

# **Institutional Cooperation between Furniture Technology Centre, South Africa and Tibro Training Centre, Sweden**

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# 1 Executive Summary

## Context and Key Role-Players

- South African furniture industry has experienced a significant loss of employment and future prospects are unclear in the face of strong competition from imports.
- Major weaknesses in the sector lie in product design and quality, low levels of automation, a lack of skills development, and the failure to develop a commitment to quality in the labour force all of which shape the demand for Furntech's training.
- When global furniture retailer IKEA began sourcing furniture from SA in the mid-1990s it experienced problems with quality, delivery reliability, cost control, cost effectiveness, and lack of knowledge about exporting. IKEA believed that training middle managers could enable the sector to become globally competitive.
- This precipitated a cooperation agreement between Furntech (Furniture Technology Centre) and TTC (Tibro Training Centre), as part of Sida's 1999–2003 Country Support Strategy for South Africa, to improve furniture production quality and uplift skills levels by drawing from Swedish knowledge and experience.
- The mandate of TTC included
  - To assist Furntech to establish a state-of-the-art furniture training centre with the latest technology at Saasveld,
  - To develop and improve the skills level of Furntech's training staff to develop modern training methods with the TTC trainers as mentors
  - To ensure that training meets international standards, the needs of SA industry and could be accredited
  - To assist in presenting training courses for management and supervisors, and in wood technology, wood finishing, and computer numerical control.
- South Africa's Department of Trade and Industry (DTI) set up Furntech in conjunction with the former Port Elizabeth Technikon (now part of Nelson Mandela Metropolitan University) in George, and committed over 70 million ZAR. Sida's contribution to the cooperation amounts to approximately 11 million SEK, including the current final phase ending in 2007.
- The key focus of Furntech includes the incubation of emerging entrepreneurs, particularly from previously disadvantaged communities, in addition to industry training as training is not within the remit of DTI.
- Furntech was DTI's first incubation project, necessitating the development of a new policy to finance and establish incubators and to include key industry stakeholders.
- Initial instability among the SA role-players and their failure to provide the Swedish partners with accurate information about South Africa's training system, industry and employee profile and available learning materials led to lengthy delays in the launch of the project and some inappropriate training being provided by TTC.
- Institutional and project management instability was addressed after Furntech's current CEO, Michael Reddy, was appointed in August 2001. His training experience and strong leadership has ensured the steady growth of Furntech.

- To be accredited Furntech's training must comply with the Skills Development Act and the requirements of the Forestry Industries Education and Training Authority (FIETA) which regulates and funds training in the furniture sector.
- Training legislation aims to increase training expenditure by firms and hopes to shift the economy from the low-skill, low-wage model pursued under Apartheid onto a growth path founded on higher-skilled workers.

## Furntech and TTC

- Furntech's vision is:  
*"To offer competitive training and innovative solutions to the furniture and wood products sector, and to contribute to the growth of the industry".*
- Furntech's Mission is  
*"To be a productivity driven, globally competitive, outcomes based training provider that delivers high quality, world class training at an acceptable cost; and innovative solutions in terms of incubation, and job creation and technology transfer based on the needs of the furniture and allied industries"*
- TTC has been a major contributor to Furntech's successful development into the leading training provider accredited by FIETA to the furniture industry.
- Furntech's focuses on training trainers, operators and supervisors, plus entrepreneurial and technical skills training to facilitate technology incubation and develop competitiveness. Courses include skills training and qualifications in wood machining, cabinet making, wood polishing and finishing, supervision, computer aided design (CAD) and computer numerically controlled (CNC) machining. No management training is offered.
- DTI has helped to finance significant growth with Furntech branches opened in Cape Town, Durban and Umzimkhulu and White River in Mpumalanga following from Saasveld. Future centres are planned in Johannesburg (Gauteng) and Mthatha in the Eastern Cape.
- Three furniture-production process experts from TTC, who specialised in CAD and CNC manufacturing, wood finishing and wood machining, spent three years with Furntech in South Africa.
- Training programs and materials from Sweden were adapted by TTC and Furntech trainers to match the education levels of local operators, the needs of industry and to align them with FIETA regulations. Meshing the TTC approach with the emerging SA system of outcomes-based education and training was a significant early challenge that was largely overcome once the system of training certification was understood.
- TTC experts played an important role in assisting the Furntech to establish and equip centres in George, and with preparing tender documents for the centres in Cape Town, Durban and Umzimkhulu.
- Three Process Management Development training programmes, run by Swedish consultants to TTC, were beset by problems and had a limited impact on developing management capacity. Furntech trains supervisors, but not middle managers, limiting its ability to change the industry's practices and competitiveness.
- Furntech's trainers have benefited significantly from their Swedish counterparts who enhanced their technical skills and taught them to emphasise technical precision, continuous improvement, and Health and Safety standards which have determined the manner in which Furntech now operates and trains.

- The reluctance of many employers to make serious investments in training appears to be limiting Furntech's potential to address its mandate.
- Furntech's viability as a training centre depends on employers receiving access to grants for training from FIETA. FIETA's administrative problems have prevented the steady flow of training business.
- Five South African visits to Sweden have been arranged to facilitate cooperation between the parties and to expose Furntech staff and board members, and industry members to business practices, production systems as well as institutions that support the industry in Sweden. Although exposing SA groups to international benchmarks the enduring lessons and direct benefits cannot be measured without a separate study of study tour participants.

## **Analysis/Evaluation**

- Sida's investment in training trainers has been leveraged effectively because significant funding from DTI for Furntech centres in Cape Town, Durban, Umimkhulu and White River led to TTC-trained trainers being deployed nationally in the new centres.
- The TTC partnership has helped to enable Furntech to 'cascade' skill development from the core and to become self-sustaining training provider.
- The enthusiasm, competence and devotion of key role-players on both sides played a vital role in sustaining and developing the TTC-Furntech partnership.
- TTC expertise has enabled Furntech to adopt world class health and safety, housekeeping and production processes and its methods now set a benchmark for South African industry.
- Furntech has utilised some of the expertise developed through the TTC trainers to train a wide range of unemployed people in skills programmes but the direct impact of the partnership on long-term job creation is limited and could not be identified as Furntech does no follow-up of participants.
- TTC training has a positive impact on the Furntech incubation project as SME owners benefit from technical and process knowledge and mentoring from TTC-trained Furntech trainers and report improved technical skills during incubation.
- As most SA firms pursue a competitive strategy based on low-skills and cost minimisation and see little direct business benefit from sending operators to acquire accredited qualifications, Furntech's impact is limited to a few smaller niche players and the provision of a few basic skills to operators in mass production plants.
- Of serious concern is Furntech's exclusive focus on the development of technical and supervisory skills. Furntech needs to revisit whether TTC, or another Swedish partner with appropriate expertise in furniture manufacturing management, can help to broaden Furntech's capacity to offer sector-specific management training at Level 4.
- The mainstreaming of HIV/AIDS training and ensuring higher representivity of women among Furntech trainees appears to have been given relatively low priority.

## **Prospects/Recommendations for further Cooperation**

- Since the second phase of funding Furntech has largely been self-sufficient. The most important areas of future support from TTC to develop Furntech's capabilities in order of priority, in the author's' opinion, are:

- Tailored internships in a few selected Swedish factories for those involved in supervisor training to enhance Furntech's ability to offer supervisor and junior management training
- Training in CNC technology to enable Furntech to focus on qualifications that may upgrade the competitive capabilities of SA industry.
- Provision of a trainer by TTC in furniture upholstery once Furntech has identified suitable trainer/s or opts to multi-skill existing trainers.
- Training to develop capacity in furniture design, which is critical to enhancing the competitiveness of SA industry, possibly by integrating AutoCAD with the creative aspect of design.
- Tibro Municipality could support cluster development in new areas and help to strengthen linkages between the Durban cluster and Furntech.
- Where Furntech operates in very poorly resourced rural communities there would be significant benefit to the incubator project if other Swedish municipalities, which have institutions that support small business development, could partner the local municipality and the Furntech centre to assist incubatees with industry-specific business support to complement the technical training provided by Furntech.

## **Replicating the TTC-Furntech Partnership in other Sectors**

- Based on the TTC-Furntech experience, the following recommendations can be made concerning the prerequisites for successfully rolling out this partnership model to other sectors:
  - Support from an existing cluster or a number of developed companies that express interest and are motivated to develop their industry to become globally competitive, either by exporting or defending their share of the domestic market from international competition
  - A domestic market which is profitable, has the potential to expand into markets with export possibilities
  - Government support at local, regional or national level providing finance, support and prioritising the venture.
  - A committed and professional local management team with a supportive board of directors.
  - A competent, motivated and enthusiastic (Swedish) counterpart with the relevant know-how to transfer.
  - Swedish or international development financing.
  - Ongoing monitoring of the project to ensure that the partners remain focused on the set objectives.

## **Assessing TTC-Furntech Prospects/Impact**

- Furntech/TTC is a very good example of transfer of technical industrial knowledge as Furntech has become a competent and efficient provider of technical training to the SA industry and is becoming self-sufficient.
- Irrespective of Furntech's performance, the SA furniture industry is unlikely to survive global competition unless the skills and competencies of its management are significantly upgraded and the industry as a whole places greater emphasis on HRD.
- The future impact of the partnership in terms of the criteria listed above is subject to two caveats which may lie beyond the control of TTC and Furntech:
  - Based on the relatively low usage of Furntech's facilities and services by the industry, who perceive Furntech's training as expensive, the commitment and support of the SA furniture industry to human resource development and Furntech remains questionable.

- By primarily emphasising the transfer of technical skills to operators and supervisors, the partners may have lost sight of Furntech’s broader mission, to make the SA industry internationally competitive.
- “Mission drift” from management training towards an exclusive focus on supervisor and technical training reflects on
  - cultural differences between SA and Sweden and the enormous challenges that partners face with transferring ‘soft’ managerial know-how (as opposed to ‘hard’ technical skills) across international boundaries.
  - TTC’s lack of expertise in this area and their reliance on outside consultants to deliver management training.
  - the assessment that the PMD were a ‘failure’. Had they been a success Furntech would have developed some momentum in offering managerial training and would have ensured that such programmes continue to be offered, by themselves or in partnership with other accredited education and training providers.

## 2 Terms of Reference

### 2.1 Background to the Cooperation Agreement

The cooperation between Furntech (Furniture Technology Centre) and TTC (Tibro Training Centre) started in 2001 as part of the 1999–2003 Country Support Strategy for South Africa which emphasised, inter alia, the need for increased foreign direct investment and skills development. The overall objective of the partnership was to help improve the quality of furniture production and to uplift the level of skills in the industry by drawing from the Swedish knowledge and experience.

One of the fundamental components of the cooperation was the development of the exchange links between Sweden and South Africa working in the furniture manufacturing sector. This angle was particularly chosen as it was deemed that there is a substantial added value and competitive advantage that Sweden possesses within the sector. In the long-term, the cooperation was envisioned to become part of a broader Sida strategy cooperation initiative based on mutually beneficial relationships and co-financing.

Sida and the DTI (Department of Trade and Industry) recognised the need to engage in the development of the industry. The approach followed was to have the DTI set up Furntech in conjunction with the then Port Elizabeth Technikon in George and Sweden to contribute towards training and development of South Africans. The latter was to be achieved through the financing of Swedish expertise from TTC, whilst the DTI focused on financing the running costs of Furntech. The DTI has committed over 70 million ZAR to Furntech and Sida’s contribution to the cooperation amounts to approximately 11 million SEK, including the current final phase ending in 2007.

The present cooperation between Furntech and TTC runs up until 2007. The decision for continued support was primarily based on the positive results of the previous cooperation during 2001–04 which had grown substantially and has led to greater prospects for a long-term, co-financed, sustainable cooperation outside Sida funding.

## 2.2 Purpose and scope of the evaluation

To conduct an evaluation of the cooperation between Furntech and TTC thereby:

1. providing an overview of the outcomes in terms of what has worked well, what has not and where the cooperation efforts should be prioritised in future.
2. giving guidance on the remaining components of the cooperation as well as preliminary indications and opportunities that should be pursued for the sustainability of the partnership.
3. assessing the possibility for replicating this model in other industries or countries.

## 2.3 Issues to be covered in the evaluation

Based on the written and oral briefs received from Sida representatives, this analysis addresses the following:

1. The contribution of the TTC-Furntech cooperation to address the problem of unemployment and skills development in South Africa.
2. The role of TTC in supporting skills development and the promotion of SMMEs through the Furntech incubator project.
3. The extent to which the industry is using or has used the services of Furntech in the context of the existing structural problems in the country's furniture industry.
4. The role played by the Tibro municipality (through TTC as agents of the municipality) in the growth, expansion and management of Furntech.
5. Approach to mainstreaming of HIV/AIDS in Furntech and its training programs.
6. Approach to gender mainstreaming in Furntech and its training programs.
7. Furntech and TTC's plan to sustain the cooperation after 2007.
8. Organisational set up process, issues of succession and retention of trainers linked to the sustainability of the cooperation.
9. The future role for municipalities in terms of support where there are satellites.

## Glossary of Abbreviations

|       |                                                                                           |
|-------|-------------------------------------------------------------------------------------------|
| CAD   | Computer Aided Design                                                                     |
| CNC   | Computer Numerically Controlled                                                           |
| DTI   | Department of Trade and Industry (SA)                                                     |
| ETQA  | Education and Training Quality Assurance                                                  |
| FIETA | Forestry Industry Education and Training Authority                                        |
| FITB  | Furniture Industry Training Board                                                         |
| HRD   | Human Resource Development                                                                |
| NMMU  | Nelson Mandela Metropolitan University (incorporates the former Port Elizabeth Technikon) |
| PMD   | Process Management Development                                                            |
| RPL   | Recognition of Prior Learning                                                             |
| SAQA  | South African Qualification Authority                                                     |
| SIDA  | Swedish International Development Agency                                                  |
| SME   | Small and Medium Enterprises                                                              |
| TTC   | Tibro Training Centre                                                                     |

## 3 Introduction, background & context

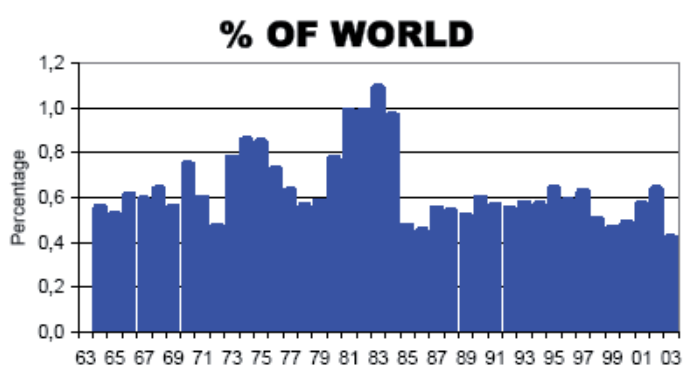
### 3.1 Competitive Challenges Facing SA Furniture Sector

Global trade in furniture is the largest traditional, low-tech sector, exceeding export trade in apparel and footwear. Recent growth of trade in the sector exceeded that for all world merchandise trade and that for clothing (Kaplinsky et al, 2002) and amounts to approximately \$80 billion annually (IDC 2005). This highlights the potential importance of the industry as a job-creator for South Africa which is a relatively small global player, generating about 0.4% to 0.6% of global output in \$ terms (see Figure 1). Figure 2 suggests that employment in recent years has been fairly stable at around 50 000, with a significant peak reflected in 2002.

