2<sup>nd</sup> *Green Economy Learning Forum*, for institutions that train professionals involved in policy design and implementation *Green Economy: New skills, New Challenges* Paris, 26-27 November 2018

Prof Eureta Rosenberg Chair of Environment and Sustainability Education



Four key challenges in transforming the way current and future policy-makers learn



Basis for Findings: Demand, Supply and Transitioning Studies on the Skills for Sustainability Transformations in ...

- 1. Agriculture
- 2. Conservation & Biodiversity leadership
- 3. Banking
- 4. Chemicals & Engineering
- 5. Mining & Manufacturing
- 6. Public Procurement
- 7. Green Economy generally.



A focus on paint

green s alls

Smart Aericulture

Rhodes University Chair of Environment & Sustainability Education, 1992-2018; GreenSkills with Wits and UCT, 2015-2018

## **Rationale for Change**

- IMF: 86 of the 100 fastest growing cities in 2018-2023 will be in Africa. 79 are at "extreme risk" to climate impacts
- 48% of the entire African continent's GDP is exposed to extreme risk to climate impacts.
- US Federal Report: 10% of the US economy is also vulnerable to climate change.
- Solution: Greening economies!



www.maplecroft.com/portfolio/new-analysis/2018/11/14/84

## 'It's Macron's fault': parts of France in gridlock as thousands protest fuel tax hikes - video



A famale protector has died after being hit by a motorist as demonstrators

# Multi-Level Multi-Methods for GS Determination:

Macro-Economic & Social-Ecological Drivers of Demand

- National policy and economic analysis
- National and international regulatory frameworks, environmental risk identification

### Sector, System & Landscape level

- New technology and development planning, industrial strategy analysis
- Cultural-historical social trends analysis

### **Occupations and Skills**

- Value chain analysis, sustainability 'hot spots', associated occupations
- Skills needs analyses for new green jobs and greening existing jobs

### Skills Supply - Training and Education

- Mapping qualifications, learning pathways, articulation opportunities, providers
- Curriculum analysis in relation to skills needs analysis

### Transitioning into Work

\* Tracer studies, career stories and vignettes (individual case studies)

Challenges for the individual current and future Green Economy leader



- 1. Learning pathways and career pathways
- 2. Experience vs further study; depth vs breadth (trans-disciplinarity)
- 3. Career and Study Guidance
- 4. Integrating (short course) learning into work
- 5. Range of competencies needed:

## Policy leaders need multiple competencies:



Rosenberg et al., 2016; <u>www.greenskills.co.za</u>; Wiek, Withycombe & Redman. 2011. Key competencies in sustainability: a reference framework for academic development. *Sustainability Sciences*; Scharmer, 2007, Field-based leadership development.

Institutional Challenges (universities)



## 1. Producing holistic skills (vs technical training)

- 2. Multi-modal delivery for diverse learners
- 3. Curriculum innovation vs performance metrics
- 4. Staff capacity & resources
- 5. New qualifications & their accreditation

# Workplace Challenges



### A systems perspective:



- 1. Anticipating skills needs understanding environmental risks and GE opportunities
- 2. Scarcity of suitable (range of) skills including transformational leadership
- 3. Retention of scarce skills & mentoring
- 4. Succession and Strategic human resources planning

# System Challenges



## **Skills Development System**



System: Government - Education, Labour, Environment, Science, Economy; Industry and Social Partners

- 1. Accreditation of new qualifications
- 2. New occupations generalist or specialist?
- 3. New professional standards
- 4. GE skills information dynamic and reliable
- 5. GE skills research & planning capacity
- 6. Structures with mandates for cross-sectoral skills
- 7. New partnerships and coordination

#### Learners

- Depth and breadth & transdisciplinarity
- Pathways
- Career guidance
- Integrating (short course) learning into work
- Range of competencies needed

### Institutions

- New qualifications & their accreditation
- Curriculum innovation
  vs performance metrics
- Producing holistic skills (vs technical training)
- Multi-modal delivery & resources
- Staff capacity

- Workplaces
- Anticipating skills
  needs
- Scarcity of suitable (range of) skills & transformational leadership
- Retention of scarce skills & mentoring
- Strategic human resources planning

#### System

- Structures with mandates
- New partnerships and coordination
- GE skills information
- Research & planning capacity
- Accreditation of new qualifications
- New occupations & standards



## thank you

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