

CLIMATE LITERACY AND ACTION IN ARCHITECTURE EDUCATION

AASA AGM | 29-09-2021

PROFESSOR CHRIS KNAPP

DR LIZ BROGDEN

// ON BEHALF OF
ASSOCIATE PROFESSOR PHILIP OLDFIELD
ASSOCIATE PROFESSOR DAGMAR REINHARDT
PROFESSOR NAOMI STEAD
DR NAIMA IFTIKHAR

OVERVIEW

PROFESSOR CHRIS KNAPP, BOND UNIVERSITY

ASSOCIATE PROFESSOR PHILIP OLDFIELD, THE UNIVERSITY OF NEW SOUTH WALES

ASSOCIATE PROFESSOR DAGMAR REINHARDT, THE UNIVERSITY OF SYDNEY

PROFESSOR NAOMI STEAD, MONASH UNIVERSITY

PHASE 1

SCOPING STUDY

PRELIMINARY DATA

PHASE 2

EXPANDED TEAM:

DR LIZ BROGDEN, QUEENSLAND UNIVERSITY OF TECHNOLOGY

DR NAIMA IFTIKHAR, QUEENSLAND UNIVERSITY OF TECHNOLOGY

PHASE 3

IN DEVELOPMENT:

CO-PARTNERSHIP WITH AASA & AUSTRALIAN INSTITUTE OF ARCHITECTS

2019

FORMATION OF AASA
CLIMATE ACTION WORKING GROUP

2020

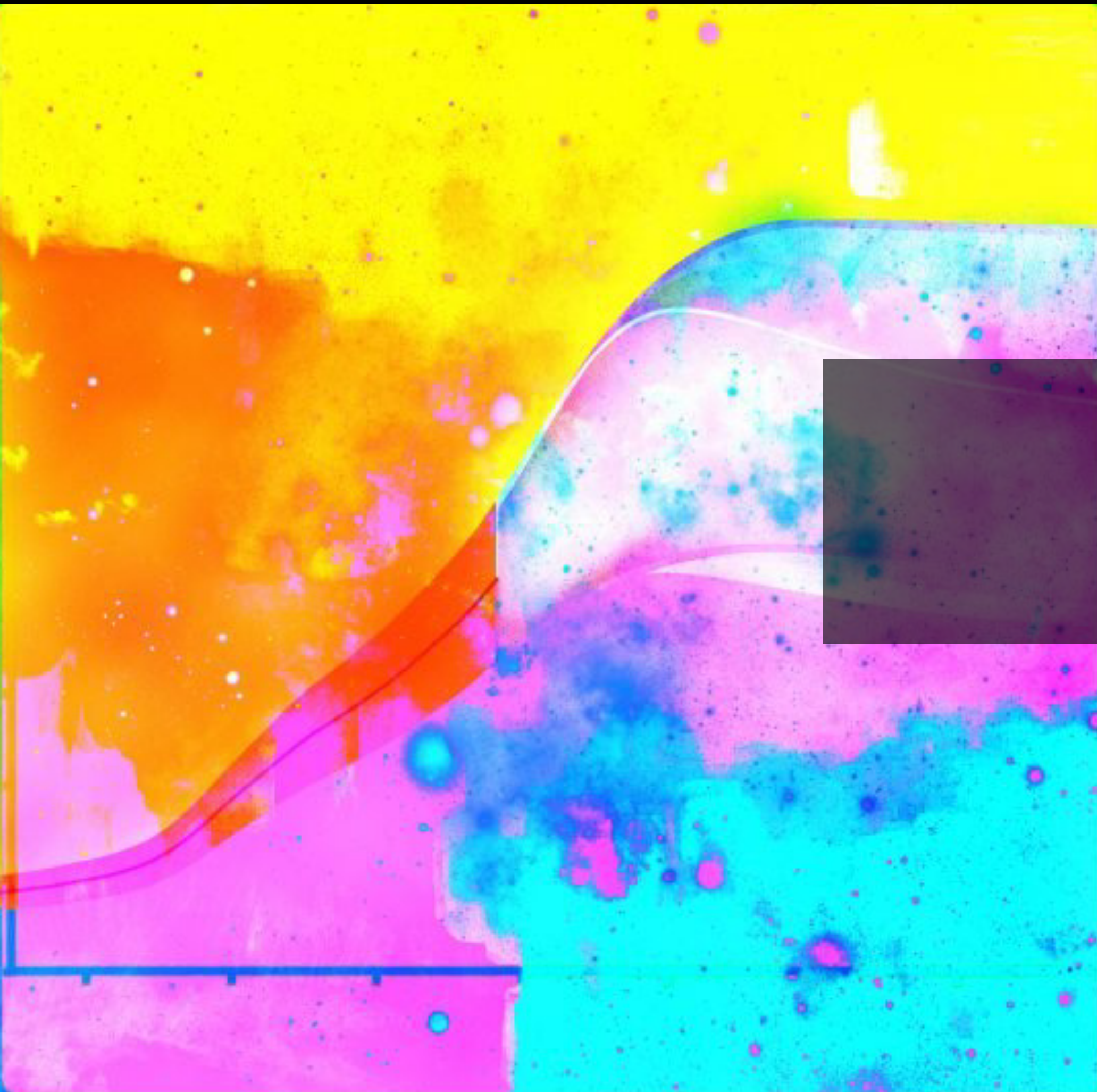
PILOT SURVEY LAUNCH, SEM 2, 2020

2021

MAIN SURVEY LAUNCH, SEM 2, 2021
AASA WEBINAR SERIES, NOVEMBER

2022

TBC - CURRICULUM / PEDAGOGY
FRAMEWORK DEVELOPMENT



PHASE 1
PILOT STUDY

PILOT SURVEY 2020

14

HEADS OF
ACADEMIC UNITS

1

COURSE
DIRECTOR

5

STUDENTS

? VALUES AND BELIEFS

VIEWS ON HOW PROGRAMS ENGAGE WITH THE ISSUE OF CLIMATE CHANGE.
WHO IS ENGAGED? TO WHAT EXTENT?
ARCHITECTURE'S ROLE IN CLIMATE CHANGE.

? UNIVERSITY ACTIVITY

PEDAGOGY //
CURRICULUM //
RESEARCH //

? WHAT IS NEEDED?

