Empowering South Africa's Green and Just Transition

Integrating Climate Change Education and Just Transitioning Learning Pathways into South African Education | Training | Work and Learning Systems

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Where leaders learn

environmental learning research centre

Integrating Climate Change Education and Green & Just Transitioning Learning Pathways into South African Education | Training | Work and Learning Systems ….

is a long story … **it's a complex, systemic process and must be just, leaving no-one behind :** ***#not an event, #not a training programme # not just technology driven***

Education, Empowerment and Skills – for what kind of transition??

Neoliberal Just Transition – focus on opportunities, investments, commodification, not much attention given to inclusion of the public sphere or decommodification

Reformist Just Transition – inclusion into the current structural set up – includes focus on skills development and public education to 'bring people in'

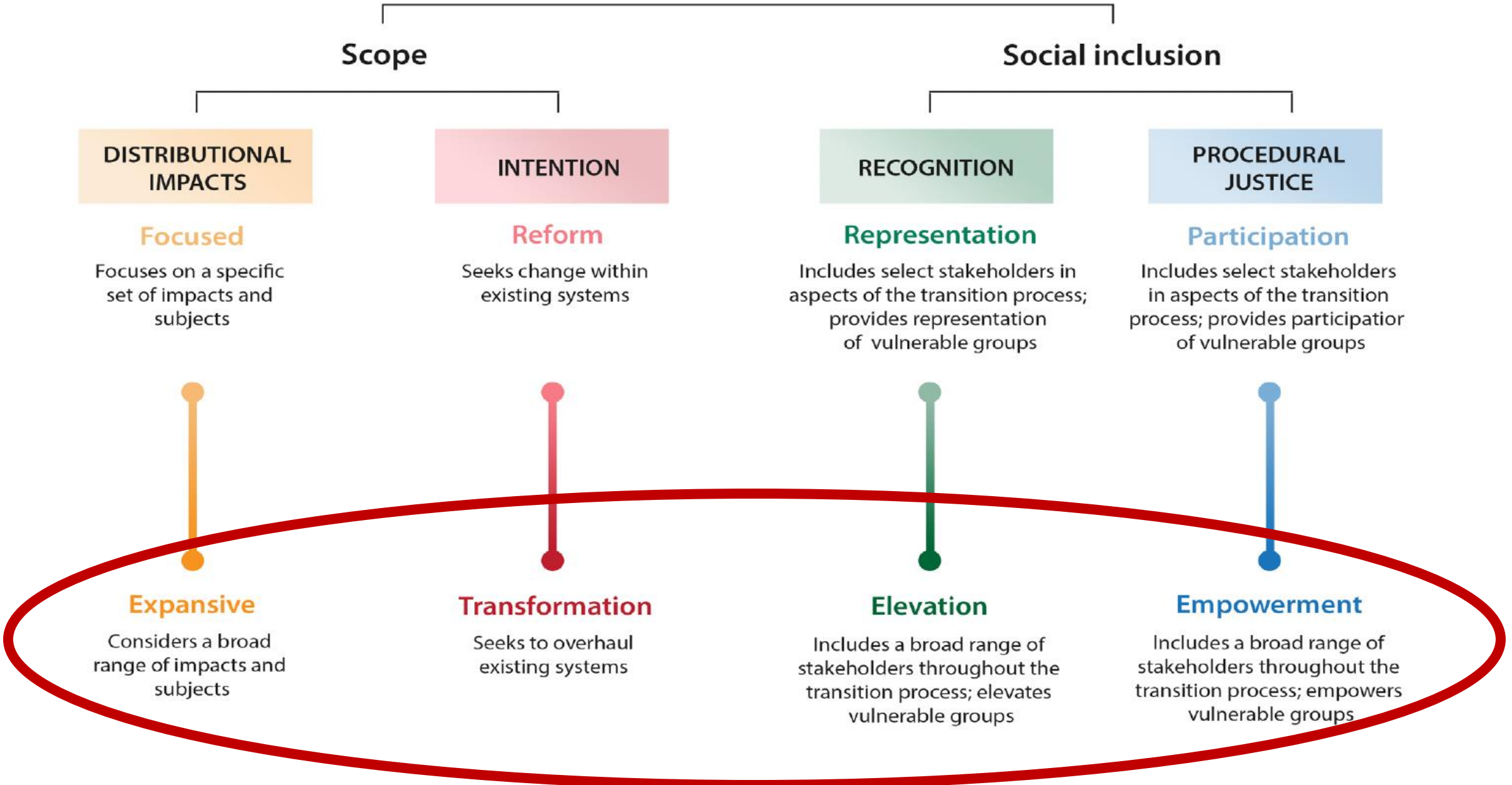
Structural Just Transition – restructuring of the political economy to expand inclusion of the public sphere and decommodification

