THE CAPE TOWN SCIENCE CENTRE: A COMPREHENSIVE BUSINESS PLAN

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Management report submitted in partial fulfilment of the requirements for the degree

MASTERS OF BUSINESS ADMINISTRATION

In the faculty of

Economics and Management Sciences at the Potchefstroom University for Christian Higher Education

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SOLEMN DECLARATION

I hereby declare that the mini-dissertation/Management report entitled:

THE CAPE TOWN SCIENCE CENTRE: A COMPREHENSIVE BUSINESS PLAN

which I submit to the Potchefstroom University for Christian Higher Education as completion/partial completion of the requirements set for the MBA degree, is my own work and has not already been submitted to any other university.

I understand and accept that the copies submitted for examination are the property of the University.

Signature of candidate: [signature]

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Signed at CAPE TOWN this 29 day of OCTOBER 1999

Declared before me on this 29TH day of OCTOBER 1999

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Mr Peter During, Regional General Manager, MTN Cape, who anticipated the commercial and social-responsibility possibilities of a project of this nature.

To my wife, Louise, who has shown much understanding, support and patience for these past three years.

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Executive Summary

This business plan describes the activities and projected financial operation of the Futropolis, a new science and technology centre to be located at Century City, Cape Town. The Futropolis is the first of a network of science and technology centres that will be established by MTN in South Africa and elsewhere in Africa with the aim of increasing the techno-literacy of all South Africans.

The Directors and Financial Managers of science centres and theme parks throughout the world have been consulted during the compilation of this business plan. Financial statements from over 20 science centres have been obtained and studied, and several books on science centre planning and management have also been consulted. In addition, we have benefited considerably from discussions with the developers of the Ratanga Junction Theme Park at Century City.

This business plan details the nature of science centres world-wide, their target audience and the benefits to the communities that they serve. It describes in detail the elements that will be introduced into the science centre, their function, and all costs involved in their implementation. The success of the Futropolis is dependent on our ability to raise the necessary seed funding to purchase the interactive exhibits and displays. The financial scenarios clearly indicate the ongoing viability of this venture should the initial capital be raised.

The Futropolis is a R29 million venture comprising a R12 million purpose-built centre, R12.5 million exhibits and displays, and R4.3 million facilities. Annual turnover (excluding temporary exhibition revenue) is R11 million per annum. A section 21 company (the Interactive Science Foundation) has been formed as an umbrella organisation to oversee donation income and to ensure that the disbursement of funds takes place in the manner envisaged.

MTN has already committed to the Futropolis initiative in the following ways:

- The R2.5 million purchase of the GeoSphere
- The salary and running costs of Professor Bruton and his team

In addition, MTN has committed to the following technology and environmental education projects that will further be developed in association with the MTN Futropolis:

- The MTN 'Corporate University' project that will develop needs-driven university and technikon training courses for present and future MTN staff
- A 5-year commitment of R2.5 million to the MTN SUNSTEP project
- Identification with the SUNSAT programme
- An annual regional commitment of R600 000 to the MTN Whale Route

This business plan identifies the sources of funding for the various components of the Futropolis. Funding has already been secured or committed in principle for approximately R10 million's worth of displays and exhibits. It is highly likely that the balance will be raised on making this initiative public, but the financial projections assume that the balance will be financed through normal financing channels, i.e. loans from banks.

Included in the overall cost of the project is R12 million needed to construct the building. Monex (the developers of Century City) have undertaken to construct the building at their cost and to lease it back to the Futropolis at a nominal rental of R50-m^2 plus operating costs. The normal rental for space in the Century City shopping complex is in the range R100 – R220-m^2 per month, depending on the size, frontage area and length of the rental period. Monex is therefore offering a considerable reduction (about 50%) on the rental for the space offered to the Futropolis.

The size of the space rented for the Futropolis will be 4000-m^2 (3500-m^2 for front-of-house displays, 500-m^2 for behind-the-scenes storage and workshops) at a monthly basic rental of R200 000. In addition, an office space of 340-m^2 has been made available to us in an adjacent office block, at a monthly rental of R23 800.

It is recommended that:

1. **MTN guarantee the rental for years 1 and 2 (MTN financial years 2001, 2002), and underwrite the balance of the lease. This amounts to R1 342 800 for year 1 from October 2000 to March 2001, and R2 685 000 for year 2 (April 2001 to March 2002)**
2. **MTN provide working capital in the amount of R550 000 for the period April to October 2000.**

The Futropolis is an MTN initiative, and as MTN is guaranteeing the rental, it will be named the **MTN Futropolis** with visible branding along two prominent walls, at the

entrance, on billboards adjacent to the N1, on a 40-m high tower, and on all printed material and advertisements emanating from the Futropolis.

SALIENT FEATURES OF THE MTN SCIENCENTRE

CAPEX	**Rands**
Exhibits and displays	12,367,000
Service facilities	4,460,000
Total capital cost	**16,827,000**
less:	
Committed in principle	11,480,750
Shortfall in capital cost *	**5,346,250**

** Should funding not be entirely forthcoming certain elements will not prevail The shortfall is financed through commercial facilities*

OPERATIONAL		
Turnover:	Low scenario	R 11,853,350
	Medium scenario	R 13,056,350
	High scenario	R 14,271,350
Opex:	Low scenario	R 11,117,565
	Medium scenario	R 11,117,565
	High scenario	R 11,117,565
MTN Commitment:	**Worst case**	**R 735,785**
	Likely case	**R 1,938,785**
	Best case	**R 3,153,785**
Annual Visitors:	Low scenario	261,000
	Medium scenario	297,000
	High scenario	333,000

Figure 1 – Science centre interactive displays

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1. Introduction

South Africa has a population of about 42 million people, of which 23 million are adults. A large proportion of this population is not fully literate and numerate, and many do not possess the technological competence to use a cell-phone effectively. There are currently 4 million cell-phone users in South Africa. The biggest future market is among Black and Coloured people, who have the least technology skills. The challenge is to increase the technological skills of this portion of the population.

South Africa formally declared 1998 the Year of Science and Technology (YEAST). This programme under the jurisdiction of the Department of Arts, Culture, Science and Technology (DACST), served to provide the impetus for renewed focus on educating South Africa's youth in science and technology concepts, and preparing them for a rapidly evolving technological future.

Science centres are well established internationally with over 500 world-wide; the United States is the leading country with more than 100 such centres (in various forms) throughout the country. India alone has 37 regional science centres. The generic intention of a science centre is to educate while providing interactive entertainment to the child and adult – edutainment. The belief is that the learning experience is enhanced and memorised through participative, hands-on, minds-on approaches.

While museums in South Africa satisfy some of these criteria, they are essentially locked into past educational methods and are slow to react to new challenges. Furthermore, they are primarily supported by the government and accordingly are not always able to provide the latest in teaching methods and exhibits owing to a dependence mentality and a lack of funding. The intention to establish an interactive science centre, the Futropolis, at the Century City complex in Cape Town, is a first for South Africa.

2. What is a science and technology centre?

A science and technology centre is not a museum or a theme park. It is a colourful, fun place where learners interact with innovative displays and facilitators to learn about basic scientific principles and technological advances. They ask questions such as: What is it? How does it work? What is it used for? What does it change? How does it improve my quality of life? Visitors find the answers through interactive play.

Science centres have been established throughout the world to meet the challenge of developing a stronger science and technology culture and bringing people, especially in developing countries, into the information age.

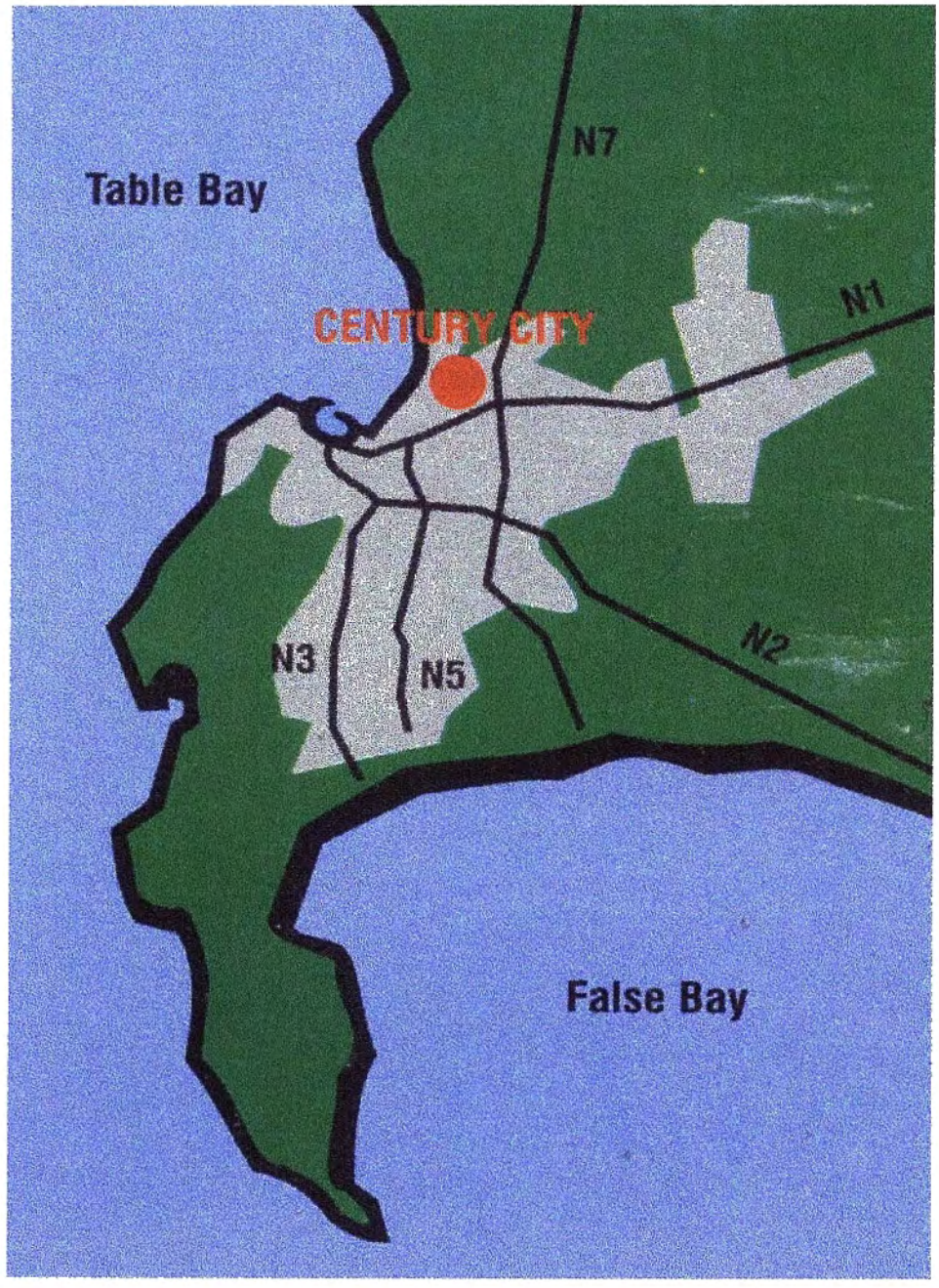
Science centres stimulate curiosity, develop inquiring minds, and expose children and adults to new experiences that cause them to ask new questions. They help people to cope with a rapidly changing technological environment. Science centres also complement the school curriculum, train science multipliers, such as teachers, teacher trainers and parents, and empower people by increasing their skills and understanding of science and technology. *They help people to reach their full potential.*

Science centres have wider benefits to the country as a whole as they introduce science and technology into the mainstream of society, help to alleviate the education crisis, facilitate the development of an information-based economy, stimulate a culture of creativity and innovation, and make people, industries and nations more competitive. *They also take the fear out of science.*

3. Mission

The mission of the MTN Futropolis is "to contribute to the development of a stronger science and technology culture in South Africa by developing a world class interactive science centre that serves the needs of all communities."

Figure 2 – Location of Century City



4. Goals

The goals of the Futropolis are:

- To improve the quality of science, environmental and mathematics teaching in South Africa and to support outcomes-based education
- To provide children with the opportunity to access the latest communications technology
- To expose all socio-economic groups to science and technology
- To connect South African children to international distance learning programmes world-wide
- To bring the best interactive displays in the world to South Africa
- To develop uniquely South African displays and exhibits
- To maintain the momentum of the Year of Science and Technology
- To develop the Futropolis in such a way that long-term viability is maintained
- To achieve the above in an accountable, participatory and transparent way that meets the expectations of all stakeholders

5. Benefits of the Futropolis to MTN

The Futropolis will benefit MTN in many ways. Displays directly relevant to cellphones, satellite telecommunications and the information highway will inform people about MTN's products and services. Broader displays on communication, technological innovations and scientific principles will help to develop a more technologically aware society. The Futropolis will also promote an information-based economy and a better-connected society.

