

Untying the Gordian Knot in the South African Goldfields

IWRA Webinar on Mining and Water

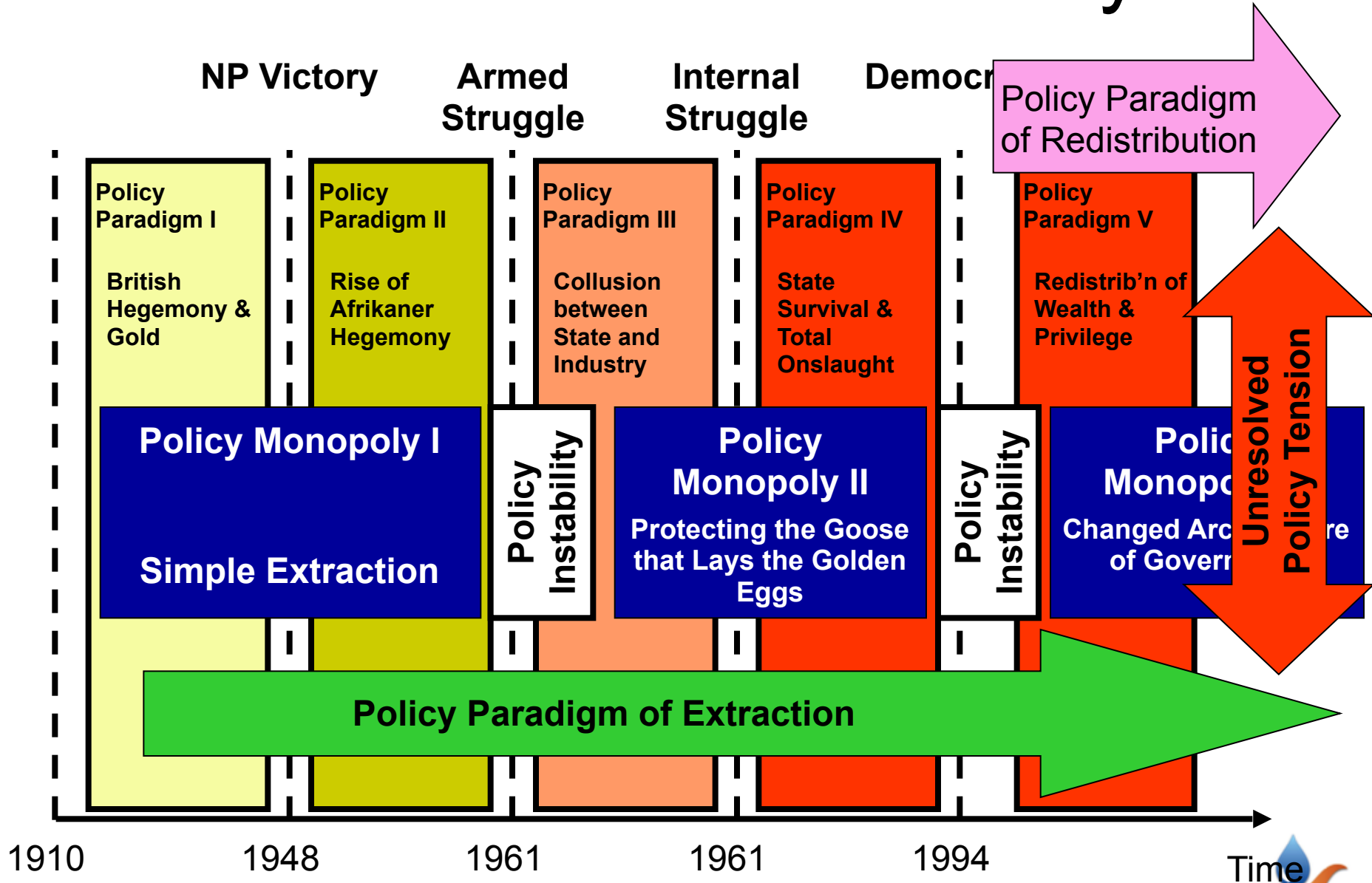


Anthony Turton
