



South Africa's approach to science diplomacy

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Modes of science diplomacy as understood globally

- “Science in diplomacy”: Science can provide advice to inform and support foreign policy objectives
- “Diplomacy for science”: Diplomacy can facilitate international scientific cooperation
- “Science for diplomacy”: Scientific cooperation can improve international relations

January 2010: Royal Society and AAAS

Sometimes these categories overlap, but they provide a useful tool.



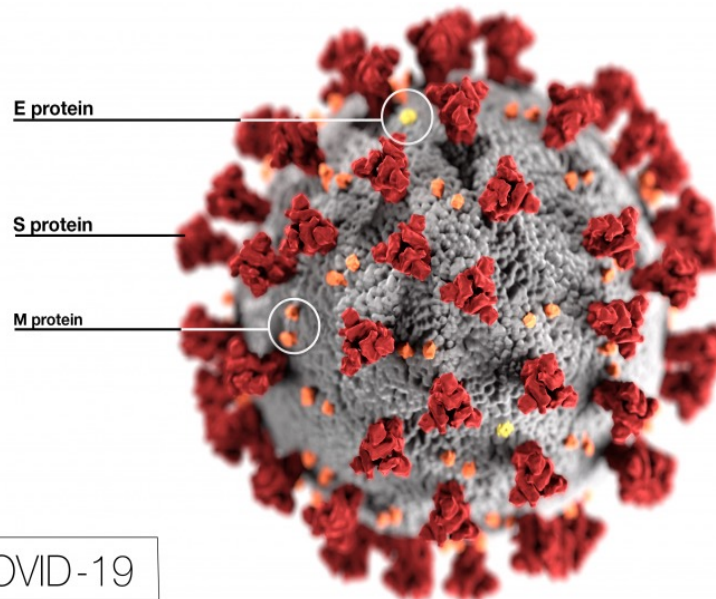
Science in diplomacy

■ Key example here is Einstein's 1939 letter to President Roosevelt. The intervention of the world's best-known scientist here profoundly changed the course of history.



Diplomacy for science

■ An example is the international geopolitical effort to assist science to develop an effective suite of responses to the COVID-19 Pandemic.

