



## BEYOND KNOWLEDGE

The Da Vinci Institute for Technology Management

*A School of Management*

# Da Vinci TIPS Conference

27 October 2010 | Johannesburg

**Topic:** Wicked Problems, what are they and how can we deal with them?

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### Topics to be discussed:

- The Management of Technology
- The Management of Innovation
- The Management of People
- Managing the Systems Way

# Management of Innovation

# Contemporary issues in the Management of Innovation & link to Sustainability

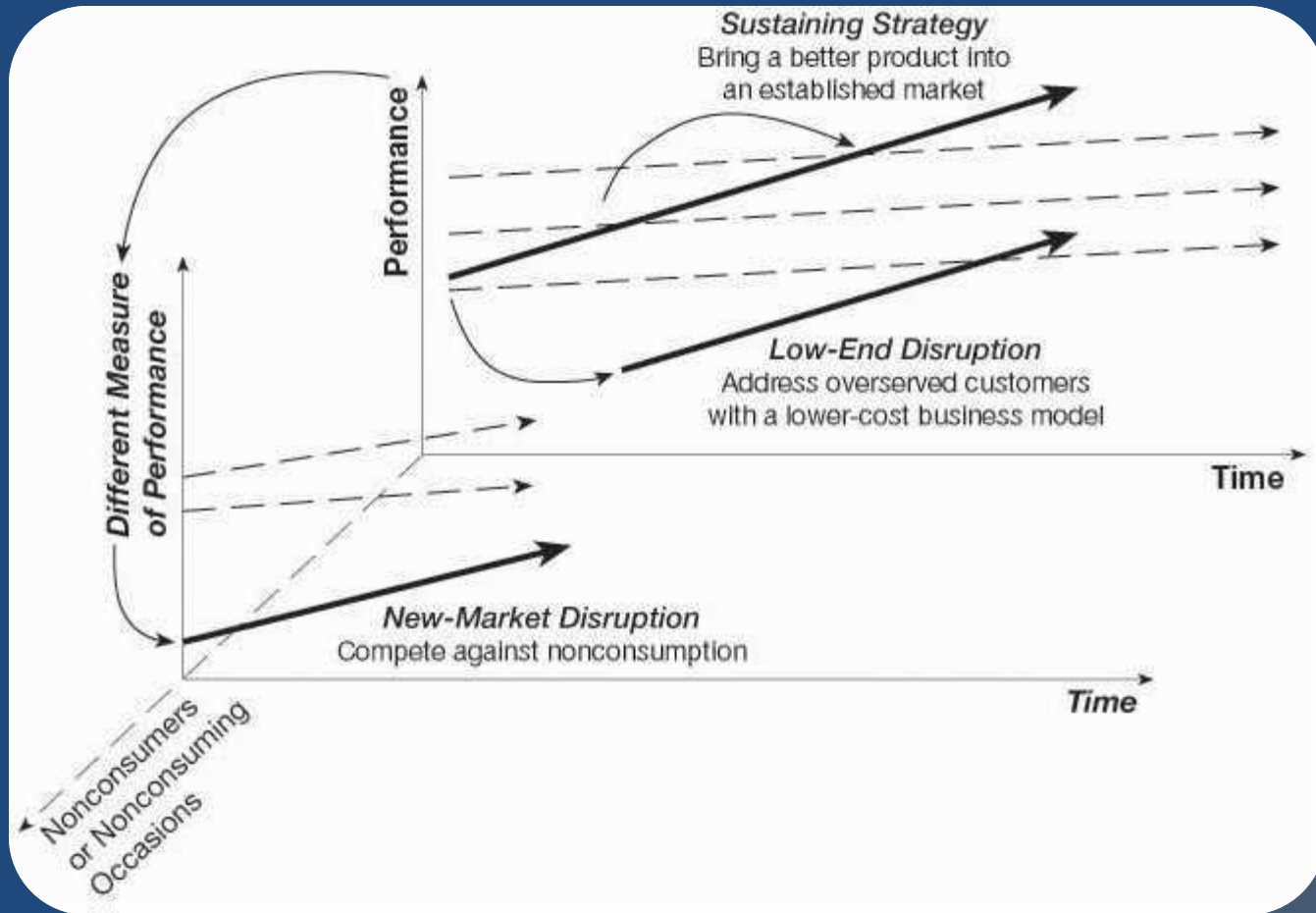


Facilitated by : Raldu Nel  
Director: Centre for Sustainability Migration  
27 October 2010





