

The Development of a Geo-Train

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Presented to Mr. T. Malatse
Spoornet

Project Director Capital Program - RS Upgrades
Umjantshi House, Braamfontein

Third Space Geodesy Workshop

16-18 March 2009

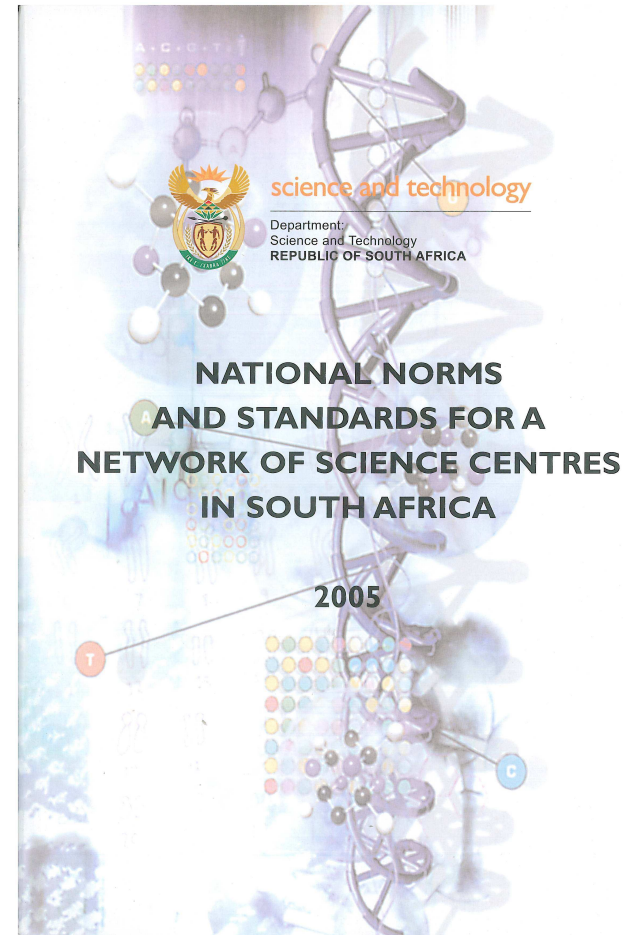
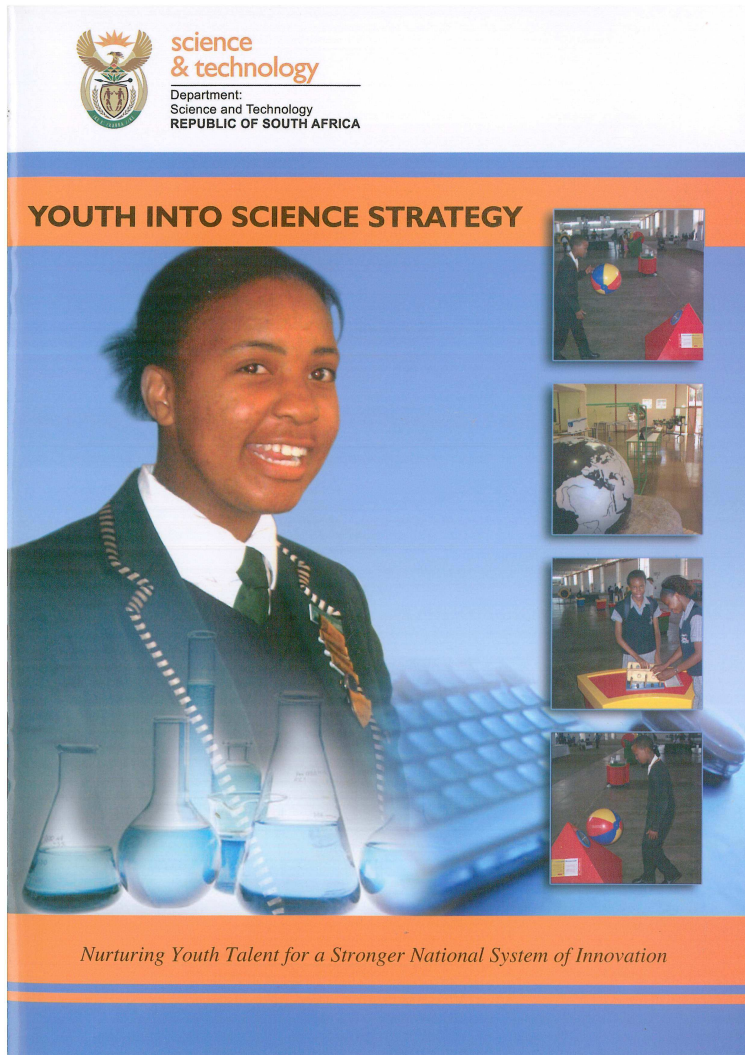
Matjiesfontein