The Futropolis will make it possible for MTN to form strategic partnerships with important commercial companies, such as Old Mutual, as well as strengthen its links with other members of the Johnnic group of companies.

The Futropolis will be seen as an apolitical initiative and a very meaningful contribution to the future development of South Africa and its people. The office of the President, Thabo Mbeki, is likely to be particularly impressed as he strongly supports science and technology education and training. The Minister of Arts, Culture, Science and Technology, Ben Ngubane, also a strong supporter of science education, is already very impressed by MTN's initiative.

MTN will receive extremely conspicuous branding along the walls of the Futropolis facing the main entrance into Century City, Ratanga Junction and the biggest shopping mall in South Africa. The Futropolis will also be advertised at the entrance and on a 40-m tower, as well as on a billboard adjacent to the N1 freeway. The Futropolis will benefit from the overall marketing campaign of Century City, and will also be part of the marketing campaign associated with the Ratanga Junction theme park and the R4.5-million entertainment complex within the shopping mall.

The 250 000 visitors per annum who participate directly in the Futropolis' activities, and the estimated 1.5-million people who will be reached through the outreach programmes, will all be made aware of MTN's leadership role in the project, and the products and services that it markets. In addition, the millions of people who benefit from the distance-learning programme, who contact the web page or view TV coverage of the Futropolis' activities, will all be made aware of MTN's branding.

MTN's initiative in establishing an interactive science centre in South Africa has already been noted by the national and regional government and by the many large corporations that we have approached for funds. MTN's profile in the public and private sectors is likely to increase significantly as the Futropolis project becomes better known, and as science centres are established elsewhere.

The Futropolis will furthermore provide direct and indirect support for MTN's important 'corporate university' initiative. The Futropolis will provide an auditorium, computer learning centre, temporary exhibition hall and distance learning centre for the corporate university initiative in South Africa as well as in other African countries.

The Futropolis will also provide a public interface for existing MTN projects, i.e. SUNSTEP, SUNSAT and the Whale Route. This will serve to bring these projects to the public's attention and to ensure that their products and services reach people in all socio-economic groups. These projects will also benefit from the educational programmes, school group visits, publicity, and teacher training and membership club campaigns of the Futropolis.

MTN will also attract attention internationally for its initiative in establishing science centres in Africa.

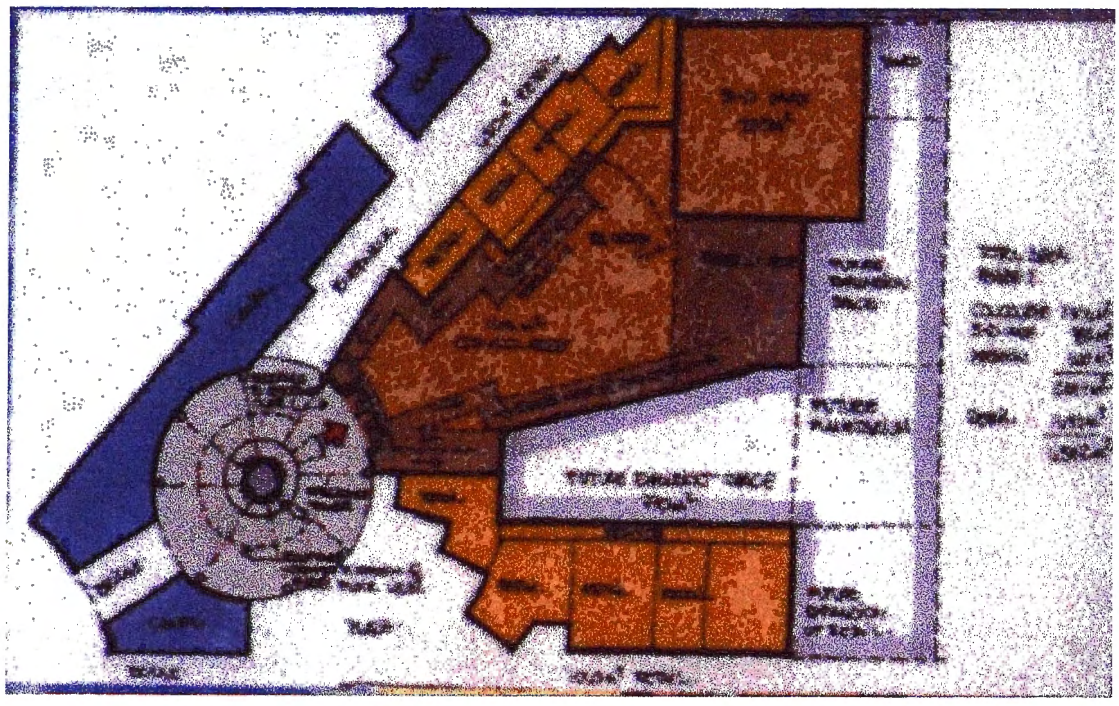
6. Location and vision

The Futropolis would be based at Century City, a massive new R1.4 billion entertainment, leisure and retail complex being developed by Monex Ltd in Cape Town. Century City is a 250-hectare mixed-use development consisting of Ratanga Junction theme park (opened in December 1998), a 220 000-m^2 shoppertainment complex (to be opened in October 2000), a R104 million conference and exhibition centre (June 2000), a 3000-m^2 discotheque (December 1999), wetland conservation area (October 2000), and 30 office blocks and 2000 residential units. It adjoins the N1 motorway and features easy access to and from all locations within the greater Cape Town metropole (see figure 2), which has a population of 3.2 million people.

The building for the Futropolis is already under construction as part of the giant shopping centre at Century City. The space will be made available for occupation in late March 2000 and the official opening of the Futropolis (together with the shopping mall) will be on 26 October 2000.

The vision of the Futropolis is to prepare people for a high-tech new millennium. The Futropolis will provide both entertainment and education and would be open to the general public and to school groups. There would be a primary entrance fee as well as secondary charges for participation in specific displays. Discounted rates would be offered to pre-booked school and sports groups, students and the elderly.

Figure 3 – Proposed floor plan of Futropolis



7. Themes

The displays in the Futropolis will follow three distinct themes:

- "You and Society"
- "You and Your World"
- "You and the Future"

with educational threads on "Communication' and "Technological innovation" running through each theme.

7.1 "You and Society"

This theme will comprise interactive displays that allow individuals to identify themselves as individuals in society, to learn to communicate with one another, and to develop life skills that encourage them to reach their full potential. The main display will comprise the *Mntwana Children's Experience*, an interactive gallery sponsored by the Cape Metropolitan Council and other sponsors, which includes exhibits from Britain's leading science centre, Techniquest, in Cardiff. A second component of this theme would be derived from the famous *Children's Science Village* at the City of Science & Industry (la Cité) in Paris. These exhibits include interactive displays for 6-14 year olds on the themes of "Communication" (including a child-sized TV studio).

The other major exhibits in this theme will comprise the best interactive displays for children from the Science Museum, Science Projects Ltd and Natural History Museum in London, the California Sciencenter in Los Angeles, the Exploratorium in San Francisco and Questacon in Canberra. This theme will also include an *Educational Creche* for pre-primary children and a *'Media in Education'* gallery presented jointly with Naspers and the Independent Newspaper Group.

7.2 "You and Your World"

This theme will comprise interactive displays on the global environment and will help visitors to develop a custodianship ethic towards the natural environment. The main display will be the *GeoSphere*, a stunning digital image of the planet based on satellite photographs. This image is projected onto a spherical acrylic globe and provides a global

view of world environmental problems and how we can solve them. Animated images of global ecological events, such as wind patterns, ocean currents, animal migrations, human population increases, etc., can also be depicted on the globe.

The *Global Visual Library* supports the projection system and includes the largest source of information about our planet assembled anywhere. Different GeoSpheres around the world interact with one another to provide an international distance learning programme.

This theme will also include the *Underwater Activity Centre*, an interactive gallery on marine life and the headquarters of the MTN Whale Route, and *a Wetland Education Centre*, from which educational programmes on the wetlands at Century City will be launched.

An adjacent gallery on *'Technological innovations'* will investigate the ways in which we have manipulated the environment in displays on 'Machines and mechanisms' from la Cité in Paris and the Science Museum in London. This subtheme also includes the *Design Technology Gallery*, a colourful classroom-in-the-round where kids learn how to make three-dimensional devices. The well-known MTN-sponsored Stellenbosch University Schools Technology Project (SUNSTEP) will be based here. There will also be an interactive display on *Great South African Inventors and Inventions* sponsored by the South African Science Councils.

7.3 "You and the Future"

The 'You and the Future' gallery teaches people about how we may live in the future with respect to telecommunications, water, energy and waste. This theme will comprise a *Green House* that demonstrates how we will use energy and water and recycle waste in future, and interactive displays on living in inner and outer space. A *'Future Connections'* exhibition by the M-group of companies will demonstrate how we will communicate with one another in future. This gallery will also include the *WhizzBang! Theatre*, a science demonstration auditorium, and a *Temporary Exhibition Hall* for travelling displays, conferences and exhibitions.

7.4 Facilities

The service facilities associated with the Futropolis will include: the *Imagin@tion Café*, a distance learning facility with super-fast access to the Internet that will also be used by trainees in MTN's 'Corporate University', the *Camera obscura,* through which visitors will see miniaturised, real-time images of activities in and around Century City and a *Science and Technology Shop*.

The Futropolis will be situated adjacent to a 3-D IMAX theatre that will be operated by Monex Ltd, the developers of Century City. There will also be 40 restaurants, 25 cinemas, 3 hotels, numerous entertainment facilities and a large shopping mall in the immediate vicinity.

8. Project elements

8.1 GeoSphere

The *GeoSphere* is an advanced environmental education teaching and entertainment facility that makes use of the latest satellite communications technology and computer imagery to convey to visitors a view of the changing ecology of our planet. Despite its advanced technology, the GeoSphere is readily accessible to learners with no technical knowledge as it is essentially language-free and access to the databases relies on the use of pictograms. The *GeoSphere* has been developed by a highly acclaimed and brilliant imagineer called Tom Van Sant in California, and its unique image of the planet, based on tens of thousands of coalesced satellite photographs, has been formally adopted by National Geographic as their official map. Tom Van Sant recently received an award as one of the mapmakers of the century.

The *GeoSphere Project* consists of three components: the *Geosphere globe*, a 2– or 4-metre spherical globe onto which the GeoSphere image is projected from the inside using a unique three-dimensional projection system, the *Earth Situation Room*, comprising the GeoSphere globe, workstations to manipulate the image on the globe and seating for viewers, and the *Global Visual Library*, the largest digital database on global environmental events in the world, which is projected onto the globe and the computer screens.

The *GeoSphere* is an edutainment facility that is suitable for use by pre-schoolers, scholars, students, adults and advanced scenario planners. Seven GeoSpheres are currently operational around the world, all in the northern hemisphere. Because all the information on the GeoSphere is digitally stored, it is infinitely interactive and can be shared online with scholars throughout South Africa and the world. The GeoSphere Project in California is already working on an international education programme that will link schools by satellite; we will be part of that exciting, cutting-edge communications programme.

The GeoSphere also comprises *'Earthview'*, a joint project with Silicon Graphics that provides three-dimensional views of the planet. GeoSphere is also linked to the *G.L.O.B.E.* international distance-learning programme initiated by Vice President Gore of the U.S.A.

8.2 Children's Science Village

The Cité des Sciences et de l'Industrie (la Cité) at la Villette in Paris is the largest and most successful science park in the world. They receive over 1.3-million visitors per year. We have had extensive discussions with the designers, operators, teachers, financiers and sponsors of the la Cité displays regarding the establishment of a permanent Children's Science City in South Africa, similar to the satellite displays that they have already installed in Italy, Japan, Belgium, Jordan, United Arab Emirates, Lebanon and Uruguay and are currently installing in Spain. The Scientific Attaché at the French Embassy in Pretoria has committed himself to helping us establish a Children's Science City in South Africa.

