasis); the decline of national and regional state regulation; the emergence of international or global companies; and different recipes for restructuring organisations, in particular, previously established working practices (Bacon, Blyton 2000:2).

Writing about globalising steel firms at the end of the 20th century and the beginning of the 21st century, (Jennings 2000) makes the following observations, “The transformation of steel mills from fairly basic, product-oriented operations to ones that are **high technology** (my emphasis) and market-oriented is either complete or irretrievably underway throughout the majority of the industry”. Concerning lean production in steel firms, Jennings argues, “Not only must the steel industry's workforce deliver the right product in a timely and reliable way, it must do so in an increasingly competitive market” (Jennings 2000:1). He also speaks about the dominance of computer technology and general automation in steel firms. He says, “Manual, experience-based process operations are being replaced by **knowledge-based monitoring and control**. Operation is largely **automatic** and, in order to avoid costly buffer-stocks of material, processes are even more closely linked than was the case even ten years ago (my emphasis)” (Jennings 2000:1).

# The ArcelorMittal Vanderbijlpark Plant: A road to a globalising steel plant

The intensification of integration by Iscor South Africa into the global steel market happened in 1989 when it was privatised. At that time the impact of world steel prices, strong demand for steel nationally and internationally and a weak Rand made exports more lucrative. At that time there was also a strong ideology towards privatisation which was very much a part of neoliberalism and a need for a leanstate – a state that does not play a productive role in the economy. Privatisation of steel firms was not just a South African phenomenon but was part of global developments. The rest of the African continent was also implementing the privatisation of steel firms, as part of global integration of steel firms (see Xaba 2003 and Mohammed 2008).

Concerning technology and innovation, de Waal, a Chairman of Iscor South Africa at that time, argues, “Many steel producers, Iscor [South Africa] included, **have invested in new plant and technology to improve manufacturing techniques, upgrade quality and properties of steel products and develop value added products** (our emphasis)” (Iscor 1989: 10 -11).

The declining international steel prices and the oversaturated international steel market led to increased technological changes and restructuring at the Iscor South Africa plants. In other words, Iscor South Africa was to examine ways and means of ensuring that it can produce cheaper steel for a ‘hostile’ local and international steel market. According to Rosenthal (2000:1), “Iscor's [South Africa] competitive strategy broadly involves the continual upgrading/improving of technology, equipment and processes, decreasing cost and increasing yield”. Technological and work reorganisation became part Iscor’s [South Africa] strategy in a struggle that was contextualised by declining steel prices and an over-saturated steel market.

Technology also features prominently in an argument for the merger between LNM Group, a global player in the steel market, and Iscor South Africa in 2004. The LNM Group and Iscor South Africa argue,

By receiving new technology and skills from a global partner [LNM] it was believed that Iscor South Africa could participate more effectively in the global steel industry. LNM, in terms of the [Business Assistance Agreement] BAA, provided business, technical, purchasing and marketing assistance to Iscor (Competition Tribunal 2004:2).

In its Annual Report of 2010, ArcelorMittal South Africa makes a point about a need for it to continuously improve its technological platforms in the production process. “Yet another factor is the need to continually re-invest in plant and equipment to keep pace with technology or market growth or both”, according to ArcelorMittal (2010: 19).

The integration of ArcelorMittal South Africa with other plants of ArcelorMittalInternational means that the Vanderbijlapark plant receives technological support and skills from other plants which belong to ArcelorMittalInternational in other parts of the world. There is this constant desire for improved productivity and technological innovation. ArcelorMittal International exchange visits and meetings between production managers, technicians and engineers of the Vanderbijlpark Plant and other production managers of other ArcelorMittal International plants in other parts of the world are part of this struggle for the global steel markets (Grobbelaar, 2011, interview).

Technological changes and work reorganisation at the ArcelorMittal Vanderbijlaprk have had far reaching effects on work, workers and trade unions.

# Changing composition of Iscor South Africa’s workforce

Mass production and its machinery enabled the Iscor Vanderbijlpark Plant to employ black workers from Bantustans, and these workers were brought under the same roof. These workers largely did unskilled and semi-skilled work. It is mass production and machinery which laid the foundation for union organisation at Iscor Vanderbijlpark in the 1980s. On the other hand, some white workers acted as foremen of these black workers and some of them were also placed in skilled positions (Hlatshwayo 2003).

Due to the fact that Iscor South Africa was an apartheid state corporation, it employed exceptionally high proportion of white workers. This higher proportion of white workers explains the low proportions of NUMSA members at Iscor South Africa in relation to other companies and industries. In 1996 the overwhelming majority of management positions were occupied by whites. Nearly 90% of skilled jobs were held by white workers while unskilled work is done almost exclusively by black workers. “Two-thirds of semi-skilled work is done by black employees (Rosenthal 2000:3).

In 1996 while almost half the workforce has secondary academic education (8-12 years schooling), almost one-third of the workforce had little or no education. A third of the workforce was illiterate (Rosenthal 2000:3). Workers with less formal education became victims of displacements by technology and work reorganisation (see Hlatshwayo 2003).

In the mid 1990s the company was planning to outsource unskilled work such as cleaning, peak load work and maintenance. Rosenthal (2000:2) further states, “Permanent workers are becoming multi-skilled, thus a core-periphery divide is forming with a core of skilled and multi-skilled workers being permanently employed and unskilled workers being subcontracted and used periodically”.

The unskilled workers were not the only category of workers that was affected by reducing the number of workers. Workers in the administration, human resource and hostel administrators and managers were also affected and these are positions that were occupied by white workers. Migrant workers had a layer of hostel managers. There was also a need to rationalise and bring together various departments that were racially divided because the “new South Africa” was also about “deracialsiation”. The human resources department (including training) also shrunk considerably, from 1,900 employees in 1981 to 500 in 1995, according to management (Rosenthal 2000:2). White workers were also affected by retrenchments partly because they also had a higher proportion of employment at Iscor South Africa compared to other non-state corporations.