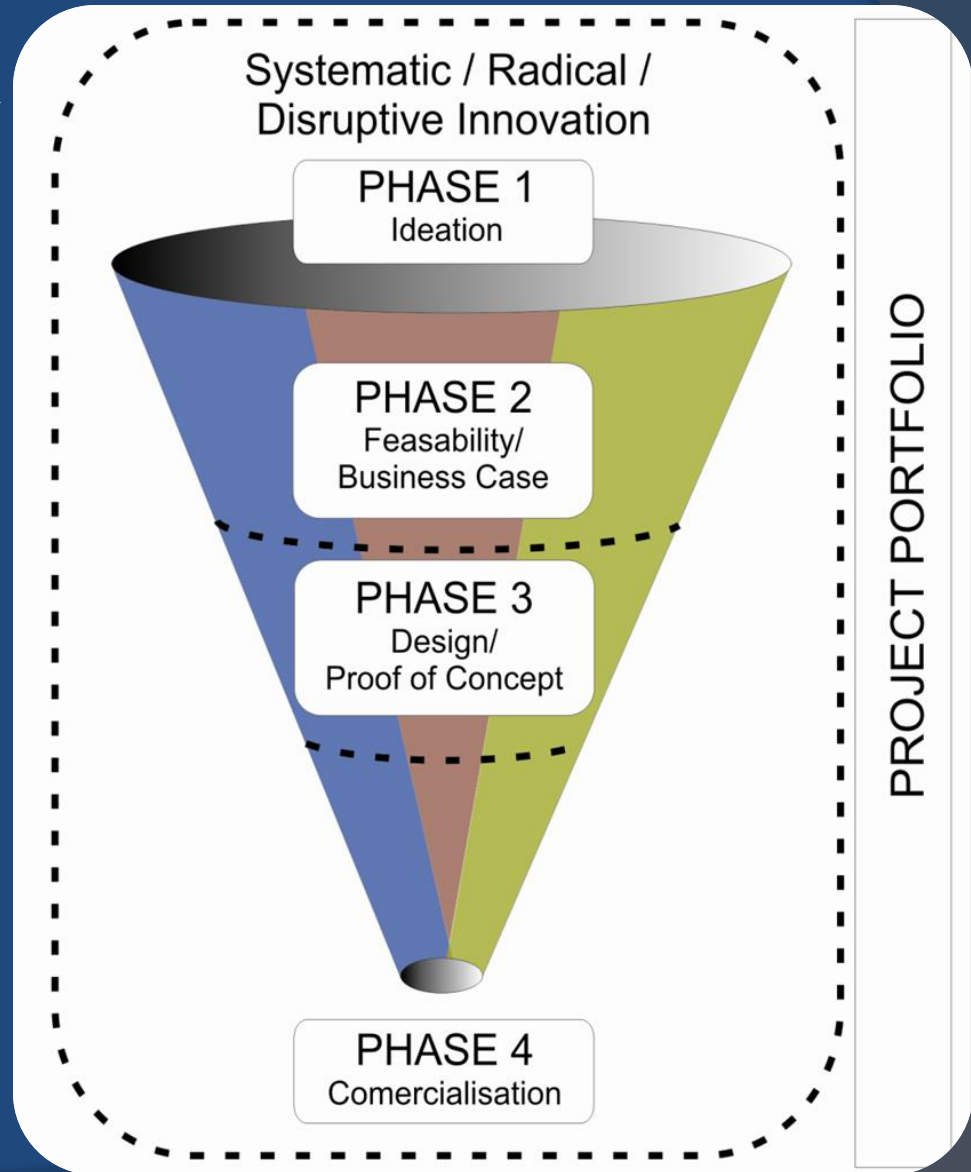
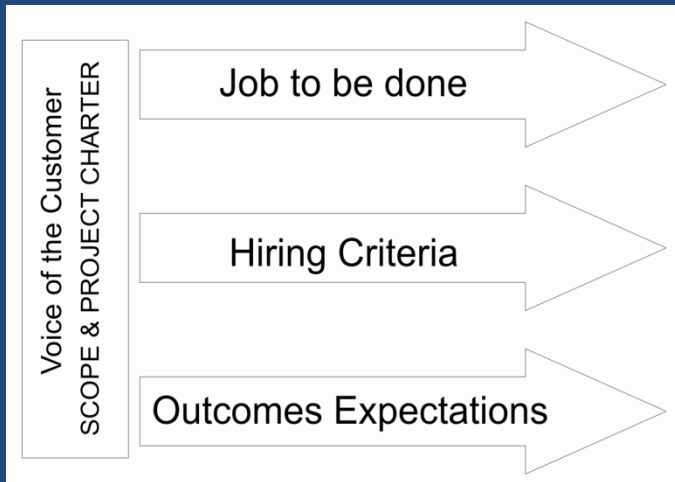
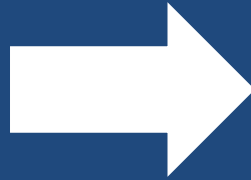
# Innovation



