

Factors Influencing Greenhouse Gas Emission Reduction from South African Industry

Research

Eugene Muller

emuller@omnia.co.za



“The benefits of strong, early action on climate change outweigh the costs.”

**Sir Nicholas Stern;
The Stern Report**



Overview

- Purpose of the study
- Questions
- Case study inputs
- Interpretation of results
- Recommendations

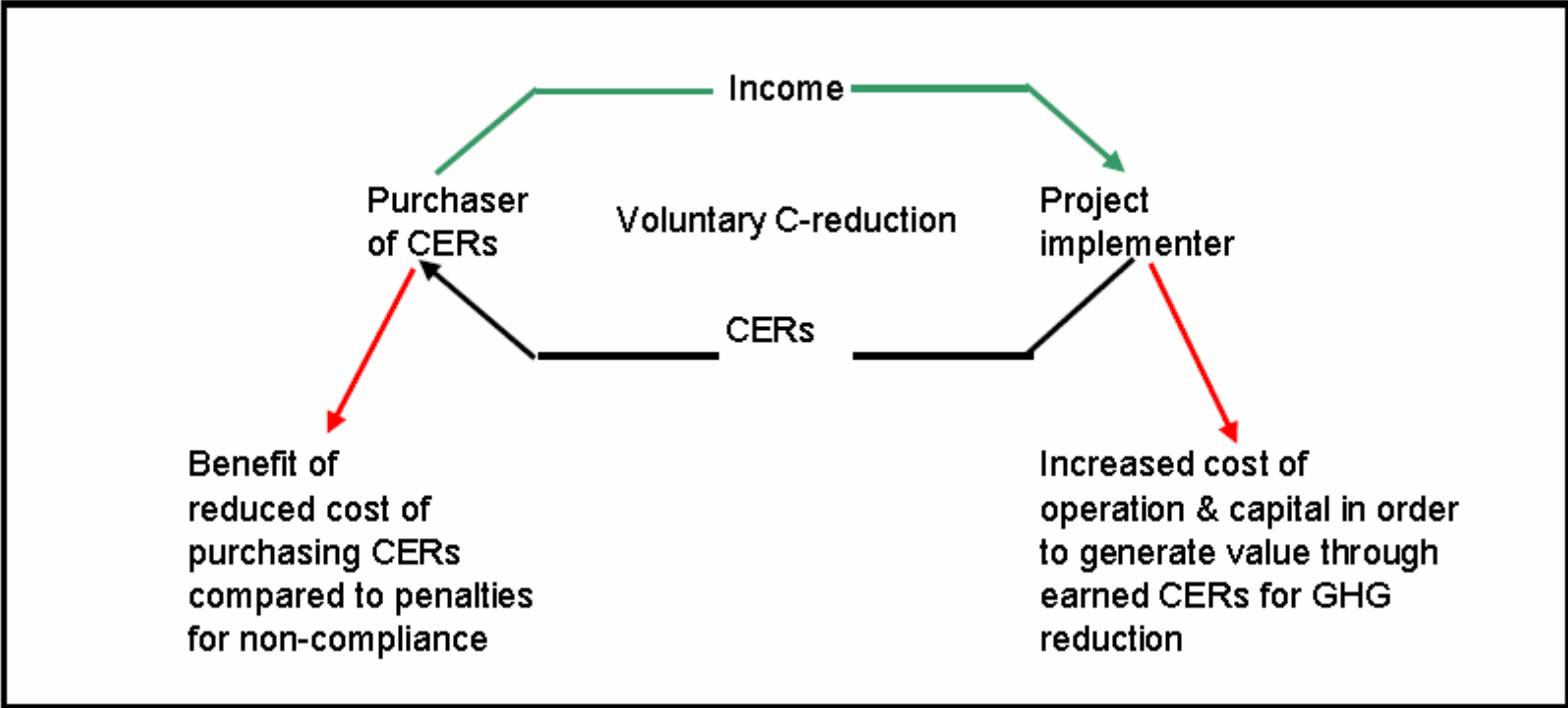


Purpose of the study

- Are the global efforts to reduce GHG emissions likely lead to a reduction of the GHG emitted by existing South African Industry?
 - No legislation
 - If there is financial benefit, industry would introduce technology and practices to reduce their C-footprint.