Management outlined its restructuring goal by saying, “We regard labour as a fixed cost and need only a portion of it as variable. We want a small permanent workforce” (Robertson & Viljoen, 1996 cited in Rosenthal 2000:2).

|  |
| --- |
| Changes in occupation, colour and skills composition ***Table 1: Occupation, colour and skill***  |
|

|  |  |  |
| --- | --- | --- |
|  | **Female** | **Male**  |
| **Occupational level** | **Black**  | **Coloured**  | **Indian**  | **White**  | **Black**  | **Coloured**  | **Indian**  | **White**  |  |
| **Top Management**  | **1** |  |  |  | **1** |  | **2** | **6** | **10** |
| **Senior Management**  | **10** | **1** |  | **7** | **13** | **1** | **4** | **106** | **142** |
| **Professionally Qualified specialists and mid-management**  | **39** | **8** | **15** | **133** | **120** | **26** | **48** | **515** | **904** |
| **Skilled technical academically qualified workers, junior management, supervisors, foreman and superintendents**  | **137** | **42** | **9** | **291** |  **1 774** | **211** | **228** | **2 613** | **5 305** |
| **Semi-skilled and discretionary decision-making** | **53** | **20** | **4** | **107** | **1 920**  | **92** | **46** | **277** | **2 519** |
| **Unskilled and defined decision-making**  | **7** |  |  |  | **341** |  |  | **5** | **353** |
| **Grand Total**  | **247** | **71** | **28** | **538** | **4 169**  | **330** | **328** | **3 522** | **9 233** |
|  |  |  |  |  |  |  |  |  |  |

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Source: (ArcelorMittal 2010)

The table on occupation and ‘colour’ also shows that technological changes and work reorganisation have also transformed the workforce of ArcelorMittal South Africa fundamentally. Out of 9233 employees, there are only 353 unskilled workers. In other words, 93% of the workforce is either skilled or semi-skilled. In 1996 there were 4 990 unskilled workers. This means the number of unskilled workers was decreased from 4 990 in 1996 to 353 in 2010 (see Rosenthal 2000; ArcelorMittal 2010).

According to Rosenthal, in 1996 management saw technology and work reorganisations as key reasons for reducing the workforce. Work reorganisation and technological changes led to the reduction of “unskilled workers” (2000:1).

# A small permanent workforce

The table below shows that in 1988 there were 58 100 workers and this number was reduced to 9 886 workers by 2011 at Iscor South Africa. This means that about 50 000 workers have lost jobs since 1988. The unbundling of mining and steel-making left Iscor South Africa with about 13 600 employees in 2002.

Bar graph 1: Job losses between 1988 and 2010

Source: Iscor and ArcelorMittal[[2]](#footnote-2)

# Fewer workers have become more productive than many workers

In 1989 the average revenue per employee at Iscor South Africa was R106 000 and there were 56 200 workers employed at that time. In 2011 there were 9 866 employees and the revenue per employee was R3, 285 million. The increase of revenue per employee between 1989 and 2011 was R3, 179 million. The revenue per employee increased 30 times since 1989. On the other hand, the period from 1989 to 2011 also saw a decrease of employees by close to 50 000 workers. Therefore technological changes, unbundling and work reorganisation led to fewer workers being more productive. This is a manifestation of what Marx (1990) calls the ‘real subsumption of labour’ where workers become appendages of machinery and work reorganisation.

Graph 2: Revenue per employee since 1989

Source: Iscor South Africa and ArcelorMittal[[3]](#footnote-3)

Increase in investment in machinery and computers led to increase in productivity and decline in the number of workers employed by ArcelorMittal South Africa. Workers are in a dilemma at two levels. Firstly, if the firm is not productive it is most likely to close down and workers lose jobs and income. Secondly, the use of technology increases productivity and displaces a substantial number of workers. Fewer workers are then made to be more productive. On the other hand, the increase in productivity and the reduction of the number of workers is not a given. Workers can also contest the reduction of the workforce, if they adopt a proactive approach which involves union intervention in production.

# Impact of technological changes on work and workers

Jones (1987:144) argues,

Technology is a problem and a source of frustration for Trade Unions in the UK because the introduction of technology, with its accompanying disruption of the workplace, creates fears of employment instability, potential health and safety hazards, and the degradation of skills through routinisation, regularisation and simplification of work.

Despite all these changes, the company is still faced with challenges such as a global economic crisis, high input costs and lower demand for steel. *ArcelorMittal South Africa* reflects on its results for 2011, “The overall result for ArcelorMittal [South Africa] was a headline loss of R52 million following on from the profit of R1.3 billion last year (ArcelorMittal 2011:21)”.

Workers and trade unions are also counting their own losses. John Rodriguez, a chairperson of the Solidarity shop steward committee at the ArcelorMittal Vanderbijlpark Plant, and a fitter and turner at the machine shop, also admits that retrenchments as a result of restructuring and the introduction of new machines and computers affected not only the workers but also the union. He concedes,

At the time (in 1980s and 1990s) we were about 22 000 strong workers [at the Vanderbijlpark Plant] on the side and now we are only 5 000 including those who are working on contracts. They don’t have many benefits like medical, housing etc.”(Rodriguez, 2011, interview).

Henry Adams of Solidarity (2010, interview) states that technology-related retrenchments did only not only affect member and their families but they also affect the union negatively. He argues that the union lost membership as a result of technological changes. The union also loses revenue and numerical strength. Having a high union membership is important because membership matters when it comes to bargaining, recognition agreements and the right to full time shop stewards.

Talking about this period of retrenchments, Pheko Lucas Mofokeng of NUMSA who has been working at Iscor South Africasince 1989, speaks specifically about how the introduction of new technology, multitasking and the lack of consultation led to the displacement of workers in his department. He reflects,

The remote control of cranes were installed in 1996. ... It did affect workers and reduced the number of workers, especially the crane drivers. The work that was done by three people is being done by one person using the remote control. There used to be one slinger, one loader and one driver but now you perform these three tasks alone. About three hundred workers were retrenched in our section alone (Mofokeng 2011, interview).

Johan Venter, a Solidarity unionorganiser who organises workers at the ArcelorMittal plant, argues, “They are talking about job creation but technology takes the jobs away. It is difficult because we are moving towards the global world and that is where we need this technology” (2010, interview). This testimony recognises the fact that new technology is part of globalisation and the global steel competition. As part of competition, firms use new technology as a tool for productivity but this also leads to negative effects on workers such as retrenchments and job losses.