Furniture exports increased consistently in the 1990s to reach R1 724 million in 2002. Much of this export growth was based on a declining currency and between 2002 and 2004 this trend was reversed when the exports of furniture dropped by 31.2% to R1 186 million. This has negatively affected many manufacturers, leading to the closure of many smaller operations (IDC 2005). Factory closures have led to the growth of smaller firms as retrenched artisans have set up home enterprises. The drop in exports was exacerbated by strong growth in furniture imports which now amount to double the export volumes. Increasingly furniture is imported from China and Indonesia and finished locally (Miles 2006). Notably, recent poor performance cannot be attributed to declining productivity as multifactor productivity increased consistently from 60,3 in 1994 to 134,65 in 2003 (IDC 2005). These figures should be treated with circumspection as industry productivity levels often improve when the least efficient operators are driven out of business, as has been evident in this sector.

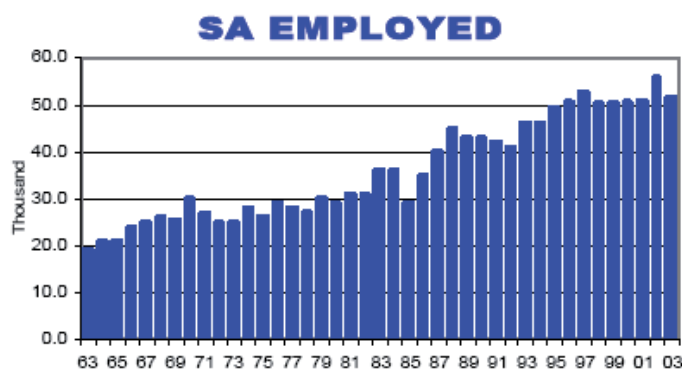
The importance of the sector to job creation has been highlighted in a recent UNDP-funded study that recommends that South Africa focus on the wood, paper and furniture industry because it is ranked second in terms of generating employment linkages and indirect jobs. It has one of the strongest employment multiplier effects, generating 15.3 direct domestic jobs for every R1 million in final demand, even though production within the industry itself utilizes only 4 workers per R1 million of output (Pollin et al 2006).

**Figure 1: South African Output as a Proportion of World Output**



(Source NPI, 2005, Customised Sector Programme)

**Figure 2: Number of Employees in SA Furniture Sector**



(Source NPI, 2005, Customised Sector Programme)

The furniture manufacturing sector comprises a single large vertically-integrated producer and a large number of small firms and a few medium-sized firms. The dominant firm is Steinhoff, a global player which is involved throughout the supply chain, with subsidiaries in forestry, sawmilling, board production, components (i.e. damask and other textiles, springs, foam and particle board), a diverse range of finished furniture products including lounge furniture, beds, do-it-yourself and wood-based case goods, and logistics to retailers and end-consumers. Steinhoff boasts of a very close relationship with the largest retail groups that control 90% of the South African furniture retail market. These groups do not specialise, but rather compete with one another across a range of markets with chains aimed at different socio-economic categories. This level of concentration forces manufacturers to supply one or more major retail chains even though they are likely to be subject to excessive control by their major customers (Dunne 1999). Dunne found that manufacturers and retailers shared very similar ideas about what was required to remain competitive in the domestic market, a reflection of the relatively close ties between them (see Figure 3). Delivery reliability, quality and after sales service are rated the most important criteria, followed by durability, price, design and lead times. Flexibility, guarantees and environmental standards rate as less important.

**Figure 3: Comparison of Manufacturer and Retailer Assessments of Market Demand in the Domestic Furniture Market (Dunne 1999)**



Given international trends towards customisation, she found the low emphasis on design and flexibility as surprising. This can be explained by the parochialism of an industry long insulated and isolated from international markets. The high emphasis on customer service reflects the dependent relationship between relatively small manufacturers and large retailers. Dunne also found that retailers and manufacturers agree that fell most short of retailer expectations on quality and delivery reliability. The competitive challenge faced by the domestic industry are highlighted by Dunne's findings that South African retailers regarded foreign suppliers as better than local manufacturers in terms of design

and, rather surprisingly, delivery reliability. This is consistent with Ikea's experience of poor delivery reliability among South African suppliers.

While Dunne found that low productivity levels and lack of skills appear to pose a problem for manufacturing efficiency, the erratic export performance of the industry puts investments in new machinery out of reach for most manufacturers. A related finding (Dunne 1999), of particular concern for this study, was that very few manufacturers saw the need to address their productivity and performance problems through training labour or reorganising production. This view was reinforced by former Furntech Board member and the human resources director of the industry's largest player, Steinhoff, who stated that "wages and benefits are quite high and no amount of training can overcome this" (Tarr 2006). Smaller enterprises also experienced difficulty in releasing staff from work to attend training courses. Finally, Dunne's survey revealed that South African exporters have a disturbing tendency to underestimate the quality and price demands of foreign retailers, which will have to be addressed if firms are to remain competitive in the medium to long term.

Although furniture is a resource and labour-intensive product, the major furniture exporting countries are still the industrially advanced economies. Italy is by far the largest net exporter followed by Canada, Denmark, Spain and Sweden. However, global competition is intensifying as global trade is increasing with developing countries playing a more important role. Declining global prices suggest falling barriers to entry, new entrants, increasing efficiency and falling costs. In this context, producers need to enhance productivity and competitiveness across the spectrum (Kaplinsky et al 2002).

The major potential international customers of South Africa's furniture sector are multi-national corporations (MNCs), like the IKEA retail chain, who increasingly concentrate on design, technology, branding, logistics, marketing and other intangible activities in the value chain that now generate more added value than manufacturing does. While MNCs support the growth of manufacturing capabilities in supplier firms from developing countries, these producers must develop their capacity to respond effectively to the particular critical success factors which prevail in each market segment in order to meet the needs of buyers effectively.

The growing capabilities of world class manufacturers implies that the traditional trade-offs between critical success factors such as price, quality and variety is diminishing. Increasingly the large retailers are able to simultaneously offer low prices, variety and high quality (Kaplinsky et al 2002). Ikea's experience with sourcing from SA revealed similar problems with quality, delivery reliability, cost control and cost effectiveness, as well as knowledge about exports and export markets.

Global retailers are generally very demanding with respect to compliance with quality (ISO 9000), labour standards (SA 8000) and environmental standards as a minimum criterion for suppliers bidding for contracts. Competitive pressures have meant that process upgrading is widespread, with respect to new machinery, inputs and equipment (notably CNC machinery and water-based paints and varnishes), as well as the control of logistics, quality and continuous improvement. Product innovations are also of growing importance, with flat-pack furniture used increasingly to reduce transport costs, and design increasingly important in determining market-share (Kaplinsky et al 2002).

Access to reliable, good quality domestically produced timber supplies is a serious problem for SA furniture manufacturers. South Africa's bountiful resource of diverse indigenous forests have been destroyed and almost all materials are sourced domestically from commercially cultivated pine and eucalyptus plantations, which were originally planted to provide pit-props for the mining industry. Because only 12 percent of domestic timber is used by the furniture sector it is a relatively small user group with little influence over producers. As a consequence of an oligopolistic market structure and aged equipment, the furniture industry receives poor quality timber inputs and delivery reliability is notoriously poor (Kaplinsky et al 2002). These factors have forced some manufacturers to resort to imported timber.

It is noteworthy that IKEA's former representative in South Africa has also attributed their decision to withdraw partly to the quality and properties of SA timber utilised by some manufacturers rather than the production performance of all its firms, one of which he described as world class (Karlsson 2006).

Production and retailing has also been dominated by large firms, which grew under the protectionist mantle of import substituting industrialization. They served a domestic market with a wide range of products and tended to be unable to concentrate on areas where they had distinctive competences. Production of relatively standardized items in large batches resulted in firms failing to develop the capacities to design and change their product portfolios (Kaplinsky et al 2002).

In the late 1990s South African exporters were only hanging into the market by virtue of price competitiveness, which was achieved by a continuously depreciating exchange rate, since their quality and delivery reliability were poor; they were distant from final markets and showed little capacity to develop related capabilities. Not surprisingly, by 2006 most of this export business, particularly at the low value-added end, has disappeared as a result of currency strength. The export 'success' of the wooden furniture manufacturers in 1990s has been described as "immiserising growth" because prices received declined in hard currencies as the South African currency devalued faster than the rate of inflation in this sector. Firms reported significant downward price pressure from international buyers, and were only able to maintain or increase export market shares because of sustained currency depreciation (Kaplinsky et al 2002).

The inability of individual companies to introduce new designs is linked to a lack of indigenous design capacity. There are no substantial furniture design programs within the tertiary education system and product innovation has been confined to amateurish attempts to amend existing design through essentially trivial modifications to existing designs.

### **3.2 Can SA Develop a World Class Furniture Industry?**

The industry has experienced a significant loss of employment in recent years and future prospects in this sector are unclear. Although domestic market exposure to imports has so far been limited, the earlier discussion suggests that furniture manufacturers are probably not in a strong position to face any such threat in the future.

The most obvious weakness of South African manufactures lie in the area of product design and quality, which manufacturers are clearly aware of but appear unable to devise effective responses. Relatively low levels of automation, a lack of skills development and a failure to develop a commitment to quality in their labour force all impact negatively on quality. In exporting to developed markets, the problem of price competitiveness is not price per se but the quality of product which manufacturers can produce at a given price.

The challenge of export marketing is compounded by the complex problem of understanding the varying demands of a number of foreign markets. Most local manufacturers are too small to be a significant supplier to a large foreign furniture chain. In sum, the root cause of these problems lies in many of the same areas where developing countries traditionally face constraints – technology availability and management, skills availability and training, access to finance, arrangements for marketing, and services for distribution. Like many Asian competitors South Africa is also located far from most developed markets. While labour costs are often mentioned as a cause of uncompetitive prices, South Africa is highly unlikely to, and shouldn't aspire to, become an unregulated "survival wage" manufacturing location. Improving labour productivity is thus a far more appropriate approach.

Dunne (2006) suggests a number of possible solutions to build export success, and implicitly success in the face of pending imports. Improved product design can be achieved by upgrading design capacity by employing furniture designers with ongoing international exposure, value-adding features and better

finishing. The problem of poor quality requires a multi-faceted approach, including investment in improved machinery such as automated finishing plants, upgrading labour skills and motivation, research into ecologically friendly finishing techniques. Finally manufacturers need to access better raw material inputs through promoting improvements in local mills or foreign sources. Finally, she argues that firms also need to make a fundamental re-orientation from their traditional competitive mindset to adopt an approach based on sustained and meaningful co-operation among competitors.

This set of prescriptions provides a useful backdrop against which we can begin to assess whether or not the Tibro-Furntech partnership has been successful in (a) transferring technical competence and (b) assisting the SA furniture sector to become more globally competitive.

## **4 The TTC-Furntech Initiative**

### **4.1 Origins of the Project – Swedish Perspectives**

In 1995 IKEA placed Jan-Erik Karlsson in Cape Town to develop a new network of suppliers in line with the company's policy to maintain a wide range of suppliers spread all over the world. It was South Africa's large plantations of pine – the third largest in the world and certified as sustainable by the Forest Stewardship Council – and a fairly well-developed furniture industry with a considerable cluster of firms that attracted IKEA. Despite the absence of potential suppliers elsewhere in Africa, it was easy for IKEA to develop contacts with the South African furniture companies and good relations were developed. Ikea purchased pine tables, unsophisticated sets of shelves, doors and wardrobes. They also explored supplies of garden-furniture made in eucalyptus but there were problems with the drying process and the particular wood properties. In the period up till 2000 IKEA's total purchases were in the range of some SEK500 million (Karlsson 2006).

After evaluating the products and deliveries from South African suppliers IKEA complained about product quality and delivery reliability, which are very common problems in developing countries. Ikea believed that the weakness of SA suppliers, particularly in the area of quality control, could be addressed by training of middle management to enable the sector to become globally competitive. The SA Minister of Trade and Industry Alec Erwin then asked for Swedish assistance to develop the SA furniture industry. The most important industrial cluster in furniture manufacturing in Sweden is located in the Tibro municipality. IKEA then identified TTC as the most suitable Swedish partner because of its training experience and competence in supplying the local industry with skilled workers and technicians for many years.

In 1999 Stig Holmquist, at that time Director of Procurement Strategy IKEA International A/S, drafted the first project plan "Memorandum of planned Training Centre in Eastern Cape Province, RSA, for middle management in wood working industry". The management and trainers of TTC responded positively to the proposal and travelled to South Africa for fact finding, discussions and planning. Six air tickets were paid by IKEA to make the initiative possible.

Later Sida was approached with a detailed project proposal for financing the fees for trainers from TTC and their transport to RSA. The project was a good fit with Sida's policy to support private sector development. The development cooperation was directed to training from which the whole sector, and not just a specific company, could benefit. The project also aligned with the Swedish Government's objective to support development cooperation with the newly democratic South Africa. Sida also provided finance for study tours for South Africans to Sweden.

Implementation of the project started in 2001 with project financing provided for three years. However, before the project came into effect IKEA decided to close their activities in South Africa in 2000 and Jan-Erik Karlsson was transferred to China. Although it has no need for new suppliers of pine products, IKEA maintains contact and is well informed of developments in the industry. It is still prepared to revive business with South African suppliers again. A major problem, however, is that IKEA regards South African pine as too soft – 430 kg/m<sup>3</sup> compared with Nordic pine 550–600 kg/m<sup>3</sup> (Karlsson 2006).

## **4.2 Origins and Early Development – SA perspectives**

The isolation of the domestic furniture industry from international markets during the Apartheid era led to the development of an industry that catered to a wide diversity of domestic customers and was insulated by tariffs from competition. Production workers were predominantly semi-skilled blacks with low levels of formal education and industry training although some were employed as skilled artisans. Whites make out approximately 10% of the workforce and are mainly employed in managerial or senior technical positions. Overall, the industry was in a poor competitive position and it was perceived that there was significant scope for developing the industry's potential in the Eastern Cape. The project was initiated by the Department of Trade and Industry (DTI) in response to the recognised need to “improve the quality and quantity of furniture production in South Africa and to increase furniture exports” (Terms of Reference 2001).