WHAT INFORMATION IS SOURCED? WHERE FROM?
VALUABLE WEBINAR TOPICS



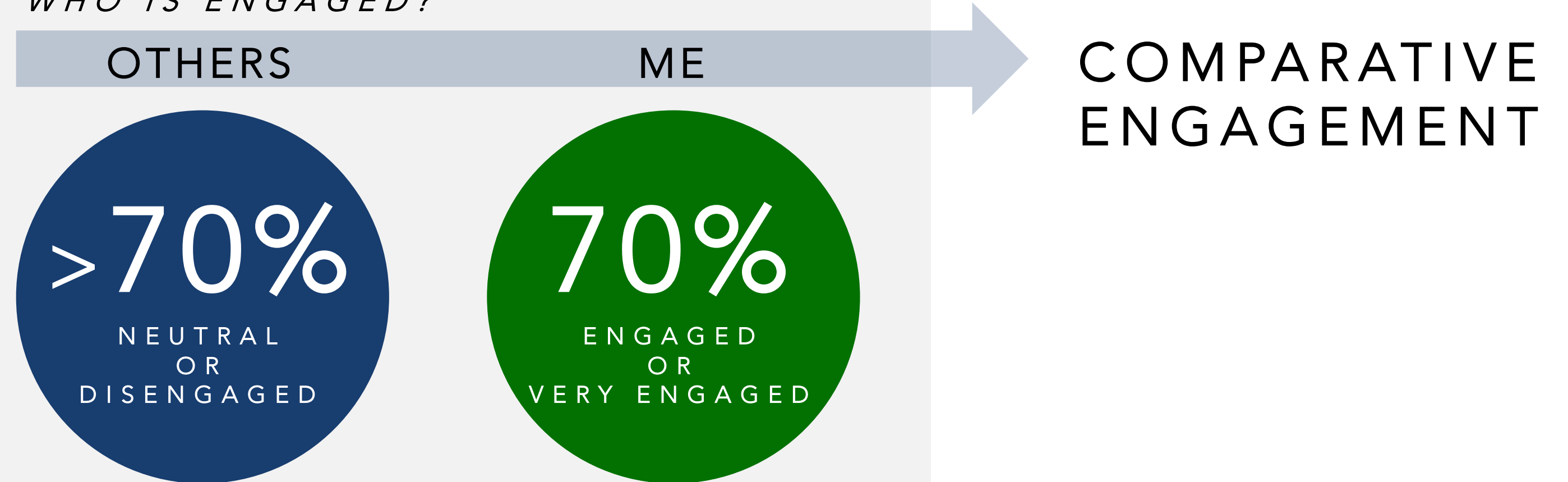
HOW ENGAGED IS YOUR PROGRAM WITH CLIMATE CHANGE?



HOW ENGAGED IS YOUR PROGRAM WITH CLIMATE CHANGE?



WHO IS ENGAGED?

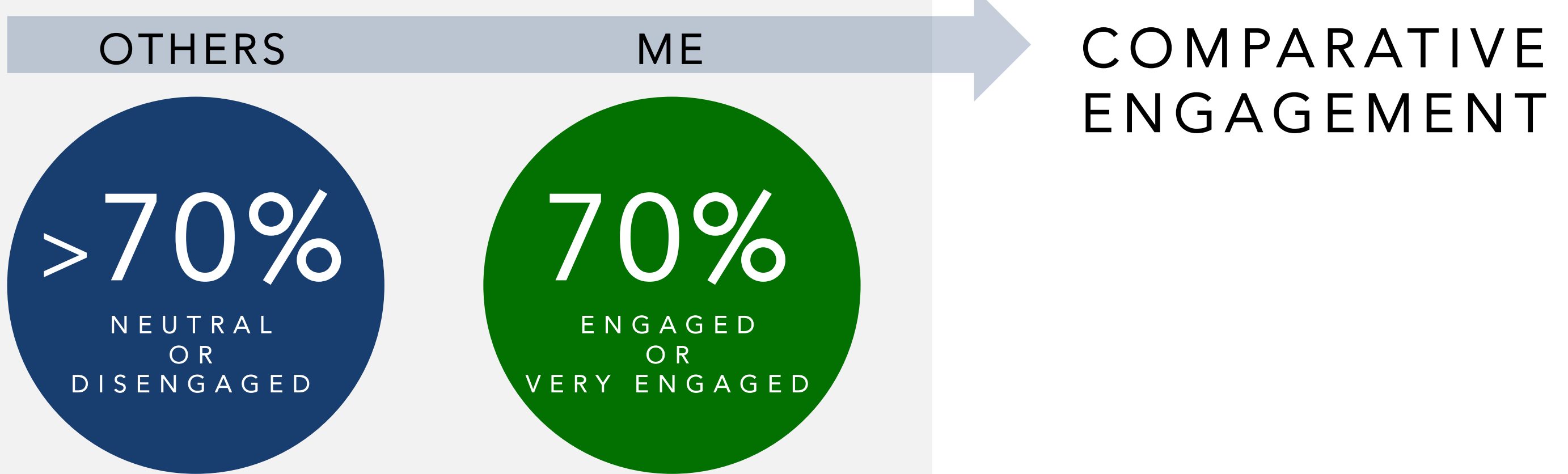


HOW ENGAGED IS YOUR PROGRAM WITH CLIMATE CHANGE?



90%
AGREE OR STRONGLY AGREE
THAT ARCHITECTS CAN BE PART OF THE SOLUTION TO CLIMATE CHANGE

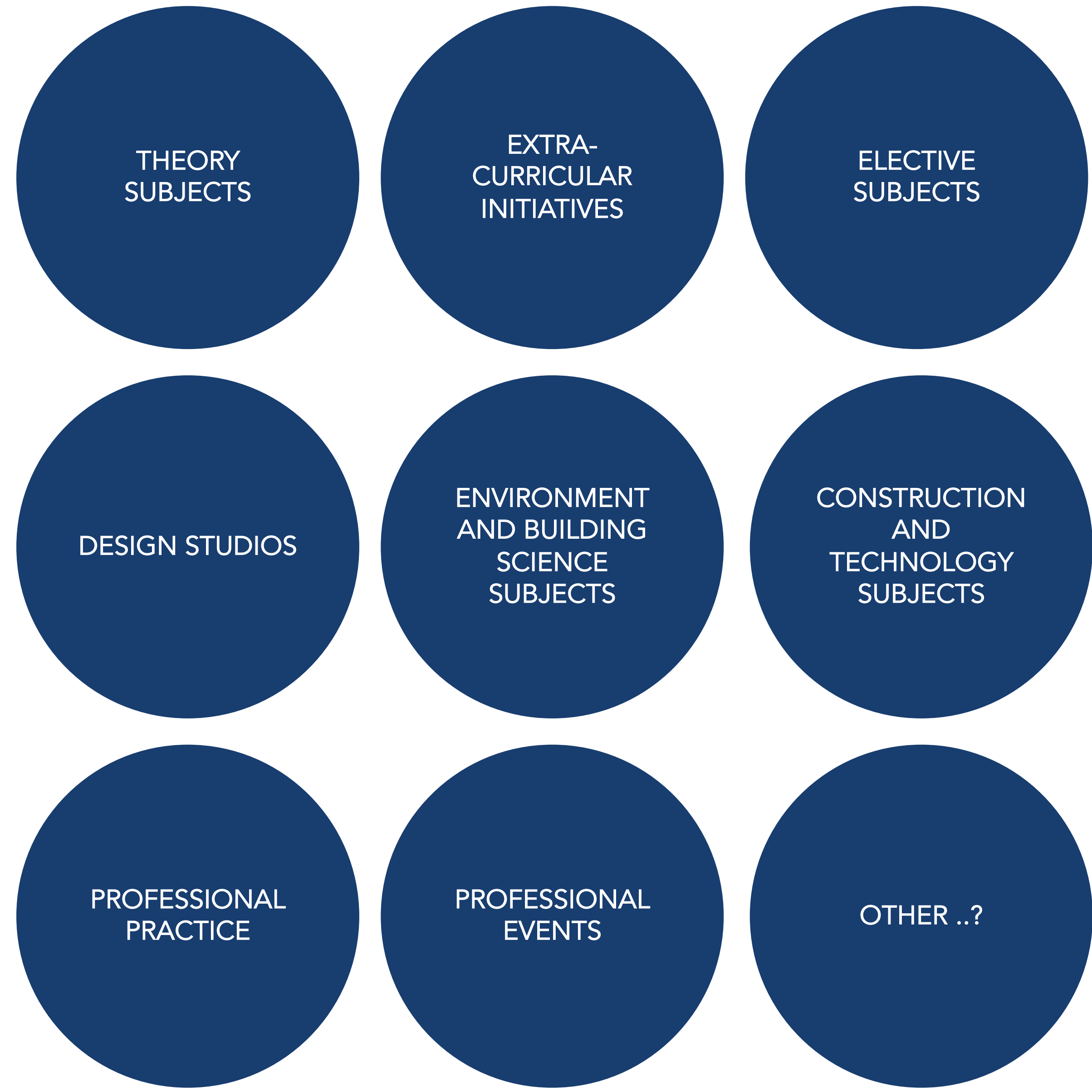
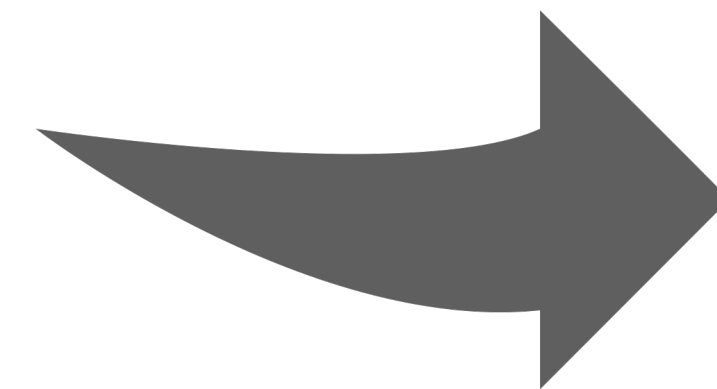
WHO IS ENGAGED?