Logic of KP



OMNIA

Questions

- Could SA industry benefit financially?
- Would industry participate if there is no incentive?
- Which factors would influence the potential income and how?



Type of Research

- Qualitative
 - Gives a more realistic/holistic view as it is based on the opinion of respondents,
 - Allows for the examination of potential profitability



Questions

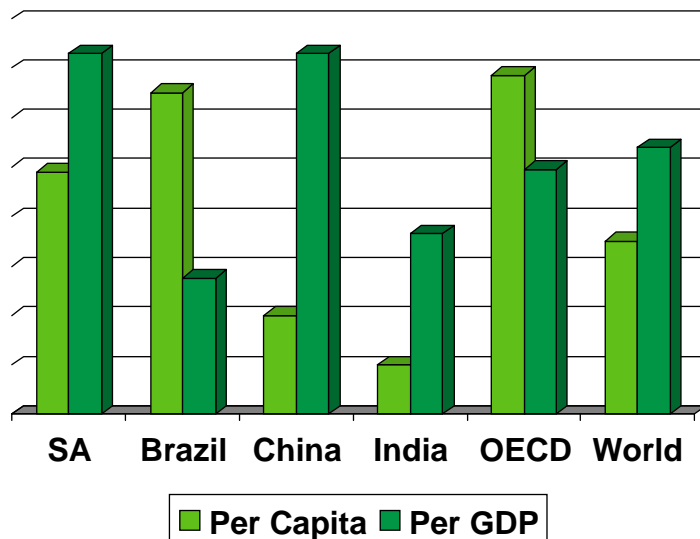
- Could SA industry benefit financially?
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Should we act?

***“Delaying action for a decade, or even just years,
is not a serious option”***

Sir David King (Science, 9 January 2004)

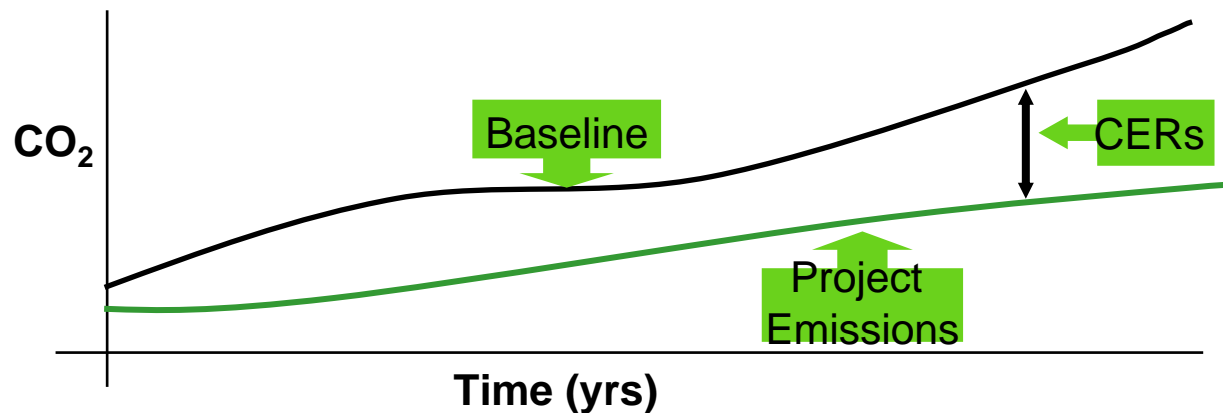


- Case study used to provide insight into the factors that impact on the potential benefit, as well as stumbling blocks.