Around the same time in 1998 IKEA proposed to explore the extension of South Africa as a supply base – Note that at the time IKEA already had a number of South African suppliers although none has survived to the current period. Discussions between IKEA and Minister of Trade and Industry Alec Erwin focused on the need to improve the quality of South Africa's export-orientated furniture industry in order to secure existing jobs and to create more jobs. Erwin and his Swedish counterpart, Bjorn Rosengren, sought to identify how Sweden could assist the industry in making the transition from insulation to a competitive global player. Initially, Paul Jordaan, special advisor to Minister Erwin, sought to link the establishment of Furntech to the Wild Coast Spatial Development Initiative, a DTI programme to promote economic development in the Wild Coast region of the Eastern Cape, one of the country's least developed rural areas. It was soon realised that locating the project in the Transkei area would be too risky and an alternative location had to be found. Although George was not in the Eastern Cape it was regarded as close enough to provide support to the development of the industry (Horn 2006).

In November 1999 an inter-governmental agreement was concluded whereby Sida agreed to contribute SEK5 million (later increased to SEK8 million) for training support from TTC to strengthen the competitiveness of the South African furniture industry. A Steering Committee was established by South African stakeholders (DTI, trade union, bargaining council to secure funding from the SA government. DTI initially aimed to build technical capacity in labour and management through the establishment of Furntech. However, the supply of funding on the South African side was delayed, partly because the provision of training is not normally within the remit of DTI. Furthermore, at the time there was no policy in place in DTI to finance and establish incubators. In order to secure funding from DTI, a key focus of Furntech became the incubation of emerging entrepreneurs, particularly from previously disadvantaged communities, as well as the provision of training to the industry.

During this period (late 1999 to mid 2000) there was a complete change in South African personnel involved in the project and there appeared to be significant concerns about the future of Furntech. Plans for training to be provided by TTC were revised a number of times due to fluidity in the role of Furntech and the broad diversity of stakeholders involved in establishing the project. Funding of R18 million from DTI for Furntech was approved in August 2000 with Laurie Steenkamp of the Technology Promotion directorate as the lead executive at DTI.

The Evaluation report prepared by TTC and Furntech in 2004 highlights the instability among the SA role-players and the lack of accurate information about the country's training system, industry and employee profile, and the learning materials available in the country. Crane ascribes this gap and the erroneous information provided to the quality of the training that the Furniture Industry Training Board (FITB) was offering and the limited understanding at the time of the broader training requirements of the industry. In particular, it was later recognised that the Swedes could “inject pedagogy and methodology into training delivery” (Crane 2006). Van Biljon (2006) ascribes this problem to the failure of DTI to fully understand the importance of training to develop competitiveness.

### **4.3 Coalition of Stakeholders & Emergence of Furntech**

The project manager responsible for the launch of Furntech, Colin Horn of DTI, highlighted the emergent approach: “We were not copying any particular model as it will be driven by the industry's needs, with the emphasis on lifelong learning and assisting manufacturers to improve their production processes.” This innovative, emergent strategy resulted in a fairly high level of institutional and project management instability until Michael Reddy was appointed as CEO in August 2001 because at the time no other incubation projects existed in the country. It was also innovative for DTI, as project manager, to decide to involve a number of stakeholders in establishing Furntech. In addition to DTI, the key stakeholders included the Furniture Association, the furniture workers' trade union (NUFAW-SA) and the Saasveld campus (outside George) of the Port Elizabeth Technikon (now part of Nelson Mandela Metropolitan University).

Initially Furntech received a grant of R5 million from DTI to recruit staff, get the training courses from scratch, set standards, and get the buy-in from a variety of stakeholders. The transition from the time when the FITB was the industry's training provider funded by employer levies, to the establishment of FIETA as a new regulatory authority created great instability for training in furniture as well as in other sectors. This instability was also influenced by initial maladministration at FIETA which was top-heavy and failed to channel available funds for employers to utilise training providers like Furntech (Horn 2006).

### **4.4 Institutional Context**

Furntech operates within DTI's framework for Technology Business Incubators, which provide a variety of services under controlled conditions to create an environment favourable for developing, nurturing and accelerating growth of new, technology-based companies. The support services include physical space, business development and technical services. DTI's objectives on incubators are to

- a. Provide entrepreneurs with physical premises, professional guidance, technical and financial support, management support and administrative assistance, so that they may develop their ideas into products/processes for the market place
- b. Assist individuals in developing technologies and establishing technology firms
- c. Promote commercialization of research
- d. Transfer emerging technology
- e. Create jobs and diversify the local economic base.

Another very important factor shaping the development of Furntech was the passage of skills development legislation in the late 1990s. This led to the establishment of 25 Sector Education and Training Authorities (SETA) covering the entire economy, including FIETA (Forestry Industries Education and Training Authority) which is responsible for the furniture sector. The legislation aims to increase

training expenditure by firms to counter their traditional failure to invest in HRD, and thereby hopes to shift the economy onto a growth path founded on empowering workers into a skilled labour force, rather than the low-skill, low-wage model pursued under Apartheid.

The legislation aimed to replace the previously unstructured, uncoordinated, employer-driven and ineffectively regulated training system with a model based on cooperation between the state, capital and labour. Employers are encouraged to use the workplace as an active learning environment and provide employees with the opportunities to acquire new skills through apprentice-style learnerships and other training programmes. Employers are levied 1% on payroll and may claim back expenditures on approved training through the relevant SETA (Bird 2001).

The legislation also aims to increase training expenditure by firms to counter their traditional failure to invest in HRD (Bird 2001). It is pertinent to note that the SETA model is implicitly founded upon two fairly strong assumptions. Firstly, driven by market demands, the continued survival and competitiveness of firms is dependent on developing a more skilled workforce and adopting 'best practice' human resource management. Secondly, in pursuing a business strategy that integrates 'best practice', firms will voluntarily increase training investment and derive a return on this investment. Recent research suggests that the strength of these assumptions may undermine the legislation's goals, particularly in sectors like furniture manufacturing and others that rely primarily on relatively low-skill workforce (Hirschsohn 2006).

## 4.5 Furntech's Strategy

When opening Furntech's Saasveld centre in February 2002, Deputy Minister of Trade and Industry Lindiwe Hendricks, stated that DTI's decision to support Furntech was based on the recognition that "South Africa has the raw materials, skilled labour and demand for us to have a successful furniture industry. With the support offered by an institution like Furntech we have the potential to improve our local industry and to be successful in the international market and to export our products". The decline in the furniture industry had to be reversed with "firms in the industry producing niche and quality products. The services of productivity, improving the skills of employees, improving the quality of products and using the latest technology and design skills, which are offered by Furntech, will go a long way in assisting and equipping firms to enter the export market."

As an accredited training provider to the furniture industry, Furntech's vision and mission are shaped by this regulatory context. The Vision is:

*"To offer competitive training and innovative solutions to the furniture and wood products sector, and to contribute to the growth of the industry".*

In this context the Mission is

*"To be a productivity driven, globally competitive, outcomes based training provider that delivers high quality, world class training at an acceptable cost; and innovative solutions in terms of incubation, and job creation and technology transfer based on the needs of the furniture and allied industries*

The incubation concept at Furntech is a more inclusive concept than that practiced at other DTI-funded centres which are highly focused on developing narrow business niche opportunities – e.g. medical bio-technology. Furntech is a hybrid incubation centre that offers four main services – Training, Incubation, Technology demonstration, and Technology transfer:

1. The training focuses on training trainers, manufacturing technology and supervisory training, as well as entrepreneurial and technical skills training to facilitate technology incubation and develop competitiveness. The range of courses includes skills training and qualifications in wood machining,

cabinet making and wood polishing, and supervisory courses and training in computer aided design (CAD) and computer numerically controlled (CNC) machining. Furntech does not offer courses in sector-specific production management or general management training. Furntech was the first training centre accredited by the Forest Industries Education and Training Authority (FIETA), a statutory body comprising representatives of employers, unions, and training providers, which governs the provision of training in the sector.

2. The technology incubators encourage the development of new products, establish small enterprises, transfer new products to industry, and increase exports, all of which should also enhance industry competitiveness and job creation. Incubation facilities enable entrepreneurs are able to start up businesses in a protected business environment. Potential incubatees have to have a business plan and be a legal business entity to use the incubation facilities. Furntech links the incubatees to accredited business skills providers, and a range of other service providers. It also offers a production mentoring and training role in this process.
3. The centres also demonstrate the latest skills and furniture-production technologies, providing an opportunity for manufacturers to see machines such as CNC machining centres at work.
4. The fourth component is technology transfer by offering technology audit service and transferring skills and technologies.

While Furntech stands on these four pillars, the focus has been on the areas of greatest need. As a result, the core functions of Furntech are the provision of accredited and relevant training to both employed and unemployed learners and the development of small business through its Business Technology Incubation services, rather than technology demonstration and transfer (Van Biljon 2006).

## 4.6 Objectives and Modus Operandi of TTC-Furntech Agreement

While the overall objective of Furntech is to render the SA furniture industry internationally competitive and to create growth and employment in the sector, the specific objective of the Swedish contribution is more limited, namely

*“to assist SA to develop the required pool of trainers, facilitators and experts needed to turn Furntech into an efficient provider of training for the SA furniture industry”*  
(Swedish-SA Agreement, signed on 30 March 2000)

The terms of reference for TTC were finalised after a number of revisions to the original proposal. TTC was tasked with providing organisational and logistical long and short term support for Swedish staff in SA (see Appendix 8.1 for full details).

The mandate of TTC was to

- assist Furntech management to establish a state-of-the-art furniture training centre at Saasveld, with the possibility of developing other offices across the country
- Verify and validate the content of training courses offered to ensure training meets international standards and the needs of the SA industry
- Further develop training concepts to ensure latest technology is transferred to Furntech staff and the industry
- Develop and implement evaluation criteria for entrants and outcomes to conform to acceptable standards
- Assist Furntech with the marketing and recruitment of people to be trained

- Assist with the arrangement and presentation of identified training courses, being: Management and supervisory training
- Introduction to wood technology and wood finishing
- Computer numerical control and other courses that may be required
- Work with SA trainers to develop and offer training with modern and adaptable methods with the TTC trainers as mentors, and SA trainers gradually taking over the educational responsibility.
- Assist Furntech to ensure that training conforms to the Education and Training Quality Assurance (ETQA)/FIETA accreditation criteria, Furntech's business plan and objectives, and to the guidelines in the DTI/Furntech Memorandum of Agreement.
- Develop and improve the skills level of Furntech staff, and those of other furniture training organizations in SA
- Liaise with other SA training centres, NGOs, and private providers to ensure the success of the Furntech project
- If time was available, to assist Furntech
  - with the demonstration and transfer of new technology to SA industry
  - to develop systems to ensure that the latest technology for training, technology transfer, demonstration and incubation are being used to upgrade the standard of manufacturing in SA
  - to develop and implement an incubation system to ensure that SME start-ups are successful

The assignment started in April 2001 with the arrival in George of three Swedish trainers who were to spend three years to assist Furntech management with day-to-day operational issues of the training and technology centre.

## 5 Implemented Project

### 5.1 Overview of Furntech – Locations, Facilities and Staff

Furntech was initially established on the grounds of the PE Technikon's Saasveld Campus in George in temporary prefabricated accommodation while a new centre was designed and constructed. Training Manager Joy Crane recalled how TTC and Furntech trainers developed and planned courses under the trees. Initially Furntech started with training for the unemployed which was aligned with TTC's training expertise.

The location was probably not ideal as George is not a major furniture production centre although quite a sizeable industry exists in the area due to the historical presence of hardwood forests and timber processing. PE Technikon had an old facility where the FITB operated in George which was significantly upgraded in 2001. Initially only one centre was planned to focus on technology transfer and training. However, it was soon realised that Furntech would have to get closer to industry by rolling out centres nationally. As Furntech developed a better understanding of the industry, the founding chairman of the Furntech reported that the board realised that developing global competitiveness was a long-term initiative that would have to be multi-faceted (Van Biljon 2006).

The demand for Furntech's services signalled the need to expand the organisation's presence and for it to become the national institution of choice for the furniture and wood products industries. Subse-

quently, DTI funding was utilised to finance branches in Cape Town (where the facilities of the former FITB centre were acquired and refurbished), in Durban and Umzimkhulu (although initially located in the Eastern Cape the area is now part of KZN), in KwaZuluNatal province, and most recently in White River in Mpumalanga. We visited the resource centres in George and Cape Town where the physical infrastructure – fully equipped workshops, incubators, lecture rooms and offices – are being used by various elements of Furntech’s target market, although the level of utilisation was difficult to determine.

Furntech’s skills development initiatives have been developed on the assumption that enhancing the industry’s competitive advantage should primarily be focused on the development of its human resources rather than in its products. The mandate is to deliver world class training to help develop the domestic furniture industry which remains largely targeted at the domestic market. Despite this inward focus Furntech believes that an enduring challenge for the furniture and wood products companies is to manage their human resources so that they become a source of competitive advantage. As the only national skills development service provider, Furntech is uniquely positioned to play a positive role throughout the industry. This role will be significantly enhanced when Furntech’s sixth centre is established in Johannesburg (Gauteng province), the country’s largest furniture manufacturing region. This long-planned move was prompted by recent industry concerns about training standards at the major training centre in the region and a commitment from Steinhoff, the country’s largest furniture manufacturer, to utilise the CNC training facilities that will be re-located from the George centre (Tarr 2006). At DTI’s initiative, Furntech is also exploring the feasibility of establishing a centre in Mtata in the Eastern Cape, the first site which was considered for Furntech to be established.

Furntech’s training and recognition of prior learning<sup>1</sup> (RPL) policies are based on the Skills Development Act, and the South African Qualifications Authority (SAQA) regulations. The key component of this training policy is to add value to the skills development process so that both the employee and employer benefits. The value adding process is based on the premise that the draft unit standards specify minimum standards to be achieved, while Furntech promises to exceed these standards, wherever possible.

Furntech is accredited by FIETA to offer learnerships, skills programmes and short courses in Cabinet making, Wood finishing, Wood machining and Upholstery. To this end, Furntech has invested in the development of learning materials aligned with the FIETA unit standards and the National Qualifications Framework (NQF), and benchmarked against Swedish best practice.