Transformative Just Transition _ a comprehensive decommodification and inclusion of the public sphere with **stronger justice relations– deep structural transformation of the political economy**

•(Stevis, 2023)

Just Transition

CIF, 2020



IF we want a transformative just transition that is:

expansive in its distributional impacts and justice;

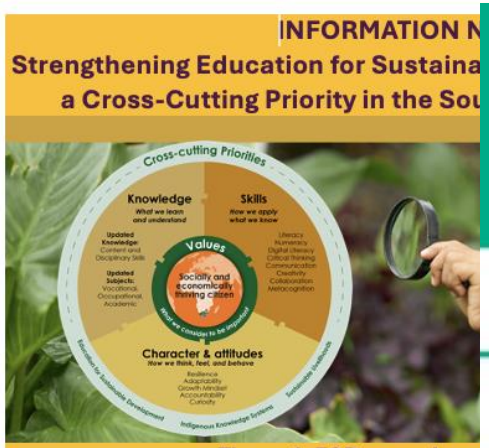
transformational in its intention and outcomes;

inclusive and elevating of marginalized groups in its framing of recognitional justice; and

empowering of all members of society in its framing of procedural justice ….

then we MUST adopt **a systemic, transformative, and even transgressive approach** to climate change education, empowerment and skills for just transitioning.

#1: Foundational learning



INFORMATION N

Strengthening Education for Sustaina

a Cross-Cutting Priority in the Sou

Through ESD every lear

understand the **human-environment relationshi**
and the environment, AND ***participate in acti***
environment and that are more **sustai**

7 Cross Cutting Thematic Areas

To mainstream ESD into the strengthened curriculum, we will focu
seven Cross-Cutting ESD Thematic Areas, to integrate into existin

- Healthy Environments, Healthy People
- Climate Action
- Water Security
- Land, Biodiversity and Ecosystems
- Waste and Circular Economies
- Sustainable Food Systems
- Energy Transitions

Theme 1: Healthy Environments, Healthy Peop

This theme focuses on the relationship between a healthy environment and t
health of people. It involves understanding how environmental health risks a
people's health, but also what people can do to ensure a healthy environmer
addresses topics such as:

- Strategies for **healthy lifestyles** that reduce environmental damage, an
show **respect and care for the environment** and all forms of life
- **General health and well-being** on a healthy planet (interconnected sys
understanding **change in human-environment relations** over time
- Effects of **environmental health risks** on the human body and other livi
organisms e.g. pollution, contaminated water, air and soil - and how to a
these
- General **waste and pollution management** including household, schoo
community waste and pollution management. Dealing with hazardous w

unesco

Greening curriculum guidance

Teaching and learning for climate action

unesco

Green school quality standard

Greening every learning environment

itions

urrent global and national energy transition
es towards renewable energy sources
nergy production
(e.g. fossil fuels, hydrogen, solar, wind,
y and impact
d fossil fuel energy to renewable energy

skills, new production systems and **new**
vehicle value chain)
aving no-one behind
gy transition for households, schools,

g of work
d transport systems ; sustainable

f care

skills advanced by ESD

- Systems thinking / relational
- Anticipatory skills
- Normative skills
- Strategic and creative skills
- Collaboration
- Critical thinking
- Self-in-society awareness
- Problem solving