We have selected those components of the Children's Science City that would be most relevant to South Africa and to MTN's needs: the children's TV studio; speaking tubes, interactive computers on sound and communication, whisper dishes, pneumatic messages and videophones in the 'Communication' theme; the wetland, ant colony and microscope displays in the 'Life Forms' theme; the water pumps, musical box and gear-wall displays in the 'Machines and Mechanisms' theme; the personal identification and 'How Your Body Works' displays in the 'You and Your Body' theme; and the 'Unfinished House', 'Unfinished Car', 'Endless Stream' and 'Rules of the Game' displays in the 3-6 year-old theme.

8.3 Stellenbosch University Schools Technology Education Program (SUNSTEP)

SUNSTEP is an established and successful educational programme run by Professor Schoonwinkel and his staff from the Department of Electrical Engineering at the University of Stellenbosch. SUNSTEP involves teaching scholars how to assemble simple but working electronic devices such as radios, alarms, time set devices, etc. in order to introduce learners, many from disadvantaged communities, to modern technology. The programme is currently conducted from a laboratory at the University of Stellenbosch and in schools throughout South Africa.

It is proposed that a 110-m^2 Design Technology Workshop should be established as part of the Futropolis to act as a public interface for the SUNSTEP project and as a place where large numbers of children, during and after school hours, can learn how to assemble electronic devices. The Workshop would be brightly coloured room with high technology décor. There would be a large U-shaped table for model assembly in the middle with ample storage space and display areas around the walls. It would be an inviting area where children would choose to go. In addition to SUNSTEP projects, children would also take part in a variety of other design technology activities ranging from Lego and Meccano set building to complex model making, arts and crafts, etc. There is tremendous scope here for providing temporary employment for creative young people from disadvantaged communities to enable them to teach their skills to other children.

Design Technology is an integral component of the new outcomes-based education curriculum.

8.4 Stellenbosch University Satellite Programme (SUNSAT)

SUNSAT is a project run by Professor Schoonwinkel and his staff from the Department of Electrical Engineering at the University of Stellenbosch that has won a contract to place the first satellite from Africa in orbit from a rocket launched from the Vandenburgh Space Centre in California, U.S.A. The satellite is currently orbiting at an altitude of 450-800 km every 100 minutes and photographs and information about the Earth are being broadcast back to the ground station at the University of Stellenbosch. The satellite was designed and constructed by staff and students in the Department, who will monitor and analyse the data that it transmits back to Earth during its orbital life.

The SUNSAT satellite contains many innovations that have attracted international interest and it is likely that SUNSAT will be invited to participate in future satellite launches. The SUNSAT project links in extremely well with our initiatives to attract sponsorship from the European Space Agency and Arianespace for the interactive science displays at the Futropolis, especially in the 'You and the Future' theme.

SUNSAT has also developed a satellite builder's kit and other teaching aids as well as a web page (http://www.sunsat.ee.sun.ac.za/) so that scholars can participate in the

project. The SUNSAT project would mount a display in the SUNSTEP laboratory at the Futropolis so as to inform the public of its progress and to invite participation by aspirant young scientists. SUNSAT and SUNSTEP would continue to be run by Professor Schoonwinkel and his team from the University of Stellenbosch but its public shop window would be in the MTN Futropolis at Century City.

8.5 The MTN Whale Route

The MTN Whale Route is one of the most successful commercially sponsored environmental awareness and ecotourism projects ever undertaken in South Africa. The project has recently been extended to include the coasts of the Eastern Cape with KwaZulu-Natal to follow.

The Whale Route was established in 1996 and aims to market whale watching along the South African coast and to promote education, training and conservation programmes on whales, dolphins and other marine life. The Whale Route has recently extended its ecotourism and environmental education initiatives to include the flowers of Namaqualand, the black oystercatcher (our rarest coastal bird) and the continental populations of African penguins. The Whale Route also strongly supports the whale and other environmental education programmes at the Two Oceans Aquarium, South African Museum, Centre for Dolphin Studies and elsewhere.

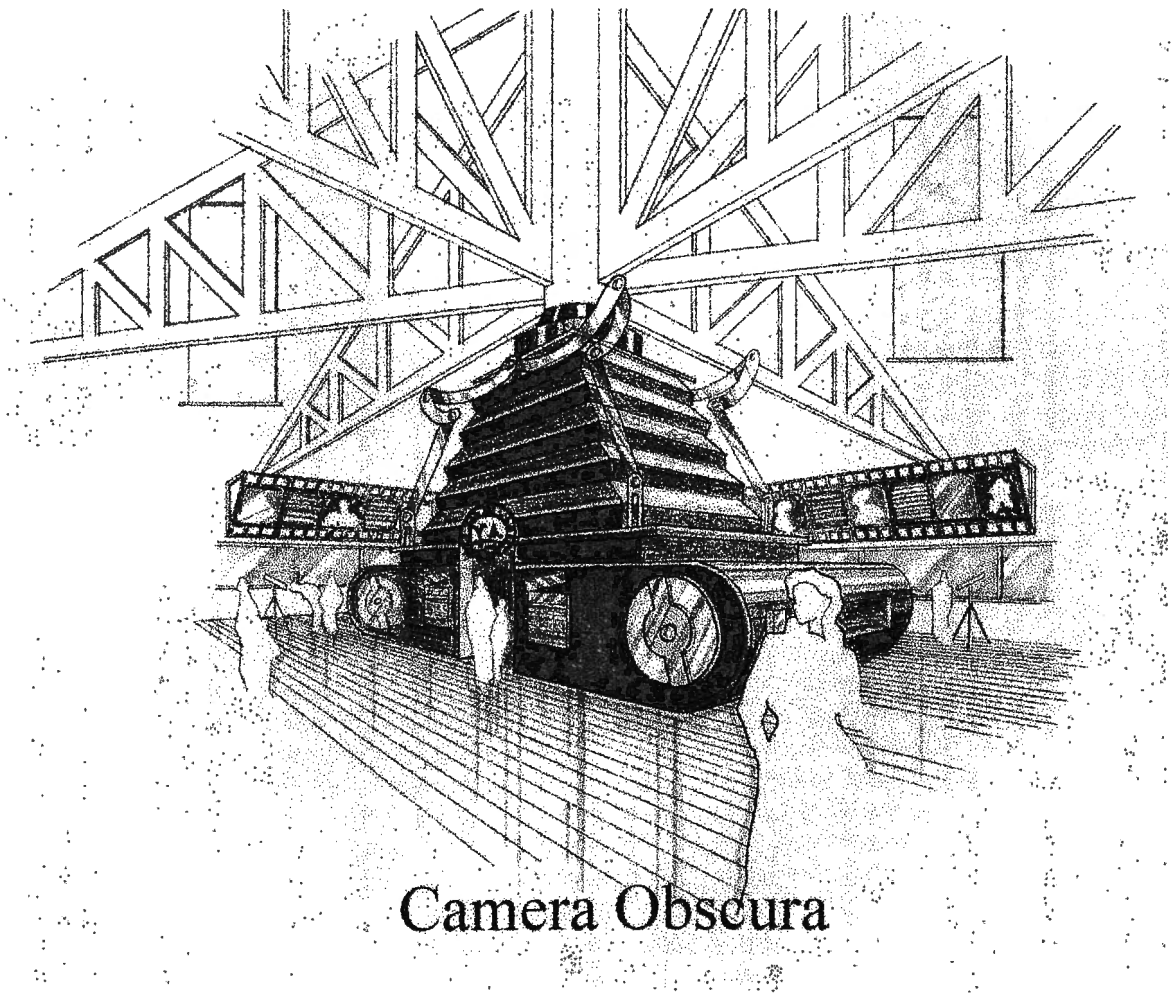
The MTN Whale Route gallery at the Futropolis would comprise interactive displays on the theme of whales, seals and dolphins, coastal birds, coastal flowers and coastal conservation, and would market MTN's highly successful ecotourism development projects to the public.

8.6 Camera obscura

A camera obscura is a tower-shaped building topped by a turret containing a circular array of mirrors. The mirrors capture ambient light and reflect it down onto a concave screen at waist height in the viewing gallery. Viewers see a stunning, crystal clear 360° image of whatever is happening around the tower – in this case, the hive of activity at Century City, and, further afield, on the Cape Flats and Table Bay.

There are over 90 camera obscuras operational around the world and some are very successful commercially. The one at Edinburgh Castle in Scotland receives over 1 million visitors a year! A small interactive display on the properties of light and the history of photography will accompany the camera obscura. This facility will be developed by the Cape Town Camera Obscura Company. See figure 4 below.

Figure 4 – The proposed Camera Obscura facility



8.7 Temporary Exhibition Hall

The Temporary Exhibition Hall would house national and international travelling displays from science centres such as Techniquest, the Natural History Museum, the Science Museum, in the United Kingdom; 'Garden Monsters', 'Star Trek', 'Missing Links Alive' and 'Dawn of the Human Spirit' from United Exhibits Group in Denmark. An area of 700-m^2 has been set aside for this purpose.

8.8 Water and Energy Gallery

Saving water, and therefore saving electricity, are top priorities in South Africa because of the precarious state of our water resources and the need to supply millions of people in rural and peri-urban areas with running water and electricity. Water conservation campaigns have been initiated in Cape Town and Hermanus (and elsewhere) and many new water- and energy-saving devices have recently come onto the market, many of which will become compulsory installations in homes, offices, sports clubs and government buildings in the near future.

The Water and Energy Gallery would be used in the school education programme as well as by the general public. It is likely that manufacturers would donate the water- and energy-saving devices for display. In addition, the Water Demand Management Division of the Cape Metropolitan Council has agreed to sponsor this gallery. An outreach programme, as part of the '2020 Vision for Water' School's Project of the Department of Water Affairs and Forestry, would be developed from this gallery.

It would be necessary to have a 110-m^2 classroom as a base, resource room, library and teaching environment for the 'Green Schools Project', as part of the Futropolis complex. This room would be combined with the Water & Energy Gallery. A wind turbine will be mounted on the roof of the Futropolis building to generate electricity from the strong winds that blow across the Cape Flats.

9. Industry Analysis

The Futropolis competes in the arena of discretionary income. Although it is primarily an educational institution, state subsidies are limited and its ongoing sustainability is reliant on admission and other income. The Futropolis therefore competes in an environment where adults and children decide on how to spend their disposable income on leisure pursuits.

A significant portion of the income derived from admission is dependent on school and other interest groups. Admission is granted at a reduced rate and is not dependent on alternative leisure offerings, and accordingly this decision-making process is not considered in the industry analysis.

9.1 Visitorship

The Futropolis is a regional endeavour and does not compete directly with initiatives in other parts of the country. It does have the potential, however, to be a source of attraction to national and international tourists and local visitors. Cape Town has a number of natural attractions that can provide an indication of the level of visitor activity in the region. This is summarised in the attached 'Comparison of attractions in Cape Town area'. The Century City shopping development itself is likely to generate some 24 million visitors annually, a figure that exceeds that of the V&A Waterfront (20 million). The shopping complex at Century City alone will attract 75 000 visitors per day on peak weekends. The Ratanga Junction theme park anticipates approximately 1.6 million visitors in 1999 - its first full year of operation.

In terms of compatibility with the vision and target market-segment of the Futropolis, the Two Oceans Aquarium (500 000 visitors per annum) and Telkom Exploratorium (among others) are useful benchmarks for visitorship estimates. The Futropolis is designed to provide a quality, two-hour visitor experience. This excludes rest time in the restaurant, Internet café and shopping facilities. Based on this analysis, we believe that the three scenarios of 213 000 (low), 261 000 (mid) and 297 000 (high) visitors per annum are realistic and certainly achievable.

9.2 Attractions

Cape Town and environs have a number of natural attractions that enhance its status as an international tourist destination. While tourists are certainly an added attraction for potential visitorship to the Futropolis, it is relevant to note that an average of only 6% of visitors to Ratanga Junction are foreign tourists.

The Futropolis will be part of a multi-destination facility (in Century City) – the overwhelming evidence from international experience is that science centres in multiple-destination precincts are most likely to succeed.

9.3 Competitive analysis

Both the natural attractions and specialist developments (such as IMAX) in Cape Town are likely to complement the Futropolis. There are limited entertainment facilities, and no science and technology educational facilities available in the Western Cape. There is only one dedicated science centre in South Africa situated in Zululand in Kwazulu-Natal. This does not pose a threat to the Futropolis.