## 5.2 Technical Training

In each annual report, Furntech CEO Michael Reddy, has acknowledged the role of Tibro Training Centre (TTC) as “one of the major contributors to the successes that Furntech has achieved. TTC’s main contribution has been in the areas of HRD, health and safety, and course development. As a direct result of this partnership, Furntech has become the industry leader in South Africa and possibly in Africa” (2004 Annual Report).

Key players involved in the initial scoping the training needs of the industry were Gary Johnson (FITB Cape Town), Peter Dampies (General Secretary of NUFAWSA) and industry representative Terry Miles. Together with TTC they identified the areas of technical support and expertise that Furntech would require and worked to identify the trainers from TTC (Horn 2006). Three trainers, Mikael Johansson, Lars Holmgren and Vide Petersson from TTC were to spend three years in South Africa. They specialised in computer-aided design and manufacture and computer numeric controlled (CNC) manufacturing, wood finishing and wood machining, and are furniture-production process experts.

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<sup>1</sup> RPL is a process whereby individuals who have acquired skills through practical experience may be assessed and accredited as having the certified qualification.

While the attitudes and skills of the trainers were never in doubt some problems were experienced initially with written and oral communication in English. Their arrival was not carefully planned and instead of following the scheduled induction program they were asked to leave their family members in George while they participated in a 14-day marketing tour to companies in three centres. This placed a lot of pressure on the families and the challenges they faced in making the cultural adaptation from the stability and security of Sweden to a diverse, complex, dynamic new South Africa were not adequately prepared for (Horn 2006).

Initially TTC introduced a 15-week program that was developed without a detailed understanding of the statutory and regulatory environment in South Africa. Consequently, the program was not compliant with the National Qualification Framework (NQF) or the qualifications of FIETA. This could partly be ascribed to the project management for Furntech initially being under the leadership of DTI which focused on business development, rather than the skills development which falls within the domain of the Department of Labour and FIETA. Further analysis can be found in the partners' 2001–2003 Evaluation Report.

When Reddy was appointed as CEO Furntech brought on board the requisite knowledge of the institutional training context. He suggests that the outcomes of the accredited qualifications appear to be tailored to the needs of Steinhoff, the industry's major role-player that is involved in FIETA and is pursuing a relatively low-skill cost-driven production strategy. Subsequently, the content of courses were adapted by TTC and Furntech trainers to align them with the NQF and the learning outcomes specified by FIETA. Because Furntech's training is deemed to exceed the prescribed standards, the training has not been formally audited. However, as all learners are assessed independently by qualified assessors (i.e. not by those who instruct them) Furntech does not regard the lack of a formal audit as a significant problem.

While the use of hand tools remains an important component of the South African furniture sector because of its labour-intensive approach, the technological development of the Swedish industry and thus of the training provided by TTC has been towards high-technology machining utilising relatively highly skilled employees. The training emphasis on relatively traditional labour-intensive approach, as practiced in the domestic industry and required by FIETA qualifications, was a source of disagreement between TTC and Furntech trainers as the technological development of Swedish industry and the expertise of its trainers had relegated these skills as unimportant. There was initially significant resistance from the TTC trainers to the emphasis on hand tools in cabinet-making as they believed that the industry would benefit more from developing advanced skills levels using higher levels of technology. A number of interviewees raised the question of the appropriateness of much of the training offered by Furntech today, given the objective factory conditions that learners will face on their return to relatively unsophisticated workplaces where modern technology is rarely found.

All Furntech trainers agreed that the disciplined Swedish approach challenged traditional SA workshop practices. Manager of the George centre, Arthur West (2006), who grew up in a family-owned furniture business, commented that he learned to replace the traditional SA approach of "no planning, just do it" with the Swedish approach of "plan and do it right first time, one time". Moreover, the emphasis on continuous improvement showed him how to learn from his mistakes.

An oft-repeated comment by all the Furntech trainers who benefited from training by TTC trainers has been in the area of safety, health and environmental (SHE) issues, which Furntech has integrated into its sustainability policies and procedures. Our visits to two Furntech sites demonstrated clearly that the organisation is committed to ensuring that all its services are delivered in a manner that is safe and does not endanger the health of its staff, stakeholders and communities and the environment. It has appointed the National Occupational Safety Association (NOSA) as its external auditor to ensure compliance with all relevant South African laws, particularly the Occupational Health and Safety Act. All centres have been audited by NOSA and awarded 4- or 5-star health and safety status.

### 5.2.1 Developing Furntech Trainers

The training facilitators who were appointed in George and Cape Town have been mentored by Swedish trainers from TTC, and guidelines were developed to ensure that the international methodology is implemented nationally. The extension of Sida funding for three years was to ensure that new training facilitators in Durban and White River, Mpumalanga, are competent in this organisational standard (Annual Report 2003–4). The input of TTC trainers has broadened the vision of Furntech trainers to understand how the rest of the world operates, leading to a change of mindset and a different way of thinking. This represents a change from the previous FITB approach when trainees were not assessed against explicit outcomes (Tarr 2006).

The basic education level of most of the Furntech trainers interviewed amounts no more than ten years of schooling followed by a technical trade qualification through an apprenticeship, rather than further formal education. For Reddy this results in a problem because trainers generally lack the conceptual foundations acquired through more years of formal schooling. As a result Reddy indicated that in the future trainers will be required to have a tertiary qualification in a field such as wood technology. As a result of the inputs from TTC, Reddy estimates that approximately 25% of the content of certified training provided at NQF level 2 (e.g. the National Certificate in Wood Machining & Cabinet Making) exceeds the requirements specified by FIETA.

Our interview with a cabinet-making trainer, who has been employed as a trainer for sixteen years by the FITB and subsequently by Furntech, revealed the benefits from working for three to four months with Vide Peterssen. Despite his lengthy prior experience he really appreciated the ‘gift of training’ he received. In addition to the technical training to operate machinery, the key lesson learned was the disciplinary change to pay attention to detail. He also highlighted the benefit of using simplified methods, focusing on the task at hand using outcomes-based approach (Seherie 2006).

Similarly, the wood machining trainer who had been employed as a trainer for the past 13 years by the FITB and subsequently by Furntech, and worked with Vide Peterssen for six months in George during the revamp of the FITB facility that Furntech acquired in Cape Town. He highlighted the benefit of changing his training methodology. Prior to the TTC intervention outcomes of FITB training were not properly assessed. In order to ensure that trainees progress as expected and develop the requisite skills, a step-by-step approach has been adopted with checkpoints to ensure that trainees progress as expected and acquire the requisite skills (Bassadien 2006).

As an operator for many years and now a trainer in George, Msizi (2006) reflected that operators in factories were never encouraged to understand machinery and their maintenance. The TTC approach to training provided a general understanding of the woodworking industry as well as ergonomics which he has passed on to trainees.

During 2004–5 Vide Petersson spent six weeks in all Furntech centres working with wood machining and cabinet making trainers, Mikael Johansson spent two weeks with the AutoCAD trainers in Durban, and Lars Holmgren spent four weeks with wood finishing trainers in Durban and Umzimkhulu.

### 5.2.2 Training Delivery

The tables below provide a schedule of trainees who have successfully completed the various Skills Development Programmes offered by Furntech. In 2003–4 over 390 industry employees and new entrants to the sector were trained and assessed in wood machining, cabinet making, wood finishing, supervisory and process management skills. The learners ranged from inexperienced youth to managers with decades of experience (2004 Annual Report). In 2004–5 the number increased to 754 individuals, but it should be noted that over 400 of these were assessments of prior learning in the various competencies. As a result of not conducting RPL assessments in 2005–6 the number of trainee beneficiaries declined significantly.

**Table 1: Unemployed beneficiaries who have completed their training**

| <b>Skills Programme or short course</b>   | <b>2001–2</b> | <b>2002–3</b> | <b>2003–4</b> | <b>2004–5</b> | <b>2005–6</b> | <b>Grand Total</b> |
|-------------------------------------------|---------------|---------------|---------------|---------------|---------------|--------------------|
| Wood Machining & Cabinet Making Level 2   | 20            | 23            | 49            |               |               | <b>92</b>          |
| Wood finishing Level 2                    | 14            | 13            | 9             | 4             |               | <b>40</b>          |
| Cabinet making Level 3                    |               | 5             | 3             |               |               | <b>8</b>           |
| CNC AutoCAD                               | 1             |               | 2             |               |               | <b>3</b>           |
| Wood machining L3                         |               |               | 3             |               |               | <b>3</b>           |
| Recognition of Prior Learning Assessments |               |               | 2             | 13            |               | <b>15</b>          |
| Special projects                          |               | 16            | 14            | 7             | 21            | <b>58</b>          |
| Skills Programmes                         |               |               |               | 123           | 14            | <b>137</b>         |
| Level Assessments                         |               |               |               | 12            | 2             | <b>14</b>          |
| <b>Total</b>                              | <b>35</b>     | <b>57</b>     | <b>79</b>     | <b>159</b>    | <b>37</b>     | <b>367</b>         |

(Source: Furntech Annual Reports since 2002)

Although the statistics above reflect a steady uptake of training, the attitude of employers in the industry appears to be limiting Furntech's potential to address its mandate. A good example is the industry's largest player, Steinhoff, which is primarily pursuing a competitive strategy based on low-skills and cost minimisation. At the time of the study Steinhoff had not enrolled operators for learnerships. Instead it was relying exclusively on providing operators with the minimum of training to work specific machinery only (Reddy 2006). In future, however, Steinhoff has indicated its intention to enrol operators for learnerships (Reddy 2007 correspondence with authors). The Furntech Chairman ascribes this lack of urgency on training and human resource development to a common South African phenomenon where the human resource specialists are "nice guys but marginalised" (Mortimer 2006). In contrast, he identifies smaller firms as the mainstay of Furntech's involvement in training.

George-based trainer Richard Msizi (2006) noted that the demand for training is often a reflection of the relatively low level of formal education among factory owners. He argues that "They don't want to employ well-educated employees and their attitudes are hard to change.. They have [accumulated] money and resources but lack education and also don't see much value in hiring better-educated workers because of the higher wages they would demand." Because many firms provide basic training on-the-job they do not see the need for sending trainees to Furntech.

**Table 2: Industry employed beneficiaries who have completed their training**

| <b>Assessments/Skills Programme/ Short course</b> | <b>2001–2</b> | <b>2002–3</b> | <b>2003–4</b> | <b>2004–5</b> | <b>2005–6</b> | <b>Total</b> |
|---------------------------------------------------|---------------|---------------|---------------|---------------|---------------|--------------|
| Recognition of Prior Learning Assessments         | 9             |               | 35            | 410           | 48            | <b>502</b>   |
| Skill Programmes                                  |               |               |               | 121           | 45            | <b>166</b>   |
| Special Projects                                  |               |               |               | 8             | 11            | <b>19</b>    |
| Wood machining & Cabinet making L2                |               | 30            | 17            | 6             | 32            | <b>85</b>    |
| Wood finishing L2                                 |               | 22            | 0             |               |               | <b>22</b>    |
| Wood machining L3                                 |               |               | 26            |               |               | <b>26</b>    |
| Cabinet making L3                                 |               |               | 1             | 2             |               | <b>3</b>     |
| World of Work                                     |               | 42            |               |               |               | <b>42</b>    |
| CNC/AutoCAD Level 4                               |               | 8             | 7             |               |               | <b>15</b>    |
| Trade Tests                                       |               | 4             |               |               |               | <b>4</b>     |

| <b>Assessments/Skills Programme/<br/>Short course</b> | <b>2001–2</b> | <b>2002–3</b> | <b>2003–4</b> | <b>2004–5</b> | <b>2005–6</b> | <b>Total</b> |
|-------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|--------------|
| Train the trainer                                     | 7             | 4             | 13            |               |               | <b>24</b>    |
| Management development                                | 9             | 7             | 25            |               |               | <b>41</b>    |
| Level assessments                                     |               |               | 6             | 18            |               | <b>24</b>    |
| Work organisation/<br>quality management              |               |               | 118           |               |               | <b>118</b>   |
| Workstudy                                             |               |               |               | 1             |               | <b>1</b>     |
| Supervisory training                                  |               |               | 25            | 29            | 37            | <b>91</b>    |
| <b>Total</b>                                          | <b>25</b>     | <b>117</b>    | <b>273</b>    | <b>595</b>    | <b>176</b>    | <b>1186</b>  |

(Source: Furntech Annual Reports since 2002)

In cases where companies have bought into training, the manager of the George centre argues that the impact does not come overnight. It takes time for Furntech to get access to firms to conduct a skills audit and then get the firm to commit to training. Once started, however, Furntech's value is recognised and most firms continue by sending further batches of trainees, implementing newer technology and upgrading their workshops. Because the industry tends to be focused on custom, not standard, production, Furntech needs to tailor training to specific needs. The continuous use of training courses, despite the recent withdrawal of tax incentives, is a further endorsement of Furntech's added value. As an aside, West noted that the numerous firms in the George area that have recently gone out of business were not using Furntech's services! (West 2006)

## 5.3 Management Training

### 5.3.1 Process Management Development (PMD) 1

It should be noted from the outset that the role of the FITB was exclusively to train operators and technicians. At the time when Process Management Development (PMD 1) was implemented there were no existing programs in the industry focused on owner and management training. As a result of a traditional craft-based mindset in the furniture sector, coupled with generally low levels of formal education among business owners and managers, the introduction of a management training program faced many hurdles (Horn 2006).

PMD1 was offered free-of-charge to owners of small furniture factories in George for 39 weeks starting in June 2001. The initial project manager of Furntech, Horn, indicated that the programme also aimed to profile the potential contribution that Furntech could make to the industry by offering management training that previously had only been available through formal institutions like Technikons (now universities of technology). A number of problems were identified with the process of developing the programme. These are detailed in the Evaluation Report. In broad terms there was a mismatch between the level of material offered and the potential beneficiaries because of inadequate information about the domestic industry and education levels of participants and distorted expectations held by the various consultants who offered the course, and the time commitment expected of trainees. On the Swedish side there was an absence of coordination between presenters so the programme lacked coherence and some presenters lacked the requisite English skills.

Although PMD1 was a generic product it was being introduced into a new market, to an industry where there was very little, if any, formal management training, and in a context where the DTI faced perception problems in industry for lack of delivery. As Furntech was not yet accredited as a training provider it also faced the challenge of creating market credibility. Horn believes that the program was probably premature as Furntech still needed to establish itself. At the time Furntech was still a diverse group from different backgrounds trying to start-up a new organisation (Horn 2006; Crane 2006).

The Swedish consultants who were contracted to provide the training did not really have an understanding of the legacy of the Apartheid workplace which still pervaded the mindset of managers and workers (Horn 2006) and were criticised by a number of Furntech staff for their rather mercenary attitudes as they were trying to use the program to expand their businesses in SA (Crane 2006).