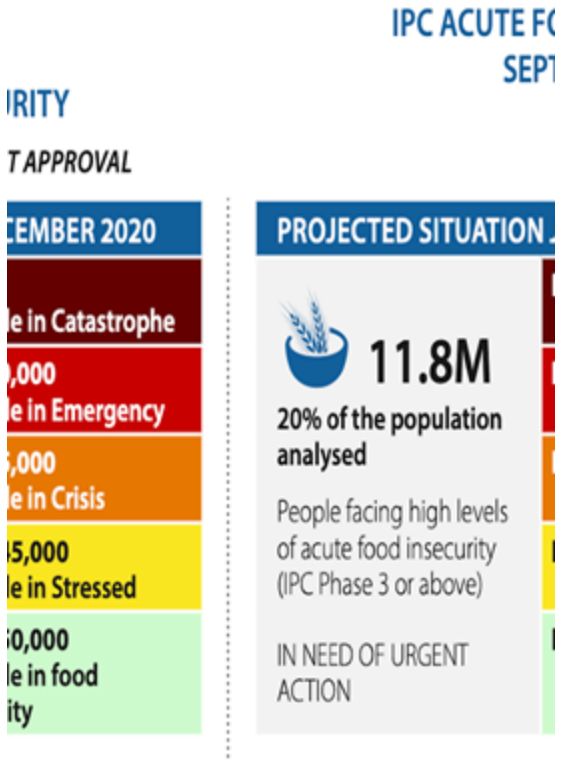
are for self, others and

Strengthening ESD & CCE as cross-cutting priority in the revised curriculum with DBE

We should not leave our teachers and lecturers out of the transition!!

fundisa
for change

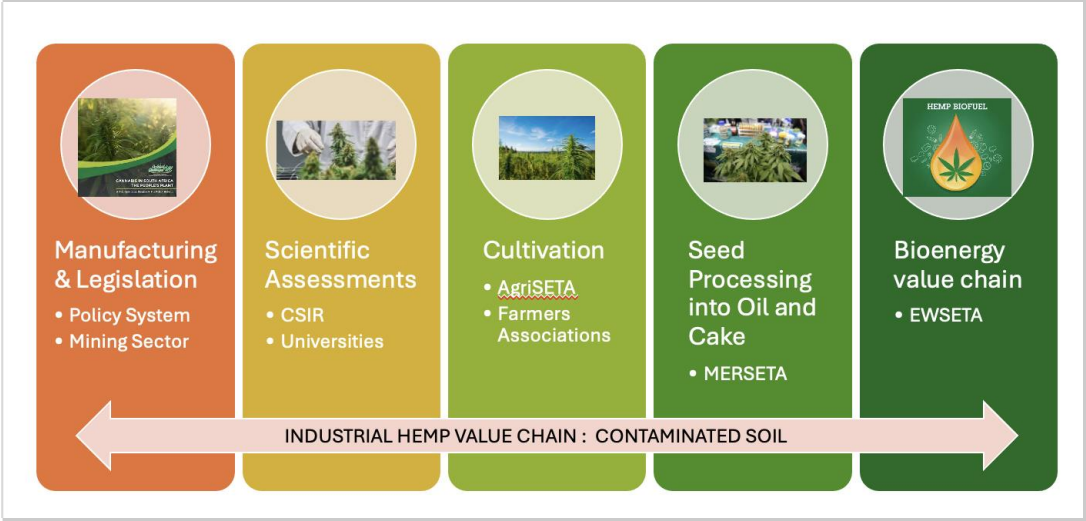
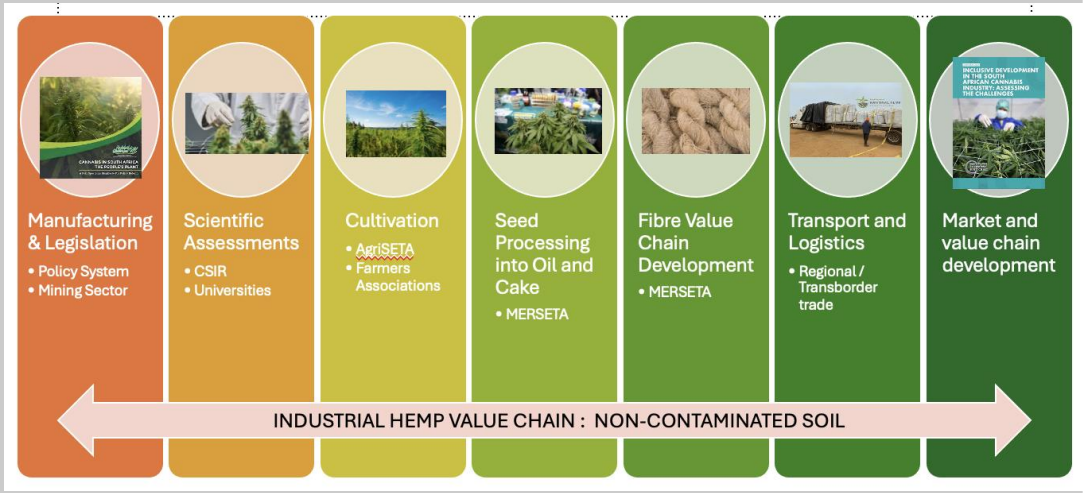
2: Inclusive in Scope