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Department of Science & Technology (DST)

Network of Science Centres



Youth into Science Strategy

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To be Part of this Framework Proposed New Concept - Geotrain



Specialising in Geoscience and Geodesy

Proposed Geotrain

Specialising in Geoscience and Geodesy

Envisaged Training includes:

- Museum Exhibitions on Train
- Scholar Math and Science lectures
- Lectures by Experts
- Training of Students under Supervision

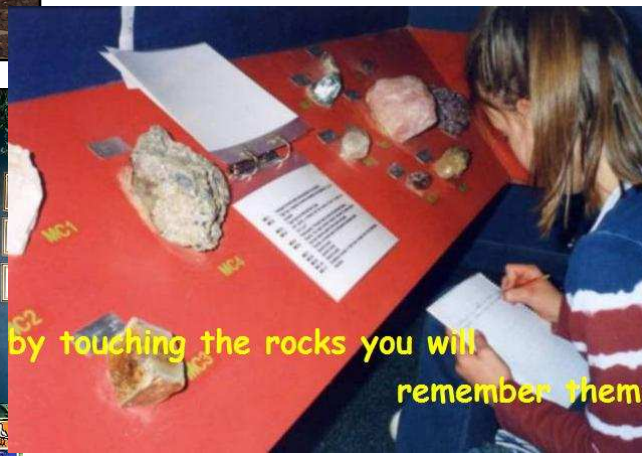


Training on the Train

Museum Exhibitions on Train

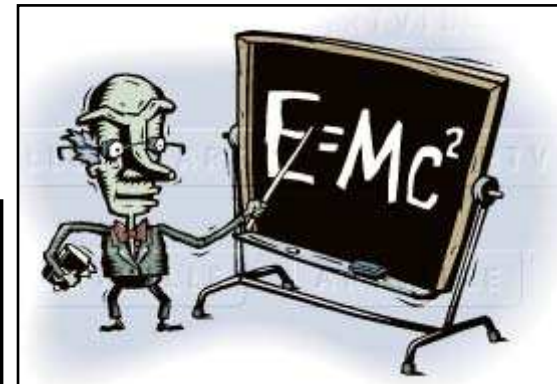
Example

Discovery Centre – Transvaal Museum