# ID to Commercialization



VOC





# Key 1

VOC

Voice of the Customer  
SCOPE & PROJECT CHARTER

Job to be done

Hiring Criteria

Outcomes Expectations

Idea, Need,  
Innovation  
Project

## Innovation Project Charter

Business Case

Key Assumptions to be Tested

Job Statement

Expected Financial Impact

Customers

Milestones/Time line:  
Scheduled vs Actual

Define Tollgate  
Discover Tollgate  
Develop Tollgate  
Demonstrate Tollgate

Unmet Outcome Expectations

Project Investments

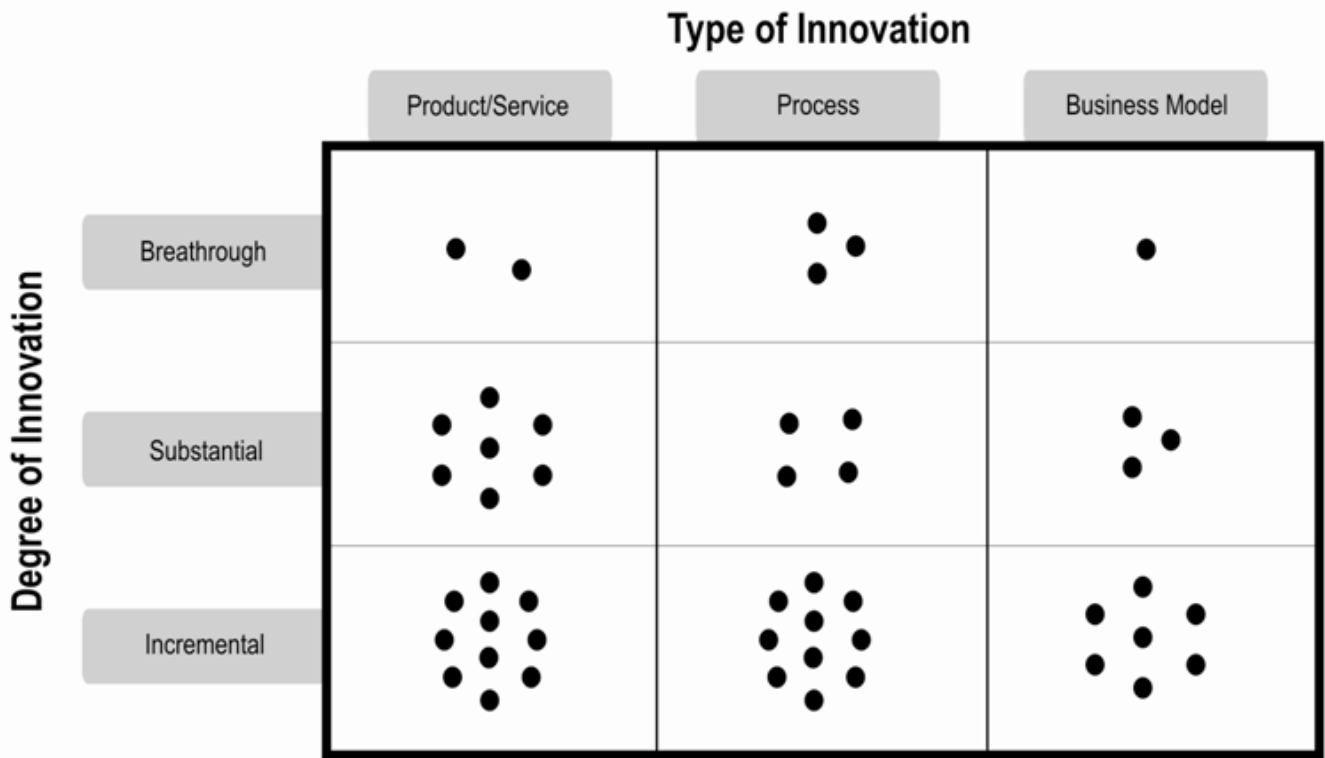
Unmet Outcome Expectations

Team:  
Steering Committee & Project Execution

# Key 2



## Balanced Innovation Portfolio



Model Courtesy of: The Innovators Toolkit, Silverstein, Samuel & De Carlo, (Published by: John Wiley and Sons)

# Key 3

## Focused Ideation: Why Sustainability is now the key driver of Innovation

### Top 10 Wicked Problems

1. Balancing long-term goals with short-term demands
2. Predicting the returns on innovative concepts
3. Innovating at the increasing speed of change
4. Winning the war for world-class talent
5. Combining profitability with social responsibility
6. Protecting margins in a commoditizing industry
7. Multiplying success by collaborating across silos
8. Finding unclaimed-yet-profitable market space
9. Addressing the challenge of eco-sustainability
10. Aligning strategy with customer experience