Its not just about energy – it MUST also be about **WATER, FOOD, WASTE, CLIMATE CHANGE ADAPTATION, BIODIVERSITY** … and it should take **YOUTH and WOMEN's** inclusion seriously

#3: Contextual, General & Specialist & Multi-levelled

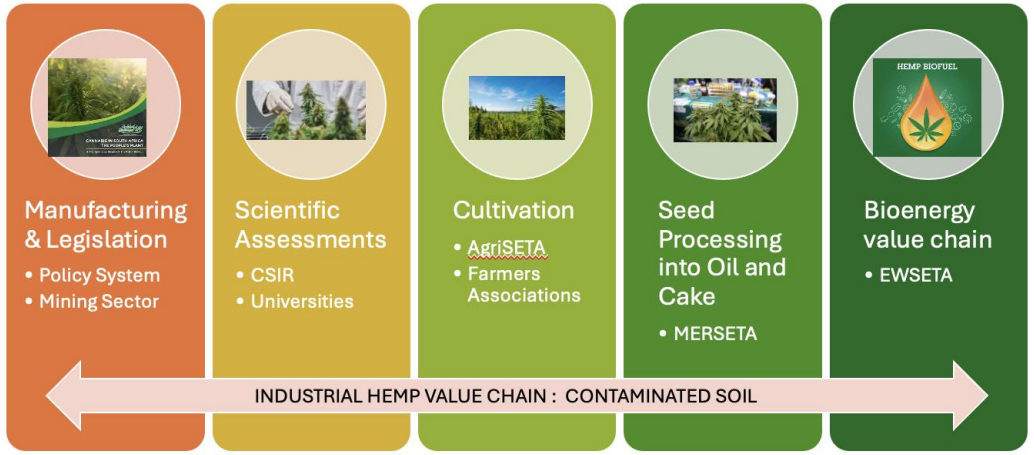
e.g. 2 SCENARIO's FOR INDUSTRIAL HEMP VALUE CHAIN DEVELOPMENT / RESKILLING IN MPUMALANGA

CONTAMINATED LAND : PHYTOREMEDIATION	NON-CONTAMINATED LAND
	
Assessment of potential jobs, occupations and skills along this value chain (1-5)	Assessment of potential jobs, occupation and skills along this value chain (1-7)

1-4 are shared with both scenarios; divergences at 5-7 9 (WITH IMPLICATIONS FOR RESKILLING)