The program was also incorrectly targeted at SME owners rather than production managers. Because they were mainly involved in cabinet-making in hardwoods they found the orientation to computer-based technology very frustrating and inappropriate. Crane believes that the program would have been more appropriate if presented in Gauteng where managers from larger firms would have been more receptive to the training materials that were presented. In the end it is perhaps not surprising that only one participant (out of 12) completed the program.

Because the program was generic presenters of similar content could have been sourced locally at a lower cost and more appropriate to local requirements. In general it was decided that the future level at which the PMD was to be presented would have to be adjusted to reflect the relatively low levels of formal education of SA production management.

The plan to use PMD1 to develop Furntech's training capacity also was unsuccessful. Two Furntech trainers were hired and attended PMD1 to develop their training skills but it soon became clear that they lacked the necessary educational background and relevant work experience to offer similar training themselves..

### **5.3.2 PMD2 & 3**

For PMD2 & 3 Furntech took a strategic decision to secure the buy-in of the largest player in the industry, Steinhoff, and the program was offered in Cape Town and Johannesburg exclusively for their benefit. Whether such training should have been funded by Sida and offered free to such a large corporation is beyond our terms of reference. Although the participants were existing or potential production managers, Crane believes that Steinhoff would have benefited more from PMD if the company had designated potential change agents with decision-making authority, rather than decision-implementers, to attend. The language issue reared its head again as most participants were Afrikaans speaking (Tarr 2006). Although there were significant changes in the consultants who presented the program the appropriateness to SA conditions was again raised, particularly in light of the 'old world' mindset of managers running factories (Mortimer 2006).

The benefits to the participants of the three modules were mixed, due to the general mismatch between the approach of the consultants and the company's requirements. Detailed analysis is provided in the Evaluation Report. The quality module was pitched too low and perceived as an information session, while the leadership module (which introduced the Volvo philosophy) was above the heads of participants who lacked the authority required to implement the proposed approach. The process management module, which had been redesigned to provide practical easy-to-use techniques, was regarded as the most effective by the participants. The delivery of PMD 2& 3 was hampered by the acknowledged failure to adequately manage the contracted consultants. A number of South Africans interviewees also questioned the commitment of some of the Swedish trainers, who were perceived to be less interested in delivering training than in securing new consulting opportunities while in South Africa.

Charles Wyngaard, the trainer responsible for supervisor training regarded himself as a major beneficiary of the management training program (PMD 2). He was hired while PMD2 was being presented and attended the Quality and Process Management modules of PMD2. At the time of writing he was the sole staff member at Furntech responsible for supervisor training, working from the Cape Town centre but operating more broadly. Wyngaard credits Soren Gustafson and Mikael Lund as the facilitators from whom he learned the most. Although the training material that he now uses was not sourced from TTC, the approach that he uses is based on the ideas he learned during PMD2. Furntech does

not have in-house competency to offer the PMD Leadership modules among its full-time training staff although a number of highly-qualified university-educated managers could easily be able to deliver these courses. Furntech's National Training Manager argues that these programmes are not offered because they exceed the levels of training for which Furntech is registered to offer (levels 1–4).

Wyngaard has been able to introduce the continuous improvement philosophy that was conveyed during this training through his training interventions with supervisors. His training and development work with supervisors is primarily conducted on site in the factory. He interviews supervisors and management to conduct a needs analysis and identify problems before starting to conduct the training. This passionate trainer typically works with 6–8 supervisors at a time one day a week for 12 weeks. His methodology addresses Terry Miles' (2006) concerns that trainers need to ensure that they understand employer expectations and have appropriate skills when they return to the factory. His success in the furniture sector has resulted in the supervisor training program also being taken up by firms in boatbuilding, which falls within the FIETA umbrella, and clothing. While this can be attributed to Wyngaard's prior employment as a supervisor trainer in the clothing sector, it also reflects the potential "spill-over effect" of Furntech rolling out training provision to markets not normally served by Furntech.

The difficulty of changing attitudes that he experiences can be ascribed to the restriction of his interventions to supervisors, rather than with production management. As a result Furntech struggles to have a direct impact on changing the mindset of managers who are responsible for making decisions, rather than those responsible for implementation. In this vein he suggests that a failing of PMD2, that would have to be addressed in future if PMD were to succeed, was that the consultants needed to do a detailed organisational audit before providing training. Furthermore, PMD could be developed as part of a broader organisational change initiative where consultants are involved in following-up with supervisors to ensure that the benefits of training filter through to the implementation stage.

## 5.4 Technical and Organisation Support

The Swedish team played an important role in assisting the Furntech project manager and later the CEO to establish the George centre by helping to select equipment and laying out the workshop. The team leader continued to play these roles and assisted with the preparation of tender documents when centres were opened in Cape Town, Durban and Umzimkhulu. The layout, tooling, health and safety standards in all centres are based on the TTC blueprint developed for George (Crane 2006).

The impact of TTC needs to be seen in the light of the change in the training regulatory environment with the establishment of SETAs, including FIETA, and the simultaneous demise of institutions like the FITB which had previously been financed by a 2% payroll levy on direct labour costs. Previously employers were entitled to send their employees for free training at the FITB where the approach was to present training that enabled recipients to do the basics. There was a production-line approach which emphasised throughput with little emphasis on monitoring training quality or on assessing trainees performance levels. One interviewee highlighted that the Cape Town centre was always full with trainees (Miles 2006) suggesting that the FITB did meet the introductory training needs, particularly of smaller firms. However, the facility in Cape Town was compared to the typical dusty workshop of a small furniture factory rather than a pristine benchmark for industry players to aspire to (Reddy 2006).

Furntech is consciously adopting international standards which may be better equipped than the majority of factories but is intended to serve as a beacon for the industry to aim at. The launch of Furntech and the appointment of a CEO with a strong background in training, coupled with the input from TTC, resulted in a new philosophy which Reddy describes as:

*"Doing things right – cleanliness, quality and maintenance of everything – from the way the facilities look to the delivery of skills to the learner. Final assessments are now performed independently."*

Crane, similarly compliments TTC's contribution because its approach – “working safely, precisely and to specifications” – has become part of Furntech's culture.

Indirectly, the training provided by TTC experts to certain Furntech trainers has enabled Furntech centres to offer technology demonstrations. Demonstrations include new manufacturing technologies such as CNC technology, laser engraving, cutting and etching technology and demonstrations by chemical and machinery suppliers (2004 & 2005 Annual Reports). In response to growing demand for process and technology advice, Furntech has also developed a range of technology auditing tools that have been incorporated in a technology auditing policy. The application of these tools will assist micro and small furniture manufacturers to become competitive in their target markets.

The viability of Furntech as a training centre is dependent on a steady flow of funding to employers for training from FIETA. In 2005/6 the level of training dropped off because FIETA experienced serious administrative difficulties and stopped paying employers. FIETA is now undergoing a revival and needs to establish five Centres of Excellence in order to comply with the National Skills Development Strategy. Crane (2006) believes that the contribution of TTC has helped to ensure that Furntech is viable and it consequently has been designated as one of these Centres.

## **5.5 Development of Training Materials**

Meshing the Swedish/TTC approach with the emerging SA system of outcomes-based education and training provided a significant challenge to all. Sweden does not have a national system of training certification while a new system had been developed in legislation but not substantively at industry level in SA at the time of Furntech's establishment. Furthermore, the trainers who previously were employed by FITB were also unfamiliar with the new education and training philosophy and system that are still being implemented in SA.

When Michael Reddy entered Furntech six months later he drew on his extensive background in training to introduce unit standards concepts that were required for Furntech to comply with SAQA and to gain accreditation through FIETA. The National Training Manager, Joy Crane, had joined Furntech at about the same time as the TTC specialists arrived. She witnessed high levels of frustration among the TTC specialists who came with their own pedagogy and training materials and were unfamiliar with SA accreditation requiring the detailed specification of outcomes. Eventually however, the TTC leader saw the benefit of working with a system of unit standards. Furntech's trainers also struggled to contribute because although they had practical skills they had limited academic competencies and generally lacked the conceptual skills that are required to develop training materials. The Swedes also struggled to align their training with the requirements of the domestic industry, where most SMEs still rely extensively on cabinet-makers using hand tools.

Although the TTC trainers were not directly involved in the cabinet-making course for hand crafted furniture skills they contributed with the introduction of technical drawings, quality criteria and the development of systematised training materials.

The National Technical Manager came from a teaching background in woodworking and technical drawing before joining Furntech. Unlike the training staff he is multi-skilled in cabinet-making, wood machining and finishing and is responsible for writing training manuals for new technology. He benefited from training by both Vide Peterssen, Lars Holmgren and Mikael Johansson. A key benefit from the training offered through Furntech is the opportunity it offers for firms and operators to break with old, bad habits as South African operators have got in a rut and need exposure to modern practices and technology. While the Swedish input was valuable, the Swedish manuals had to be adapted and simplified to make them suitable for the skill and education levels of local operators (Kaleb).

## 5.6 Study Tours to Sweden

Five groups of South Africans have travelled to Sweden since 2001. The itineraries can be found in the Appendix (see 8.4). The purposes of the visits varied as the needs of the project evolved. While some visits aimed at addressing the cooperation between the parties, most have primarily been aimed at exposing the Furntech staff and board members, as well as others from the SA furniture sector, to business practices in different sectors of the industry (e.g. office furniture, beds, coffins, etc), machinery suppliers as well as the diverse institutions (e.g. Tibro Training Centre and the Industrial Development Centre) that support the industry in Sweden.

While study tours provide SA groups with an understanding of industry benchmarks internationally, what lessons are learned remains unclear and measuring the benefits practically impossible. An important lesson for one of the trainers who visited Sweden was the higher level of openness in communication and interaction with learners than practiced in South Africa. This resulted in improved levels of information transfer and heightened technical understanding of trainees (Samaai 2006). Training manager Joy Crane also highlighted the challenge she faces in getting trainers to communicate and not just demonstrate.

While SA firms “are not willing to share the tricks of the trade with their competitors” the exposure to Swedish clusters demonstrated how firms could work together (West). The exposure of the most recent SA study group to Swedish clusters has supported the development of the Durban cluster, which sent one delegate on the trip. Located at Furntech the cluster office is working on cooperative bulk purchasing to bring down materials prices. Following the example of the Tibro Municipality they are emphasising developing added-value services (Van Biljon).

Mortimer was very impressed with the general learning experience from the study tour to Sweden with a group of Steinhoff management trainees. The trip opened their eyes by taking them out of their normal environment and provided opportunities to learn from factory layouts, etc. By visiting highly robotised plants the SA group were also given a view of the future.

The authors and some interviewees believe that, within the constraints of their FET accreditation, Furntech needs to place more emphasis on the delivery of supervisory and management training in order to impact on the competitiveness of the industry. Consequently, the broad exposure of a study tour or a more focused type of visit would have been extremely beneficial to the long-established trainer responsible for supervisory training, who had yet to participate in a study tour and could benefit extensively from exposure to Swedish production processes and methodologies.

## 6 Analysis/Evaluation

### 6.1 Organisational Set Up, Succession, Growth and Furntech Sustainability

The initial involvement of TTC was expected to involve supporting the centre at Saasveld in George. However, the provision of significant funding from DTI for Furntech effectively enabled Sida's investment in training trainers to be leveraged quite rapidly as centres were established in Cape Town, Durban, Umzimkhulu and White River. As a result, the impact of TTC training and support has been disseminated nationally as trainers have been deployed to the newer centres. Trainers who received TTC training have, in turn, passed on their skills to the newly recruited trainers who all undergo training in George.

Furntech's ability to 'cascade' skill development from the core is a particularly important benefit that it has derived from the TTC partnership and demonstrates the ability of Furntech to become self-sustaining. The national roll-out and the decreasing reliance on TTC for technical training in the two years since the three TTC trainers were deployed in SA full-time also provides support for Michael Reddy's assertion of the relative independent status of Furntech from Sida and TTC. He justifiably highlighted that Furntech's primary source of funding is DTI and that Sida funding has all been channelled to TTC and the covering of local costs in Sweden during study tours by South African groups.

To match the Sida contribution Reddy estimated that Furntech had contributed approximately R3 million towards the hosting of TTC staff at the subsistence and travel rates set by Sida while staff were in South Africa. This highlights the importance of domestic financial resources from the state to match the contribution of Sida. Without such state support projects like Furntech are unlikely to be viable, even in the medium term. As DTI funding is phased out as planned Furntech needs to become a self-sufficient service provider. Sustainability will then have more to do with business viability – i.e. the demand for the competencies and services that it has developed to support the business sector that it serves – than technical and training capacity. To a large degree, an evaluation of Furntech's viability as a business is beyond the scope of our evaluation which has focused on the partnership between TTC and Furntech but we address it in the penultimate section (Section 7.2). Suffice to note here that Furntech's viability and sustainability will not be determined by foreign funding and technical support.

### 6.2 The Contribution of the TTC-Furntech Cooperation

The discussion below must be prefaced by the observation that the outcomes achieved from the partnership to date are largely due to the distinctive contributions of a number of key players on both sides. The enthusiasm, competence and devotion of these key role-players have been of the utmost importance to the impact on Furntech. The management and board of Furntech, and the TTC management and trainers have sustained and continued to develop this partnership. Their work has built on the initial support and energy from IKEA, Stig Holmqvist and Sida's officers – Agneta Danielsson and Carl-Gustaf Svensson. On the Furntech side, the maintenance of a stable leadership team under Michael Reddy for the past five years, coupled with a small group of highly committed trustees, particularly Ernst van Biljon and John Mortimer who chaired the board, have ensured continuity and an energetic approach to growth and extending Furntech's horizons.

The credit that is due to them all is reflected in Michael Reddy's observation that many of the key role-players have become personal friends as a result of the partnership, and that even if funding from Sida were not to continue, Furntech would like to continue drawing on the support of TTC for technological transfer.

### **6.2.1 Skills development of Furntech trainers**

There can be no doubting the accuracy of Reddy's assessment that "the Swedish input of knowledge and expertise has raised the level of skills training in the industry to new heights, and we are constantly evaluating our offerings in close cooperation with our customers and the broader industry".

By introducing the entire South African industry to world class machining processes, the TTC expertise has assisted Furntech to move well beyond existing South African benchmarks (Reddy 2006) and its methods top anything found in South African factories (Mortimer 2006). As Furntech's Chairman, John Mortimer, has argued – Furntech's approach may be a bit high-tech, given the current utilisation of technology in the domestic industry, but setting benchmarks is important. By setting appropriate standards for health and safety and how to operate equipment properly, those who receive Furntech training will hopefully change workplace practices as they work their way up the ranks.