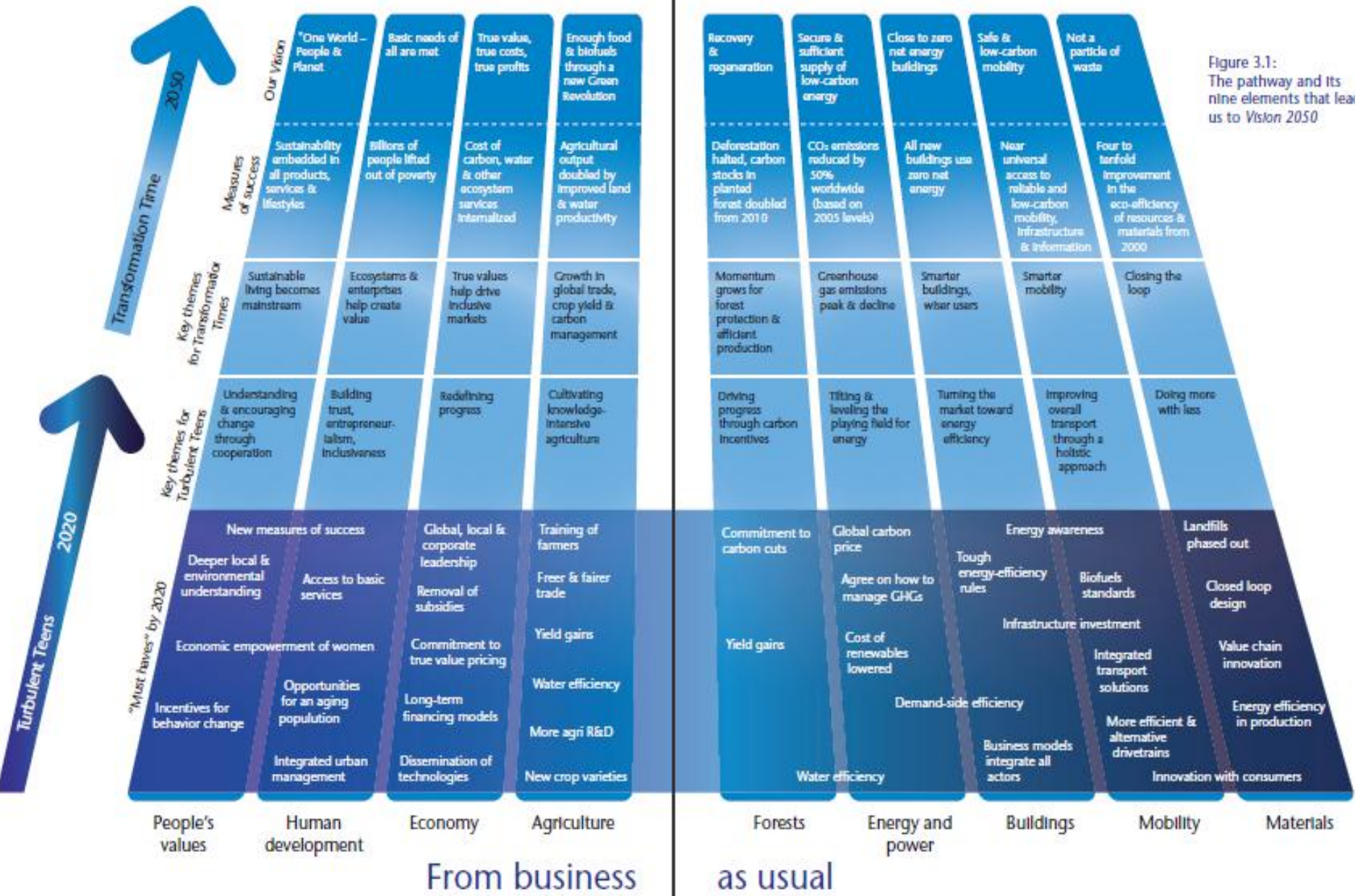
*Reported by Senior Executives -Study Sponsored by Neutron and Stanford University, Design Management Review, published by the Design Management Institute.*

**- eco-sustainability (moving to top 3)**

# To a sustainable

# world in 2050

Figure 3.1:  
The pathway and its  
nine elements that lead  
us to Vision 2050



# Pathway to Sustainability

Sustainability should be a touchstone for all innovation:

- Becoming environment-friendly can lower your costs and increase your revenues.
- In the future, only companies that make sustainability a goal i.e. include as part of their Strategy and Vision will achieve competitive advantage.

That means rethinking business models as well as products, technologies, and processes.

Becoming sustainable is a five-stage process, mastering each stage requires unique capabilities and has its own challenges.

Phase 1 – Viewing Compliance as an Opportunity – KING III / GRI

Phase 2 – Making Supply Chains Sustainable

Phase 3 – Designing Sustainable Products and Services

Phase 4 – Developing New Business Models

Phase 5 – Creating Next-Practice Platforms – Innovation

- 2009 HARVARD BUSINESS SCHOOL

# Energy and Power

Reinventing Fire

REINVENTING  
**FIRE**



You Tube