Some of the testimonies do speak about increased pace of work and productivity. William Dikotsi, a chairperson of NUMSA’s shop steward committee at the plant at the time of this interview, has a higher level of formal education and lives in a suburb of Vereeniging. He talks about the fact that the reduction of workers tends to compel the remaining workers to work harder because the machines and the production schedules tend to speed up the pace of work. He says,

“I am now a senior operator. I work at the oxygen arc furnace with oxygen. I do the analysis of the hot metal. I check the manganese content and temperate of the metal. If it [steel] is prepared well, we then send it forward. I do this using a computer but before the computer they used to write down all the details. The machine that was used involved manual work. In my team or section we were 3 and now we are 2 because of these changes. We now have to work harder.” (Dikotsi, 2011, interview).

One of the respondents, Lebohang Motsoari, was born in 1988 and was recruited by ArcelorMittal Vanderbijlpark in 2009 because he did Mathematics and Science in Grade 12. He works in the continuous casting department. He is part of the learnership programme and was in the process of joining NUMSA at the time of the interview. He also speaks about how technology displaces worker. He says,

... There is a machine which casts steel. This machine has a time sensor which does the work which was manual before. Basically this sensor can sense if the steel you are casting is about to spill over. As soon as there is enough steel in the casting machine, the sensor will automatically close the casting door. ... That led to job losses. There were four people who were working there before the introduction of this machine. Now there are only two people (Motsoari, 2009, interview).

Fitting and turning is a trade which deals with the identification of machine errors and faults. It also includes fixing these faults and errors. Before the introduction of computers in the production process fitters and turners had more power to control the labour process and the speed of work. These days computers are able to do machine diagnosis or fault-finding. Henry Adams, a shop steward of Solidarity who is a fitter and turner at Iscor, comments,

When I came here everything was about handwork. In 1998 there were new computers. I deal with maintenance [of machines]. I have seen a lot of new machines. It makes work to be simpler. The PLC [Programmable Logic Controller] or the computer gives you an error code. Yes it also led to retrenchments. It does affect us. They must look after people who have lost jobs (Adams, 2011, interview).

Benny Dickson, a Solidarity shop steward who works in the electrical steel making section of the plant also expresses this dialectic of technology. He argues,

Yes. They (computers) help us. We use a sub- system and I am a sub-user. I generate my job cards [from the computer]. They [computers] are good but you know one computer takes away work of three people. This is the bad thing with computers (Dickson, 2010, interview).

I also spoke to Junior Gusha who lives in a formerly white suburb of Vanderbijlpark. He is also a NUMSA shop steward responsible for organising young NUMSA members in the Sedibeng region. He is a highly skilled worker who is involved in highly technical aspects of production at the plant. He deals with production process flows and interacts with computers and machinery. He also thinks that technology makes his work easier but, of course, he is “concerned about previous job losses which were also associated with technological changes in the 1990s and early 2000s” (Gusha, 2011, interview).

Deon Reyneke who is responsible for coordinating the steel and engineering sector at Solidarity head office speaks about how new technology also led to changes in the trades and increased multi-tasking. He says, “The new technology and computers did away with old trades and functions. There is multi-tasking and team work. You now have a working foreman. A foreman who works and also monitors other workers” (Cited in Hlatshwayo 2012:1).

George Bezuidenhout, a Solidarity member who started working at Iscor South Africa in 1988 and was injured at work in 2009, states that the new technology has some safety features. The machines and computers are safer to work with. He says the following, “There have been about 20 new machines. The old stuff is gone. These machines are much safer.” (Buzuidenhout, 2011, interview).

Based on the testimonies, the Solidarity and NUMSA interviewees are expressing dialectic of technology. On one hand, there is an acceptance that technology makes some of the jobs easier to do. It enables them to detect faults and that makes fixing mechanical problem easier. On the other hand, technology tends to lead to displacement of workers, increased pace of work, and multitasking. Changes in the workplace in the form of lean production have introduced team work, multitasking and changing roles of foremen.

Let me look at how trade unions responded to technological changes at the plant.

**Lack of preparedness to engage production technology and work reorganisation**

Piet du Plooy, who worked for Iscor Vanderbijlpark Plant before 1989 and was also involved in organising workers for the Mineworkers’ Union (MWU) which later became Solidarity, has this to say about the introduction of new technology in the 1980s and early 1990s,

They [Iscor] were introducing new machines in the plants like the tin plant, for instance. This was the start of the new technology. This was automation. You would find places like the pickling line being fully automated. New machines and automation led to the reduction of personnel (du Plooy, 2010, Interview).

Both trade unions were not “prepared for technological changes” in the production process, especially during the period of massive retrenchments between 1989 and 2001(Galeni, 2009; interview; du Plooy, 2010, interview). The inexperience of the union in handling work reorganisation and technological changes is also confirmed by Bafana Ndebele, a former national coordinator of NUMSA at Iscor who is now responsible for organising and campaigns in NUMSA, reflects on the union’s weaknesses during times of the Omega project by saying,

With regards to operation Omega which was introduced at that time. It was meant to improve efficiency and productivity at Iscor. So you will recall that at that time the union had not finalised its policy around question of productivity and this new technology” (Ndebele, 2011, interview).

The lack of preparedness had to do with the fact that both unions saw bargaining as being limited to engaging factory owners around wages and working conditions. NUMSA had to ensure that its membership, which was part of the cheap black labour system, got wage increments so that a cheap wage system could be ‘subverted’. In addition, the union was also involved in a struggle for deracialising the workplace and the country. The union started organising Iscor South Africa workers in 1985, and Iscor South Africa was privatised in 1989 and some of these work reorganisation changes were introduced just when the union was beginning to stabilise its presence at the plant (Lloyd 1994; Hlatshwayo 2012; Galeni, 2009, interview). On the other hand, Solidarity’s predecessor and Solidarity had a strategy which sought to protect the privileged position of white workers. This strategy was also based on wages and better working and living conditions of white workers (Visser 2006). This union focus neglected work reorganisation and technological changes at the plant (du Plooy, 2010, interview).

Both Solidarity and NUMSA were caught off guard by technological changes at the Vanderbijlpark Plant. Du Plooy who was part of Solidarity at the time of technological changes reflects, “But you would also understand that at that stage we were not clued up on what is to be consulted about. We did not have an understanding of new technology, workplace restructuring and globalisation” (du Plooy, 2010, interview). Bobby Marie who was part of a team which initiated trade union organising at Iscor South Africa reflects on how the union in its infant stage at the plant was compelled to deal with basic issue of organising, “We never got time to look at it [technology]. We were trying to establish a union. We were very reactive” (Marie, 2011, interview).