All the trainers who were interviewed have benefited extensively from the technical training provided by TTC and the results of Swedish attention to detail is manifest in all the training programs now offered. Those who have visited Sweden have also clearly learned from this exposure and it is desirable that the majority, if not all trainers, be exposed to Swedish practices directly by participating in future study tours, which also provide exposure to industry developments elsewhere in Europe.

We address the issue of Management training in a separate section below.

### **6.2.2 Addressing the problem of unemployment.**

The direct impact of the TTC-Furntech partnership on unemployment is limited and no statistics exist to track long-term job creation as a result of training unemployed people. However, Furntech has utilised some of the expertise developed through the TTC trainers to train a wide range of unemployed people in skills programmes in wood machining and cabinet making at NQF level 2 and wood finishing at NQF Level 2, and have engaged with many employers in the regions to place these learners in sustainable jobs. The success of recruiting and placing unemployed learners is dependent on successfully implementing the policy for establishing a coordinated network of stakeholders who understand and support Furntech's services, and who are satisfied with the standard and quality of training and mentorship that is delivered.

In 2003–4 Furntech provided training for unemployed people for the Mpumalanga government, the Working for Water Programme of the Department of Water Affairs and Forestry, the Western Cape Nature Conservation Board and the Department of Labour in the delivery of basic furniture production skills, and product and manufacturing techniques advice. Training and business development services were provided for unemployed people on behalf of the National Skills Fund and FIETA through the Shintsha Furniture Project. Some assistance was also extended to unemployed people in areas such as the Northern Cape and Limpopo provinces where there are no Furntech offices (Annual Report 2003–4). This type of training to address unemployment declined significantly in 2005/6 because Furntech received no funding from FIETA and other state sources for these projects.

## **6.3 Link Between TTC Training and the 'Incubators'**

The impact of TTC training in the Furntech incubation project is indirect because incubatees (SME owners in the incubator program) have benefited from the increased technical and process knowledge of the Furntech trainers who have undergone mentoring and training from TTC experts and now serve as technical trainers and mentors to incubatees. Each incubatee may utilise up to 8 hours of technical mentoring from trainers per month. In addition they receive about two days of training per month to enhance their skills. Given the wide diversity of skill levels this training is tailored to individual needs. As a result of this input the Business Development manager believes that trainers add significant value to incubatees from an operational and a technical perspective (Ariefdien 2006).

A recent survey (Hirschsohn et al 2006) of Furntech incubatees found that their self-assessment ratings of their technical skills were much higher than at the start of the program, which reflects the positive impact of training they have received from the trainers. They were also generally satisfied with the quality and availability of mentors, particularly regarding production knowledge, quality assurance and technical support. However, the ability of Furntech to provide incubatees with business mentoring and support with management challenges was limited and this is concern because it will influence the future viability of their businesses.

## **6.4 The Extent to Which Industry is Using Furntech Services**

The statistics in Tables 1 & 2 above (p.21) suggested a steady uptake of training, but employer attitudes towards investing in HRD is limiting Furntech's potential to address its mandate. Terry Miles (2006) recommended that Furntech needs to develop short modular training for managers and business owners on a variety of areas, recognising that most managers in the industry traditionally move up through the ranks and lack high levels of formal education. This training should be tailored to meet the requirements of SMEs, offered at convenient times, and targeted at lower and middle management and owners to develop practical skills in financial planning (e.g. costing, cash flow management) and operations management (industrial engineering, layout, logistics, etc). Based on the level of formal education and the practical orientation of the material, these training courses could be offered within the limitations of Furntech's existing accreditation. This is reinforced by the observation that the type of managers employed in the sector is unlikely to change as the industry struggles to attract better-educated school-leavers who shy away from 'dirty' manufacturing sectors (Tarr 2006).

The absence of a strategic approach to training found in this sector is consistent with other research about SA management attitudes towards training in mature manufacturing sectors which are characterized by moderate to intense competition. In these labour intensive sectors which primarily utilise semi-skilled workers the owners and managers tend to be conservative because of their 'life-style' business orientation which is not growth oriented. Because of their reliance on readily available semi-skilled labour, they are typically tactical trainers that do not invest beyond immediate operational necessity (Hirschsohn, forthcoming). This is similar to the approach adopted by Steinhoff, the industry's largest player, which currently provides operators with the minimum of training to work specific machinery only (Reddy 2006).

Because they are pursuing a competitive strategy based on low-skills and cost minimisation, Steinhoff and other large firms make relatively little use of Furntech's services. If the industry as a whole fails to identify a direct business benefit from sending operators to acquire accredited qualifications, Furntech's ability to contribute to the competitiveness of the industry will remain limited to a few smaller niche players.

One challenge to Furntech is how to provide training that is much more closely aligned with the industry's requirements and is more cost effective than the current mode of delivery that employers find unaffordable. The relatively high cost of Furntech training is an issue for smaller firms. The employer's direct cost of Furntech training (without salary supplementation) for an operator is significantly higher than the full cost (to the state and the student) of registering on a full-time basis for an equivalent period of university education in South Africa.

If the low demand for training is a reflection of the relatively low level of formal education among factory owners and managers then Furntech may need to revisit whether TTC, or another Swedish partner with appropriate expertise in furniture manufacturing management, can help to address this problem.

## 6.5 Role of TTC consultants in growth, expansion and management of Furntech

One area of serious concern is the apparent decision by Furntech to limit itself to the development of technical and supervisory skills. The significant investment made by Sida in the Process Management Development programs has had minimal impact and only one Furntech trainer is involved in supervisor training. There is no ongoing effort being made by Furntech to upgrade the middle-management skills of the industry because Furntech's staff believe that management training cannot be offered at NQF Level 4. Irrespective of whether this training is offered by Furntech or any other education or training provider, unless the industry develops a pool of skilled and qualified middle managerial and design capacity, the impact of Furntech's training on industry survival, growth and global competitiveness is likely to be limited,

The most significant shortcoming of the delivery of the process management training programs (PMD 1, 2 and 3) was the failure of the consultants to make an effort to align PMD with SA accreditation requirements. As a result Furntech has not continued to offer management training beyond the supervisor level and has no capacity to do so. Because of an anomaly in the South African accreditation system Furntech, which is a registered Further Education and Training provider (up to Level 4 – equivalent to high school), also cannot be accredited to offer management training at an appropriate level (Level 5). This does not however preclude Furntech from offering Management training at Level 4. The Evaluation Report proposed that Furntech explore accreditation of PMP, either alone or in partnership with the Saasveld campus of NMMU or the University of Stellenbosch where expertise exists in wood technology, albeit primarily focused on forestry. No concrete results have yet emerged from this recommendation although a new programme is planned at NMMU.

Despite this recommendation, PMD has not been offered again because of the very high cost (about R100 000 per learner) and because Furntech prefers to deploy limited TTC resources to other priorities (Reddy 2006). However, irrespective of the limitations of accreditation, it is self-evident that if Furntech's training programs are to enhance the competitiveness of the industry as a whole then they need to address training requirements in an integrated manner at operator, technician, supervisor and managerial levels. This necessarily requires the presentation of training programs that directly expose managers, particularly those with decision-making authority, to the basic contemporary management principles and practices that form the foundation for world-class competitiveness. Given the low levels of formal education and training in the industry, there seems little reason why appropriate management training programmes cannot be offered by Furntech at Level 4.

## 6.6 HIV/AIDS and Gender Mainstreaming

HIV videos produced by Sida have been made available to trainers who have been requested to incorporate twelve half-hour sessions (i.e. six hours total) into their training programmes at all Furntech centres. However, as the use of the videos is not yet in Furntech's training policy the National Training Manager acknowledged that these videos are not being utilised as anticipated (Crane 2006). Sida has also made additional funding available for the mainstreaming of HIV/AIDS but Furntech has not yet taken advantage of this funding which could be used to ensure that policies on human resources and occupational health and safety are modified to deal with this major national challenge. Crane comments "There is a national Aids programme being rolled out by FIETA. For Furntech to take advantage of this funding we would need to increase our staff capacity and unless the Sida funding can guarantee funding at a level that can sustain 5 full time employees this is not a viable option."

Furntech is trying to achieve the National Skills Development Strategy target of 54% women but this has proved extremely difficult to achieve with trainees from industry as the trainees reflect the predominantly male profile of workers in the sector (Crane 2006). The female beneficiaries of Furntech training are shown in Tables 3 and 4. No pattern of increasing percentages can be noted, suggesting that gender mainstreaming is a relatively low priority for the industry.

**Table 3: Unemployed beneficiaries who have completed their training (Females as share of total beneficiaries)**

| Skills Programme or short course          | 2001–2      | 2002–3      | 2003–4      | 2004–5      | 2005–6     | % Female    |
|-------------------------------------------|-------------|-------------|-------------|-------------|------------|-------------|
| Wood Machining & Cabinet Making Level 2   | 3/20        | 3/23        | 4/49        |             |            | 10.8        |
| Wood finishing Level 2                    | 3/14        | 3/13        | 5/9         | 0/4         |            | 27.5        |
| Cabinet making Level 3                    |             | 0/5         | 0/3         |             |            | 0.0         |
| CNC AutoCAD                               | 0/1         |             | 0/2         |             |            | 0.0         |
| Wood machining L3                         |             |             | 0/3         |             |            | 0.0         |
| Recognition of Prior Learning Assessments |             |             | 0/2         | 3/13        |            | 20.0        |
| Special projects                          |             | 4/16        | 1/14        | 1/7         | 0/21       | 10.3        |
| Skills Programmes                         |             |             |             | 18/123      | 3/14       | 15.3        |
| Level Assessments                         |             |             |             | 3/12        | 0/2        | 21.4        |
| <b>Total (% Female)</b>                   | <b>17.1</b> | <b>17.5</b> | <b>12.7</b> | <b>15.7</b> | <b>8.1</b> | <b>14.7</b> |

With a few notable exceptions the proportion of females falls far short of the 54% target. The most striking category in Table 4 is the consistently high proportion of women among trainees completing supervisor training, because most of the participants are from the clothing industry. Furthermore, give the tradition of low female participation in the sector none of the incubatees in the recent national survey of Furntech's project were female (Hirschsohn et al 2006). The profile of the Furntech staff includes one female centre manager (in White River), one trainer (in Umzimkhulu), the Training Manager (based in George), the national accountant and her assistant, plus women in traditional positions as the CEO's personal assistant, receptionists and cleaning staff. The Furntech CEO Mike Reddy comments "Furntech has an Employment Equity Plan that indicates our strategies to redress this concern. However, business imperatives dictate that we cannot simply appoint staff to make up numbers to satisfy targets."

**Table 4: Industry employed beneficiaries who have completed their training (Females as share of total beneficiaries)**

| Assessments/Skills Programme/ Short course | 2001–2     | 2002–3      | 2003–4      | 2004–5      | 2005–6      | Total       |
|--------------------------------------------|------------|-------------|-------------|-------------|-------------|-------------|
| Recognition of Prior Learning Assessments  | 0/9        |             | 5/35        | 65/410      | 1/48        | 14.1        |
| Skill Programmes                           |            |             |             | 22/121      | 4/45        | 15.7        |
| Special Projects                           |            |             |             | 1/8         | 1/11        | 10.5        |
| Wood machining & Cabinet making L2         |            | 0/30        | 0/17        | 0/6         | 1/32        | 1.2         |
| Wood finishing L2                          |            | 9/22        |             |             |             | 40.9        |
| Wood machining L3                          |            |             | 1/26        |             |             | 3.8         |
| Cabinet making L3                          |            |             | 0/1         | 0/2         |             | 0.0         |
| World of Work                              |            | 20/42       |             |             |             | 47.6        |
| CNC/Autocad Level 4                        |            | 1/8         | 2/7         |             |             | 20.0        |
| Trade Tests                                |            | 0/4         |             |             |             | 0.0         |
| Train the trainer                          | 1/7        | 1/4         | 3/13        |             |             | 20.8        |
| Management development                     | 0/9        | 1/7         | 2/25        |             |             | 7.3         |
| Level assessments                          |            |             | 0/6         | 0/18        |             | 0.0         |
| Work organisation/quality management       |            |             | 90/118      |             |             | 76.3        |
| Workstudy                                  |            |             |             | 1/1         |             | 100.0       |
| Supervisory training                       |            |             | 12/25       | 15/29       | 17/37       | 48.4        |
| <b>Total (% Female)</b>                    | <b>4.0</b> | <b>27.4</b> | <b>42.1</b> | <b>17.5</b> | <b>13.6</b> | <b>23.3</b> |

## 7 Prospects/Recommendations for further TTC-Furntech Cooperation

### 7.1 Future technical training requirements

The recommendations below reflect the strongly-held view of the authors that since the second phase of funding Furntech has largely been self-sufficient with respect to addressing its core obligations. Future support from TTC can thus enhance Furntech's ability to serve the SA industry better. A number of possible ways of developing Furntech's capabilities were proposed by various respondents during the interviews or are the suggestions of the authors. These items, listed in order of priority, in the opinion of the authors, are:

- Providing in-depth exposure to the supervisor trainer, and others who could offer supervisor training, to the Swedish approach to production systems, not as part of a study tour group but through a tailored internship in a few selected factories.
- An immediate requirement is further training in CNC technology to enable Furntech to focus on level 4 qualifications as a penetration strategy in the Gauteng region where the existing CNC machine will soon be relocated (Reddy, Ariefdien). This will begin to enable Furntech to begin to offer training that may add significantly to upgrading the competitive capabilities of SA industry.
- The provision of training by TTC in furniture upholstery has been a priority for quite some time owing to Furntech's well-established need. Furntech has not yet been able to secure the services of a suitably qualified trainer in this area, despite advertisement of a vacancy. The challenge also remains to locate a suitable trainer from Sweden to provide 20 weeks of training in upholstery (Reddy 2006). A critical factor is for Furntech to identify suitable trainers to benefit from the skills that this trainer may provide. It was suggested that some existing trainers could be multi-skilled in upholstery so that shortage could be addressed and the available trainers could be utilised more effectively (Bassadien 2006).
- Furntech's skills development initiatives have been developed on the assumption that the competitive advantage of an organisation lies in its human resources and not in its products. However, Furntech does not offer any training in furniture design, which is critical to enhancing the competitiveness of SA industry. One area of skill training that may address this shortcoming would be to receive skills transfer for Furntech to be able to offer training integrating AutoCAD with the creative aspect of design (Kaleb 2006).
- In response to increasing demand in industry for decorative finishes such as marbelling, eggshells, and inlays, training could be made available to enable Furntech to provide training in this area and directly to factory operators.
- To strengthen the incubation program a mentor/trainer with SME experience in the sector could significantly impact on business operational, rather than technical skills. Whether this expertise is best sourced locally from retired managers from the sector or from Sweden or elsewhere needs further discussion. If not sourced from Sweden then Furntech may approach the Dutch organisation PUM who have a large pool of retired executives who make their expertise available throughout the developing world for no personal benefit. The beneficiary organisation is only responsible for the subsistence expenses of these individuals during their stay in South Africa which may extend up to a few months at a time.
- The new development of a new Furntech incubation centre in Mtata could require further contributions from TTC trainers although most of the requisite training can be provided by local trainers.