# Supply Chain Decarbonization

Supply Chain Decarbonization Opportunities	Potential Abatement Mt CO <sub>2</sub> e	Assessed Index of Feasibility
Clean Vehicle Technologies	175	High
Despedding the Supply Chain	171	High
Enabling Low Carbon Sourcing: Agriculture	178	Medium
Optimised Networks	124	High
Energy Efficient Buildings	93	High
Packaging Design Initiatives	132	High
Enabling Low Carbon Sourcing: Manufacturing	152	Medium
Training and Communication	117	Medium
Modal Switches	115	Medium
Reverse Logistics / Recycling	84	Medium
Nearshoring	5	Medium
Increased Home Delivery	17	Medium
Reducing Congestion	26	Low

# Industry Interface Global

## LOCATIONS

## SPEAKERS BUREAU

## LEADERSHIP TEAM

RAY WATCH

MEET RAY

READ RAY

FOLLOW RAY

## MISSION/VISION

## HISTORY

## CULTURE

## AWARDS



## Founder and Chairman Ray Anderson Speaks on the Interface Journey and Sustainability

The story is now legend — the “spear in the chest” epiphany Interface founder and Chairman **Ray Anderson** experienced when he first read Paul Hawken’s, “The Ecology of Commerce” while seeking inspiration for a speech to a company task force on the environment. Fourteen years and a sea change later, Ray is a sought-after international speaker who gives nearly 100 talks each year to audiences hungry for a message about the company that is proving the business model for sustainability works.