Multi-levelled / short, medium, longer term: SKILLS LEVELS AND EMPLOYMENT

e.g. Phytoremediation and rehabilitation



Use of mine land for rehabilitation
Mine closure status and willingness to develop hemp as alternative value chain NB
Will need transitioning support for workers from mining sector

VALUE CHAIN SEGMENT	LEVEL OF SKILL	SHORT, MEDIUM / LONG TERM EMPLOYMENT
Seed cultivation and production	MED – HIGH	MED – LONG TERM
Soil contamination testing	MED – HIGH	MED – LONG TERM
Clearing land and fencing	ENTRY	SHORT
Soil preparation, planting , ploughing	ENTRY	MED – LONG TERM (cycle of plant)
Harvesting	ENTRY	SEASONAL (cycle of plant)
Transportation	ENTRY	SHORT – MED
Production – BIOMASS ENERGY	VARIED	Dependent on production cycles

4: Vocational and Occupational

Occupations in transition:

- **Occupations at risk / in decline** e.g. diesel mechanics if NEV value chain develops [but also network of component manufacturers]; coal mine workers [and extended communities] as coal declines
- **Occupations that are changing** e.g. electricians – need competences for renewable energy ; digitalization / AI / labour shrinkage phenomenon
- **Occupations emerging – valid and critical for an inclusive, transformative transition - but not systemically recognized** e.g. climate change and care ; water quality monitoring ; agro-ecology ; rehabilitation ; battery technicians ; e-waste recycling etc. *[EXTERNALITY MENTALITY NEEDS TO BE TURNED AROUND]*

5: Demand led

Emergent, realistically anticipatory or magical??

Projection numbers are not real demand … demand involves a complex 'mix of factors', and must be realized

In which time window? 5 year, 10 year? 20 year?

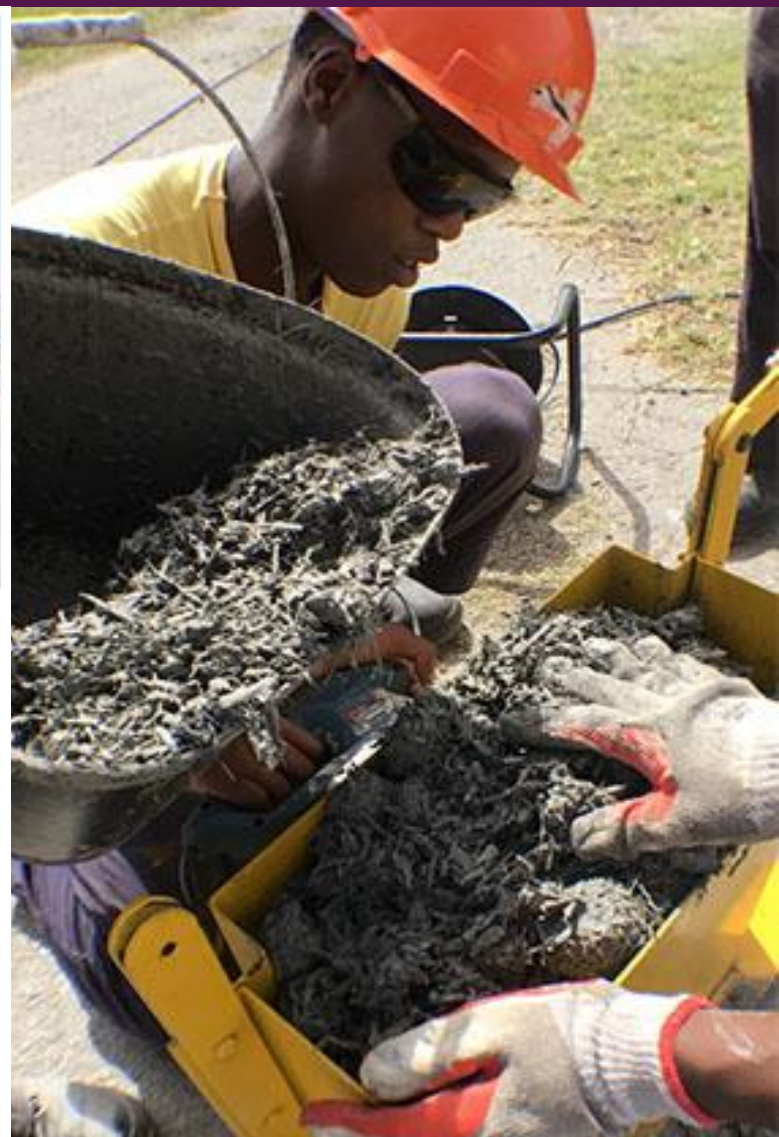
Based on what projection data? ….