A feature of the MTN Futropolis is that similar ventures such as the Telkom Exploratorium will further complement the Futropolis since their attractions enlighten the community as to the educational and entertainment possibilities of these venues. The Telkom Exploratorium is a combination of static displays and limited interactive exhibits and does not cater for the broad market that the Futropolis is dedicated to. It is thus not considered a competing entity.

As a visit to the Futropolis will be part of the school curriculum – similar to field trips to the museum – it is likely to gain critical mass through these visitation numbers. The Futropolis will only compete for the leisure time of the family entity. The location of the science centre in a shopping precinct thus further enhances its competitive edge.

10. Success criteria

Science centres may have noble origins and intent, but they compete in the leisure market. As such, their success criteria are dependent on generating constant revenue to ensure their survival and prosperity. To achieve this requirement, science centres need to meet certain criteria to be successful:

1. Science centres are strongly connected to the academic and technological world. The senior management of a science centre should comprise of academics or scientists who have operated in a research or university environment. These connections would need to be maintained in order to access the latest learning themes and technological innovations and to develop exhibits and displays accordingly.

2. The Futropolis requires a critical mass of visitorship. Some foreign science centres are able to achieve this with a visitorship of only 47 000 (see benchmarks) but it is envisaged that in South Africa this quantity is about 200 000. This is primarily owing to the exchange rate discrepancy in purchasing foreign exhibits and displays. The amount of public funding is also not as forthcoming locally owing to other priorities these institutions may have.

3. Science centres obtain funding from a number of different sources. There should be a mix between public, private and admission funding. The public funding element is relevant as it demonstrates local community and government support for the project. This is relevant in South Africa where outreach programs are essential elements of any educational institution. According to Persson (1997: 285) "Government or municipal subsidies indicate a certain level of recognition: (that) the tasks performed by the science centre are considered important by the local community or even the nation." The Futropolis has already secured a grant of R468 750 from the local government (Cape Metropolitan Council).

4. Science centres need to be self-sustaining and entrepreneurial in their approach to the visitor experience. This requires that they optimise their sources of external funds

i.e. admission fees, souvenir revenue, exhibition rentals, corporate functions and restaurant and shop sales in order to achieve profitability. International benchmarks require that 30 - 50% of funds are based on these sources. The exact proportion depends on the amount of unconditional seed funding that is raised prior to the establishment of the science centre. The Futropolis exceeds this percentage substantially, which is due to the high value of seed funding anticipated.

5. Science centres provide a memorable and innovative visitor experience. This partly explains the success of the science centre concept, as pioneered by the Exploratorium in San Francisco and the Ontario Science Centre in Toronto (which both opened in 1969). The exhibits and displays must involve the visitor in a number of ways, such as:

- Hands-on experience of the latest cell-phones and telecommunications devices
- Rat basketball games at Heureka (Finland) – innovative
- Hire-wire bike rides or bed of nails – involving the visitor personally
- Square wheels – intriguing the visitor and questioning their logic

6. Dedicated staff are required to ensure their success. While this may be self-explanatory, many centres are reliant on volunteer workers who donate their personal time to provide a worthwhile visitor experience. This success criterion is valid for all edutainment experiences and ensures that new ideas are continually being generated.

7. The Futropolis is highly relevant to South Africa's needs. An adequate education in science and technology is essential for the future development of our nation.

8. The teaching programmes of the Futropolis provide life skills training and contribute strongly to outcomes-based education.

11. Sources of funding

The Children's Science Village is based on turnkey displays sourced from la Cité; Arianespace (a European company based in France) is the major likely sponsor. Arianespace has been closely involved with la Cité in Paris and has expressed an interest in continuing this relationship. The MTNwana Children's Experience follows a similar pattern. The displays are largely based on English exhibits (Eureka! science centre, Techniquest) and the major sponsors are the Cape Metropolitan Council and Anglo-American. The Temporary Exhibition Hall will be sponsored by Old Mutual, which reflects Old Mutual's continued involvement in informal education. Alpha Limited has expressed interest in sponsoring the Whizbang Auditorium. Other exhibits will only be a reality if the sponsors provide funding e.g. the Energy Gallery, Camera Obscura and 'Population Explosion gallery.

There has been an explosion in the development of interactive science centres in Britain, many of them funded by the Millennium Fund and the State Lottery. Excellent individual and grouped interactive displays are available for purchase on a variety of themes, such as communication, environmentally friendly design, you and your body, medieval machines, geography, ecology, etc. These displays are very robust but are reasonably priced as they are made in small factories staffed by young people, many of them volunteers. Funding may be available in Britain to bring these displays to South Africa at discount prices.

12. Organisational plan

The Futropolis is the trading arm of a Section 21 company called the Interactive Science Foundation. The Foundation is a non-profit institution and the Board of Directors comprises representatives from a broad spectrum of the community. The Articles of Association permit seven Board members of which at least two are directors.

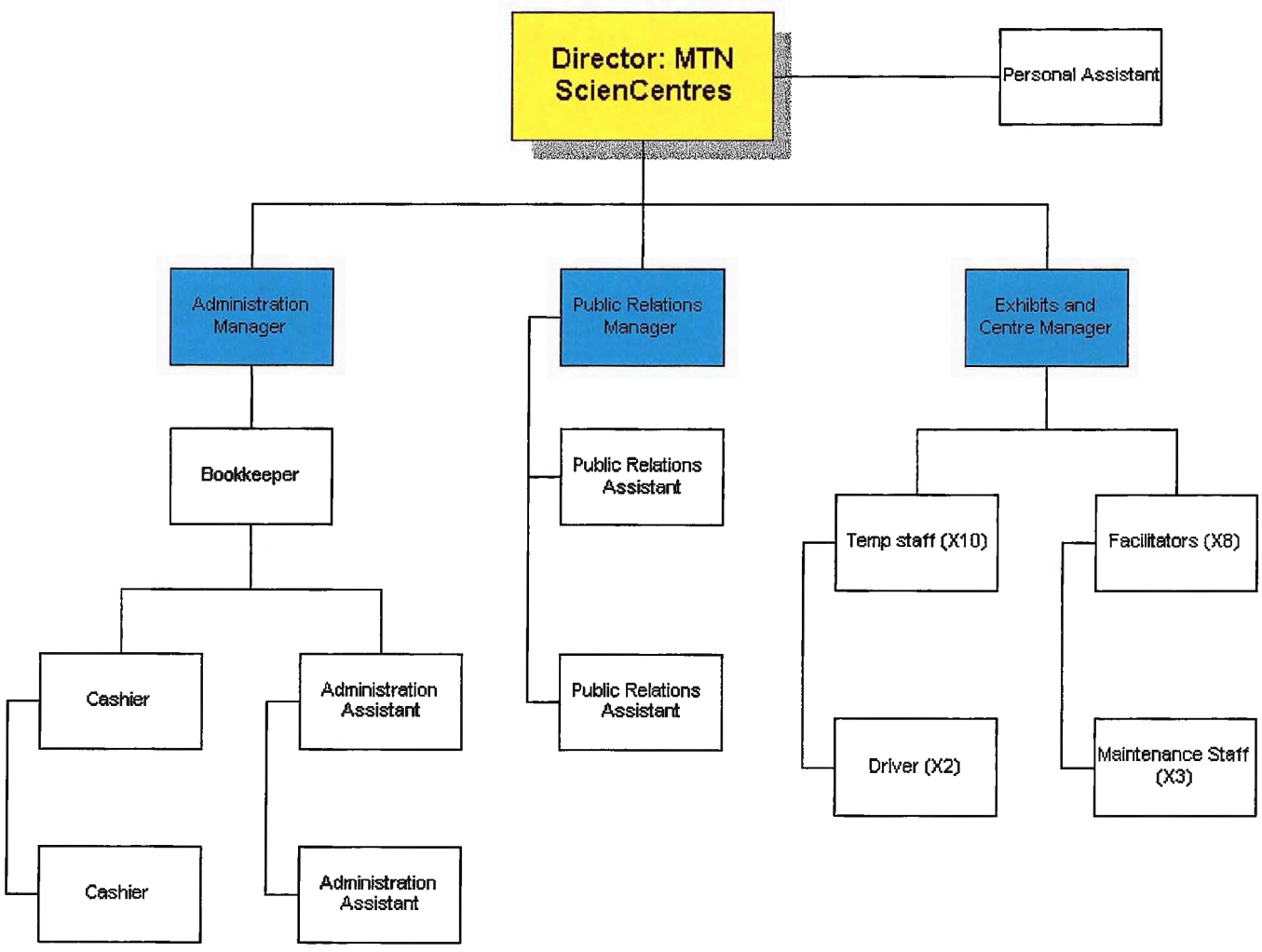
It is the specific intention of the Futropolis to be a non-profit company since its success relies on funding from various institutions. Many government, quasi-government and trust funds will only sponsor Section 21 companies – and not profit-seeking enterprises - owing to the community benefits that they provide. The named sources of funding ensure that there is wide stakeholder participation in the Futropolis, which is one of its key success factors.

13. Staffing structure

The staffing structure consists of a team of professionals dedicated to serving the educational needs of the community whilst providing a world-class interactive experience for visitors of all ages and from all communities. With the exception of the Director, all staff members are employed separately by the Section 21 company. The Director maintains his fiduciary responsibility to the Directors and Members of the Interactive Science Foundation by ensuring the continued success of the Futropolis.

The staffing structure has been allocated from inception although it is likely that hiring will take place gradually as more varied skills are required. The staffing structure consists of a senior management team comprising the General Manager, the Administration Manager, the Exhibits and Centre Manager, Education Manager and the Public Relations Manager.

Figure 5 – Futropolis organogram



14. Marketing plan

The Futropolis is primarily targeted at individuals who represent South Africa's future work force. These include:

- **Children** in primary schools and early stages of secondary schools
- **Teenagers** in the latter stage of secondary school who are preparing for their careers
- **Trainers** in search of new training tools
- **Parents** trying to create a nurturing and enriching environment for their children
- **Teachers and teacher trainers** who can upgrade their own skills by understanding the latest concepts
- **Tourists** who will be attracted by the ancillary attractions of Century City

With the exception of the tourism element, all visitors will originate mainly from the greater Cape Town metropolis. This target market is divided into two further market segments:

1. School-going children and teachers / trainers
2. Families

School group visits can be expected from the entire Western Cape region, as well as from the remainder of the country (as experienced at the Two Oceans Aquarium). Different pricing structures will apply to these two segments, as will the relevant marketing approach.

14.1 Marketing to schools

The school-going community will comprise approximately 40% of the overall visitorship to the Futropolis. This market will visit the Futropolis during normal school hours and during the week only. Greater Cape Town has a school-going population of about 1-million that is spread over a *demographically* and *socially* diverse area. This presents three challenges:

- Assistance with the transport of the children and teachers to the Futropolis by means of the subsidisation of entrance fees and bus fares through a local bus company
- A sophisticated pre-booking and booking confirmation service using Computicket, Ticketweb and Ticketline.
- An effective advertising and awareness campaign to schools:
  - School children will be accessed through print publications such as Jelly Bean Journal and the children's supplements of Huisgenoot and You magazine, and television programmes including K-TV (M-Net) and Craze-e-Kids (e-TV).
  - Teachers and trainers of the Department of Education will be enlightened through school newspapers, mail-shots to individual schools and PTA meetings.

Owing to the number of eligible children in the vicinity, it is unlikely that there will be a shortage of visitors from this segment. The challenge would be in ensuring a fair and equitable allocation of time to the school visitors, and to organise their visits efficiently.

We also need to ensure that the displays in the Futropolis are of such a high standard that a visit by a school group becomes a compulsory part of the curriculum.

14.2 Families

The family segment represents a more profitable source of income than the school segment but it does present a different challenge. As stated previously, the Futropolis competes in the leisure market for a share of a family's disposable income. This requires a strategy that will enlighten the community about the benefits that the Futropolis has to offer.

14.2.1 Advertising and Promotions

Owing to the expense involved in terms of this strategy, the print medium (community newspapers and mainstream media) will mainly be used together with limited radio airtime.

In all promotions the educational (but fun experience) component will be heavily emphasised. Research has proved that parents also learn when visiting a science centre. In South Africa this is particularly important since there are generations

that have had no exposure to science and technology, and they have been unable to pass on any knowledge to their children.