As last year wrapped up, Ray had spoken to audiences all over the world, finished a 13-city North American book tour and had given over 100 interviews about the Interface story. His new book, **Confessions of A Radical Industrialist**, published this past September in the U.S. and Canada, and launching this year in Europe and Australia, brought inspiration to audiences from business people to students. So much so that San Diego State University purchased his book for their “Common Experience” program that engages the entire campus in reading and discussing a book. 2010 will find Ray busy traveling to spread the Interface message and continuing to tour to promote his book.

## Ray's Carbon Footprint

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## Meet Ray



Ray's passion around sustainability and his commitment to achieve a zero footprint for Interface by 2020 has inspired thousands. See Ray in an interview or giving a

speech and hear him tell the Interface story in his own words.

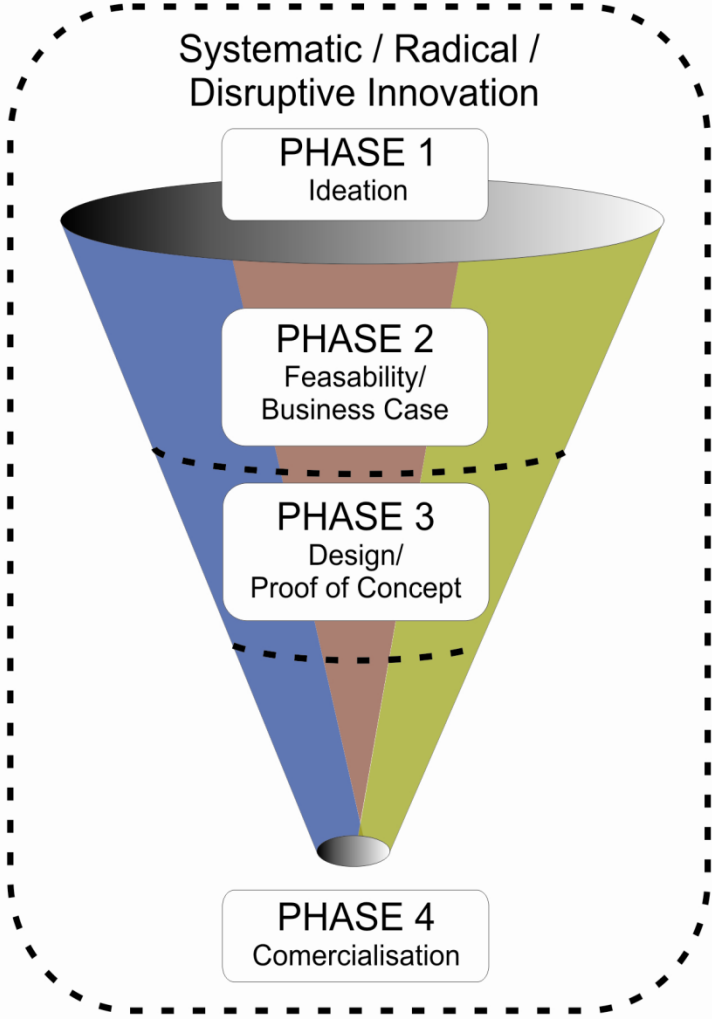
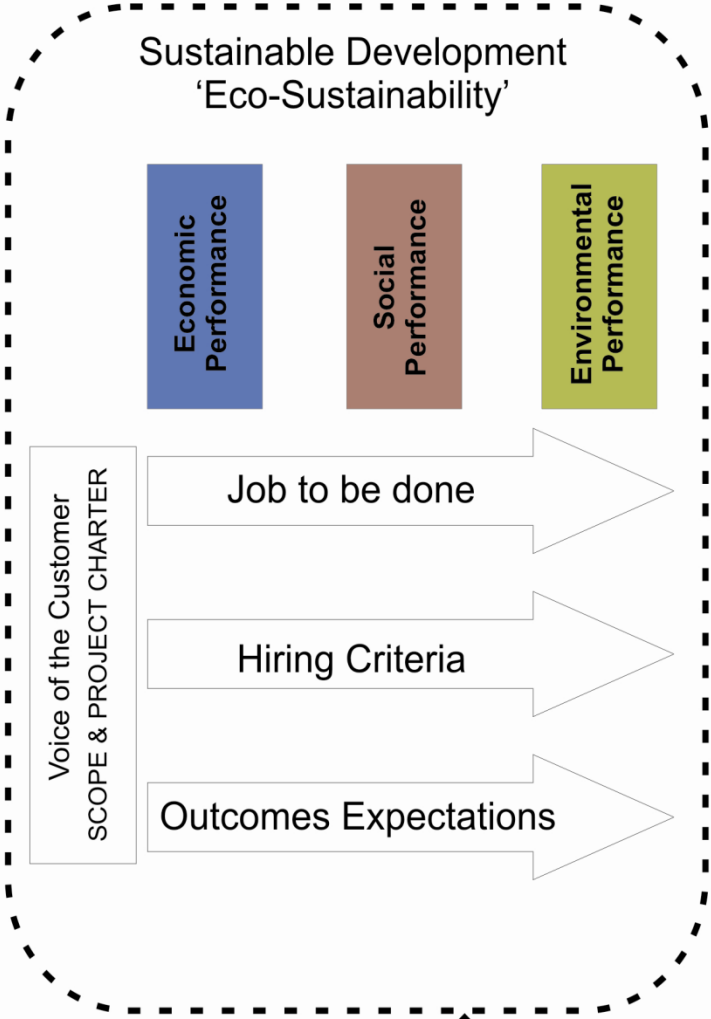
## Read Ray