Both NUMSA and Solidarity adopted a ‘rear guard’ action to technological changes. This means that their response was at the practical level of unions structures and policies, they ‘tail-ended’ changes in technology at the plant. This ‘tail-ending” was informed by an approach which puts an emphasis on distribution of incomes from production at the expense of struggling for control of how this income is made.

# Trade union’s concerns about lack of consultation

In analysing technological changes in the labour process both unions strongly argued that there was a lack of consultation in the process and they saw technological change as an imposition from management. Peitchinis (1983:104) makes a similar observation about how management traditionally viewed technological changes in the production process. He argues, “Technological changes were deemed to be a managerial prerogative…”. Based on this ‘prerogative’ to introduce new technology management did not see a need to consult and engage unions about the nature and form of technology to be introduced in the production process. For Solidarity and NUMSA, consultation entails discussing choices of technology and the impact of new technology on work and workers (Hlatshwayo 2012).

Meanwhile, NUMSA’s policy on consultation concerning technological changes states , “A company must give 6 months’ notice of the introduction of new technology. This notice period must be before the decision to purchase the machinery has taken place” (NUMSA 2012b:74). The union is also not opposed to productivity but it wants productivity results to be shared with workers (NUMSA 2012b).

The Minister of Labour’s determination on technology changes states,

(a) Notification: **Where an employer intends introducing technological change he shall notify the representative party trade union(s) and/or employee representative body not less than 90 days prior to the implementation date of such change** (my emphasis) (Minister of Labour 2009: 41).

Perhaps NUMSA has to continue struggling for a ‘6-month’ notice period so that it can have some time to respond via research, engagements of members and other forms of mobilisation to technological changes.

# Job security, redeployment and training

One of the approaches of NUMSA, Solidarity and its predecessors was to enter into collective agreement with the view to defend their members’ jobs in a context of restructuring and technological changes. The collective agreements also argue that management should disclose information on technological change, facilitate redeployment of workers displaced by technology and provide training (Iscor South Africa et al 1990, p10 Clause 1.b. and Iscor South Africa *et al* 1993).

The unions engaged management to insert “job security” clauses in the agreements but this did not stop management from unleashing massive retrenchments, especially in the 1990s and early 2000s (Rosenthal 2000). Redeployment within the factory, of these workers who had been displaced by machines and computers, was also an issue captured by collective agreements. In cases where new technology requires new skills, NUMSA and Solidarity argued for the training of its members. The agreements of 1993 and 1994 argue that training should also be accompanied by promotion to a higher position. The company was also supposed to provide information on training and promotion of workers (Iscor South Africa et al 1993 and Iscor South Africa et al 1994).

The two unions agree that management does provide training when new technology is introduced but this training is only limited to specific operations of machines. Broadly speaking, NUMSA sees training as an instrument for changing the demographics of the management of the plant. In other words, the union wants training to also address the racial imbalances, created by apartheid, which placed white workers in top positions and black workers at the bottom end of occupations (Gusha, 2011, interview; Haluhalu, 2010, interview; Venter, 2011, interview).

# Technological changes and participation

*Omega*, a work reorganisation programme which was also accompanied by technological changes, was introduced in the 1983 and 1989 and early 1990s for white and black workers respectively. *Omega* was introduced when NUMSA was still grappling with the difficulties of privatisation and the basic organisation of workers (Hlatshwayo 2003).

The project caused divisions within the union because workers and members of NUMSA saw it as a threat to their job security. In addition, they also saw shop stewards who participated in the *Omega* workshops as collaborators who sided with management. This conflict became violent and led to the killing of NUMSA members and shop stewards in the Vaal region (Forrest 2005).

Both unions participated in overseas study tours which were organised by plant management in the early 1990s. These trips were meant to educate the unions about work reorganisation and technological changes in other overseas plants. There was some unhappiness among NUMSA members because they felt that the union delegation ended up adopting work reorganisation after the overseas trips. Some NUMSA shop stewards were reported to have been promoted after the trip. On the other hand, the participation in the overseas trips did not cause tensions in Solidarity. Perhaps this had to do with the fact that NUMSA membership which had less formal education saw possible retrenchments as a serious threat (Xaba 2003; du Plooy, 2010, interview; Galeni, 2009, interview).

As part of the rearguard actions of the unions, both NUMSA and Solidarity participated in forums or spaces that had a predetermined managerial agenda. This means that the management of the plant had already decided on the types of technological changes. So, trade unions would be generally updated or brought up to speed about those changes.

In the early 1990s, NUMSA and MWU participated in the Vanderebijlpark Project, a project which was aimed at improving productivity, but their participation was based on raising procedural objections and asking to be given more time to study proposals which were already implemented by management. The real disruption to union participation in the forum was that it was during this time that retrenchments occurred. In other words, participation of both unions in the forum was part of general rear guard action which really did not shift the balance of forces between management and trade unions. Management steamed ahead and implemented technological changes in the production process (Iscor South Africa1993c:22).

Klerck (1999:5) is correct when he points out that union participation in forums becomes less meaningful in cases where management has already determined the agenda and unions are not strong enough to alter such a managerial agenda. The union participation in these spaces is rear guard because management had already decided on technological changes. At the same time, the space is rear guard because it comes after management had crafted its plans on technology. The unions’ participation is also rear guard because the process of technological changes is at an advance stage. So, the unions are just going through the motions of a process that has predetermined outcomes.

# Solidarity, NUMSA and the Employee Assistance Programme (EAP)

Both trade unions were not satisfied with the EAP because they did not have a say in the whole process. Perhaps that is understandable because one of the basic roles of a trade union is to defend the jobs of its members. Loss of membership is not just an issue of labour relation’s procedure but it also involves emotion because workers and their union build bonds of solidarity. Families are negatively affected. Speaking to both unions about this issue one always detected a sense of grief. For example, du Plooy described the whole process of EAP as a ‘complete fuss’ (2010, interview). Rodrigruez bemoans the fact that the plant was dynamic and suddenly they had to come to terms with the fact that workers had to leave the plant. The EAP could not heal those wounds” (2011, interview).

NUMSA was also unhappy with the EAP process because the union felt that the entire process had a foregone conclusion which entailed retrenchment of workers. Subsequent to that NUMSA withdrew its participation in the entire EAP process because it felt that the process undermined workers and union membership. The union also felt that its proposal were not taken seriously (Xaba 2003; Haluhalu, 2010, interview).