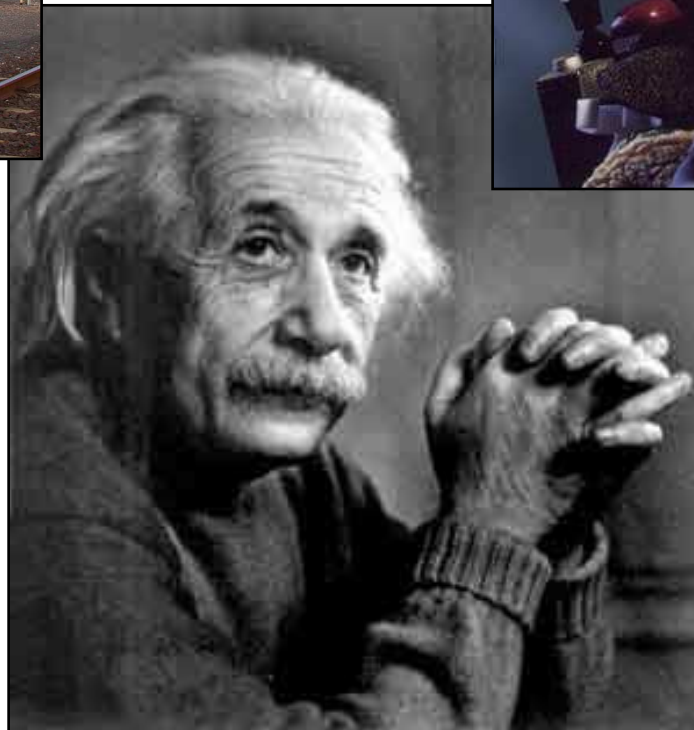
Training on the Train

Scholar Math and Science lectures



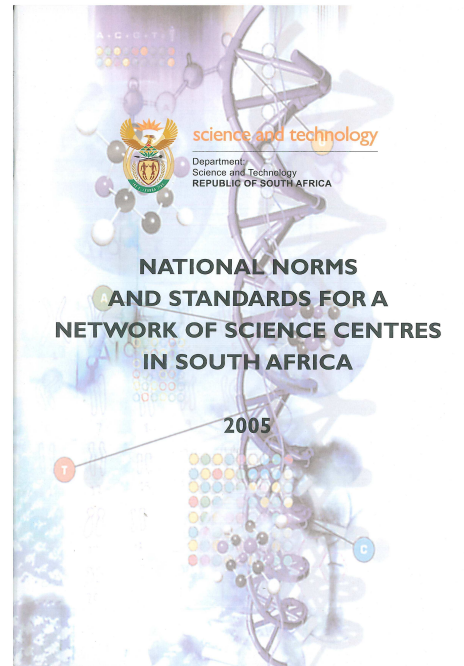
Training on the Train Adult Education

Lectures by Experts on the Train



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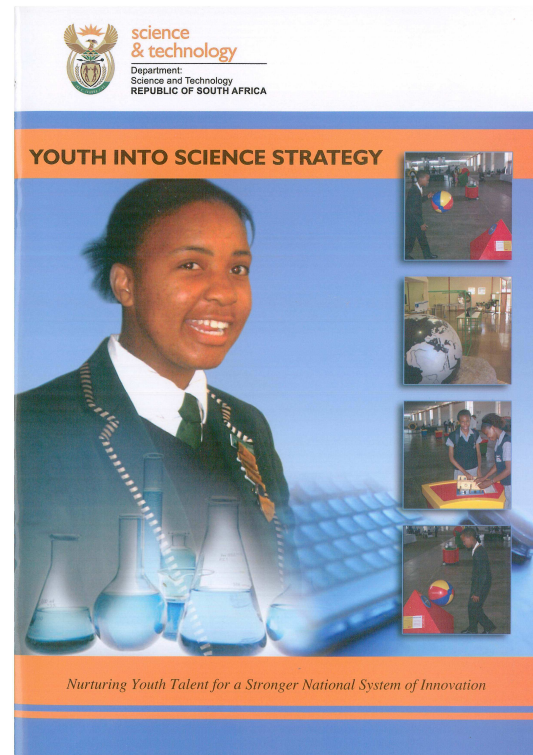
Contribution



- **Network of Science Centres.**
Geotrain is a moving Science Centre –
Even to Rural Areas.



Department of Science & Technology (DST)



Contribution

- **Youth Into Science Strategy.**
- **Public Understanding of Science, Engineering and Technology (PUSET).**



Proposed Geotrain

Specialising in Geoscience and Geodesy



Envisaged Community Services:

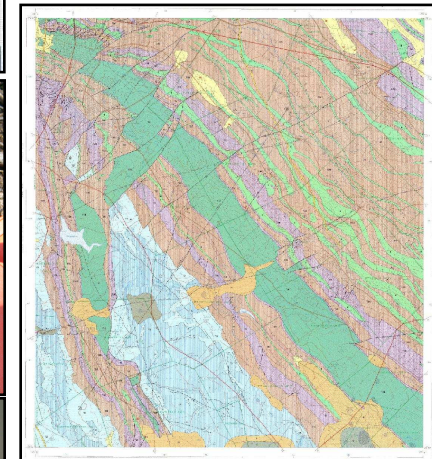
- House Foundation Inspections
- Cemetery Placement
- Groundwater Divining
- Borehole Drilling
- Building Material location
- Solar Installations
- Internal Affairs Post box



Proposed Geotrain Specialising in Geoscience and Geodesy

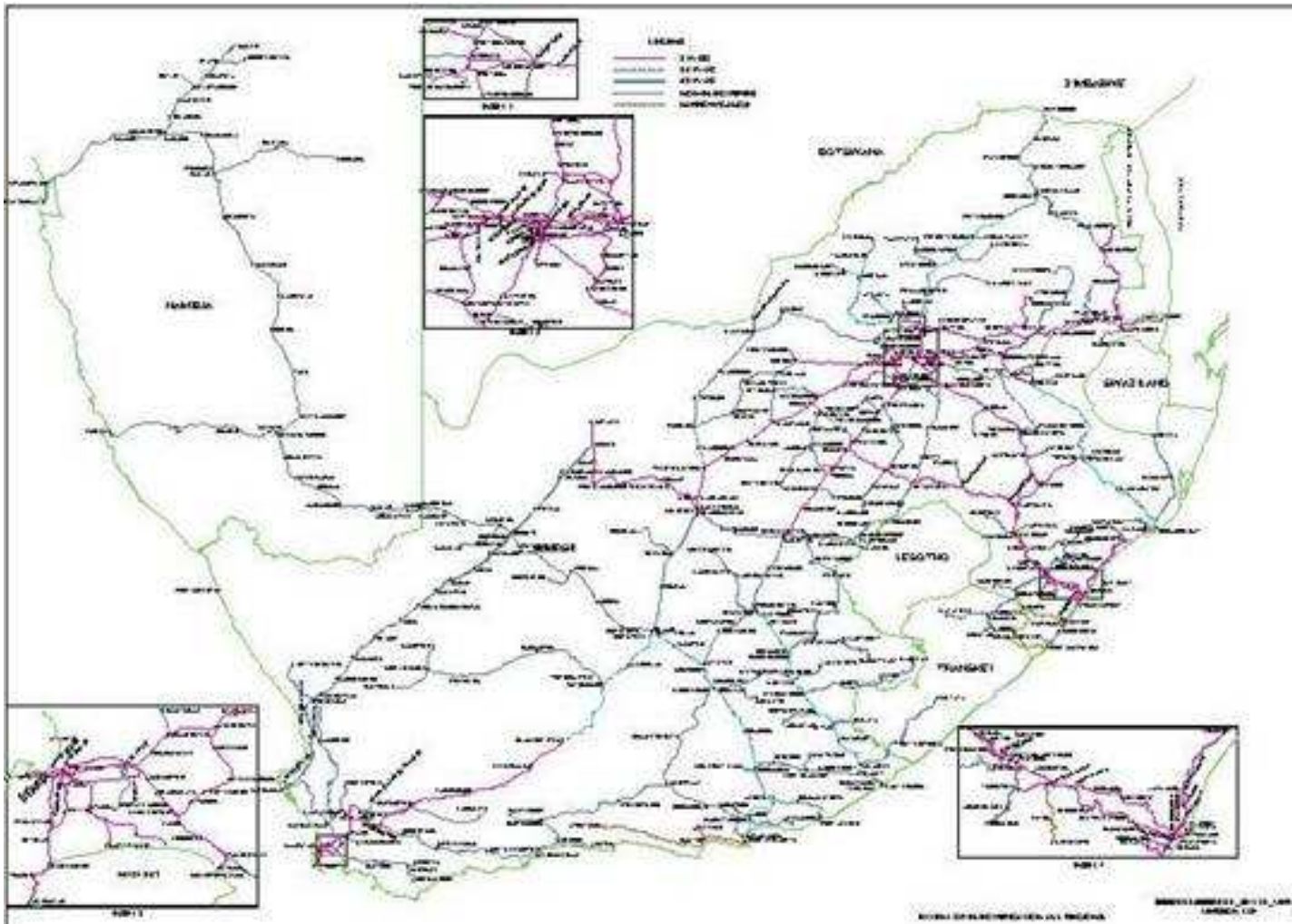
Envisaged Research includes:

- Mapping
- Geophysics
- Geochemistry
- Engineering Geology
- Groundwater
- Mineral Exploration
- Seismology
- Small Mining –Building Material
- Space Geodesy
- Lunar Laser Ranging



Proposed Geotrain

Through - Excellent Railway Network



Proposed Geotrain

To achieve this goal old rolling stock should be refurbished and equipped



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 1 Kitchen Car.
- 1 Dining Car.
- 1 Lounge.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 5 First Class Sleeper Coaches.
- 2 Third Class Coaches to be modified for Museum Exhibitions.
- 2 Third Class Coaches to be modified for Working Space Area.
- 2 Third Class Coaches to be modified for Laboratories.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 3 Baggage Car for storage.
- 2 Baggage Car for modification to transport cars and motorbikes.
- 1 Baggage Car to be modified as Power Car.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 1 Stainless Steel Water Tanker.
- 1 Diesel Tanker.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 1 Low bed to transport Backacters and Auger drills.
- 2 Bogies for general transport.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

- 1 Special Low bed to transport Drilling Rig.
- 2 Class 34D Diesel Locomotives.



Proposed Geotrain

Envisaged Time frames to make the Train a reality.

<u>PROPOSED YEAR</u>	<u>ACTIVITY</u>
Year 1	Acquire old rolling stock
Year 1 to Year 3	Refurbish at Transwerk
Year 1 to Year 3	Scientific Equipping of Geotrain
Year 3 to Year 20	Operation and Services
Year 3 to year 20	Shedding

Proposed Geotrain

To make the Geotrain a reality:

Ask Spoornet to consider it to kindly donate the old Rolling Stock to the Project.

From our perspective Spoornet will gain:

- Financially by Refurbishing the train in its workshops at Transwerk (~R40M).
- Pulling the train on its lines for the envisaged 20 years (~R10M/year)
- Be part of a social responsibility program that it can showcase.
- Spoornet's Logo on the side of the train as a sponsor traveling through the country.

Proposed Geotrain

From our perspective if Spoornet donates us the old Rolling Stock:

- Will not go to future sponsors with empty hands.
- We will be in a position to ask for funding with more authority: - Oprah, Lotto etc.
- Will create a facility that would be for the benefit of all of South Africa.
- We will make sure that Spoornet gets ample media and TV exposure.
- Can ask for a radio station to adopt us for a month.

AND

It will strengthen the Geoscience Train Business plan that was submitted to DST

Proposed Geotrain

In order to create a facility mainly for the benefit of
the rural areas: -

Would you consider helping us please?

Proposed Geotrain

Suggestions on the way forward to make this a
reality?

Spoornet Pledged

- **All requested rolling stock per donation.**
 - **No locomotives.**
- **Can only help us with refurbishing after 2010.**
- **Old Rolling stock numbers were agreed upon.**
- **Park rolling stock at Koedoespoort Railway works.**
 - **Waiting for official letter from Spoornet CEO.**

Other Approaches

- BP to DST with no response.
- BP to NRF with no response.
 - BP to SAEON.
- Help from Inkaba yeAfrica.

Final Approach

**Will only continue with further serious fund raising
after old rolling stock is received.**

At Matjiesfontein

Donated by Owner of Matjiesfontein:

- 1938 Baggage Car.
- 1938 2nd Class Coach.



At Matjiesfontein

Donated by Owner of Matjiesfontein:

- 1938 Baggage Car.
- 1938 2nd Class Coach.



Thank you very much

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