In response to the above recommendations, Furntech's CEO and the National Training Manager made a number of comments and suggested that these recommendations are seriously flawed. These comments will not be repeated here but reflected a distinctively hierarchical view about where we should have sourced our ideas about future TTC-Furntech cooperation. Our task was to interview a broad range of participants and to come up with recommendations. We did not interpret our brief as requiring that we clear all our recommendations with the management or Board of Furntech or TTC. Some of the comments questioned our ability to make independent judgments and made invalid assumptions about our reasoning. We have sought to clarify our reasoning in the text to address any misunderstandings. As a result our recommendations remain largely unchanged.

## **7.2 SME Cluster Development**

As SA lacks experience in developing successful clusters, the Tibro Municipality could assist by supporting cluster development in new areas and continuing to promote linkages between the Durban cluster and Furntech. Michael Reddy suggests that Peter Runesson (CEO of the Tibro cluster) could be brought out to work with SA clusters.

The development of clusters of SMEs along the lines of the existing Men of Wood project, which has involved individuals suffering from schizophrenia in furniture manufacturing, could be extended. For example, if Furntech is to contribute towards the national imperative to provide opportunities to HIV-positive individuals to become self-sufficient and productive members of society a similar partnership could be established with an organisation like the Treatment Action Campaign. In this way HIV-positive individuals could participate as incubatees or in skills and other training programs. In the absence of specialist expertise in working with individuals with HIV/AIDS in Furntech would need to work closely with an organisation like the TAC as it is probably beyond the scope of Furntech to launch such an initiative alone.

The CEO commented on this recommendation: "In addition this recommendation is silent in respect of health and safety issues and the implications arising from such concerns." This comment clearly reveals the extent of the challenge that Furntech's management faces in better understanding the challenges and implications of HIV/AIDS for industrial practice and the provision of training in the sector.

## **8 Broader Lessons**

Premature involvement of an international partner prior to the establishment of a local centre can be problematic, as evidenced in this case. Substantial resources were wasted as a result of the initial institutional instability and could result in the loss of goodwill before a project gets off the ground.

The gap between skills levels and capital-labour ratios in developed and developing countries is significant and the adaptability of materials, techniques, and methods to a different context needs to be considered carefully. In addition, understanding complex and diverse cultural contexts coupled with fluid or emerging institutional arrangements (like SA) requires specific sensitivity and conceptual adaptation for people from a mono-ethnic background with very stable institutions (like Sweden).

The development of mutual respect between the parties – TTC, Tibro Municipality & Furntech – once the understanding of the peculiarities of SA were overcome, coupled with the passionate support for the project among key Swedish partners has been critical to success of the partnership.

## 8.1 Replicating the TTC-Furntech Partnership in other Sectors

Using the TTC-Furntech experience as a guideline the following recommendations can be made concerning the prerequisites for successfully rolling out this partnership model to other sectors:

- An existing cluster or a number of developed companies with the interest and motivation to develop the industry to become globally competitive, either to export or protect domestic markets from international competition
- A domestic market which is profitable, has the potential to expand into markets with export possibilities
- Government support at local, regional or national level providing finance, support and prioritising the venture.
- A committed and professional local management team with a supportive board of directors.
- A competent, motivated and enthusiastic (Swedish) counterpart with the relevant know-how to transfer.
- Swedish or international development financing.
- Ongoing monitoring of the project to ensure that the partners remain focused on the set objectives.

## 8.2 Has the TTC-Furntech Cooperation Enhanced SA's Ability to Compete Globally

In terms of the above criteria this report has clearly documented that Furntech/TTC is a very good example of transfer of technical industrial knowledge. The transfer of technical knowledge from TTC has significantly assisted Furntech to become a competent and efficient provider of technical training to the SA industry, and there is strong evidence that it is becoming self-sufficient. With funding from the DTI and Sida, and support from the Furntech Board members, the professional Furntech management team and the enthusiasm of key TTC role-players has helped to ensure this.

However, there are two caveats about the future prospects of the partnership in terms of the criteria listed above. Firstly, the commitment and support of the SA furniture industry to HRD in general and Furntech in particular, remains questionable. Secondly, by primarily emphasising the transfer of technical skills to operators and supervisors, the partners may have lost sight of Furntech's broader mission, to make the SA industry internationally competitive. The original intention of the partnership was for TTC to assist Furntech to become an integrated training provider for the industry. However, Furntech's training activities are almost exclusively limited to technical training of operators and development work with production supervisors. The absence of managerial training by Furntech and other service providers to the industry is of particular concern. There is strong evidence that the SA furniture industry is unlikely to survive global competition unless the skills and competencies of its management are significantly upgraded and the industry as a whole places greater emphasis on HRD.

To some extent the failure of Furntech to offer management training, as a key way of transferring knowledge about world-class practices to the managers in the sector, reflects on TTC's lack of expertise in this area and their reliance on outside consultants to deliver management training. If the PMD had been perceived to be successful then Furntech would have developed some momentum in offering managerial training and would have ensured that such programmes continue to be offered, either alone or in partnership with other accredited education and training providers. In the absence of this success the focus has shifted exclusively to technical and supervisor training, the latter primarily for the clothing industry.

“The mission drift” away from management training towards an emphasis on technical training also reflects the cultural differences between SA and Sweden and the enormous challenges that partners typically face with transferring ‘soft’ managerial know-how (as opposed to ‘hard’ technical skills) across international boundaries. The SA furniture industry still faces major challenges to transform in the face of growing imports and Furntech needs the support of industry leaders who are committed to charting a path towards international competitiveness based on skill-biased HRD. Without this commitment, Furntech may become a competent and effective training provider to a steadily shrinking and “immiserised” industry.

### **8.3 The Future Role for Municipalities in Supporting Furntech Satellites**

Furntech has worked closely with some SA municipalities in its successful expansion to centres across SA that now provide technical training and SME incubator services, as well as cluster projects and industrial hives for former incubated firms. In some cases these municipalities have helped to finance the facilities that Furntech established. In major urban centres Furntech is able to access professional support from domestic sources. However, in some locations, such as Umzimkhulu, Furntech operates in very poorly resourced rural communities. In these locations there would be significant benefit to Furntech and the incubator project in particular if other Swedish municipalities, which have institutions that support small business development, in general, and particularly in furniture, could become involved as the Tibro municipality has. In particular, given the extremely high failure rate among small business start-ups, these municipalities could partner Furntech centres in assisting incubatees with industry-specific business advice, mentorship and support to complement the technical training which is being provided by Furntech.

## 9 Appendices

### 9.1 Extract from Terms of Reference for Training Services to be provided by TTC for the Establishment of a furniture training and technology centre at Saasveld Campus

#### 1. Pre-set up

Together with significant stakeholders in the SA furniture industry, plan and develop a training programme that would address the needs of the industry. This would include the recruitment and provision of a team of Swedish experts. It has been agreed that the personnel requirements should be regarded as flexible and should allow for changes and additions in terms of expertise required.

#### 2. Set up and implementation

To provide adequate organisational and logistical long and short term support for Swedish staff in SA.

Assist Furntech management with day-to-day operational issues of the training and technology centre:

##### 2.1 *Training Centre*

- Using the SA/Swedish bi-lateral agreement, the Furntech/TTC agreement and Furntech business plan, assist Furntech management to establish a state-of-the-art furniture training centre at Saasveld, with the possibility of developing future satellite offices across the country
- Verify and validate the content of all courses through audits with the SA furniture industry
- Ensure training meets international standards and the needs of the SA industry
- Further develop training concepts to ensure latest technology is transferred to Furntech staff and the industry
- Develop and implement evaluation criteria for entrants and graduation to conform to acceptable standards
- Assist with the marketing of Furntech services and the recruitment of people to be trained

##### 2.2 *Training programme*

- Assist with the arrangement and presentation of those training courses that have been identified, being:
- Management and supervisory training
- Introduction to wood technology and wood finishing
- Computer numerical control
- Other courses that may be developed during the service period

##### 2.2.1 *Training of trainers*

- The SA trainers carry out the training with modern and adaptable methods with the TTC trainers as mentors.
- The SA trainers and the TTC trainers carry out the work of development together.
- The SA trainers will gradually take over the educational responsibility.

### 2.3 *Technology transfer and demonstration centre*

If time is available

- Assist Furntech management with the demonstration and transfer of new technology to SA industry
- Assist Furntech staff to develop systems to ensure that the latest technology for training, technology transfer, demonstration and incubation are being used to upgrade the standard of manufacturing in SA
- Assist in the development and implementation of a system to help incubator candidates to develop technical, computer, managerial, marketing, financial, entrepreneurial and other skills to ensure that new SME start-ups are successful

### 3. **Management**

- Liaise with other SA training centres, NGOs, and private providers to ensure the success of the Furntech project
- Ensure that training conforms to the ETQA/FIETA accreditation criteria
- Ensure that training conforms to Furntech's business plan and objectives and to the guidelines as indicated in the DTI/Furntech MOA
- Develop and improve the skills level of Furntech staff, and those of other furniture training organizations in SA

### 6. **Other matters**

- Assist with the promotion of Furntech's services in the SA industry
- Assist with the coordination of industry needs and demands at the Training Centre
- Assist in liaison with all stakeholders and reference groups on matters regarding Furntech
- Assist the Furntech Board of Trustees and the CEO with matters they may request from time to time
- Assist with the arrangement of other training activities, seminars, study tours, etc.

## 9.2 **Interviews**

### 9.2.1 **South Africa**

Iegshaan Ariefdien, Furntech National Business Development Manager

Naiem Bassadien, Furntech Cape Town-based Wood-Machining Trainer

Joy Crane, Furntech National Training Manager

Colin Horn, Furntech Project Manager (2000–1), on secondment from Department of Trade & Industry

Jerome Kaleb, Furntech National Technical Manager

Richard Msizi, George-based Trainer

Terry Miles, Secretary of Western Cape Bargaining Council and Furntech Steering Committee member.

John Mortimer, Wood and Fibre Institute, University of Stellenbosch and Chairperson Furntech (2005 to date)

Victor Ramaema, Swedish Embassy, Pretoria,

Michael Reddy, CEO Furntech

Naiem Samaai, Furntech Cape Town-based Cabinet-making Trainer

Jeremy Seherie, Furntech Cape Town-based Cabinet-making Trainer

Michael September, Furntech Cape Town-based Trainer

Glenn Tarr, Western Cape Human Resources Manager, Steinhoff Africa and former Furntech Trustee.

Ernst Van Biljon, Professor NMMU and former Furntech Chairperson (to 2005).

Arthur West, Manager Furntech George.

Charles Wyngaard, Furntech Cape Town-based Trainer of Supervisory Management Program

### 9.2.2 Sweden

Agneta Danielsson, Senior Program Officer, Sida, Stockholm

Mikael Johansson, Technical Advisor, TTC

Jan-Erik Karlsson, Business Development, IKEA

Borje Malmsten, Project Manager/Head of Tibro Department of Trade and Industry

Carl-Gustaf Svensson, Chancellor, Development Cooperation, Swedish Embassy, New Delhi

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<http://www.umass.edu/peri>

## 9.4 Study Tour Itineraries

### 9.4.1 2001

This is the first step of the "exchange of experience". We want to show the SA group our training centre (TTC) and industry to provide a good understanding of the Swedish conditions. More people from the Swedish consultant team are able to be involved in this planning process.

#### *Purpose*

- Evaluate PMD course 1
- Develop course 2 Process Management
- Develop Supervisory course 1
- SA trainers, SA consultant, SW consultant for PMD
- Learning about the Swedish conditions and Swedish background

- Visit TTC, Tibro Training Centre, “exchange of experience”
- Visit some Swedish industry
- Discuss a new project “Value chain”

### *Goals*

- Evaluation of PMD so far and learning from experience.
- Create a common view of the planning of the next courses
- Understanding of the Swedish conditions and the Swede’s background
- Start network for “exchange of experience”.
- Create a common understanding and agreement for PMD-course 2 and the Supervisory education

### *9.4.2 2002*

#### *Introduction*

The “exchange of experiences/study tour” is part of the process of developing the international competitiveness of the South African furniture industry. TTC proposed that we maximise this exchange by including interested manufacturers to participate in the study tour.

#### *Objectives*

The key objectives are to allow the participants to:

1. Experience international best practise in terms of technology and production methodologies in practice;
2. Establish linkages with Swedish manufacturers;
3. Interact with a successful manufacturing cluster;
4. View a business incubator in operation; and
5. Visit a traditional craft manufacturer as well as process manufacturers.

#### *Format for Factory Visits*

During each factory visit, the following aspects will be covered:

1. The interaction between members of the cluster;
2. The relationship between the partners in the supply chain;
3. A tour of the manufacturing facility;
4. A presentation on the business; and
5. A question and answer session.

#### *Suggested Duration*

The suggested duration of the visit is 5 working days while the trip will be between 9 and 10 days (from departure to arrival in South Africa). 6 to 15 September 2002.

#### *Participants*

1. Furntech Trustees: Ernst van Biljon, John Mortimer, Ian Bruton, Nico van Aardt
2. Furntech Staff: Michael Reddy, Joy Crane
3. Participants in the management programme: Christopher Adams, Johan Brits, Francois Muller, Ben Wolmarans, Faan Venter, Philip Teles
4. TTC Staff (Mikael Johansson)

### *Suggested Itinerary*

| Date  | AM                                      |   | PM                         | Evening         |
|-------|-----------------------------------------|---|----------------------------|-----------------|
| 06/09 | Depart for Sweden                       |   |                            |                 |
| 07/09 | Arrive in Sweden                        |   | Afternoon at Leisure       |                 |
| 08/09 | Sightseeing                             |   |                            |                 |
| 09/09 | Tibro Training Centre MIO               | L | Tibroadden Enstroms Mobler | IUC             |
| 10/09 | Offecct Interstop                       | U | Lundbergs Mobler           | Evert Johansson |
| 11/09 | Kinnarps                                | N | Fredahl                    | Ekamant         |
| 12/09 | Ikea                                    | C | Tibro Kontorsmobler        |                 |
| 13/09 | Gothia Science Park                     | H | Volvo                      |                 |
| 14/09 | Sightseeing and Depart for South Africa |   |                            |                 |
| 15/09 | Arrive in South Africa                  |   |                            |                 |

### *Profiles of Companies*

**TTC** (Tibro Training Centre Training) [www.tibro.se/ttc](http://www.tibro.se/ttc)

Training for the furniture industry since 1991. Works with industry to continuously develop new courses.