14.2.2 Public relations

The Futropolis will be very PR-driven in order to sustain public interest in its activities. This profile will be maintained by:

- Educational supplements in newspapers (local and national)
- Feature articles on certain displays in the MTN Futropolis
- Human interest stories
- Radio interviews

The awareness campaign must focus on creating a pull factor for the parents and enlightening them as to the benefits of the science centre. The shopping complex at Century City will have many peripheral attractions for children and it will be incumbent on the parents to introduce them to the Futropolis. Elements of the advertising would highlight the length of the visitor experience – 2 hours – thus creating an awareness of the unique value of the Futropolis experience.

14.2.3 Sustainability

The experiences of international science centres indicate that visitor volumes are high in the first year, with a reduction of 20-30% in the second year, building up to 80-120% of the original level over a period of years. The Futropolis seeks to contain this trend and, in order to retain high levels of return visitorship, it is essential that new displays are regularly introduced. The Futropolis will rotate approximately 15% of its exhibits and displays annually. The financial projections include a 'replenishment' factor for this purpose. The community will be informed about the new displays through ongoing updates and advertorials. The bi-annual rotation of the Temporary Exhibit also serves as an opportunity to inform the public about new offerings.

15. Financial analysis

In order to reduce the financial exposure of MTN and to present a worst-case scenario, we have in most cases over-estimated expenditure and under-estimated income. The estimates of income and expenditure are based on a detailed study of the financial reports of science centres and like attractions in South Africa and abroad, taking into account the unique circumstances of the Western Cape. The financial analysis and schedules illustrate the ongoing viability of the Futropolis assuming that:

- The core capital expenditure for exhibits is raised
- The headline building lease is underwritten by the major sponsor (MTN)

15.1 Capital expenditure

The building in which the Futropolis is being housed is currently under construction. Monex Ltd have agreed to let a portion of the Century City shopping complex to the Futropolis at a subsidised rental of R50 per m^2 plus operating costs. This represents a subsidy from Monex Ltd of at least R50 per m^2 since current market rates for large areas are approximately R100-m^2 and up to R220-m^2 for small shop-fronts. The developers have also agreed to add a two-storey tower to the west corner of the building so as to provide additional advertising and display space, and to improve the appearance of the building at their cost. The total subsidy from Monex per annum thus translates to R2.2 million per annum.

The estimated capital cost of R16.8 million for displays and facilities, as reflected on the Sources of Funding statement, (p.46), is a conservative estimate. It is important to note that some displays or exhibits would not be purchased should funding not be forthcoming e.g. *Great Inventors and Inventions, Wetland Education Centre, Space and Astronomy displays, Educational Creche, Population Explosion Gallery, Energy Gallery* and *Camera Obscura.* We have allowed for a shortfall in funding of R5.3 million that will be financed at market rates. The repayment of the interest on this amount has been allowed for although it is unlikely that the full shortfall amount would be borrowed.

The capital expenditure schedules itemise – in detail – the anticipated exhibit and display costs. Where necessary, ancillary expenses relating to scenography and infrastructure have been included to prepare a 'turn-key' cost.

15.2 Admission and pricing

The Futropolis has estimated fee structures on a par with expected (year 2000) cinema ticket prices and like attractions. The per-hour visitor cost enables the Futropolis to compete with (and complement) other attractions in the greater Cape Town area (see attractions, p.50).

Other revenue expectations from merchandise, temporary exhibits and hospitality outlets are conservative and it is expected that visitor spending will exceed the net revenues indicated.

15.3 Operating expenses

Operating costs are conservative with salaries (22.0%), rentals (26.5%), and depreciation (18.6%) representing the largest costs. Depreciation rates are based on:

- Computers at 25%
- Furniture and equipment at 20%
- Exhibits at 10%
- Fixtures and fittings at 20%.

In addition to the above allowances, an 'exhibit replacement reserve' has been provided in order to prepare for a portion of the exhibits to be replaced. The 'operating costs: premises' item includes an amount that the Century City shopping complex has budgeted for generic marketing relating to the complex. It is expected that the Futropolis will benefit greatly from this since the science centre will be an attraction that would feature prominently in these promotions.

An advance of R400 000 (to be donated by Old Mutual) has been set aside to cover the costs of bringing the first international travelling display to the Old Mutual Exhibition Hall in the Futropolis. This amount will be recovered from gate income from each new temporary exhibition.

15.4 Sources of Funding statement

The Sources of Funding statement (p.46) details the themes and specific exhibits of the science centre with the corresponding likely sponsors. We have identified those

sponsors that are most likely to identify with a specific display and itemised the funding that they have committed to in principle.

While this list does not represent guarantees from the organisations listed, many negotiations are in an advanced stage, and are likely to be successful.

16. Conclusion

South Africa is 20 years behind the rest of the world in the development of interactive science centres. We have introduced this initiative into the country at exactly the right time – immediately after the successful 'Year of Science and Technology", at the millennium change, and at a time when the public and private sectors are acutely aware of the need for a stronger science and technology culture.

The recent peaceful elections and the spirit of optimism in South Africa augur well for our future development. The major challenge for the new government is to make all South Africans economically active participants in the modern, technologically-sophisticated world. There is strong support for a technology leap-frog of historically disadvantaged people into the modern era without a long period of inertia in an intermediate technology mode.

Interactive science centres are uniquely equipped to play a strong role in these significant social changes. It is our prediction that science centres will develop rapidly in South Africa over the next five years. We will need to act quickly to ensure that our Futropolis is the best and most effective. We predict that a market for small centres featuring interactive displays will also open in supermarkets, in facilities adjacent to Health and Racquet Clubs, airports, and in large hotel and hospitality units in future. If we can be the agents or manufacturers of these displays, we will be able to make a significant contribution to developing a strong science and technology culture in South Africa in future.

MTN has a unique opportunity to take the initiative in interactive science and technology development. Several major sponsors are already in place, and others have offered their support in principle. The developers of Century City, Monex Ltd, are extremely supportive of this project. We have the best site for a science centre in South Africa and we cannot let this opportunity pass us by.

MTN is reliant on the community it serves to have sufficient technological ability to use its products and services. The development of a network of interactive science centres will make a significant contribution to the development of new market sectors that use cell-phones and related communication devices and services.

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Futropolis

Assumptions

Admission Fees and Pricing Structure

	R
Adults	35.00
Children	22.00
Adults: Group Bookings	25.00
Children: Group Bookings	15.00
Merchandise Revenue (net) * (average expenditure per visit)	6.00
Temporary exhibits revenue per visitor (net) *	2.00
Hospitality revenue per visitor *	2.00

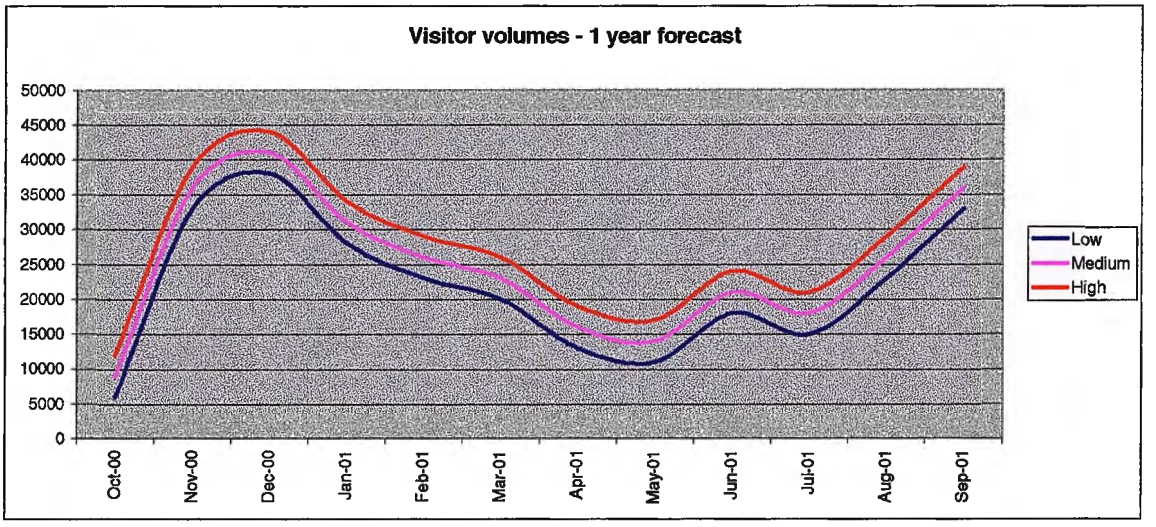
* - Conservative estimates

Visitor Volumes

Month of operation	**Low**	**Mid**	**High**
October 2000	6,000	9,000	12,000
November 2000	33,000	36,000	39,000
December 2000	38,000	41,000	44,000
January 2001	28,000	31,000	34,000
February 2001	23,000	26,000	29,000
March 2001	20,000	23,000	26,000
April 2001	13,000	16,000	19,000
May 2001	11,000	14,000	17,000
June 2001	18,000	21,000	24,000
July 2001	15,000	18,000	21,000
August 2001	23,000	26,000	29,000
September 2001	33,000	36,000	39,000
October 2001	6,360	9,540	12,720
November 2001	34,980	38,160	41,340
December 2001	40,280	43,460	46,640
January 2002	29,680	32,860	36,040
February 2002	24,380	27,560	30,740
March 2002	21,200	24,380	27,560
April 2002	13,780	16,960	20,140
May 2002	11,660	14,840	18,020
June 2002	19,080	22,260	25,440
July 2002	15,900	19,080	22,260
August 2002	24,380	27,560	30,740
September 2002	34,980	38,160	41,340
Annual volumes - year 1	**261,000**	**297,000**	**333,000**
Annual volumes - year 2	**276,660**	**314,820**	**352,980**

Futropolis

	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01
Low	6000	33000	38000	28000	23000	20000	13000	11000	18000	15000	23000	33000
Medium	9000	36000	41000	31000	26000	23000	16000	14000	21000	18000	26000	36000
High	12000	39000	44000	34000	29000	26000	19000	17000	24000	21000	29000	39000



Futropolis

Summary: Capital Equipment Schedule

Main centre and staff facilities	1,670,000
'You and Society' theme	6,462,000
'You and Your World' theme	3,900,000
'You and the Future' theme	1,225,000
Other exhibits and displays	2,020,000
Service facilities	1,550,000
	16,827,000

Futropolis

Capital Equipment Schedule

		Rands
TOTAL CAPITAL EXPENDITURE		**16,827,000**
Main Centre and Staff Facilities		**1,670,000**
Land	Not Applicable	
Building	Not Applicable	
Exterior facilities	Not Applicable	
Parking facilities	Not Applicable	
Furniture and Fittings - staff	240,000	
Motor Vehicles	340,000	
Computers - Network hardware	100,000	
Computers - Network software	30,000	
Computers - PC hardware	200,000	
Computers - PC software	60,000	
Maintenance Equipment	100,000	
Generic fixtures, fittings and scenography	400,000	
Administration fixtures	200,000	
Total Exhibits and Displays		**15,157,000**
You and Society		**6,462,000**
Children's Science Village (La Cite)	5,082,000	
Appraisal costs	212,000	
Carriage, Insurance and Freight	570,000	
Set-up costs	200,000	
Supporting structures / scenography	300,000	
Exhibition purchase (components below)	3,800,000	
Communication Gallery		
Childrens' TV studio		
Speaking Tubes		
Computer interactives on sound & communication		
Whisper dishes		
Pneumatic messages		
Videophones		
Machines and mechanisms		
Gear wall		
Water pumps		
Music box		
You and other people		
Self-identification		
How your body works		
Investigating life forms		
Life of the ant		
Microscopic forms		
3 - 6 year old theme		
Unfinished house		
Unfinished car		
Endless stream		
Rules of the game		

Futropolis

Capital Equipment Schedule

		Rands
MTNwana Childrens' Experience		1,380,000
Techniquest displays		
Hot Air balloon	115,000	
Powers of ten	115,000	
Slow bubbles	115,000	
Vortex	115,000	
Animate it!	57,500	
Beat your heart	57,500	
Bermuda octagon	57,500	
Coloured shadows	57,500	
Get in shape	57,500	
Light harp	57,500	
Reasons for seasons	57,500	
Weight and see	57,500	
Whisper dishes	57,500	
Air cannon	28,750	
Crazy crane	28,750	
How many like me?	28,750	
Map projections	28,750	
Orbits	28,750	
Reaction timer	28,750	
Rott's pendulum	28,750	
Sketching symmetry	28,750	
Talk tracer	28,750	
Vocal vowels	28,750	
Arch bridge	23,000	
Bernouilli blower	23,000	
Bucket radio	23,000	
Getting unknotted	23,000	
Roll uphill	23,000	
You and your World		**3,900,000**
Geosphere Exhibition Hall		3,000,000
Geosphere purchase	2,500,000	
Furnishings, audio-visuals, seating	500,000	
Design Technology Workshop		300,000
Furnishings	300,000	
Electronic kits	sponsored by MTN	
Underwater Activity Centre		500,000
Interactive displays	250,000	
Touchscreen computers	50,000	
Scenography	100,000	
Furnishings for Whale Route	100,000	
Wetland Education Centre		100,000
Furnishings for information centre	30,000	
Touchscreen computers	50,000	
Audiovisual equipment	20,000	