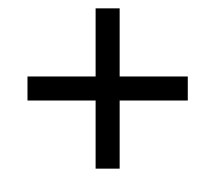
40%
WOULD BENEFIT
FROM SUPPORT

BUT HOW ARE ARCHITECTURE
SCHOOLS TEACHING ABOUT
CLIMATE CHANGE
AND SUSTAINABILITY?





RESEARCH

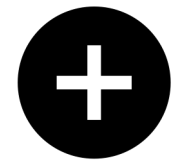


THE PhD PIPELINE

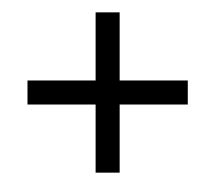
STRONG NUMBERS OF POSTGRADUATE STUDENTS ENGAGED IN
SUSTAINABILITY / CLIMATE CHANGE RELATED RESEARCH ACTIVITY



ARE THERE COMMON TRENDS IN THE TOPICS /
METHODS EXPLORED?

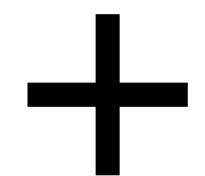


RESEARCH



THE PhD PIPELINE

STRONG NUMBERS OF POSTGRADUATE STUDENTS ENGAGED IN SUSTAINABILITY / CLIMATE CHANGE RELATED RESEARCH ACTIVITY



COLLABORATIVE RESEARCH PROJECTS

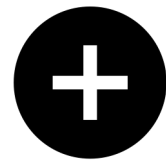
THIS AREA PRESENTS OPPORTUNITIES FOR CROSS-INSTITUTIONAL AND CROSS-SECTORAL PARTNERSHIP



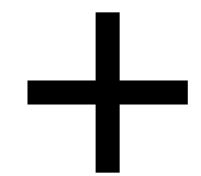
ARE THERE COMMON TRENDS IN THE TOPICS / METHODS EXPLORED?



WITH WHICH PARTNERS / INDUSTRIES ARE ARCHITECTS ENGAGING MOST FOR RESEARCH IMPACT IN THIS AREA?

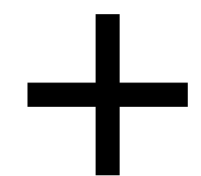


RESEARCH



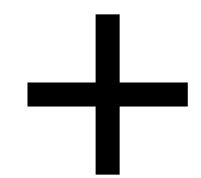
THE PhD PIPELINE

STRONG NUMBERS OF POSTGRADUATE STUDENTS ENGAGED IN SUSTAINABILITY / CLIMATE CHANGE RELATED RESEARCH ACTIVITY



COLLABORATIVE RESEARCH PROJECTS

THIS AREA PRESENTS OPPORTUNITIES FOR CROSS-INSTITUTIONAL AND CROSS-SECTORAL PARTNERSHIP



RESEARCH FUNDING SOURCES

THIS AREA ATTRACTS A VARIETY OF FUNDING SOURCES – BOTH INTERNAL AND EXTERNAL



ARE THERE COMMON TRENDS IN THE TOPICS / METHODS EXPLORED?



WITH WHICH PARTNERS / INDUSTRIES ARE ARCHITECTS ENGAGING MOST FOR RESEARCH IMPACT IN THIS AREA?



CATEGORY? TYPE? AMOUNT?
WHAT ARE THE PATTERNS?



BACKGROUND

SITUATING THE STUDY



THE RISKS TO AUSTRALIA OF A 3°C WARMER WORLD

AUSTRALIAN ACADEMY OF SCIENCE
MARCH 2021



State of the
Climate
2020




Australian Government
Bureau of Meteorology




RISING TO THE CHALLENGE: ADDRESSING CLIMATE AND SECURITY IN OUR REGION



CURRENT CONTEXT

- + FEDERAL, STATE AND LOCAL GOVT SHIFTS
- + NCC REVIEW
- + ABCB GLOBAL RESILIENCE DIALOGUE
- + CSIRO FUTURE CLIMATE SCENARIO DATA
- + THE INSTITUTE COMMITMENT TO ZERO CARBON
- + NSCA REVIEW





