

A BUILT ENVIRONMENT IN WHICH PEOPLE AND PLANET THRIVE

Presentation to CBE Indaba

DORAH MODISE
February 2019

FACT : TWO SPEED ECONOMY







2.5 billion
urban
dwellers
added

or



1m
inhabitants every week
for next 40 years

and





1

Resource-intensive growth of SA cities with inefficiencies across all sectors (energy, water, waste, transport and food)

2

Silo approach to planning and service delivery is inefficient and increases risks of exclusion

3

Need for spatial transformation which encourages compact cities and sustainable neighbourhoods that value natural and open spaces

4

Sustainability must be embedded in a city's development paradigm and not just in its long-term visions and strategies

5

Cities need to focus on resource efficiency aggressively

Key Messages of SOCR IV

STATE OF
**SOUTH
AFRICAN
CITIES**

REPORT



SUSTAINABLE CITIES

*Leveraging the transition
to sustainability*



Environmentally enhancing, restorative relationship between buildings and the natural system whose resources they depend on as well as fostering urban communities where people benefit from this process.”

NEW YORK TIMES BESTSELLER

DRAWDOWN

THE MOST COMPREHENSIVE
PLAN EVER PROPOSED TO
REVERSE GLOBAL WARMING
EDITED BY PAUL HAWKEN



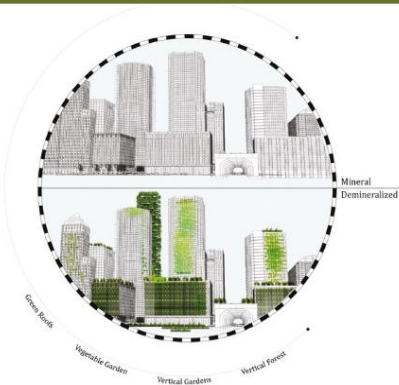
BUILDINGS & CITIES



REGENERATION

HOW TO CREATE ONE BILLION JOBS,
TRANSFORM THE WORLD, AND
REVERSE GLOBAL WARMING





DEMINERALIZATION DEVICE

green roofs
vegetable garden
vertical garden
vertical forest

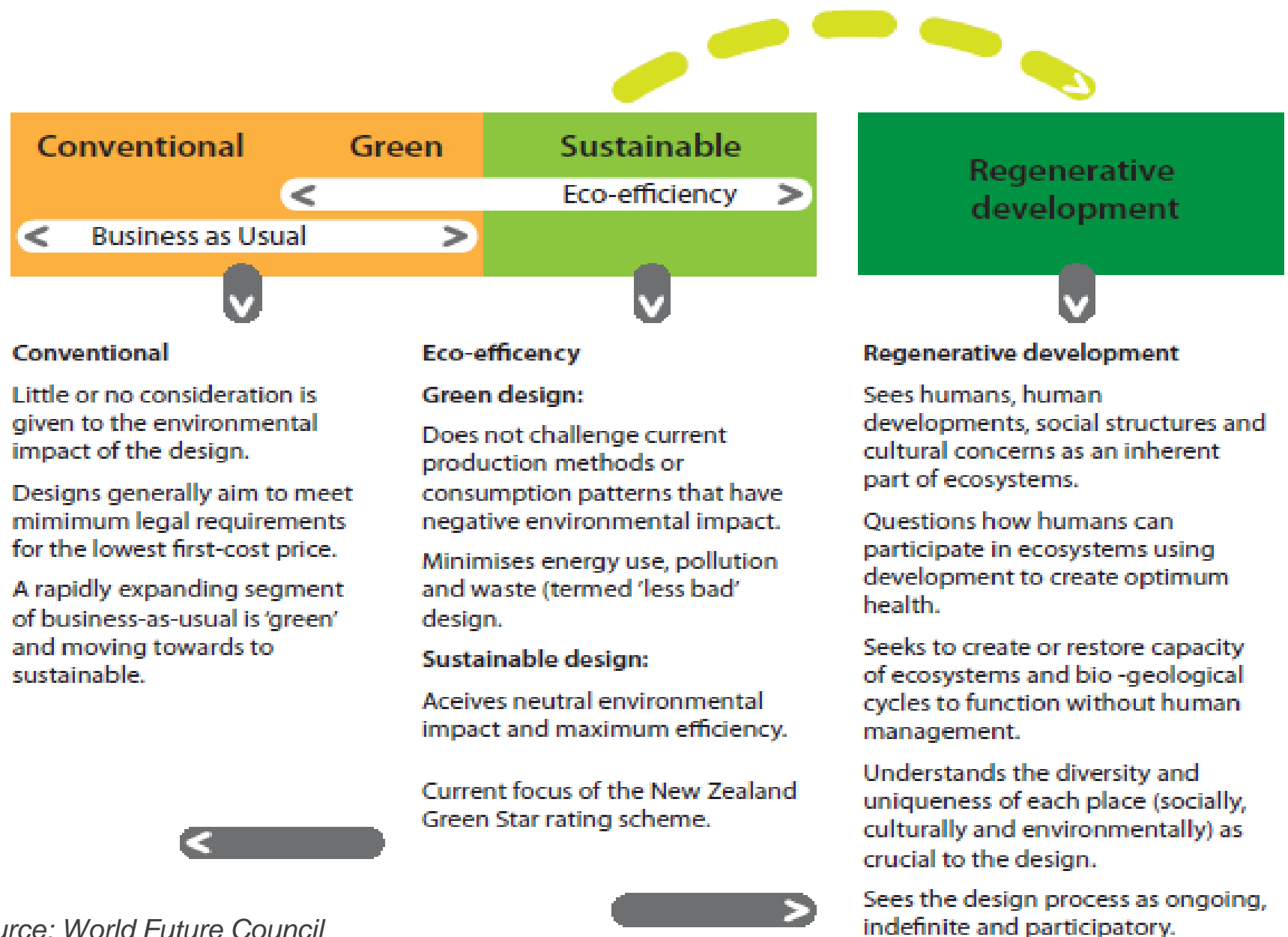
MILAN VERTICAL FOREST

30 ton/year
CO₂ Absorption

19 ton/year
O₂ Production

20,000 sqm
forest





Source: World Future Council



People First – Here's one example

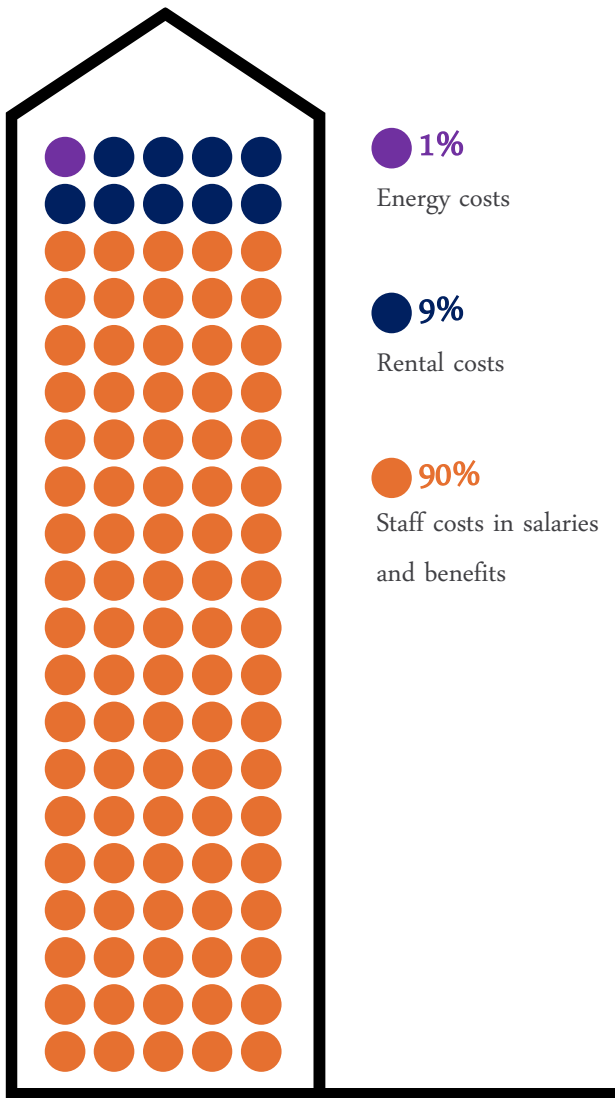
HOW MUCH TIME DO WE ACTUALLY SPEND IN THE OFFICE?