bronwyn@speakersinc.co.za
www.anthonyturton.com

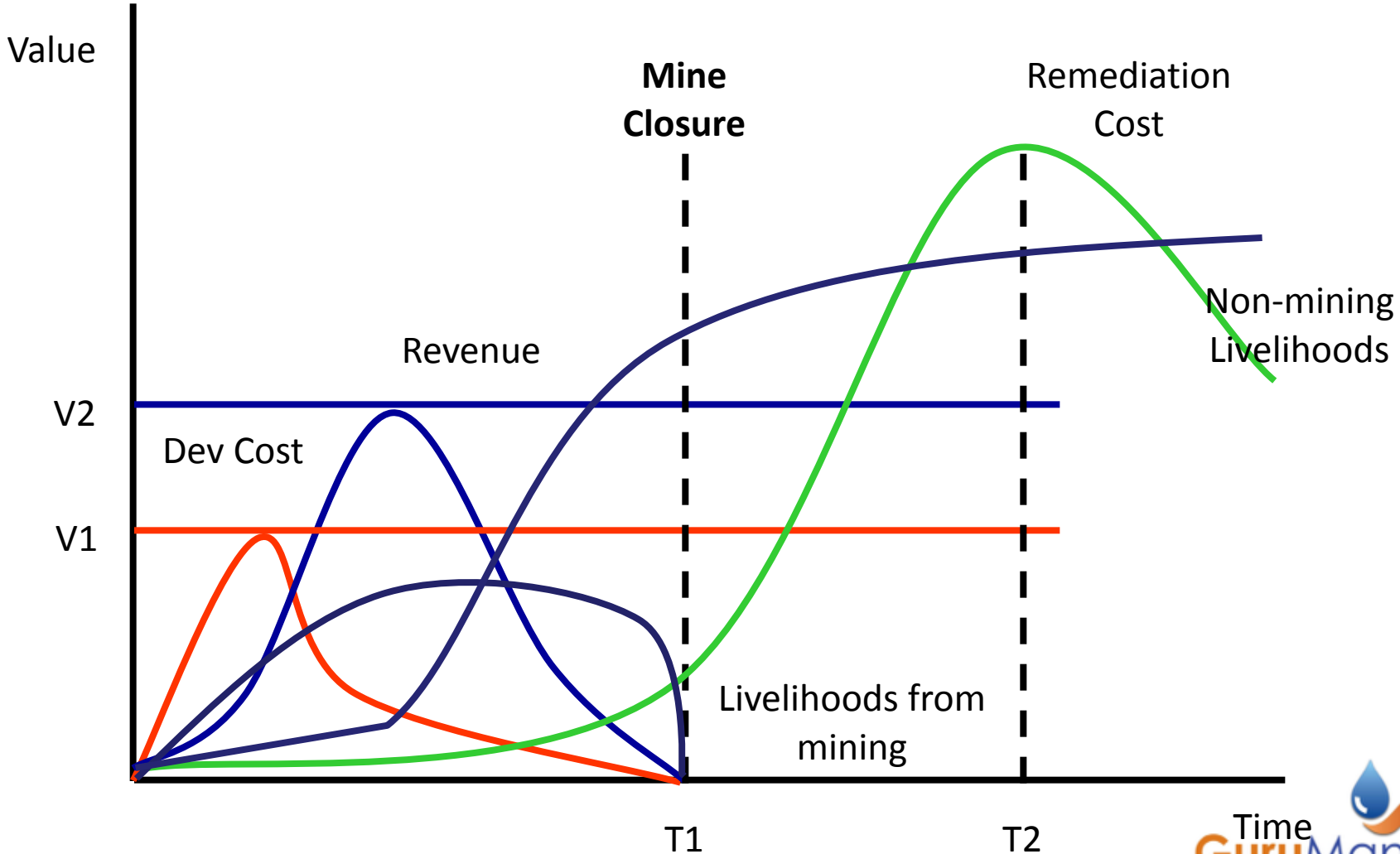
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Evolution of Mine Policy