**Solving a Health, Safety, Environment, Green Jobs and Technology Matrix**

In her dissertation, which examines safety and health issues in steel factories in Vaal, Maller (1983) argues that under capitalism the driving force for companies is profit making and therefore designers of machinery and owners of factories do not put the health and safety concerns of workers at the centre. In fact many accidents, according to Maller, happen because workers are pressurised to increase production that is controlled by machines.

In my Master’s dissertation on ‘Iscor Vanderbijlpark Plant’ I also discovered black workers’ concerns about health and safety issues at Vanderbijlpark. Machinery, chemicals, the heat and the production process led to injuries, respiratory infections and deaths. Workers who suffered from occupational disease were retrenched because the plant no longer needed them. Workers who participated in my study felt they were being used and disposed of by the factory management (Hlatshwayo 2003).

ArcelorMittal International and trade unions representing workers at an international level, including the IMF, signed an ‘historic’ international agreement on health and safety standards in 2008. Among other things, the agreement seeks to “include the commitment to form joint management/union health and safety committees as well as training and education programmes in order to make a meaningful impact on overall health and safety across the company” (Ivanou 2008:1).

Concerning production technology, the agreement says,

The company should not make significant change to technology, including equipment, materials, processes or procedures, unless the safety of the change has been thoroughly evaluated by competent engineers, and discussed by the committee (ArcelorMittal International 2008: 10).

NUMSA and Solidarity conducted training on health and safety issues with its shop stewards. The Vanderbijlpark Plant has a “health and safety committee” which is comprised of management and trade union, and its task is to monitor the health and safety standards of the machinery and the plant in general (Mashilo, 2011, interview; Dykema, 2011, interview). Subsequent to the signing of the international agreement, the ArcelorMittal Joint Global Health and Safety Committee (JGHSC) meeting was held in 2008 in Johannesburg.

The JGHSC carried out a site visit to Vanderbijlbark Steel Plant and took the opportunity to meet with representatives from local unions and management and conducted a safety tour of the plant. The main outcomes from the visit were a generally high standard of cleanliness in the plant, including the use of Personal Protective Equipment. However areas that needed improvement included developing greater cooperation between management and local unions in order to improve transparency and communication. The site also has a high level of contractors (**around 40 per cent of the workforce**) and greater attention needs to be given to ensure compliance with safety rules (Johnston 2010:1).

A challenge that faces both Solidarity and NUMSA is whether they will be able to ensure that new technological changes in production are able to meet health and safety standards as defined by the international agreement. This perhaps requires a proactive approach to the general question of the introduction of new production technology in the future. Not only must the unions be concerned about the possibility of displacement of workers as a result of new machines and computers, but they will also have to examine the health and safety effects of new technology.

Cock and Munich (2006) write extensively on the environmental impact of the Vanderbijlpark Plant. Basically, they show that the machines in the plant and the production processes lead to environmental disaster in the surrounding communities, namely air pollution and related diseases. Meanwhile NUMSA’s has led the debate on green technology, green jobs and environment in the South African labour movement. The union convened a number of meetings and seminars where the nexus of ‘technology, climate changes, renewable, green jobs and green economy’ have been discussed (NUMSA 2012d). The union argues,

The role of the state is central in this transition and requires an ecological focus on all forms of economic activity. Huge investments in renewable energy, technology and skills cannot be left in the hands of the private sector and there are huge opportunities for the state to make meaningful interventions to reduce our carbon footprint and boost our manufacturing potential (green jobs), transform the transport sector and initiate strategies that will enhance and protect our food supply (NUMSA 2011:5).

# Research on technological changes and work restructuring

Joubert, the head of research at Solidarity, was asked if the union conducts research on the role of technology in work processes. The response from Joubert is, “Well. [The research is] not directly [on technological changes] but most of the time it does come in as an incidental factor... We have not looked at it as subject specifically” (Joubert, 2010, interview).

In the majority of cases the research of the union focuses on wages. This entails an analysis of company reports, an analysis of the socio-economic situation and the formulation of wage demands (Joubert, 2011, interview).

While NUMSA has generally focused on wages as part of its collective bargaining, in 2009 and 2010 the union conducted seminal research into the automobile sector. Unlike Solidarity, NUMSA has at least tried to engage ‘production’ research but that has only been at the level of the automobile sector. NUMSA is advance compared to Solidarity because there are labour support organisations and researchers who are trying to help the union in dealing with production matters (Mashilo 2010; Masondo 2010; Webster et al 2009; Motau, 2011, interview).

In the late 1980s NUMSA formed the Research and Development Groups (RDGs) and the union is trying to revive the RDGs so that they can conduct research. However, the current RDGs have not conducted research on production and technology at ArcelorMittal Vanderbijlpark Plant (Bird 1992; Webster 2009).

# Education on technological changes in the labour process

It can be argued that Solidarity’s education programme tends to be largely about basic union issues such as “handling of labour cases and wage negotiations” (Reint Dykema, 2011, interview). On the other hand, NUMSA has a broad education programme which includes shop steward training on labour laws, as a well as a political economy education programme. Perhaps NUMSA can be regarded as a union that has an intense education programme in the South African context. The limitation of NUMSA’s education programme is that it has not examined in detail the question of production and technology. Possibly that has to do with NUMSA’s general focus on wages and broader political issues (NUMSA 2012b).

NUMSA has used the research on work reorganisation in the automobile industry sector to educate its shop stewards in the industry about work reorganisation. However, education on the work reorganisation research has only been conducted among shop stewards of the automobile industry. There seems to have been no education on technological changes and production at ArcelorMittal Vanderbijlapark Plant. The union has been educating shop stewards at ArcelorMittal about “health and safety issues” (Mashilo, 2011, interview).

# An asymmetrical relationship between wages and production

Dinga Sikwebu, NUMSA’s national education officer, also reflects on the work of the union. He says, “If you take the bulk of union work, it is around negotiations, bargaining on wages and all that” (Sikwebu cited in Bramble & Barchiesi 2003:206).