What methodologies?? …

Technology / investor driven?

Transformation driven?

6: Innovation centric & circular | not exclusive / proprietary | sustainable (technically and socially)

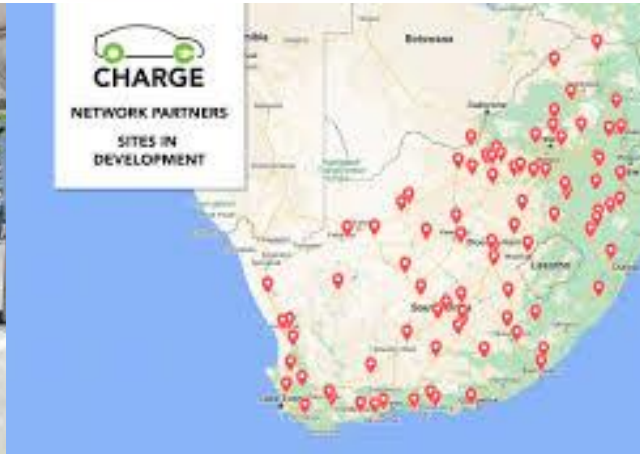


Carbon-Neutral Social Housing

Cape Town, South Africa – 2020

7: Life Long and Life Wide

- New knowledge, skills, competences, values and practices need to be learned – ***by everyone, everywhere!!***
- Require new curricula, skills programmes, upskilling, reskilling, and **reframing of ALL existing Subjects and skills programmes**
- **Spaces of learning** are … Landscapes, sectors, cities, communities, schools, colleges, universities, online learning platforms, networks …
- **Transformative learning MUST BE** at the heart of any climate change empowerment, education and just skills transitioning



8: Place-based , sector focused , but connected

Need social skills ecosystem models to properly support transitioning value chains in contexts … place-based but also connected (sectorally **and educationally**) **– SDZ concept**

Model adapted from Spours, 2019

Intermediaries Mediating Activity

Eastern Cape

MERCEDES-BENZ,

uYilo e-mobility

-Multinational Car

-Automotive Industry Development Centre (AIDC)-EC

political strategies

Original Equipment

EC

Local car dealerships

Eastern Cape Socio-

-FE colleges as civic anchor institution

Collaborative Horizontalities: IN PLACE

9: Transgressive / Boundary crossing learning

- Basic knowledge and skills are key, BUT ALSO
- Inter and transdisciplinary skills
- **Explicit values: Transgressing taken-for granted unsustainable norms and practices**
- Willing to cross boundaries and create new synthesis
- **Innovation in skills research methods and approaches**

1. Foundational – including curricula, teachers and lecturers
2. Inclusive in scope and reach
3. Contextual, but also general, specialist and multi-levelled
4. Vocational and Occupational
5. Demand led, but not just projection-based demand : REAL demand
6. Innovation centric and circular – not exclusive and proprietary
7. Life long and life wide with Transformative learning at the centre
8. Place-based, but connected
9. Transgressive / Boundary crossing

10: Systemic!! Empowering South Africa's Transition must be systemic

And finally, let us not leave our children, teachers, young people, communities, women and those living with disability behind in framing and funding education and skills programmes for **the Just** Transition

– we should be wary of developing a skills system that is focused on parts of the economy, technologies, and their roll out only

Thank you!