Mine Closure and Livelihood Impact



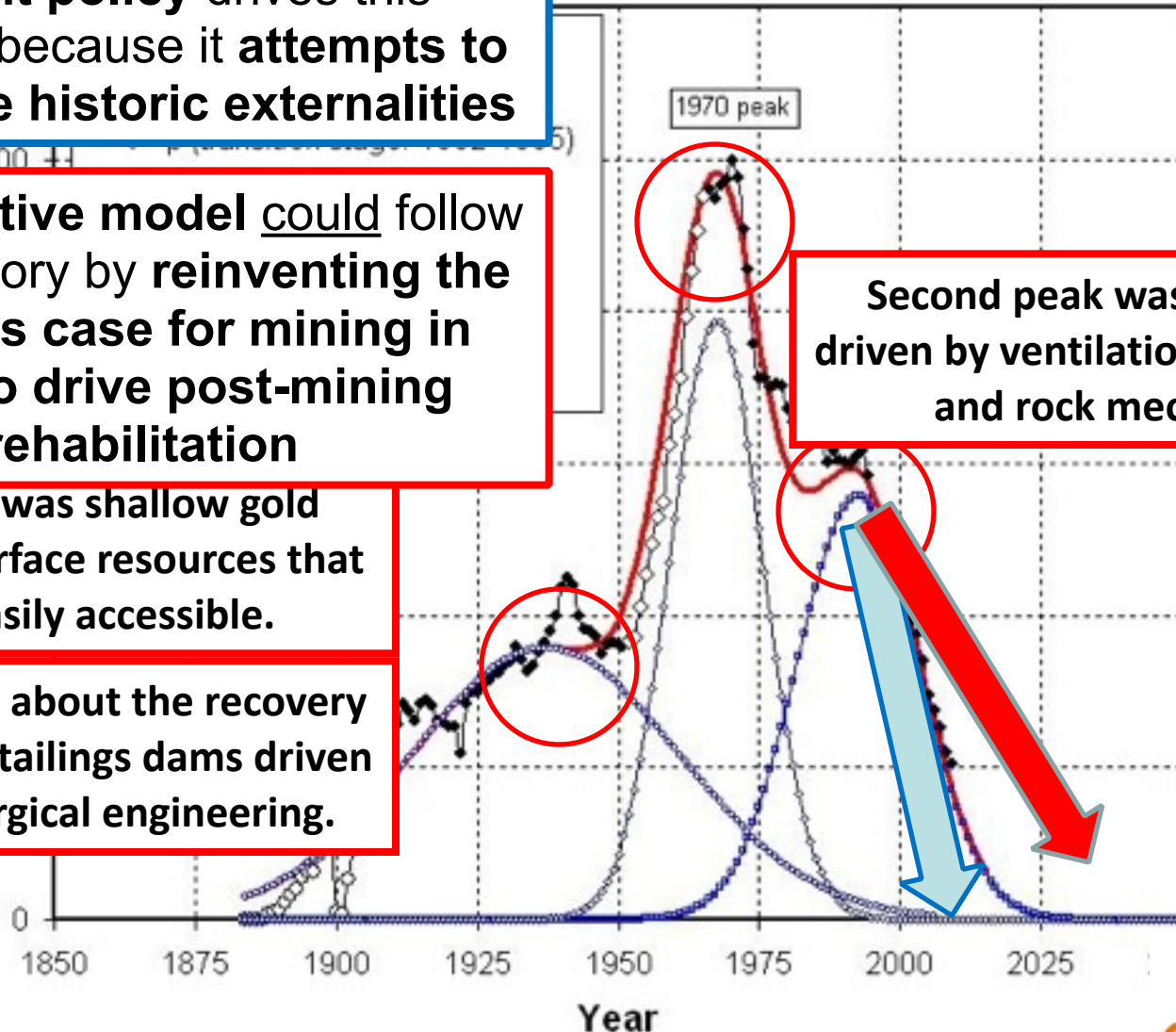
RSA Gold Production Life Cycle

Current policy drives this trajectory because it **attempts to internalize historic externalities**