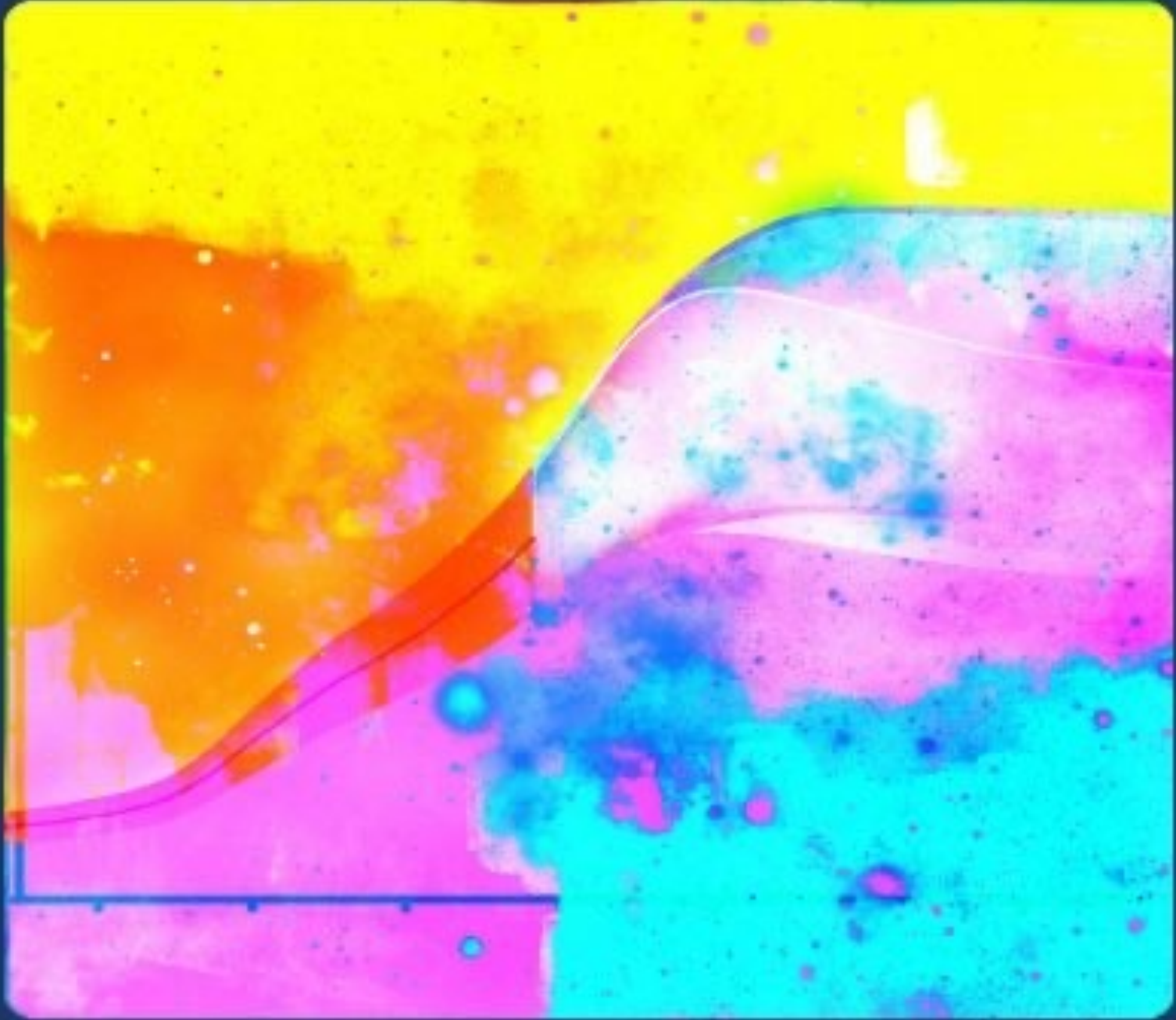
“Art makes the science more accessible, and science makes the art more meaningful. Together they communicate the facts about climate change in a unique and powerful way.”

Alisa Singer


ipcc
INTERGOVERNMENTAL PANEL ON climate change

Global Warming of 1.5°C

An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty




WG I WG II WG III





ipcc
INTERGOVERNMENTAL PANEL ON climate change

Climate Change 2021 The Physical Science Basis



Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change



A3.5

"HUMAN ACTIVITY HAS LIKELY INCREASED THE CHANCE
OF COMPOUND EXTREME EVENTS."

— IPCC AP6 REPORT, 2021

CLIMATE CHANGE = MORE HAZARDS

CLIMATE CHANGE = MORE HAZARDS

HAZARDS + VULNERABILTIES = DISASTERS

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HAZARDS + VULNERABILITIES = DISASTERS

RESILIENT DESIGN = ~~DISASTERS~~



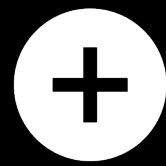
CLIMATE CHANGE = MORE HAZARDS

HAZARDS + VULNERABILTIES = DISASTERS

RESILIENT DESIGN = ~~DISASTERS~~

“EARTHQUAKES DON'T KILL PEOPLE,
BUILDINGS DO.”

— SHIGERU BAN



"A GENERATION DISRUPTED"

REACH OUT.COM

Topics | Explore articles | Join the Community | Tools and apps | NextStep

Home > Anxiety

How to cope with anxiety about climate change

NEWS

Home | Coronavirus | Climate | Video | World | Asia | UK | Business | Tech | Science | S

World | Africa | Australia | Europe | Latin America | Middle East | US & Canada

Climate change: Young people very worried - survey

By Roger Harrabin
BBC environment analyst

14 September

Climate change

COMMENT | VOLUME 4, ISSUE 10, E435-E436, OCTOBER 01, 2020

PDF [54 KB] | Save | Share | Reprints | Request

Climate anxiety in young people: a call to action

Judy Wu • Gaelen Snell • Hasina Samji

Open Access • Published: September 09, 2020 • DOI: [https://doi.org/10.1016/S2542-5196\(20\)30223-0](https://doi.org/10.1016/S2542-5196(20)30223-0)

CLIMATE

Nearly half of young people worldwide say climate change anxiety is affecting their daily life

PUBLISHED TUE, SEP 14 2021-1:09 AM EDT | UPDATED TUE, SEP 14 2021-7:17 AM EDT

Vicky McKeever
@VMCKEEVERCNBC

SHARE f t in e

24 February 2021

SHARE THIS t f G+ p

Climate Anxiety Highlighted at Youth Environment Assembly

nature

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NEWS | 22 September 2021

Young people's climate anxiety revealed in landmark survey

Children worldwide worry about the future and feel let down by governments, a huge study on attitudes towards climate change has found.

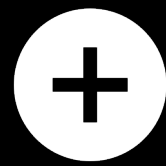
'Overwhelming and terrifying': the rise of climate anxiety

Experts concerned young people's mental health particularly hit by reality of the climate crisis



▲ Clover Hogan grew up in Australia and said she was heartbroken when she heard about the number of animals killed by recent bushfires. Photograph: Jill Mead/The Guardian

Youth participants uniformly said climate change has affected their mental health.