Futropolis

Capital Equipment Schedule

		Rands
You and your future		**1,225,000**
Space and astronomy displays		290,000
Interactive displays	250,000	
Scenography	40,000	
Energy Gallery		240,000
Interactive displays	200,000	
Scenography	40,000	
Future Connections		400,000
Interactive displays on information highway	400,000	
Green Home		295,000
Functional water & energy use systems	250,000	
Scenography	45,000	
Other		**2,020,000**
Temporary Exhibition Hall		800,000
Movable seating	200,000	
Display boards	30,000	
Lighting	80,000	
Audio-visual facilities	400,000	
Curtains, blinds, other furnishings	30,000	
Loudspeaker system	60,000	
Whizbang! Auditorium		490,000
Tiered seating and upholstery	150,000	
Audio-visual equipment	150,000	
Demonstration desk and cupboards	20,000	
Special lighting	60,000	
Basic scientific equipment	80,000	
Loudspeaker system	30,000	
Inventors and inventions		250,000
Touchscreen computers	80,000	
Interactive displays	150,000	
Display boards	20,000	
Population explosion		230,000
Touchscreen computers	80,000	
Interactive displays	150,000	
Science shop		250,000
Service Facilities		**1,550,000**
Camera Obscura (only if funding obtained)		300,000
Distance Learning Facility (Imagina@tion Café)		300,000
Themed coffee shop (supporting facilites only)		150,000
Educational creche (only if funding obtained)		800,000

Futropolis

Forecast Income and expenditure

Scenario: LOW
Annual visitorship: 261,000 OPENING DATE: 26 OCTOBER 2000
Rental area 4,000 m²

		Oct-00	Nov	Dec	Jan-01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Year1
Income	**Factor**													
Admission fee income														
Adults	0.25	52,500	288,750	332,500	245,000	201,250	175,000	113,750	96,250	157,500	131,250	201,250	288,750	2,283,750
Children	0.25	33,000	181,500	209,000	154,000	126,500	110,000	71,500	60,500	99,000	82,500	126,500	181,500	1,435,500
Adults: Groups	0.10	15,000	82,500	95,000	70,000	57,500	50,000	32,500	27,500	45,000	37,500	57,500	82,500	652,500
Children: Groups	0.40	36,000	198,000	228,000	168,000	138,000	120,000	78,000	66,000	108,000	90,000	138,000	198,000	1,566,000
Merchandise revenue		36,000	198,000	228,000	168,000	138,000	120,000	78,000	66,000	108,000	90,000	138,000	198,000	1,566,000
Exhibit and travelling displays revenue [1]		12,000	66,000	76,000	56,000	46,000	40,000	26,000	22,000	36,000	30,000	46,000	66,000	522,000
Hospitality revenue [2]		12,000	66,000	76,000	56,000	46,000	40,000	26,000	22,000	36,000	30,000	46,000	66,000	522,000
Conference revenue [3]		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Other revenue [4]														0
Corporate donations [5]														0
Rental subsidy: MTN Headline lease on centre [6]		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,400,000
Rental subsidy: MTN lease on offices		23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	285,600
Government subsidies [7]		41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	500,000
Total Income		**471,967**	**1,356,217**	**1,519,967**	**1,192,467**	**1,028,717**	**930,467**	**701,217**	**635,717**	**864,967**	**766,717**	**1,028,717**	**1,356,217**	**11,853,350**
Operating Expenses	**% of Opex**													
Advertising and advertorial	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Audit fees	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Bank charges	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Consumables	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Community subsidisation	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Computer expenses	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Cleaning services	1.5%	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	156,000
Depreciation	16.6%	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	1,886,200
Exhibit replacement reserve	2.2%	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	227,355
Electricity and water	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Entertainment	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Exhibit costs	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Insurance	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Legal fees	0.5%	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Maintenance - Buildings	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Office Equipment	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Maintenance - Exhibits	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Other	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Marketing	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Motor vehicles and Transport	0.7%	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	72,000
Photography	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Postage	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Printing (brochures)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Professional fees	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Promotions	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Rental of premises	26.5%	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	2,685,600
Operating costs: Premises	6.6%	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	672,000
Salaries and Wages (all costs)	22.0%	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	2,230,560
Stationery	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Security	3.0%	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Subscriptions	0.1%	800	800	800	800	800	800	800	800	800	800	800	800	9,600
Teaching Aids	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Telephone, fax and internet	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Training (staff)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Travel (local)	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Travel (international)	0.7%		25,000			25,000					25,000			75,000
Contingencies	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Total Operating Costs	**100.0%**	**838,610**	**863,610**	**838,610**	**838,610**	**863,610**	**838,610**	**838,610**	**838,610**	**838,610**	**863,610**	**838,610**	**838,610**	**10,138,315**
OPERATING INCOME		**-366,643**	**492,607**	**681,357**	**353,857**	**165,107**	**91,857**	**-137,393**	**-202,893**	**26,357**	**-96,893**	**190,107**	**517,607**	**1,715,035**
INTEREST ON FUNDING SHORTFALL		**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**81,604**	**979,250**
NET INCOME		**-448,247**	**411,003**	**599,753**	**272,253**	**83,503**	**10,253**	**-218,997**	**-284,497**	**-55,247**	**-178,497**	**108,503**	**436,003**	**735,785**
RETURN ON SEED INVESTMENT (excl. shortfall)														**7.1%**

Futropolis

Cashflow forecast

Scenario: **LOW**
Annual visitorship: **261,000**

	Oct-00	Nov	Dec	Jan-01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Opening Balance	0	-409,638	183,549	915,485	1,344,921	1,610,608	1,753,044	1,691,230	1,563,916	1,665,853	1,669,539	1,910,225
Receipts												
Cash receipts from operations	471,967	1,356,217	1,519,967	1,192,467	1,028,717	930,467	701,217	635,717	864,967	766,717	1,028,717	1,356,217
Disbursements												
Cash payments to suppliers (30 days)	800,000	681,426	706,426	681,426	681,426	706,426	681,426	681,426	681,426	681,426	706,426	681,426
Excess (deficiency) of cash available before financing	-328,033	265,153	997,089	1,426,525	1,692,212	1,834,648	1,772,834	1,645,520	1,747,457	1,751,143	1,991,829	2,585,015
Financing												
Seed money												
Borrowings												
Interest Payments	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604
Capital Repayments												
Closing balance	**-409,638**	**183,549**	**915,485**	**1,344,921**	**1,610,608**	**1,753,044**	**1,691,230**	**1,563,916**	**1,665,853**	**1,669,539**	**1,910,225**	**2,503,411**

Please note that Value Added Tax (VAT) is excluded for purposes of this exercise
The Section 21 company will be VAT-registered and will be able to reclaim VAT.

Futropolis

Forecast income and expenditure

Scenario: MID
Annual visitorship: 297,000
Rental area 4,000 m²

OPENING DATE: 26 OCTOBER 2000

		Oct-00	Nov	Dec	Jan-01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total Year1
Income	**Factor**													
Admission fee income														
Adults	0.25	78,750	315,000	358,750	271,250	227,500	201,250	140,000	122,500	183,750	157,500	227,500	315,000	2,598,750
Children	0.25	49,500	198,000	225,500	170,500	143,000	126,500	88,000	77,000	115,500	99,000	143,000	198,000	1,633,500
Adults: Groups	0.10	22,500	90,000	102,500	77,500	65,000	57,500	40,000	35,000	52,500	45,000	65,000	90,000	742,500
Children: Groups	0.40	54,000	216,000	246,000	186,000	156,000	138,000	96,000	84,000	126,000	108,000	156,000	216,000	1,782,000
Merchandise revenue		54,000	216,000	246,000	186,000	156,000	138,000	96,000	84,000	126,000	108,000	156,000	216,000	1,782,000
Exhibit and travelling displays revenue [1]		18,000	72,000	82,000	62,000	52,000	46,000	32,000	28,000	42,000	36,000	52,000	72,000	594,000
Hospitality revenue [2]		18,000	72,000	82,000	62,000	52,000	46,000	32,000	28,000	42,000	36,000	52,000	72,000	594,000
Conference revenue [3]		12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Other revenue [4]														0
Corporate donations [5]														0
Rental subsidy: MTN Headline lease on centre [6]		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,400,000
Rental subsidy: MTN lease on offices		23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	285,600
Government subsidies [7]		41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	500,000
Total Income		572,217	1,456,467	1,620,217	1,292,717	1,128,967	1,030,717	801,467	735,967	965,217	866,967	1,128,967	1,456,467	13,056,350
Operating Expenses	**% of Opex**													
Advertising and advertorial	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Audit fees	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Bank charges	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Consumables	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Community subsidisation	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Computer expenses	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Cleaning services	1.5%	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	156,000
Depreciation	16.6%	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	1,886,200
Exhibit replacement reserve	2.2%	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	227,355
Electricity and water	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Entertainment	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Exhibit costs	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Insurance	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Legal fees	0.5%	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Maintenance - Buildings	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Office Equipment	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Maintenance - Exhibits	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Other	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Marketing	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Motor vehicles and Transport	0.7%	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	72,000
Photography	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Postage	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Printing (brochures)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Professional fees	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Promotions	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Rental of premises	26.5%	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	2,685,600
Operating costs: Premises	6.6%	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	672,000
Salaries and Wages (all costs)	22.0%	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	2,230,560
Stationery	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Security	3.0%	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Subscriptions	0.1%	800	800	800	800	800	800	800	800	800	800	800	800	9,600
Teaching Aids	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Telephone, fax and internet	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Training (staff)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Travel (local)	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Travel (International)	0.7%	0	25,000	0	0	25,000	0	0	0	0	25,000	0	0	75,000
Contingencies	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Total Operating Costs	100.0%	838,610	863,610	838,610	838,610	863,610	838,610	838,610	838,610	838,610	863,610	838,610	838,610	10,138,315
OPERATING INCOME		-266,393	592,857	781,607	454,107	265,357	192,107	-37,143	-102,643	126,607	3,357	290,357	617,857	2,918,035
INTEREST ON FUNDING SHORTFALL		81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	979,250
NET INCOME		-347,997	511,253	700,003	372,503	183,753	110,503	-118,747	-184,247	45,003	-78,247	208,753	536,253	1,938,785
RETURN ON SEED INVESTMENT (excl. shortfall)														18.7%

Futropolis

Cashflow forecast

Scenario: **MID**
Annual visitorship: **297,000**

	Oct-00	Nov	Dec	Jan-01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Opening Balance	0	-309,388	384,049	1,216,235	1,745,921	2,111,858	2,354,544	2,392,980	2,365,916	2,568,103	2,672,039	3,012,975
Receipts												
Cash receipts from operations	572,217	1,456,467	1,620,217	1,292,717	1,128,967	1,030,717	801,467	735,967	965,217	866,967	1,128,967	1,456,467
Disbursements												
Cash payments to suppliers (30 days)	800,000	681,426	706,426	681,426	681,426	706,426	681,426	681,426	681,426	681,426	706,426	681,426
Excess (deficiency) of cash available before financing	-227,783	465,653	1,297,839	1,827,525	2,193,462	2,436,148	2,474,584	2,447,520	2,649,707	2,753,643	3,094,579	3,788,015
Financing												
Seed money												
Borrowings												
Interest Payments	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604
Capital Repayments												
Closing balance	**-309,388**	**384,049**	**1,216,235**	**1,745,921**	**2,111,858**	**2,354,544**	**2,392,980**	**2,365,916**	**2,568,103**	**2,672,039**	**3,012,975**	**3,706,411**

Please note that Value Added Tax (VAT) is excluded for purposes of this exercise
The Section 21 company will be VAT-registered and will be able to reclaim VAT.