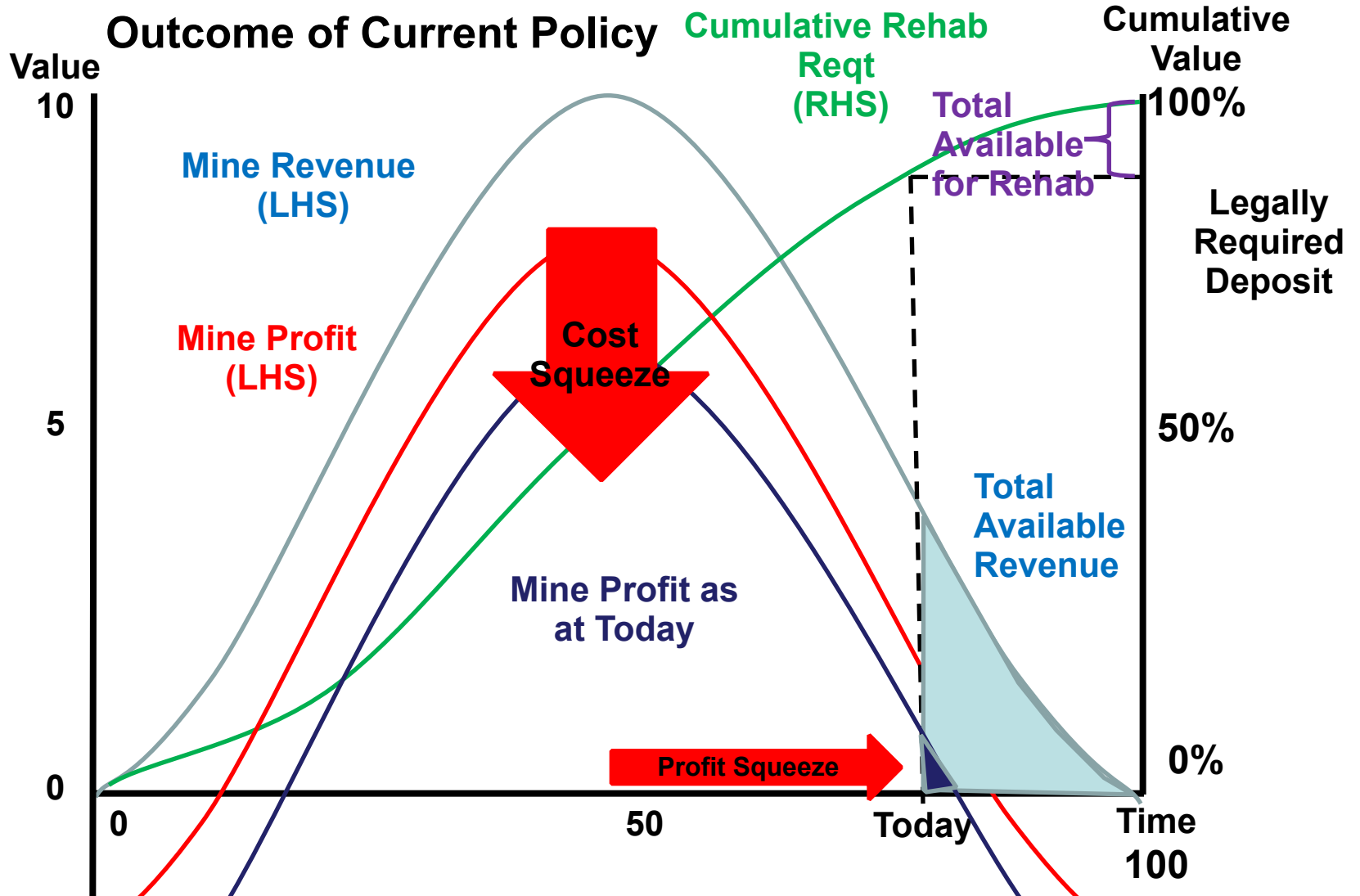
An **alternative model** could follow this trajectory by **reinventing the business case for mining in order to drive post-mining rehabilitation**

First peak was shallow gold driven by surface resources that were easily accessible.

Third peak is about the recovery of gold from tailings dams driven by metallurgical engineering.



Second peak was deep gold driven by ventilation engineering and rock mechanics.



The logical outcome is for disinvestment from late cycle mines resulting in the inevitable collapse of the industry with all residual liabilities being nationalized by the State.

Current environmental policy is inappropriate for Brownfields operations and will result in a macroeconomic and environmental disaster of unprecedented proportions.

Policy Reform

- Mismatch between **Greenfields logic** and **Brownfields reality**
- **Offset's** not yet recognized
- **Benefit** of removing surface tailings and uranium hazard **is cumulative** downstream **and potentially quantifiable**
- **Closure Mining** is emerging as a model
- Being trialled at a marginal mine as part of **Business Rescue**

Knowing what's coming
before it bites is called
wisdom.

Thank You