CDM Principles

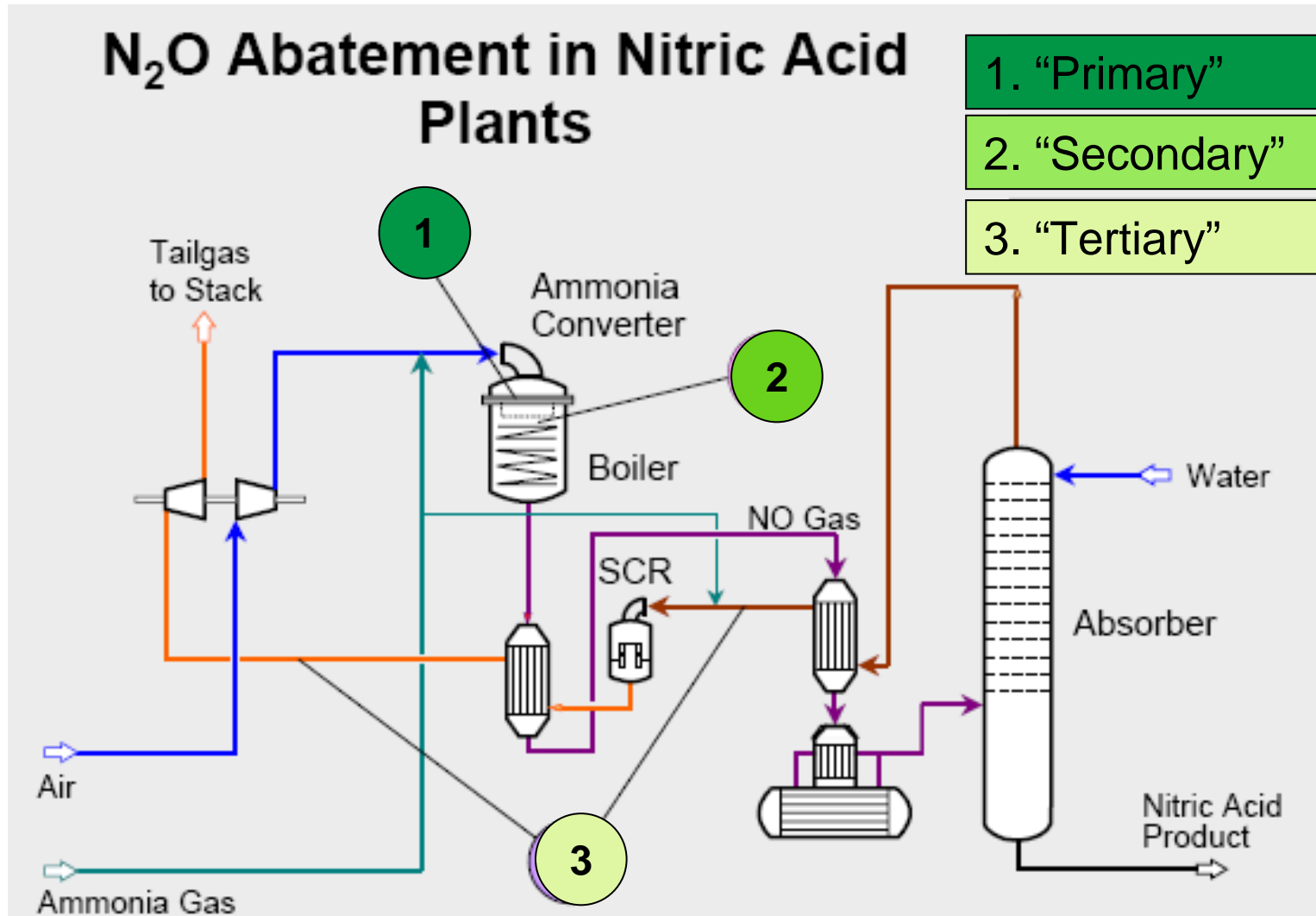
- Baseline concept
 - A project's Greenhouse Gas emission reductions need to be judged against some **baseline**
 - The baseline is “what would have happened in the absence of the CDM”
 - Additionality