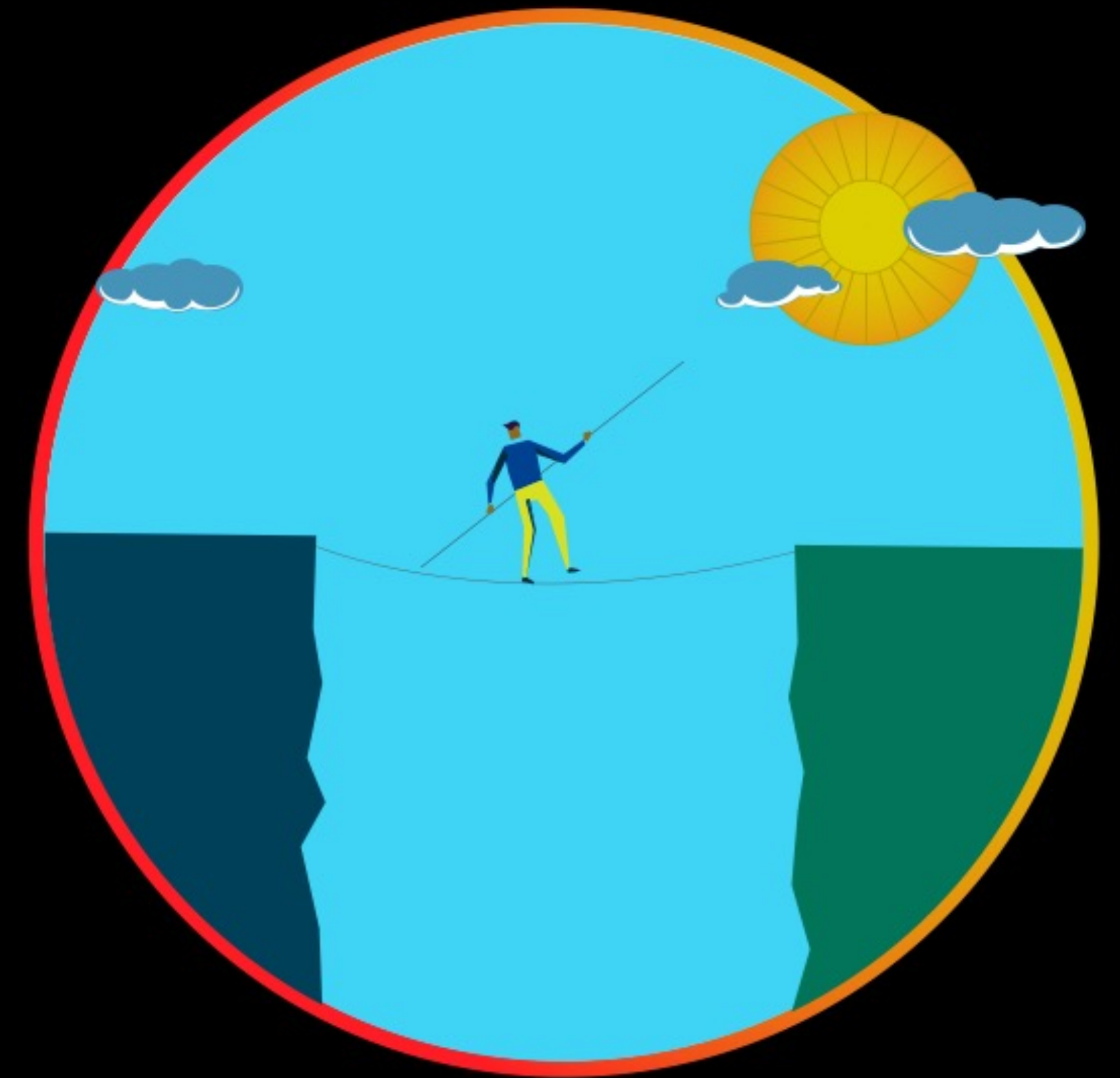
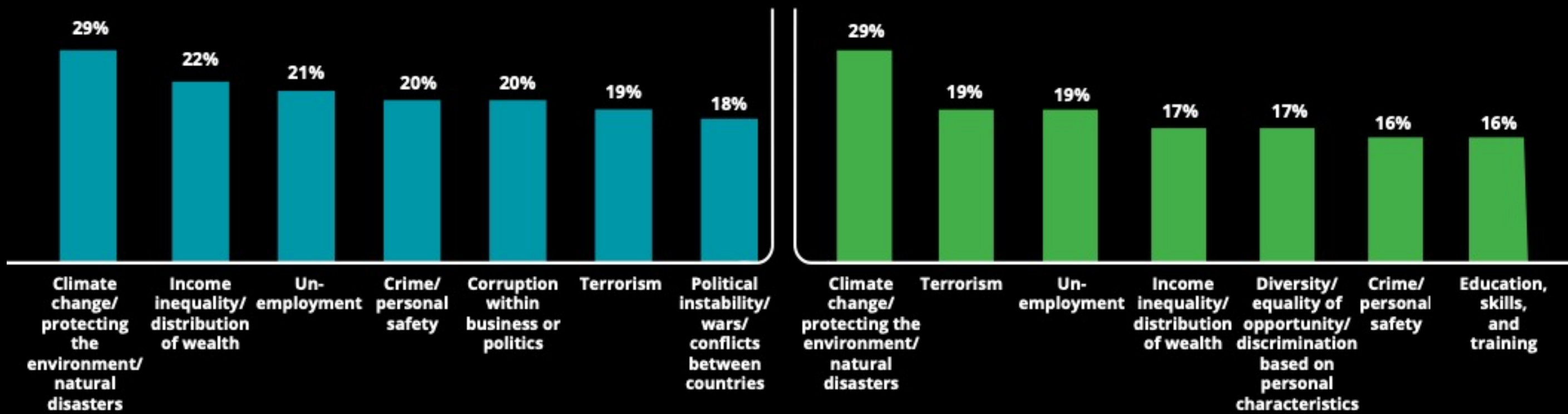
" A GENERATION DISRUPTED "

THE DELOITTE GLOBAL MILLENNIAL SURVEY (2019)

- 13,000+ MILLENNIALS & 3,000+ GEN Z FROM 42 COUNTRIES.
- CLIMATE / ENVIRONMENT IS BOTH GENERATIONS' TOP CONCERN.

● Millennials
● Gen Zs

Percent personally concerned about:





"A GENERATION DISRUPTED"

• 13,000+ MILLENNIALS & 3,000+ GEN Z FROM 42 COUNTRIES.