Both trade unions’ bargaining strategies tended to put an emphasis on wages at the expense of technology and work reorganisation (Joubert, 2010, interview; Ndebele, 2011, interview). The trade union emphasis on wages at the expense of technological changes was also noted by Velaphi Mjiyakho (2011, interview) who facilitates negotiations between Iscor/ArcelorMitall South Africa and the unions at the Metal, Engineering and Industries Bargaining Council.

Union resources, union work and structures tend to focus on wages. Even the union collective actions like strikes tend to be geared towards putting pressure on management largely during wage negotiations. This is understandable because workers use their income to purchase goods and service so they can continue to reproduce themselves and their families. However, this is again a one-dimensional strategy which also focuses on distribution of value created in a plant implicitly and practically grants management an uncontested power to change production in a manner which suits the interests of plant owners.

Instead of combining production and wage struggles, the unions focused on wages at the expense of technology. This undermined the union’s ability to proactively respond to technological changes (Joubert 2010; Motau 2011).

# Structures geared towards wages

The unions’ collective bargaining strategies and structures tend to focus on wages and benefits for members. There are no specific departments or units that deal with other critical issues of production and technological changes. This also has to do with the fact that work reorganisation and technological changes have not been main debates within the union structures. In fact, this may have also contributed to a proactive response to technological changes in the plant. This also has to do with the fact that the union structures are generally insulated from production. Production only emerges as an issue when it starts affecting positions of workers. IG Metall has structures which enable the unions to adopt a proactive approach to technological changes in production (see Masondo 2010).

The national congresses, regional structures, local meetings, and membership meetings of both unions tend to focus on wages and broader political issues. Technological change gets discussed only when it affects job security. These could be platforms and spaces of sharing and generalising union experiences with technological changes and work reorganisation (Hlatshwayo 2012).

The structures of the union at head office are not geared towards addressing technological changes at the plant. NUMSA is in a process of reviving RDGs which are meant to help the union to grapple with work reorganisation and the economy. This was after a research project which was conducted by Webster *et al* (2009) which called for the relaunching of RDGs. However, this structure (RDGs) has not cascaded to ArcelorMitall South Africa and the Vanderbijlpark Plant because the union has not begun to take stock of its responses to technological changes at the plant. There is a plan which entails an RDG which will examine nationalisation of ArcelorMittal (Hlatshwayo 2012a).

The case of ArcelorMittal in Vanderbijlpark shows that NUMSA was unable to respond proactively and defend jobs. This reactive response to technological change and work reorganisation also led to fragmentation within NUMSA, especially in the early 1990s. On the other hand, Solidarity was also unable to use its skilled membership to devise a proactive response. Instead, the union was more concerned about defending privileges of white workers (also see Mantashe 2008 on MWU).

The ArcelorMittal Vanderbijlpark plant case shows that the unions were unable to shield workers from the effects of technological changes partly because the unions adopted a reactive approach. Instead, management determined the nature and scale of technological changes.

**Early attempts at developing a proactive approach within the South African context**

Besides a generalised reactive approach to production within the South African context, in the 1970s and early 1980 there were attempts at engaging production, technology and health and safety issues. Labour was seen as something that was not just about bargaining over but was also viewed as something which was to be combined with technology to produce socially useful products. There had to be a creative element to labour, according to Webster (2012). This was also based on the fact that the unions and labour supporting intellectuals saw this as building blocks towards workers’ control of production. Webster (2012, interview) argues, “This was far more radical than the proactive approach of IG Metall. This was based on a goal of workers’ control of production.”

According to Webster (2012, interview), “The Technical Advice Group [TAG] was set up in 1982 to provide technical support to trade unions pertaining to issues of technology and production”. TAG was staffed by engineers, scientists, as well as students in these fields who wanted to do “socially useful work”. He continues, “The Sociology of Work Programme [SWOP] was formed in 1983 and worked closely with TAG. A lot of work was done which examined health and safety issues on the mines. We worked with the National Union of Mineworkers. The work of Leger Jean-Patrick titled ‘Talking rocks’ was about a need for workers to be paid for their tacit knowledge of underground work”.

Burawoy (2010:13) confirms this and says,

SWOP was originally founded as a policy unit when a group of engineers, known as the Technical Advice Group (TAG) approached Webster in 1983, hoping to deploy their skills and knowledge for progressive ends. This group included people who would become major players in the struggles around work and trade unions – Jean Leger, Judy Maller, Freddy Sitas, Yunus Ballim.

The work of TAG and SWOP entailed engaging metal factories and mines around health and safety issues. Eddie Webster, a founder of SWOP, remembers teaching shop stewards on how technology could be used in more socially useful ways in the early 1980s. This approach to technology was then sideline in the late 1980s when the national politics became the epicentre of trade union activity. The strategy of engaging production came back in the late 1989 and early 1990s in the form of Research Development Groups in NUMSA but, again, they were sidelined by an over-emphasis on national politics and wage struggles. Some key people who were part of this strategy left the union movement for government and business (Webster 2012; von Holdt 2003). As part of the research work of Webster et al (2009) and the recommendations, the groups are back in NUMSA and are conducting research on work reorganisation, sustainable energy and other issues.

Meanwhile, the Spoornet case, although based on reacting to managerial decisions, had some positive lessons for trade unions.

# The South African experience: Spoornet

In 2000 the Department of Public Enterprises announced plans to unbundle Spoornet into business units and then concession them to the private sector. The South African Transport and Allied Workers’ Union (SATAWU) responded by conducting research which showed that privatisation would undermine addressing the transport imbalances created by apartheid and the social and economic challenges of post-apartheid South Africa (von Holdt 2005: 413). The union also engaged the public via press briefings and newspapers. Presentations to parliament and minister of transport were made. During that period COSATU organised a two-day anti-privatisation strike and SATAWU was also part of that. The union and its members took part in the international day of protest against the neglect of railway transport. In 2001, all this led to meetings between government and unions, and this halted the privatisation of Spoornet (von Holdt 2005:419).

**Balancing a delicate equation**

In general a reactive approach does not help trade unions because it reduced unions to organisers of workers ‘funerals’. In other words, this approach enables management to freely determine production changes which tend to displace workers. In that process trade unions end up negotiating retrenchments packages and terms of workers transition from employment to unemployment. An understanding of the following can help unions to develop a proactive approach to production; the industry itself, financial position of companies, the plant, its production methods, technologies, interaction with workers who produce technologies, linking health and safety issues with production technologies, proactive research and hiring of engineers and technicians who have an in-depth understanding of work processes and technologies.