40%



8 hours a day, 5 days a week, it all adds up, we spend over 40% of our working lives inside an office space of some kind. (This is between the ages of 25-40)

The next biggest number is 36% of our lives – which is spent sleeping



10% Variation

A 10% variation applied equally to each cost has a far from equal impact

+/- **0.1%**

Energy Costs

+/- **0.9%**

Rental Costs

+/- **9.0%**

Staff Costs

**No 1 Silo, 6 Star
Design & As Built rated.
Alan Gray have
done a detailed
analysis in 2017
of their
productivity
improvements.**

**“8% improvement
on productivity.”**



EIGHT FEATURES THAT MAKE HEALTHIER AND GREENER OFFICES

BETTER PLACES FOR PEOPLE
PUT WELLBEING AT THE HEART OF YOUR BUILDING



1. INDOOR AIR QUALITY & VENTILATION

Healthy offices have low concentrations of CO₂, VOCs (volatile organic compounds) and other pollutants, as well as high ventilation rates.



101%

WHY?
increase in cognitive scores for workers in a green, well-ventilated office.¹

2. THERMAL COMFORT

Healthy offices have a comfortable temperature range which staff can control.



6%

WHY?
fall in staff performance when offices are too hot and 4% if too cold.²

3. DAYLIGHTING & LIGHTING

Healthy offices have generous access to daylight and self-controlled electrical lighting.



WHY?

46 minutes

more sleep for workers in offices near windows.³

4. NOISE & ACOUSTICS

Healthy offices use materials that reduce noise and provide quiet spaces to work.



66%

WHY?
fall in staff performance as a result of distracting noise.⁴

5. INTERIOR LAYOUT & ACTIVE DESIGN

Healthy offices have a diverse array of workspaces, with ample meeting rooms, quiet zones, and stand-sit desks, promoting active movement within offices.



WHY?

Flexible working helps staff feel more in control of their workload and engenders loyalty.⁵

6. BIOPHILIA & VIEWS

Healthy offices have a wide variety of plant species inside and out as well as views of nature from workspaces.



7-12%

WHY?
improvement in processing time at one call centre when staff have a view of nature.⁶

7. LOOK & FEEL

Healthy offices have colours, textures, and materials that are welcoming, calming and evoke nature.



WHY?

Visual appeal is a major factor in workplace satisfaction.⁷

EMPLOYEE ENGAGEMENT



Healthy offices have employees that are regularly consulted and that feedback is used to drive continuous improvement.⁸