• CLIMATE / ENVIRONMENT IS

THE WORLD UNIVERSITY RANKINGS

PROFESSIONAL CAMPUS JOBS EVENTS RANKINGS STUDENT

Sustainability 'more important than location' for mobile students

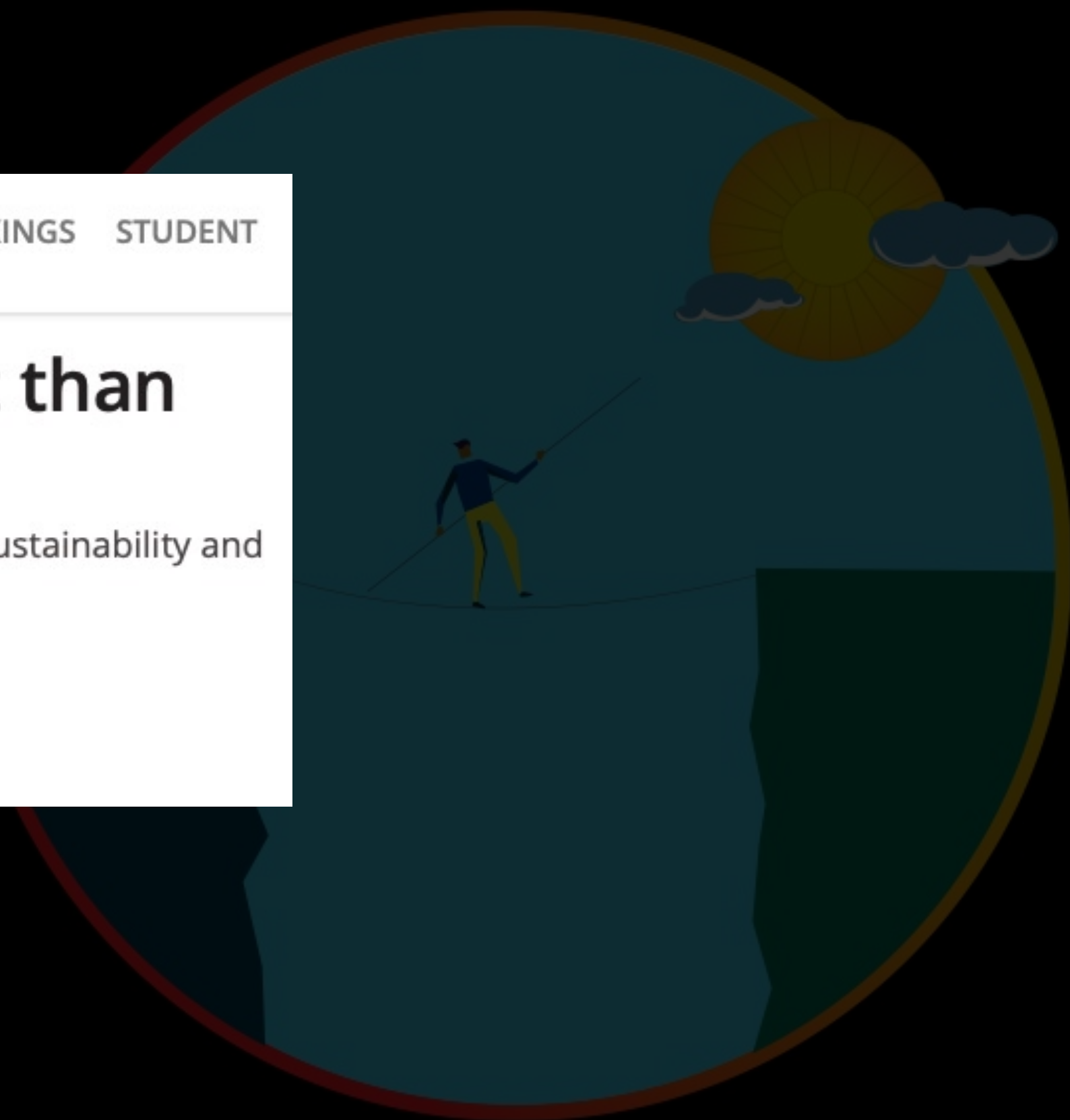
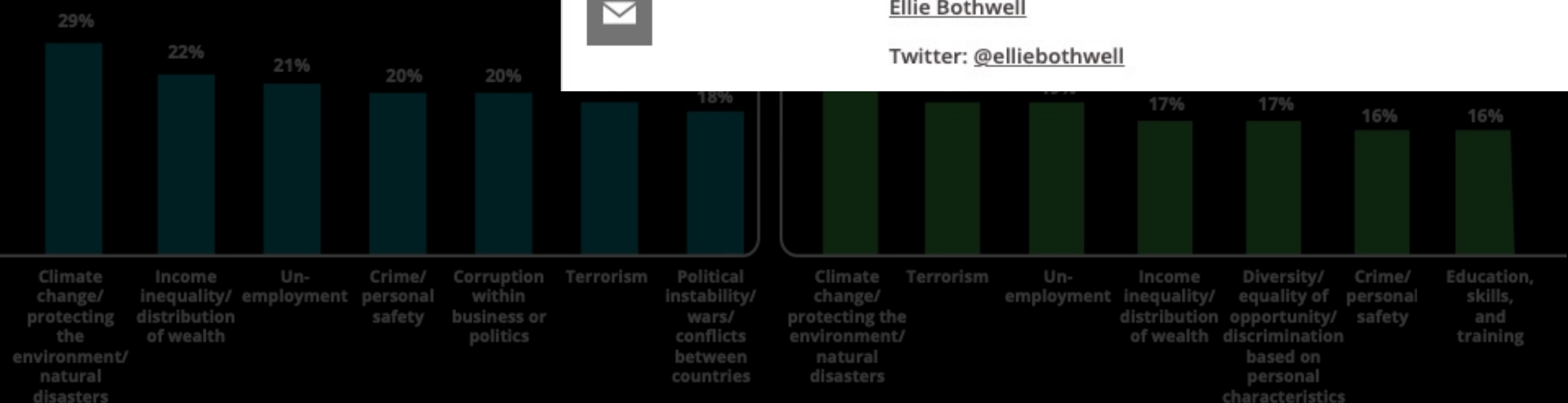
THE survey finds applicants are just as likely to rate university sustainability and graduate employment prospects as top priorities

April 16, 2021

Ellie Bothwell

Twitter: @elliebothwell

Percent personally concerned about:





CURRENT THEORY

LITERATURE REVIEW

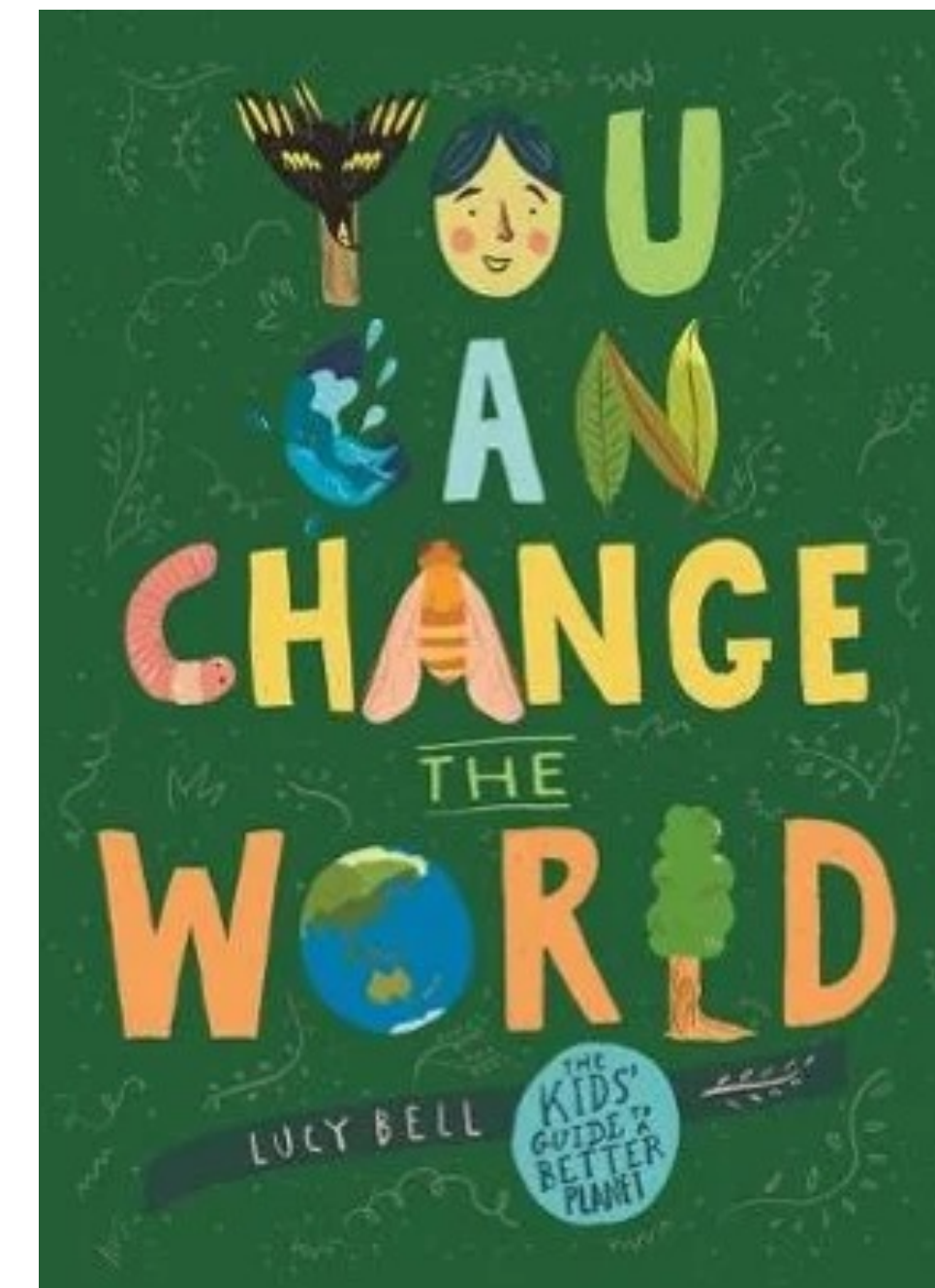
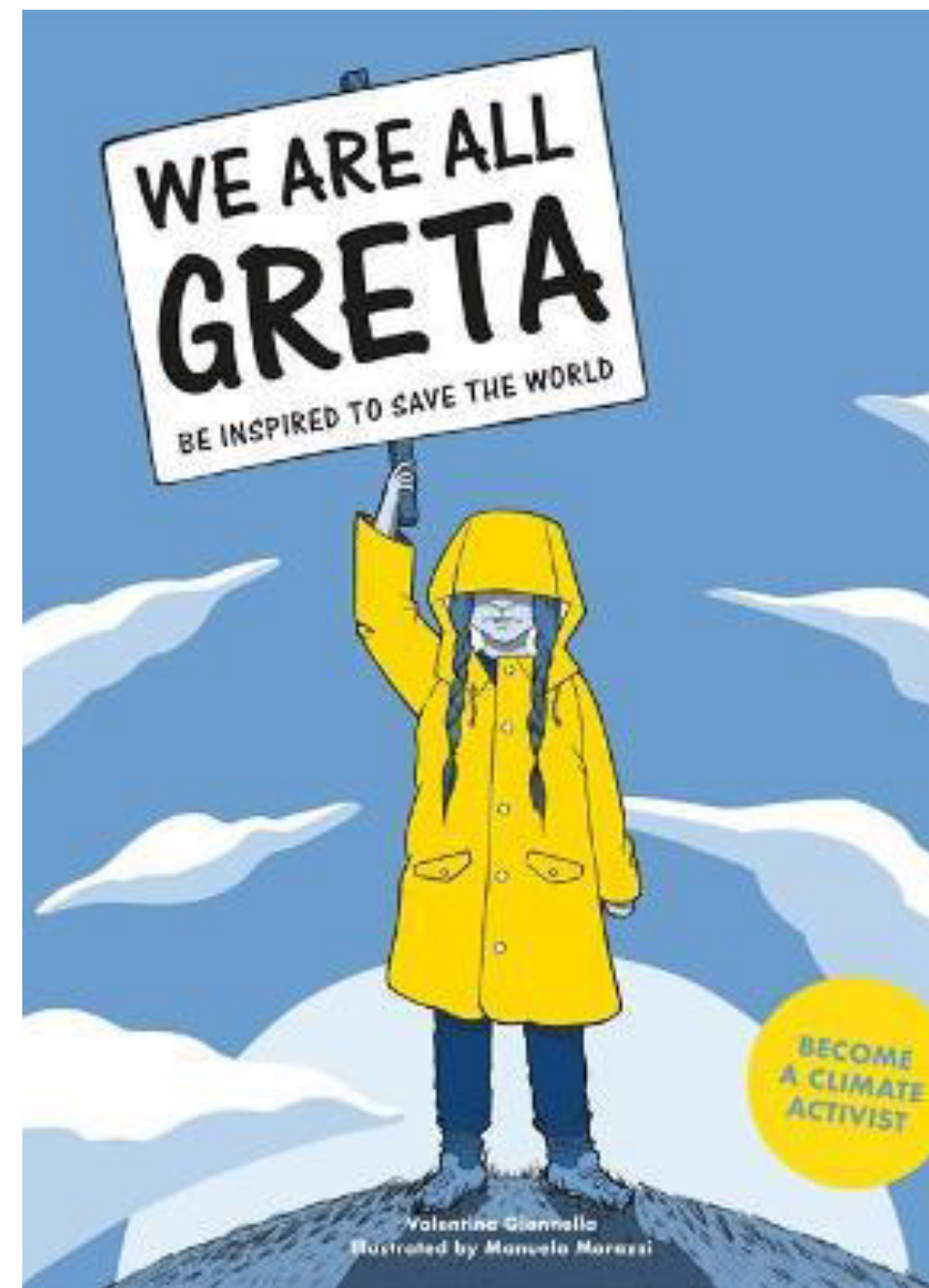
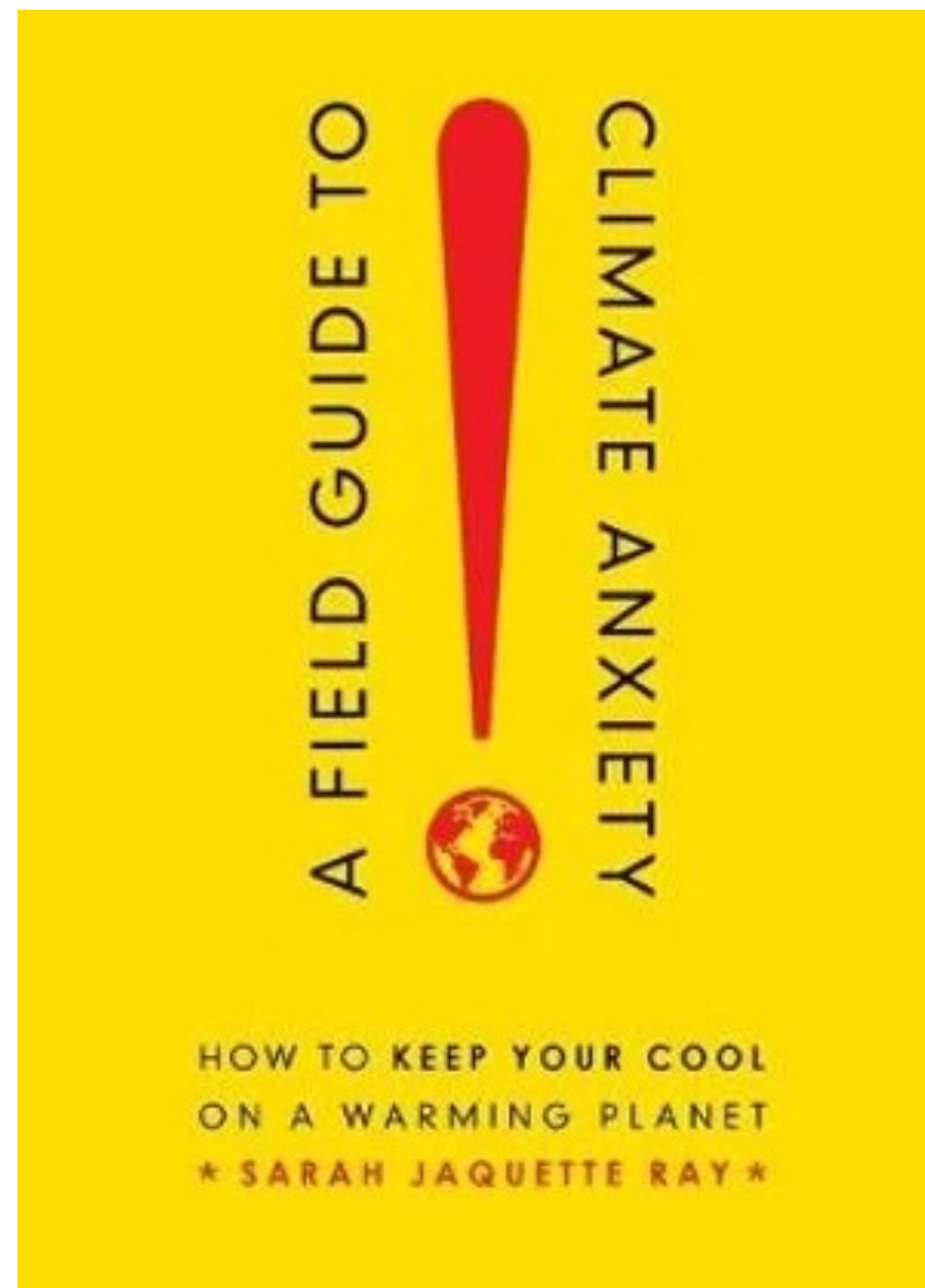
THE PROBLEM