Bacon and Morris (1996) state that unions in Germany have been able to use the legislation, industry bargaining and works councils in particular to engage technological changes. The union struggle is on all fronts, namely wages as well as technology and production (Thelen 1991).

Masondo (2010) traces the evolution of IG Metall’s proactive approach to technology and production. Initially, in the 1960s the union was “receptive” of technological changes as long it did not tamper with a social contract between labour, business and government which was called a “coalition for industrial modernisation” (Thelen 1991, cited in Masondo 2010: 66). During the phase of “economic growth and development” IG Metall adopted an “apathetic” response to technological changes and production. It was only in the 1970s that union started adopting a “proactive” and “interventionist” line to production. This led to an amendment of the Works Council Act which included an extensive consultative process on technological change and work reorganisation. The union also initiated a “humanisation of work” programme and as part of this the union lobbied the Federal Ministry of Research and Technology to support the project whose intensions were to develop “humane” production technologies, conduct pilot projects of progressive work methods and generalise the findings and experiences in West Germany. This project came under attack in the late 1970s and 1980s as Germany was faced with a crisis of unemployment, rapid technological changes and global competition (Masondo 2010: 66).

The social contract ensured that there was “industrial peace” and government provided social protection and social security to those who became unemployed during the crisis of the 1970s. On the other hand, industrialisation and technological changes affected workers negatively. People were getting retrenched and there was also a rise in precarious work. Hence in 1978 there was a strike in the Nord Wuerttemberg / Nord Baden region of the union. Workers were demanding “protection for workers adversely affected by technological change” (Thelen 1991:192). The agreement entered into with the employer was that downgraded workers must have their normal income for eighteen months. The confrontation with employers and government led to IG Metall adopting a more ‘independent’ approach to technological change and work reorganisation. In 1982 the election of a conservative government reaffirms this position. IG Metall’s proactive approach then included industrial action and collective bargaining as a strategy for ensuring that technological changes do not harm workers and their interests (Thelen 1991).

IG Metall is able to use Works Councils, which elect workers’ representatives, as space for consultation provided for in laws governing Works Council, members support, research and capacity within workers and the unions, to craft a proactive response to technological changes (Bacon and Blyton 2000; Mashilo 2010). In cases of plant closures, employers, government and trade unions are supposed to come up with social plans which should take care of displaced workers (Masondo 2010).

The Labour Relations Act in South Africa has a provision for Work Place Forums but trade unions were concerned about the forum’s potential to undermine unions on the shop floor (Lehulere 2005). Perhaps reforming Work Place Forums in a manner which strengthens union involvement, provisions of access to information on technology and work reorganisation, bridging the gap between blue and white collar workers and proper consultation may strengthen union responses to technology and work reorganisation.

As part of deepening the research on a proactive approach to production, I also conducted an extensive interview with Konrad Siegel who worked at the Technology Department of IG Metall at head office in Frankurt. The strike action of 1984 was significant as a response to work reorganisation and technological change. Siegel reflects,

The biggest reaction of IG Metall during my working life time was to reduce working hours to close to 35 hours [a week] without reduction of pay. There was a compromise. We managed to save some jobs. It [strike] was not proactive. It was defensive. We had to defend jobs against technology that was coming in” (Siegel, interview, 2012).

He further speaks about how his position on production moved from a reactive approach to a proactive approach. He says, “Initially, as a worker I used to fight the industrial engineer”. He continues, “Later on when I was a union official [and a member of the Works Council] my personal position was to be proactive” (Siegel, 2012, interview). He also reflects on the internal union debate on productivity. He argues,

There were other union officials who were saying that we have to stop productivity. Other higher union officials were saying that we should not stop productivity. The official position in Germany where there are no mineral resources is that the asset is the workforce. You have to enter the market with high sophisticated product. The attitude of IG Metall is that we know there is this change. Our job is not to stop these changes. If productivity is rising, it will have to be a win-win game. Every year in bargaining campaign we want to participate in the gains of productivity. If there are job losses, employers have to accept measures such as reduced working hours. With changes of technology there has to be requalification and retraining. Wages should not decrease. That would be the mainstream approach of IG Metall (Siegel, 2012, interview).

Reflecting on his involvement in work reorganisation, Siegel argues,

We started in [our plant]. I will not say that this a general approach. The plan was to relocate a department to Czechoslovakia but we managed to stop that. We also assisted another manager of the plant in restructuring and jobs were saved. In our plant we changed plant layout and we also reduced inventory costs. The discussion started earlier in 1986. The pilot projects started in 1989 and went on until 1993 when I left the company. In all these case autonomous teams led by myself restructured work and productivity increased on average by 20%. In some cases it was 40%. There was a good market situation we had relative jobs losses; not absolute job losses. So, but there was a change later in 1992 and 1993 when there was a crisis. There was reduction of personnel. Around 800 jobs were lost. At the end, during the 1990s without this restructuring the plant would have been closed down. Now the plant is one of the productive plants [in the industry] worldwide.

He also states that restructuring led by workers and the unions in a plant had the blessing of union membership and workers in general. There were general meetings which provided workers with updates. Workers were also enthusiastic about the changes because jobs were saved. Workers were also paid for “thinking” about productivity. Initially these processes led to debates and conflict within the union. This led to the closure of the Technology Department of IG Metall in 1995 because other union officials felt that those who participated in “semi-autonomous” teams were “doing management’s job”. The work of the technology union was then taken over by the Bargaining Department (Siegel, 2012, interview). Subsequent there was a Work and Production Innovation Department, which is headed by Dr Detlef Gerst who has always had contact and interactions with the old Technology Department (Mashilo 2010; Masondo 2010). Gerst states that the union supports “semi-autonomous work teams because workers must take control of the politics of production” (Interview, Gerst, August 2009 cited in Masondo 2010).

Concerning IG Metall’s strategy, Masondo (2010:76) cautions against “protectionism” and says, “Implicit in these [collective] agreements is the nationalist-protectionist tendency based on IG Metall’s fear for possible capital flight into cheap labour zones”. As a way of undermining protectionism, Webster et al (2008:211) points out, “Corporations now work space relentlessly, moving production to places of greater advantage. In this process workers experience insecurity, whether they are from the North or the South”. At the end of the day mobility of capital requires “global unionism” and a move away from narrowly finding solutions within national boundaries (Webster et al (2008:211).