creating customer wealth by leveraging knowledge



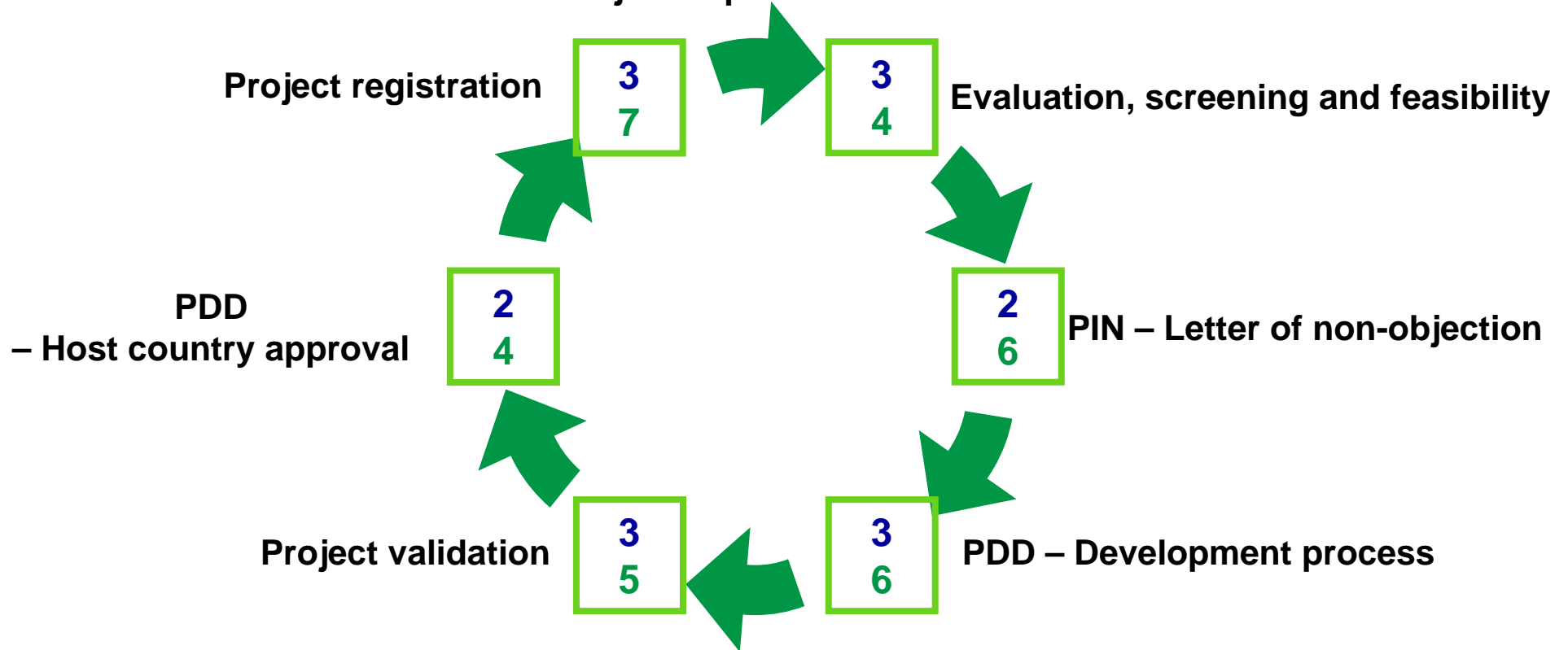
Technology Options



CDM Project Cycle

Guideline vs **Actual** timeline

Project implementation



Resulting in : +/- 10 months longer than expected

creating customer wealth by leveraging knowledge



CER Sales



- Not formally part of the project cycle
- Steps include
 - Finding a buyer (Tender, etc)
 - Negotiating the terms of the agreement (Risks)
 - Drafting an Emissions Reduction Purchase Agreement (ERPA)
- Omnia estimated earnings

The Envinox plant will reduce the N₂O emissions from the nitric acid plant in Sasolburg by about 90%

- *Engineering News, Dec 07*



Identifying and Evaluating Potential CDM Projects

- Process is tedious and bureaucratic
- Process timeline very long
- Project costs are high
- Different funding options available
- Various options available for CER sales
- Time is running out – 2008 to 2012 ?
- Determining carbon footprint will identify potential opportunities/threats