Ray is an accomplished author, having written two books on the Interface Story and incorporating sustainability into a company's business model. Launched in September 2009, his latest book "Confessions of a Radical Industrialist," underscores the importance for business to lead the way on the path to sustainability and debunks the myth that profit and sustainability are mutually exclusive. Read book reviews and hear what the media and others are saying about Ray.

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Sustainable Development Concept



Economic Growth



# Critical Success Factors Systematic Innovation

- Visible Leadership (Drive from the Top) and Team Support
- Understanding VOC / VOM Trends
- Aligned and Impactful Projects Selection & Portfolio Balancing (PMO)
- Selecting Talented Candidates (Innovators) & Integration back to the business (Career Paths)
- Effective Change Management / Organizational Development
- COP & KM
- Reporting / Tracking Value

**Facilitated discussion with  
delegates:**

**Management of Innovation**



Alumnus: Dr Audrey Verhaeghe  
Facilitated by Dr Colin Steyn and Raldu Nel  
27 October 2010



# DVI Research – SA – Emerging Economy



#	Wicked problems	DVI Reframing
1	Balancing long-term goals with short-term demands	Systematic Innovation + Balanced Portfolio
2	Predicting returns on innovative concepts	Systematic Innovation
3	Innovating at the increasing speed of change	Systematic Innovation
4	Winning the war for world-class talent	MOP
5	Combining profitability with social responsibility	Systems Thinking, Design Thinking & Sustainability
6	Protecting margins in a commoditizing industry	Systematic Innovation
7	Multiplying success by collaborating across silos	COP
8	Finding unclaimed yet profitable market space	Systematic Innovation "Competing against non consumption"
9	Addressing the challenge of eco-sustainability	Sustainability Design and Transformation
10	Aligning strategy with customer experience	VOC

*Adapted from -Study Sponsored by Neutron and Stanford University, Design Management Review, published by the Design Management Institute.*



Be the change you want to see in the world!

-Mahatma Gandhi