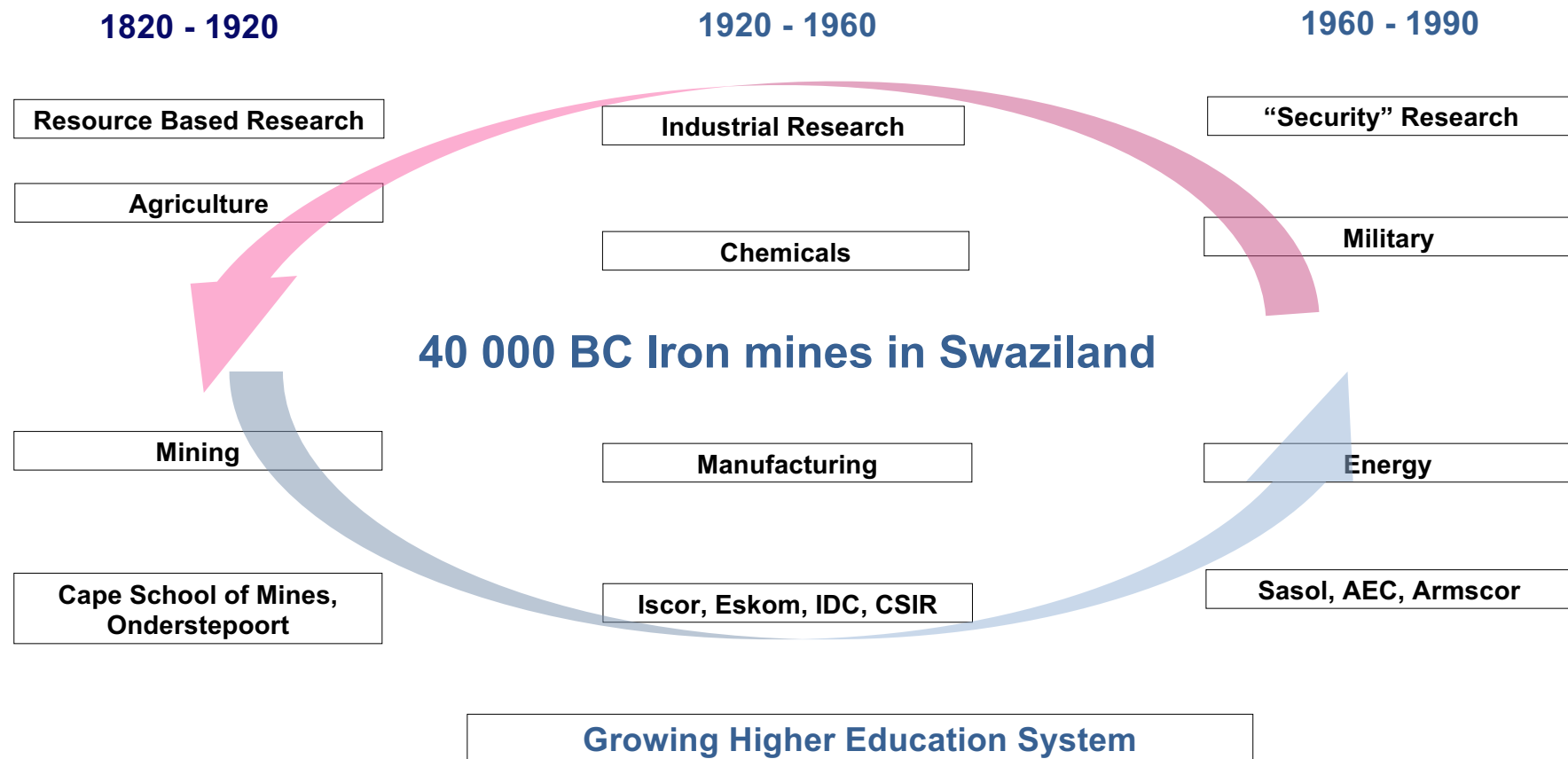


Science for diplomacy

■ An example is the establishment of the International Space Station by the US and the Russian Federation and ten other countries, which significantly advanced relations between the two leading countries, until the present era, of course.



History of the South Africa National System of Innovation



Diplomatic priorities before and after apartheid

- During the apartheid era the key diplomatic questions for South Africa to address were political and economic isolation and existential threat.
- After apartheid ended we needed to navigate almost instantaneous globalization. How to find a global identity? Which opportunities to select? How to turn around four decades of the old strategies and the old institutions without losing everything valuable too?



What have been the steps post 1994 in Science Diplomacy in the three areas?

1. Science in Diplomacy:

- South Africa is the only country in the world to have fully decommissioned its nuclear arsenal and has sworn never to redevelop it. Subsequently, many of those involved in establishing and operating the SA nuclear programme have assisted the IAEA in developing its expertise in detecting clandestine nuclear weapons facilities. Set a thief to catch a thief!
- A similar service was provided to the Organisation for the Prohibition of Chemical Weapons in the Hague. The Wouter Basson legacy.

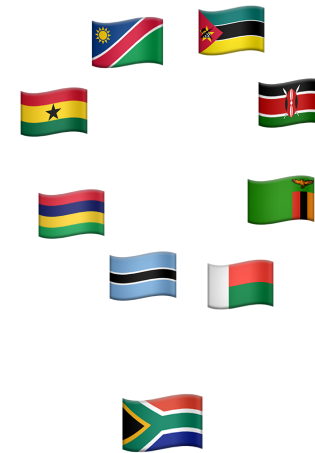


2. Diplomacy for Science:

- A great deal of diplomatic effort has been exerted by South Africa, in the African Union, as well as particularly with a group of 8 countries known as the African Partner Countries to progress the cause of the Square Kilometre Array radio telescope.
- The siting of antennas in African countries, yielding a maximum baseline of over 3000 kilometres, will greatly increase the resolution of the telescope, thereby improving the chances for it to yield transformative science.
- In terms of the multilateral agreement establishing the APCs as a group, South Africa provides support for human capital development and research infrastructure establishment.



Proposed antenna clusters in the APCs



Nine countries



3. Science for Diplomacy

■ We use another nuclear example here. When South Africa dismantled its nukes it used the Highly Enriched Uranium as a target material for the production of medical radioisotopes. Later it led the world in converting its process to Low Enriched Uranium, following entreaties to do so after the 911 terrorist attacks.

■ In 2009, as a result of maintenance issues and sundry mishaps affecting the reactors operated by its competitors, South Africa found itself in the position of being the only significant producer of the key diagnostic isotope Mo-99 for a period of time. Phone calls from Ministers and visits by ambassadors followed, to persuade SA to increase production to cover the global customer base. The success in achieving this gained us major diplomatic capital.



Science for Diplomacy ctd

■ A more recent example is the bellwether role South Africa played in the global response to the COVID-19 pandemic. Specifically, scientists, led by Professor Tullio d'Oliveira, were the first to detect and report through channels to the WHO, the then new omicron variant of the virus. This discovery prompted a range of policy interventions by governments around the world.

■ There is a lesson to be learnt here too. The scientists used the correct health reporting channels but apparently neglected to inform the SA government timeously, who were wrongfooted and unable to pre-empt the travel bans imposed on SA by countries such as the UK, thereby impacting our tourist economy over the festive season. They should have been able to say to other governments: "We discovered the variant but that doesn't mean it originated here."



Conclusion

- By understanding its strengths, South Africa has been highly effective in post-1994 science diplomacy, as the examples provided show.
- It remains to be seen whether we can retain the political agility, the ability to spot opportunities and the requisite science base to continue our success.



*We recognise and acknowledge the
Indigenous peoples and cultures that have
traditionally lived on the lands on which
our facilities are located.*



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