8. LOCATION & ACCESS TO AMENITIES

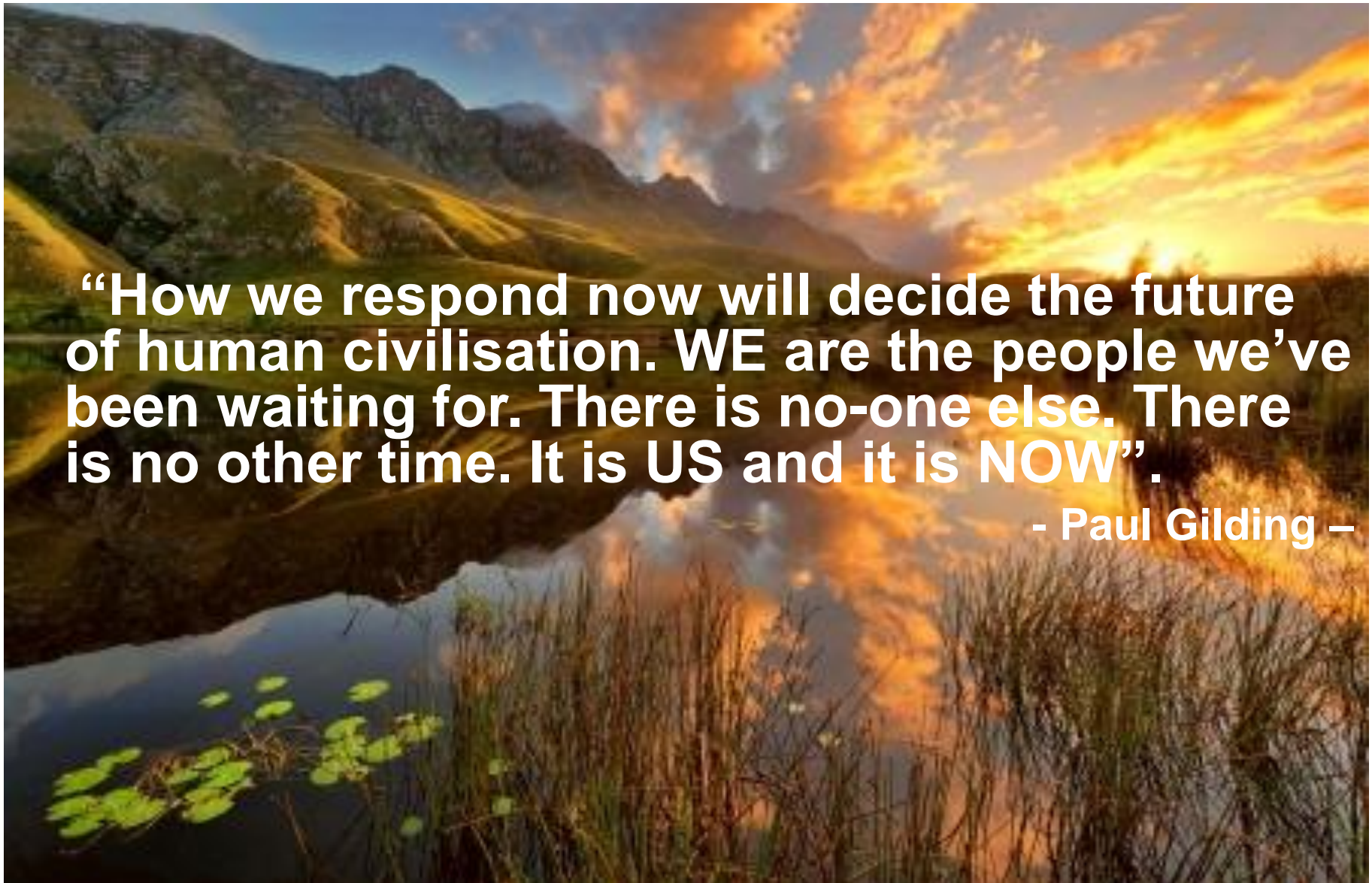
Healthy offices have access to public transport, safe bike routes, parking and showers, and a range of health food choices.



£27m

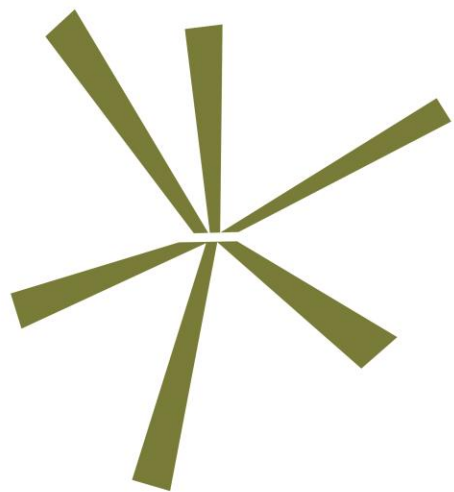
WHY?
savings through cutting absenteeism as a result of Dutch cycle-to-work scheme.⁹





“How we respond now will decide the future of human civilisation. WE are the people we’ve been waiting for. There is no-one else. There is no other time. It is US and it is NOW”.

- Paul Gilding -



**GREEN
BUILDING
COUNCIL**
SOUTH AFRICA