Futropolis

Forecast income and expenditure

Scenario:		HIGH												
Annual visitorship:		333,000		OPENING DATE: 26 OCTOBER 2000										
Rental area		4,000 m²												
		Oct-00	**Nov**	**Dec**	**Jan-01**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Total Year1**
Income	**Factor**													
Admission fee income														
Adults	0.25	105,000	341,250	385,000	297,500	253,750	227,500	166,250	148,750	210,000	183,750	253,750	341,250	2,913,750
Children	0.25	66,000	214,500	242,000	187,000	159,500	143,000	104,500	93,500	132,000	115,500	159,500	214,500	1,831,500
Adults: Groups	0.10	30,000	97,500	110,000	85,000	72,500	65,000	47,500	42,500	60,000	52,500	72,500	97,500	832,500
Children: Groups	0.40	72,000	234,000	264,000	204,000	174,000	156,000	114,000	102,000	144,000	126,000	174,000	234,000	1,998,000
Merchandise revenue		72,000	234,000	264,000	204,000	174,000	156,000	114,000	102,000	144,000	126,000	174,000	234,000	1,998,000
Exhibit and travelling displays revenue [1]		24,000	78,000	88,000	68,000	58,000	52,000	38,000	34,000	48,000	42,000	58,000	78,000	666,000
Hospitality revenue [2]		24,000	78,000	88,000	68,000	58,000	52,000	38,000	34,000	48,000	42,000	58,000	78,000	666,000
Conference revenue [3]		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	180,000
Other revenue [4]														0
Corporate donations [5]														0
Rental subsidy: MTN Headline lease on centre [6]		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	2,400,000
Rental subsidy: MTN lease on offices		23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	23,800	285,600
Government subsidies [7]		41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	41,667	500,000
Total Income		673,467	1,557,717	1,721,467	1,393,967	1,230,217	1,131,967	902,717	837,217	1,066,467	968,217	1,230,217	1,557,717	14,271,350
Operating Expenses	**% of Opex**													
Advertising and advertorial	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Audit fees	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Bank charges	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Consumables	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Community subsidisation	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Computer expenses	0.2%	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
Cleaning services	1.5%	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	156,000
Depreciation	18.6%	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	157,183	1,886,200
Exhibit replacement reserve	2.2%	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	18,946	227,355
Electricity and water	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Entertainment	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Exhibit costs	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Insurance	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Legal fees	0.5%	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
Maintenance - Buildings	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Office Equipment	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Maintenance - Exhibits	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Maintenance - Other	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Marketing	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Mol Motor vehicles and Transport	0.7%	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	72,000
Photography	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Postage	0.1%	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Printing (brochures)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Professional fees	0.9%	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	96,000
Promotions	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Rental of premises	26.5%	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	223,800	2,685,600
Operating costs: Premises	6.6%	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	56,000	672,000
Salaries and Wages (all costs)	22.0%	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	185,880	2,230,560
Stationery	1.4%	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	144,000
Security	3.0%	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Subscriptions	0.1%	800	800	800	800	800	800	800	800	800	800	800	800	9,600
Teaching Aids	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Telephone, fax and internet	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Training (staff)	0.6%	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
Travel (local)	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Travel (International)	0.7%	0	25,000	0	0	25,000	0	0	0	0	25,000	0	0	75,000
Contingencies	1.2%	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	120,000
Total Operating Costs	100.0%	838,610	863,610	838,610	838,610	863,610	838,610	838,610	838,610	838,610	863,610	838,610	838,610	10,138,315
OPERATING INCOME		-165,143	694,107	882,857	555,357	366,607	293,357	64,107	-1,393	227,857	104,607	391,607	719,107	4,133,035
INTEREST ON FUNDING SHORTFALL		81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	979,250
NET INCOME		-246,747	612,503	801,253	473,753	285,003	211,753	-17,497	-82,997	146,253	23,003	310,003	637,503	3,153,785
RETURN ON SEED INVESTMENT (excl. shortfall)														30.4%

Futropolis

Cashflow forecast

Scenario: HIGH
Annual visitorship: 333,000

	Oct-00	Nov	Dec	Jan-01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Opening Balance	0	-208,138	586,549	1,519,985	2,150,921	2,618,108	2,962,044	3,101,730	3,175,916	3,479,353	3,684,539	4,126,725
Receipts												
Cash receipts from operations	673,467	1,557,717	1,721,467	1,393,967	1,230,217	1,131,967	902,717	837,217	1,066,467	968,217	1,230,217	1,557,717
Disbursements												
Cash payments to suppliers (30 days)	800,000	681,426	706,426	681,426	681,426	706,426	681,426	681,426	681,426	681,426	706,426	681,426
Excess (deficiency) of cash available before financing	-126,533	668,153	1,601,589	2,232,525	2,699,712	3,043,648	3,183,334	3,257,520	3,560,957	3,766,143	4,208,329	5,003,015
Financing												
Seed money												
Borrowings												
Interest Payments	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604	81,604
Capital Repayments												
Closing balance	-208,138	586,549	1,519,985	2,150,921	2,618,108	2,962,044	3,101,730	3,175,916	3,479,353	3,684,539	4,126,725	4,921,411

Please note that Value Added Tax (VAT) is excluded for purposes of this exercise
The Section 21 company will be VAT-registered and will be able to reclaim VAT.

Futropolis

Revenue projections	Description
1. Exhibit and travelling displays revenue	Revenue derived from special travelling displays in the Temporary Exhibition Hall Average net (after costs) revenue: R6 per visitor Revenue attributable to ScienCentre: 33% of R6 (R2) * Number of visitors seeing temp exhibits: 65%
2. Hospitality revenue	Revenue from Imagin@tion Café and Themed coffee shop facilites. Net R2 per visitor *
3. Conference revenue	Revenue derived from Auditorium letting
4. Other revenue	Revenue from external consulting and non-core business
5. Corporate donations	Ongoing corporate support
6. Rental subsidy: MTN	MTN to subsidise the rental at the rate of R50.00 per m^2 dependent on shortfall
7. Government subsidies	Cape Metropolitan Council support grant DACST
8. Technology shop revenue	Revenue derived from items sold in the shop R6 per visitor. *

* These revenue streams are referred to in the 'Pricing and Fee Structure' section on page 33

Futropolis

Sources of Funding

	Estimated Capital Cost	Committed in principle	Sources of funding	Shortfall
You and Society				
* Childrens' Science Village	5,082,000	2,000,000 1,212,000 500,000 200,000	Arianespace Anglo-American Anglo Gold De Beers	1,170,000
* MTNwana Childrens' Experience	1,380,000	468,750 120,000 500,000	Cape Metropolitan Council D.G. Murray Trust Anglo-American	291,250
Great inventors and inventions	250,000	250,000	National Research Foundation CSIR, HSRC, MRC, DACST, Dept of Industry	0
Population explosion gallery	230,000	100,000	Turner Foundation Old Mutual	130,000
You and your World				
* Geosphere	3,000,000	2,500,000	MTN, FNB	500,000
* Design Technology Workshop (Sunstep)	300,000	300,000	MTN, BOE	0
* Underwater Activity Centre (MTN Cape Whale Route)	500,000	300,000 100,000	MTN, DANIDA De Beers Marine	100,000
Wetland Education Centre	100,000	100,000	Sappi and Monex	0
You and your future				
Space and Astronomy displays	290,000	290,000	SA Astronomical Observatory & partners	0
Energy Gallery	240,000	240,000	Energy Transformations cc Swedish Aid agency	0
Future Connections gallery	400,000		M-group of companies	400,000
Green Home	295,000			295,000
Other				
* Temporary Exhibition Hall	800,000	800,000	Old Mutual	0
* Auditorium	490,000	400,000	Alpha Ltd	90,000
* Science shop	250,000			250,000
* Main centre and staff facilities	1,670,000		Monex	1,670,000
Sub-total	**15,277,000**	**10,380,750**		**4,896,250**
Service Facilities				
Camera Obscura	300,000	300,000	Cape Town Camera Obscura Company	0
Distance Learning Facility (Imagin@tion Café)	300,000		M-Web, Monex & Incredible Connection	300,000
Themed coffee shop	150,000		Monex	150,000
Educational creche	800,000	800,000	Nestlé	0
	16,827,000	**11,480,750**		**5,346,250**

Futropolis

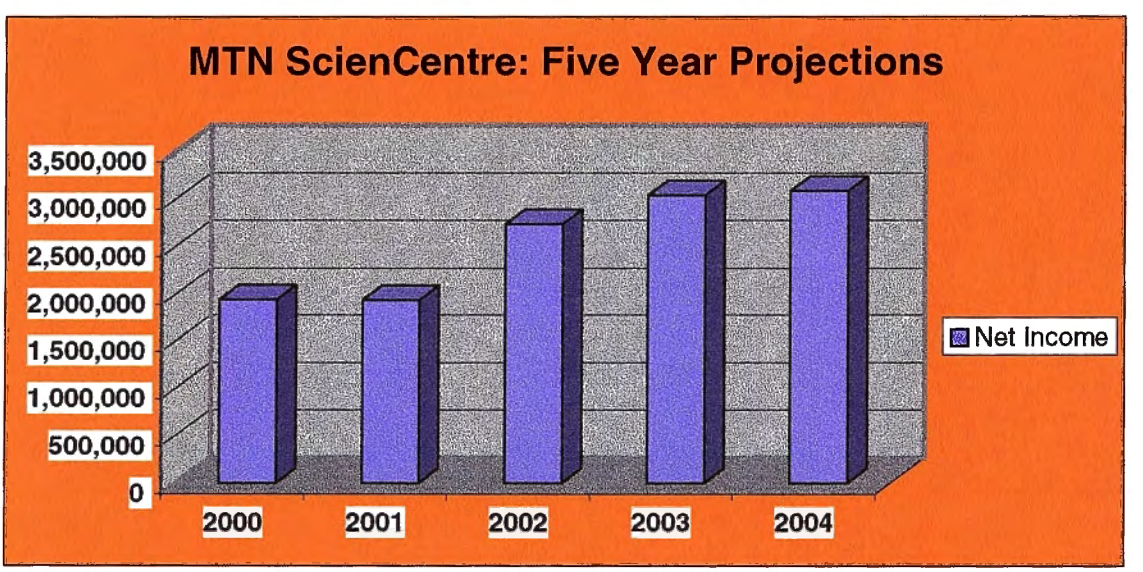
Salary schedule

Function	No.	Unit Salary	Per month
General Manager - ScienCentre	1	20,000	20,000
Administration Manager	1	12,000	12,000
Exhibits Manager	1	12,000	12,000
Public Relations Manager	1	12,000	12,000
Education Manager	1	12,000	12,000
I.T.technician	1	10,000	10,000
Technical supervisor	1	8,000	8,000
Teacher	1	8,000	8,000
Personal Assistant	1	3,500	3,500
Cashier	2	2,800	5,600
Administration Assistant	1	2,800	2,800
Bookkeeper	1	4,000	4,000
Driver	2	2,500	5,000
Temp staff	4	2,500	10,000
Maintenance Staff	3	3,000	9,000
Facilitators	7	3,000	21,000
	29		**154,900**
Salary on-costs (UIF, Pension contribs etc,)			30,980
Total Salaries (cost to Company)			**185,880**

Futropolis

Future Financial Projections: Conservative Scenario

	Year 1 2000	Year 2 2001	Year 3 2002	Year 4 2003	Year 5 2004
Income growth factor	0.0%	106.0%	112.0%	108.0%	109.0%
Expenses increase factor	0.0%	108.0%	108.0%	108.0%	109.0%
Income	**13,056,350**	**13,839,731**	**15,500,499**	**16,740,539**	**18,247,187**
Admission Income	6,756,750	7,162,155	8,021,614	8,663,343	9,443,044
Donations	3,185,600	3,376,736	3,781,944	4,084,500	4,452,105
Other revenue	3,114,000	3,300,840	3,696,941	3,992,696	4,352,039
Operating Expenditure	**10,138,315**	**10,852,196**	**11,628,559**	**12,472,939**	**13,838,731**
Rental of premises	2,685,600	2,954,160	3,249,576	3,574,534	3,931,987
Salaries and Wages	2,230,560	2,409,005	2,601,725	2,809,863	3,062,751
Depreciation	1,886,200	1,886,200	1,886,200	1,886,200	2,263,440
Other	3,335,955	3,602,831	3,891,058	4,202,343	4,580,553
Interest	979,250	1,057,590	1,142,197	1,233,573	1,332,259
Net Income	**1,938,785**	**1,929,945**	**2,729,742**	**3,034,026**	**3,076,197**
Cumulative	**1,938,785**	**3,868,730**	**6,598,472**	**9,632,499**	**12,708,696**