**IUC** (Industrial Development Centre) [www.iuctibro.se](http://www.iuctibro.se)

Furniture cluster with about 75 companies participating in this network.

**Kinnarps** [www.kinnarps.se](http://www.kinnarps.se)

1500 employees manufacturing office furniture using process manufacturing methodology.

**Fredahl** [www.fredahl.se](http://www.fredahl.se)

Family owned business with 125 employees manufacturing coffins using process manufacturing methodology and a high level of mechanisation. Since 1995 ISO 9001. Since 1999 ISO 14001. Turnover of SEK 89 million

**Offecct** [www.offecct.se](http://www.offecct.se)

40 employees designing and manufacturing furniture for creative meeting places. Turnover of Euro 6 million

**Interstop** [www.interstop.se](http://www.interstop.se)

Upholstery manufacturing in using process manufacturing methodology. "Interstop is committed to making furnishings designed to become a part of the way trendy and quality conscious Europeans live."

**Tibroadden** [www.tibroadden.se](http://www.tibroadden.se)

70 employees manufacturing beds using process manufacturing methodology. Third largest bed producer in Sweden. Turnover of SEK 114 million

**Gothia Science Park** [www.gsp.se](http://www.gsp.se)

Gothia Science Park (20 000m<sup>2</sup>) offers a creative and dynamic environment with activities, service and premises well suited to facilitate start and growth of high-tech start-up companies.

**Evert Johansson AB** [www.evertj.se](http://www.evertj.se)

Specialist in development, production and marketing of machines and systems for the industry. "We offer to the wood and furniture industry the best and most flexible automation solutions for handling and assembling on the market." Their equipment is being used at Fredahl

### **Lundbergs Möbler**

A company in change. Going from traditional furniture and manufacturing methods to more modern design and methods of manufacturing.

### **Tibro Kontorsmöbler**

[www.tibrokontorsmobler.se](http://www.tibrokontorsmobler.se)

A member of the IKEA group. 275 employees manufacturing office furniture using process manufacturing methodology. ISO 9002 and ISO 14001.

### **Enströms Möbler**

Manufacturer of traditional Gustavian furniture.

### **Ekamant**

Supplier of sanding belts for wide belt sanding machines

### **Volvo** (Engine Plant)

One of the best examples of process management in action in the world.

### **MIO**

Retailer

### **Ikea**

Retailer

#### *9.4.3 2004 Itinerary*

|             |                                            |                                                                     |
|-------------|--------------------------------------------|---------------------------------------------------------------------|
| <b>16/3</b> | <b>Arrival and Sightseeing in Göteborg</b> |                                                                     |
| <b>17/3</b> | 08.30                                      | Visit University of Design and Art (Anki Leissner)                  |
|             | 10.00                                      | Transport to Dals-Långed                                            |
|             | 12.30                                      | Visit Steneby school (HP Dahlgren)                                  |
|             | 15.30                                      | Transport to Tibro (app. 2 hours)                                   |
| <b>18/3</b> | 08.30–09.45                                | Visit at Fabrik 19 (Peter Runesson)                                 |
|             | 10.00–12.00                                | Visit at Offecct interior (Anders Englund)                          |
|             | 15.00–16.30                                | Visit at Olby Design (Kerstin Olby)                                 |
| <b>19/3</b> | 07.42                                      | Transfer by train to Stockholm (app. 2 hours) Sightseeing Stockholm |
|             | 13.00                                      | Visit at Carl Malmsten school (Lars Holmgren and Leo)               |
|             | 15.35                                      | Transport to Arlanda and Depart for London                          |

#### *9.4.4 2005 Itinerary 6/5–13/5*

|                      |                                                                         |                                      |                                     |
|----------------------|-------------------------------------------------------------------------|--------------------------------------|-------------------------------------|
| <b>Friday 6/5</b>    | <b>Transport from Hannover through Denmark to Helsingborg in Sweden</b> |                                      |                                     |
| <b>Saturday 7/5</b>  | <b>Transport to Hjo via IKEA, Jönköping</b>                             |                                      |                                     |
| <b>Sunday 8/5</b>    | Sightseeing with Malmstens                                              |                                      |                                     |
| <b>Monday 9/5</b>    | 13.00                                                                   | HiT                                  | Göran Nilsson Handicraft centre     |
|                      | 15.00                                                                   | TTC                                  | Börje Malmsten                      |
|                      | 18.00                                                                   | Supper with the Head of Municipality |                                     |
| <b>Tuesday 10/5</b>  | 09.00                                                                   | Fredahls                             | Kjell Dahlstrand (coffins)          |
|                      | 15.30                                                                   | TibroKök                             | Jukka Tallbacka (kitchen)           |
| <b>Wed'day 11/5</b>  | 10.00                                                                   | Forb–                                | Eddie Mattsson (flooring)           |
|                      | 13.30                                                                   | Eric Nordevall 2                     | Patrik Simeone (steam ship replica) |
|                      | 15.00                                                                   | SA-Möbler                            | Nicklas Hammar (office furniture)   |
| <b>Thursday 12/5</b> | 08.30                                                                   | Formfanér                            | Conny Lindström (bent wood)         |
|                      | 14.00                                                                   | Ire                                  | Unni Söderpalm (upholstery)         |
|                      | 18.30                                                                   | Supper with Vide Peterssen           |                                     |

|                    |       |                       |                               |
|--------------------|-------|-----------------------|-------------------------------|
| <b>Friday 13/5</b> | 08.15 | Möbelboning           | Joakim Fröjd (home furniture) |
|                    | 10.30 | Transport to Göteborg |                               |

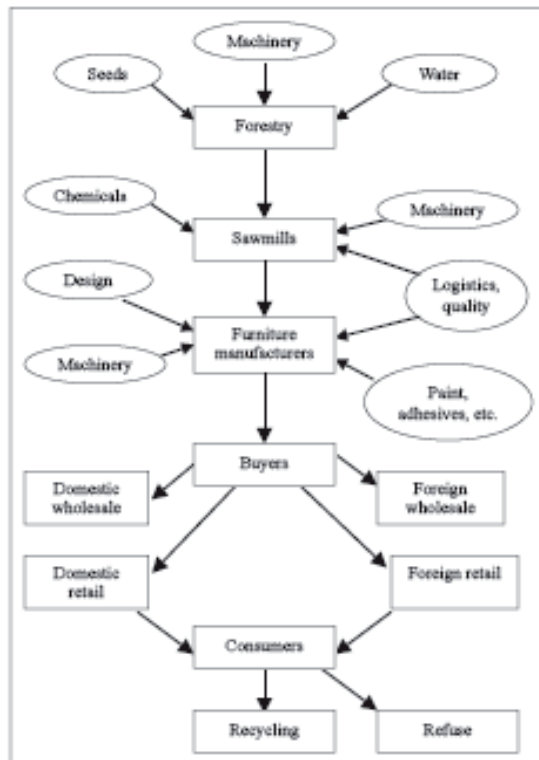
#### 9.4.5 2006 Itinerary 7/5–14/5

|                      |                                                                                                 |                                               |                                    |
|----------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------|
| <b>Sunday 7/5</b>    | <b>Arrival at Landvetter, Gothenburg. Transfer to Hotel Bellevue, Hjo. Afternoon at leisure</b> |                                               |                                    |
| <b>Monday 8/5</b>    | 08.00                                                                                           | TTC                                           | Mikael Johansson                   |
|                      | 10.00                                                                                           | Enströms Möbler                               | Åsa Crommert (gustavian furniture) |
|                      | 14.30                                                                                           | Läckö castle                                  |                                    |
|                      | 17.00                                                                                           | Sigrid Storråda Per Hellström (Viking Ship)   |                                    |
|                      | 18.00                                                                                           | Supper with the Head of Municipality          |                                    |
| <b>Tuesday 9/5</b>   | 08.00                                                                                           | TTC                                           | Mikael Johansson                   |
|                      | 09.00                                                                                           | IUC                                           | Peter Runesson (wood cluster)      |
|                      | 13.30                                                                                           | SA-Möbler                                     | Nicklas Hammar (office furniture)  |
|                      | 18.30                                                                                           | Supper at the Malmsten house                  |                                    |
| <b>Wed'day 10/5</b>  | 08.00                                                                                           | Möbelboning                                   | Jan Fröjd (home furniture)         |
|                      | 10.00                                                                                           | Offecct                                       | Anders Englund (home furniture)    |
|                      | 13.30                                                                                           | Formfanér                                     | Conny Lindström (bent wood)        |
|                      | 15.30                                                                                           | HiT                                           | (Göran Nilsson) Handicraft centre  |
| <b>Thursday 11/5</b> | 08.00                                                                                           | Forbo parquet                                 | Eddie Mattsson (flooring)          |
|                      | 10.00                                                                                           | Noa:s                                         | Johan Carlsson (shop fittings)     |
|                      | 12.00                                                                                           | Lunch                                         | Peter Runesson (follow up)         |
|                      | 13.30                                                                                           | TibroKök                                      | Jukka Tallbacka (kitchen)          |
| <b>Friday 12/5</b>   | 09.30                                                                                           | Volvo engines                                 | Trond Åhs                          |
|                      | 09.30                                                                                           | University of Skövde                          | Michael Reddy meets Per Hellström  |
|                      | 13.30                                                                                           | Transfer to Scandic Hotel Mölndal, Gothenburg |                                    |
|                      | 17.00                                                                                           | IKEA Källered                                 | Börje Malmsten/Mikael Johansson    |
| <b>Saturday 13/5</b> | 07.55                                                                                           | Train to Stockholm                            | Day of sightseeing                 |
| <b>Sunday 14/5</b>   | 05.30                                                                                           | Transfer to Landvetter Airport                |                                    |

#### Participants

|           |                                                                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Furntech: | Mr Pragalathan Michael Reddy, Mr. Maxwell Jaka, Mr Gregory Woodman, Mr. Ridwaan Adam and Mr Michael September.                                                      |
| Others:   | Ms Fathima Kolja, Mr Trivishan Arjunan, Mr. Vijaykumaran Krishnaswamy Naidoo (Woodstreet furniture Port Shepstone), Mr Senzo Samuel Nqoko and Mr Msawenkosi Madlala |

Figure 3 Value chain in the wood furniture industry



# Terms of Reference

## **Institutional Cooperation Between Furntech (Furniture Technology Centre and TTC (Tibro Training Centre)**

### **1. Background**

The cooperation between Furntech (Furniture Technology Centre) and TTC (Tibro Training Centre) started in 2001 as part of the 1999-2003 Country Support Strategy for South Africa which emphasised, inter alia, the need for increased foreign direct investment and skills development. The overall objective of the partnership was to help improve the quality of furniture production and to uplift the level of skills in the industry by drawing from the Swedish knowledge and experience.

One of the fundamental components of the cooperation was the development of the exchange links between Sweden and South Africa working in the furniture manufacturing sector. This angle was particularly chosen as it was deemed that there is a substantial added value and competitive advantage that Sweden possesses within the sector. In the long-term, the cooperation was envisioned to become part of a broader cooperation between Sweden and South Africa.

Sida and the dti (Department of Trade and Industry) recognised the need to engage in the development of the industry. The approach followed was to have the dti set up Furntech in conjunction with the then Port Elizabeth Technikon in George and Sweden to contribute towards training and development of South Africans. The latter was to be achieved through the financing of Swedish expertise from TTC, whilst the dti focused on financing the running costs of Furntech. The dti has committed over 70 million ZAR to Furntech and Sida's contribution to the cooperation amounts to approximately 11 million SEK, including the current final phase ending in 2007.

The present cooperation between Furntech and TTC runs up until 2007. The decision for continued support was primarily based on the positive results of the previous cooperation during 2001–04 which had grown substantially and has led to greater prospects for a long-term, co-financed, sustainable cooperation outside Sida funding.

### **2. Purpose and scope of the evaluation**

To conduct an evaluation of the cooperation between Furntech and TTC thereby:

1. providing an overview of the outcomes in terms of what has worked well, what has not and where the cooperation efforts should be prioritised in future.
2. giving guidance on the remaining components of the cooperation as well as preliminary indications and opportunities that should be pursued for the sustainability of the partnership.
3. assessing the possibility for replicating this model in other industries or countries.

### **3. The assignment (issues to be covered in the evaluation)**

An analysis of the following should be undertaken:

The contribution of the TTC-Furntech cooperation to address the problem of unemployment and skills development in South Africa.

The role of the 'incubators' linked to skills development and promotion of SMMEs.

The extent to which the industry is using or has used the services of Furntech linked to the existing structural problems in the country's furniture industry.

The role played by the Tibro municipality (TTC consultants) in the growth, expansion and management of Furntech.

Approach to mainstreaming of HIV/Aids in the programme.

Approach to gender mainstreaming in the programme.

Furntech and TTC's plan to sustain the cooperation after 2007. Organisational set up process, issues of succession and retention of trainers linked to the sustainability of the cooperation.

The future role for municipalities in terms of support where there are satellites.

#### **4. Methodology, evaluation team and time schedule**

The evaluation should concentrate on the period 2001 to date.

The evaluation will be carried out by a two-person evaluation team consisting of a Swedish and a South African consultant each with the requisite competencies. Both consultants shall jointly carry out the part of the evaluation covering the work in South Africa, but may divide the tasks between themselves. As for the part covering TTC in Tibro (Sweden), that shall be undertaken by the Swedish consultant only.

The consultants shall review, inter alia, the following key programme documents

- project documents (funding application) and agreements, annual and semi-annual reports, the internal evaluation report (2003)??, and other related documents.
- conduct interviews with relevant stakeholders in South Africa and Sweden as well as with Furntech and TTC staff and resource persons that are and/or have been involved in the cooperation.

In order to carry out the assignment, both Furntech and TTC shall provide the consultants with the necessary support in terms of available documentation regarding the assignment.

The evaluation will start in May 2006 and shall be completed by the end of June 2006 and will not exceed 20 working days. This includes drafting the report and presenting its contents; including finalising the report.

#### **5. Reporting**

The consultants shall prepare the report in English (The final report must be presented in a way that enables publication without further editing). It shall be analytical and react to key issues raised in the terms of reference (see item 3, above), and clearly state conclusions and recommendations.

The report should include the management responses from Furntech and TTC. A final report should be submitted within one week of receiving comments from Sida. An electronic version of the report shall be submitted to each of the Embassy, Furntech and TTC.

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