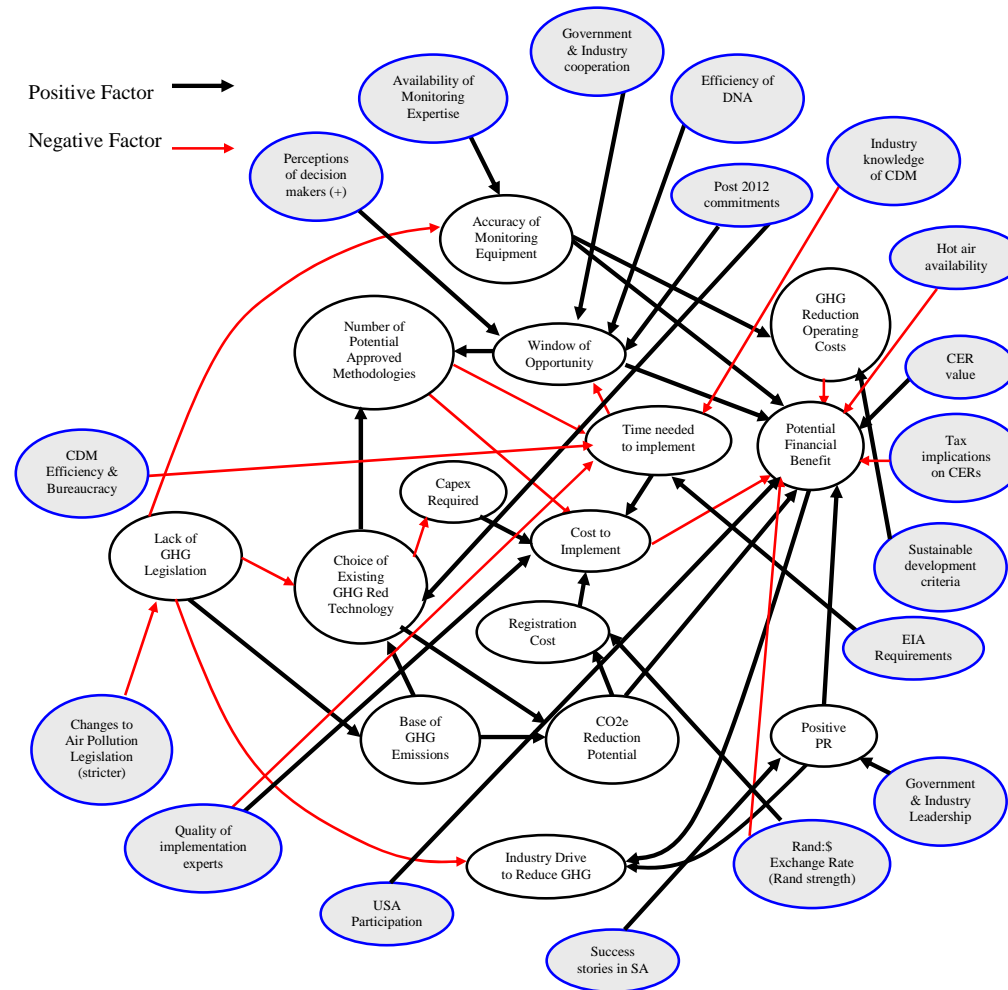


Presenting Results

- FCM to determine effect of any of the external factors on *industry's drive to reduce GHG emissions*



Interpreting Results



Qualitative Research

- Gives a more realistic/holistic view as it is based on the opinion of respondents,
- Allows for the examination of potential profitability,
- FCM to determine effect of any of the external factors on *industry's drive to reduce GHG emissions*



Results

- Industry benefit?
 - » Yes
- Why reduce GHG?
 - » Financial benefit
 - » Legislation
 - » PR
- Factors that influence GHG emission
 - » FCM



Interpreting Results

- Recent WITS research
 - Factors that impact on SA CDM project viability
 - How these factors impact on potential benefit
 - Which external “triggers” would result in GHG emission reduction



Managing Risk

- Acceptance of risk is a commercial issue
 - Identify risks
 - Allocate risks
 - Provide risk mitigation strategies
- Omnia specific
 - Submit PIN
 - Use approved Methodology
 - Validate PDD, get LoA and register project
 - Order and install equipment



Triggers

- External factors that will drive industry to reduce GHG emissions:
 - Stricter air emissions legislation
 - CDM success stories in SA
 - Leadership from industry and government
 - USA ratifying the KP
 - Improved GHG emissions monitoring expertise
 - Increased CER values
 - Post 2012 commitments



Recommendations

- Government
 - African governments should lobby to remain in a favourable position
 - More favourable tax regime
 - Encourage other carbon reducing programs
 - Streamline the approval process



Recommendations

- Industry
 - Transparency in project development
 - Start to measure the GHG emissions
 - Investigate options to reduce GHG emissions
 - Identify potential projects & do feasibility studies
 - Healthy working relationships with authorities
 - Build CDM capacity in-house
 - Start to pick “low hanging fruit”
 - Share knowledge & CDM success stories



“Although executives generally agree that climate change is strategically relevant and important to consider, it appears that companies are currently not translating the importance they place on this issue into action.”

McKinsey Report;



Thank you

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