Futropolis

International benchmarks for ScienCentres

	Benchmark
Financial	
Current ratio Current assets / Current liabilities	4.0
Debt / Equity ratio Long-term debt / net assets	5%
Reserve funds Total reserves / total annual expenditure	53%
Visitorship	
Visitors per m^2 Total visitors / exhibit space in m^2	45
Visitors per year Total visitors per year	47,000
Gate income per visitor Admissions income / visitorship	R 10.00
Reciprocal admissions Possible museum / aquarium reciprocity?	N/A
Visitor Service	
Floor staff ratio Floor staff + volunteers / 100,000 visitors	6
Repeat visitor ratio	
Gift shop	
Sales per visitor Sales / visitor	R 7.00
Profit ratio Net income / gross sales	41%
Membership (if applicable)	
Membership Members / visitorship	4%
Renewal ratio Percent of members who renew	52%
Exhibits	
Exhibit assets Book value of exhibits / m^2	R 100.00
New exhibitions per year No of new exhibitions per year	3.5
Programs	
No of programs No of identifiable programs	8

Futropolis

Comparison of attractions in Cape Town area

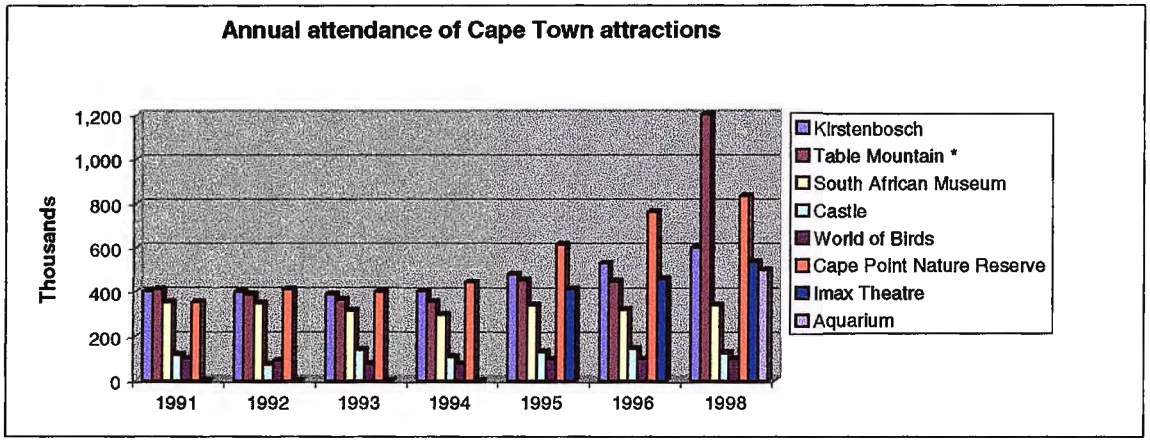
Venue	Annual attendance (000's) 1991	1992	1993	1994	1995	1996	Estim 1998	Adult Entrance Fees as at 1997/98	Duration Hours	Entertainment cost per hour
Kirstenbosch	402	400	389	404	481	530	600	R 7.00	3.5	2.0
Table Mountain	410	387	365	355	452	450	1,200	R 42.50	1.0	42.5
South African Museum	354	347	315	299	340	321	340	R 3.00	1.5	2.0
Castle	116	72	139	109	131	145	126	R 7.50	1.5	5.0
World of Birds	100	90	75	75	98	98	100	R 17.00	1.0	17.0
Cape Point Nature Reserve	353	411	400	443	615	762	835	R 10.00	1.5	6.7
Imax Theatre	0	0	0	0	414	460	538	R 23.00	1.0	23.0
Aquarium							500	R 27.00	1.5	18.0
Ster-Kinekor theatre (price comparison only)								R 24.00	2.0	12.0
Gold Reef City (price comparison only)								R 30.00	2.0	15.0

Source: Based on data supplied by Monex Leisure Industries (revised) and personal enquiry

No figures are available for 1997.

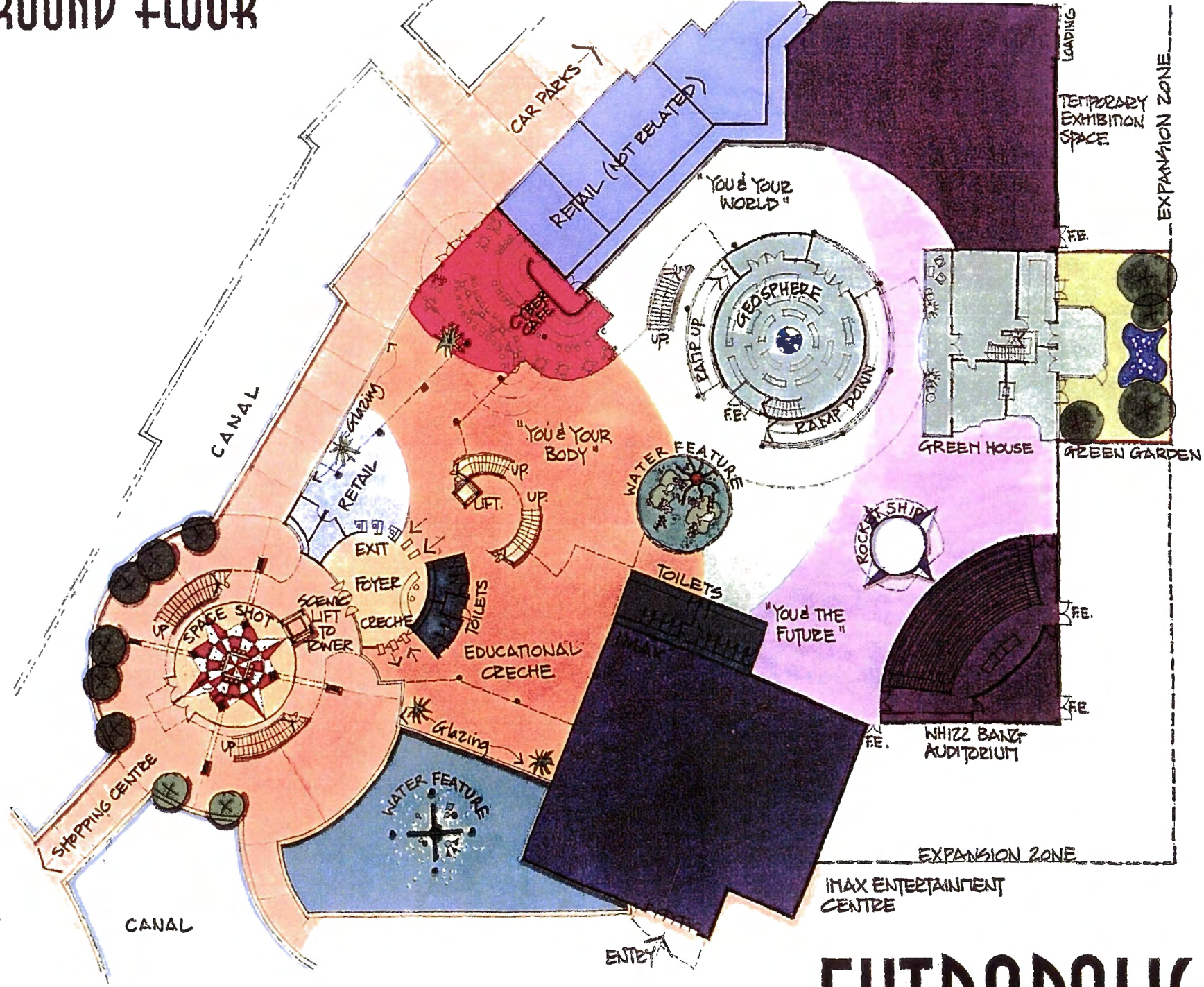
Futropolis

Attraction	1991	1992	1993	1994	1995	1996	1998
Kirstenbosch	402	400	389	404	481	530	600
Table Mountain *	410	387	365	355	452	450	1,200
South African Museum	354	347	315	299	340	321	340
Castle	116	72	139	109	131	145	126
World of Birds	100	90	75	75	98	98	100
Cape Point Nature Reserve	353	411	400	443	615	762	835
Imax Theatre	0	0	0	0	414	460	538
Aquarium							500



* Table Mountain visitorship has increased dramatically owing to new cable-car infrastructure

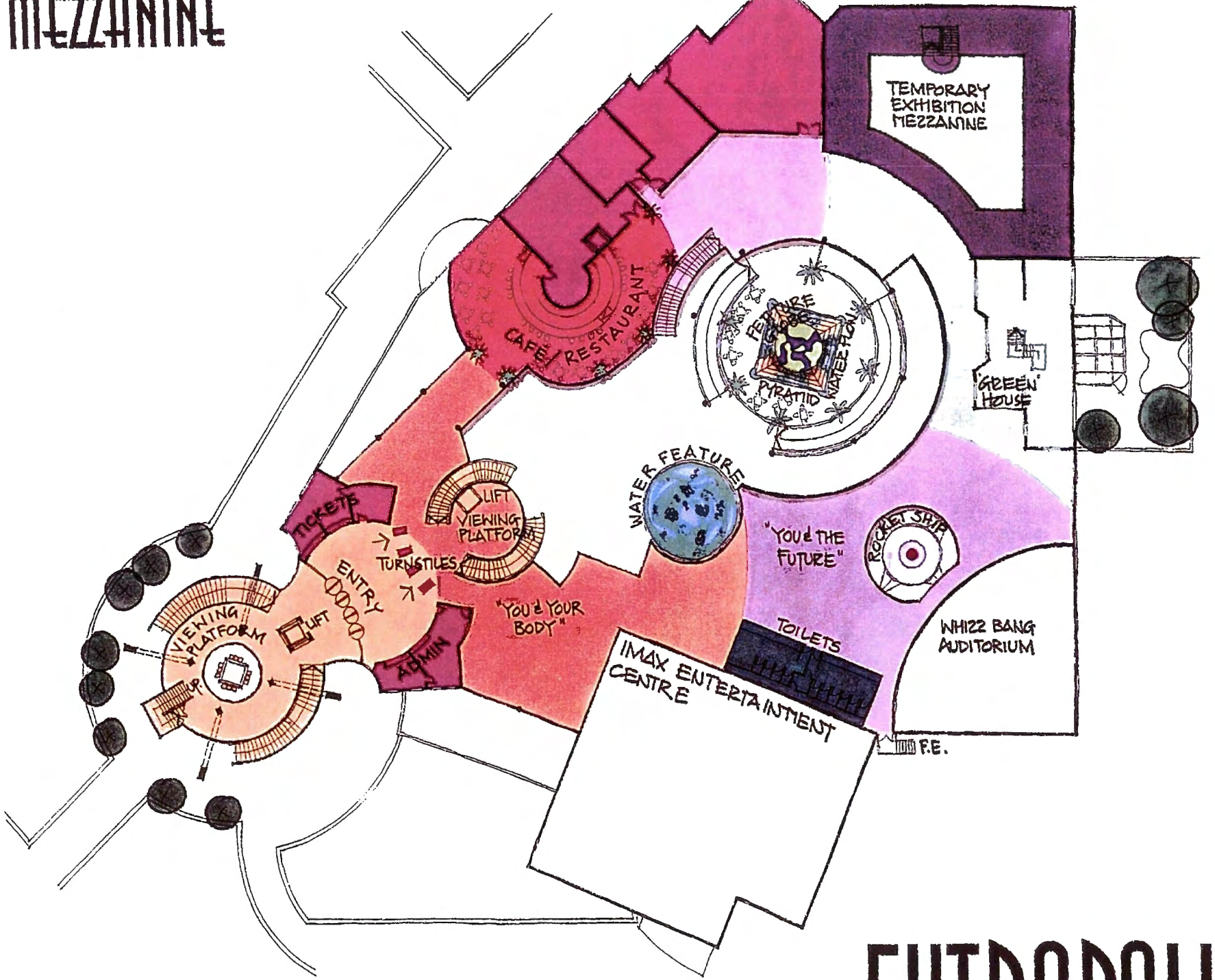
GROUND FLOOR



EUTROPOLIS

ANNEXURE 1

MEZZANINE



FUTROPOLIS

ANNEXURE 2

Vattenfall Earth Situation Room - Gothenburg, Sweden - Installed 4/97

ANNEXURE 3