While there is a general agreement that the union has to engage production and a proactive approach is a necessity, Siegel also spoke about capacity challenges that face IG Metall in pursuing its proactive approach. He said,

There are problems in the unions but that is not about opposing engaging production but it has to do with capacity. The big problem is that the competence to do the work I am doing is limited in the union. We had a period in the last 10 to 15 years when union officials were forced to focus on resistance during the shutting down of plant. That brought a shift away from industrial engineering competence to legal competence. Now there is a need for engineering competence. This capacity is very small. In old times in the 1970s 1980s in the works councils those with industrial engineering were very important persons. That was also the case even with the bargaining department of the union.

He also indicated that the law governing the works council allows for consultation in cases of technological changes. The union also uses that space to engage workers who produce technology about the specifications of new technology that is to be brought in by management. This then enabled the union to ensure that new technology does not lead to health problems and job losses (Siegel, 2012, interview).

The German model that has been outlined does face challenges because sometimes the union is unable to really defend workers’ interest against retrenchments because of the union’s weakness and the strengths of factory owners in some cases but there is an agreement that the German unions have a proactive approach for engaging technological changes in production (Price and Steinger 1987:108). Unlike the case of Solidarity and NUMSA, this is an approach which balances production and wage struggles. In other words, the IG Metall has collective bargaining on all fronts.

The limitation of a strategy which focuses on wages is that it ignores production issues which have a bearing on the nature of the workforce and the union. For example, work reorganisation and technology change altered the workforce from an unskilled and semi-skilled workforce to a skilled workforce. Solidarity has skilled workers who play a strategic role in the production process. Some of its members are involved in the planning production but unlike IG Metall which also has skilled members, Solidarity does not use the location of these workers to help it in deepening its understanding of the production process and technological changes. Management would agree on a wage increment but then use its control over technology to displace workers. It gives with one hand and takes with the other (Hlatshwayo 2012)

There is also recognition, especially by NUMSA, that the situation at the factory is also linked to the balance of forces at national and global level. The unions, according to NUMSA, also need to pose demands which speak to changing the balance of forces in favour of various sections of the working class. Perhaps NUMSA has to combine that general political approach, which speaks to the national and international situation, with concrete interventions at the shop floor level. Maybe a proactive shop floor engagement with production can enhance the union’s approach to national and international questions on the balance of forces. NUMSA’s progressive political stance of non-racialism and the tackling of bigger questions of power may also lift Solidarity from its historical baggage of racism.

Solidarity’s membership which tends to be located at more technical side of work can also share knowledge with NUMSA’s growing skilled membership. In other words, a proactive approach to technological changes at the plant will also required a dialogue between the two trade unions.

# Some of the suggestions

Alex Mashilo, a head of collective bargaining in NUMSA, admits that NUMSA can learn from the German experiences but he makes an important cautionary note,

Our own circumstance with its own historical background and present settings are not the same as in Germany. Capitalisms are not the same... The forms that it has taken is different even the policies may not necessarily be the same. Even when it comes to labour relations there is no short-cut or cut and paste. What is justified in another country with a different type of capitalism may not be justified in another country in different type of capitalism (Mashilo, 2011, interview).

Bafana Ndebele also suggests,

We want to move to a situation where engineers work in the union. If there is a new machine our engineer can assist in analysing how safe is the machine? How will it benefit the employee and the employer? How can this machine be adjusted so that it cannot lead to reduction of workers? (Ndebele, 2011, interview).

Hlokoza Motau, NUMSA’s International Officer, reflects on the urgent need to respond to technological changes at the plant level,

You need to bring capacity to blue collar workers who have low engineering skills. Maybe we need to set up a unit within the union looking on production issues. The unit can conduct a research and an advise shop stewards how respond to this issues. You also need industrial engineers and international experience for advice and guidance (Motau, 2011, interview).

Technological changes and work reorganisation tend to fragment workers. Lucky Skhosana, a former regional secretary of NUMSA at the Sedibeng region who is now a national coordinator of the NUMSA Youth Desk, proposes that the union at ArcelorMittal in Vanderbijpark plant has to “continue organising workers employed by labour brokers” and forge unity between permanent, casuals and workers employed by labour brokers.

Based on my research into trade union responses to technological changes at ArcelorMittal Vanderbijlpark Plant, I am suggesting the following:-

1. The trade union movement and NUMSA in particular need to adopt a proactive approach to production.
2. Collective bargaining and union campaigns need to combine struggles for wages and production.
3. This has to be reflected at the level of structures, practice and polices.
4. The establishment of union work reorganisation and production head office units which are staffed by engineers, technicians and organisers who will be able to conduct research with the view to help the union in devising a proactive approach to technological changes and production.
5. Technology and production will need to be discussed at all structures of the unions so that the union can be sensitised to production technology changes.
6. Union structures such as the Central Executive Committee (CEC) and National Executive Committee (NEC) should also discuss technological changes and production issues because these issues affect union members. The presence of officials at these meetings can also enhance discussion on production matters. Of course, these structures cannot discuss factory issues but they can help in providing a general direction in as far as production is concerned.
7. Engaging and having discussions with overseas workers who produce new technology with the view to develop a concrete understanding of the possible impact of new technology on work and workers.
8. Deepening an understanding of an industry with the view to formulate an approach to wages increment, production and solidarity with workers in other countries is also another crucial element.
9. Shop steward and organiser training have to include ‘production’ issues. In other words, organisers and shop stewards need to have an in-depth understanding of production and production technologies so that they are able to help the union in devising proactive responses to production matters in plants.
10. Ensuring that members at the level of plants are also able to provide guidance and information on production issues. In other words, meetings must not just be about wages, they also have to discuss production issues.

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1. The paper is also sourced from my Doctoral Study titled, “A Sociological Analysis of Trade Union Responses to Technological Changes at ArcelorMittal Vanderbijlpark, 1989 – 2011”. [↑](#footnote-ref-1)
2. See Iscor South Africa Annual Reports 1996, 1998, 1991, 2002, 2003 and ArcelorMittal South Africa 2007, 2008, 2009, 2010, 2011 [↑](#footnote-ref-2)
3. The graph was constructed from the following sources :- Iscor South Africa 1992:29 2003:29; ArcelorMittal South Africa 2010:4, 2011:1 [↑](#footnote-ref-3)