- CLIMATE CHANGE IS DISTORTED BY MAINSTREAM MEDIA.
- MENTAL HEALTH MUST BE A CONSIDERATION IN “CRISIS SUBJECTS”
- EDUCATORS NEED TO FIRST ADDRESS THEIR OWN EMOTIONAL REPOSSES TO CLIMATE CHANGE.
- NOT ONLY ABOUT CURRICULUM CONTENT BUT PEDAGOGICAL APPROACHES THAT CONSIDER THE AFFECTIVE DIMENSION
- MATERIAL SHOULD FOSTER EMPOWERED DECISION-MAKING, ENGAGED CITIZENSHIP AND COLLECTIVE ACTION.



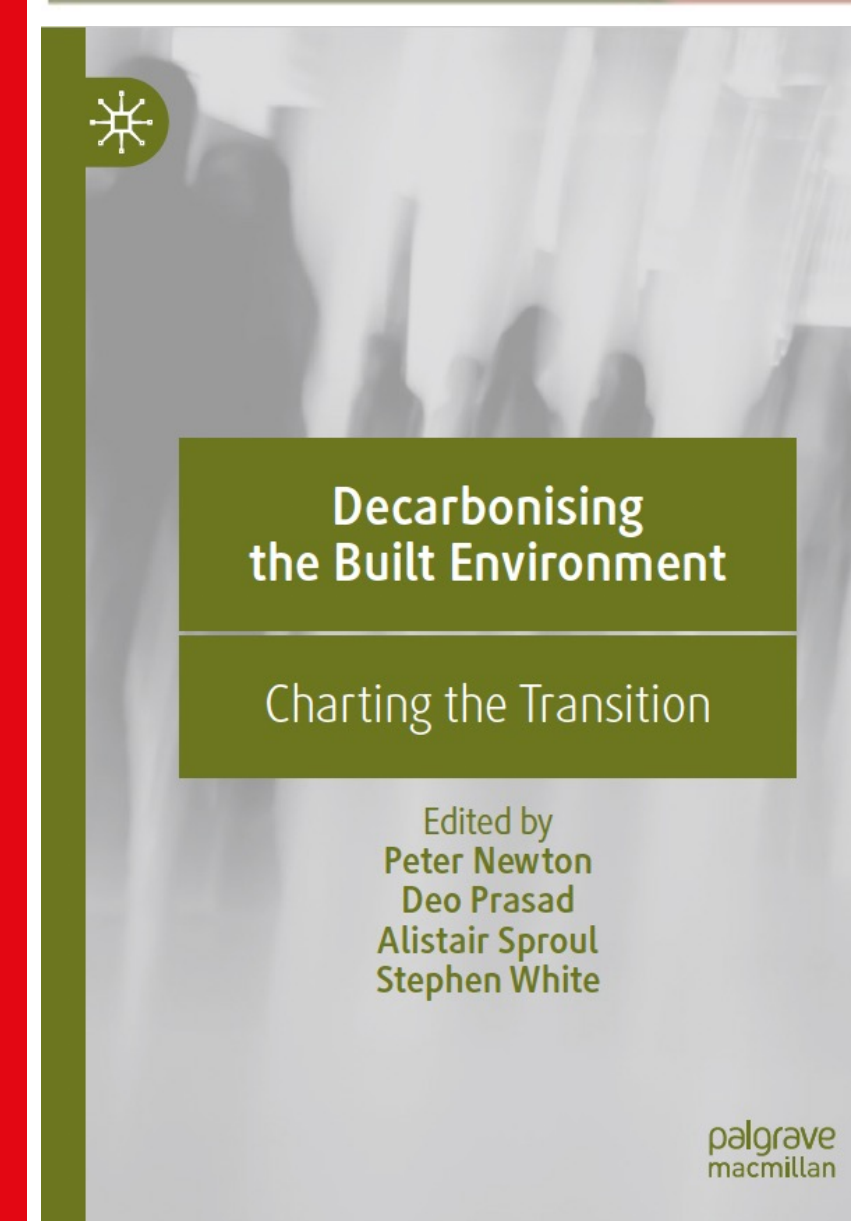
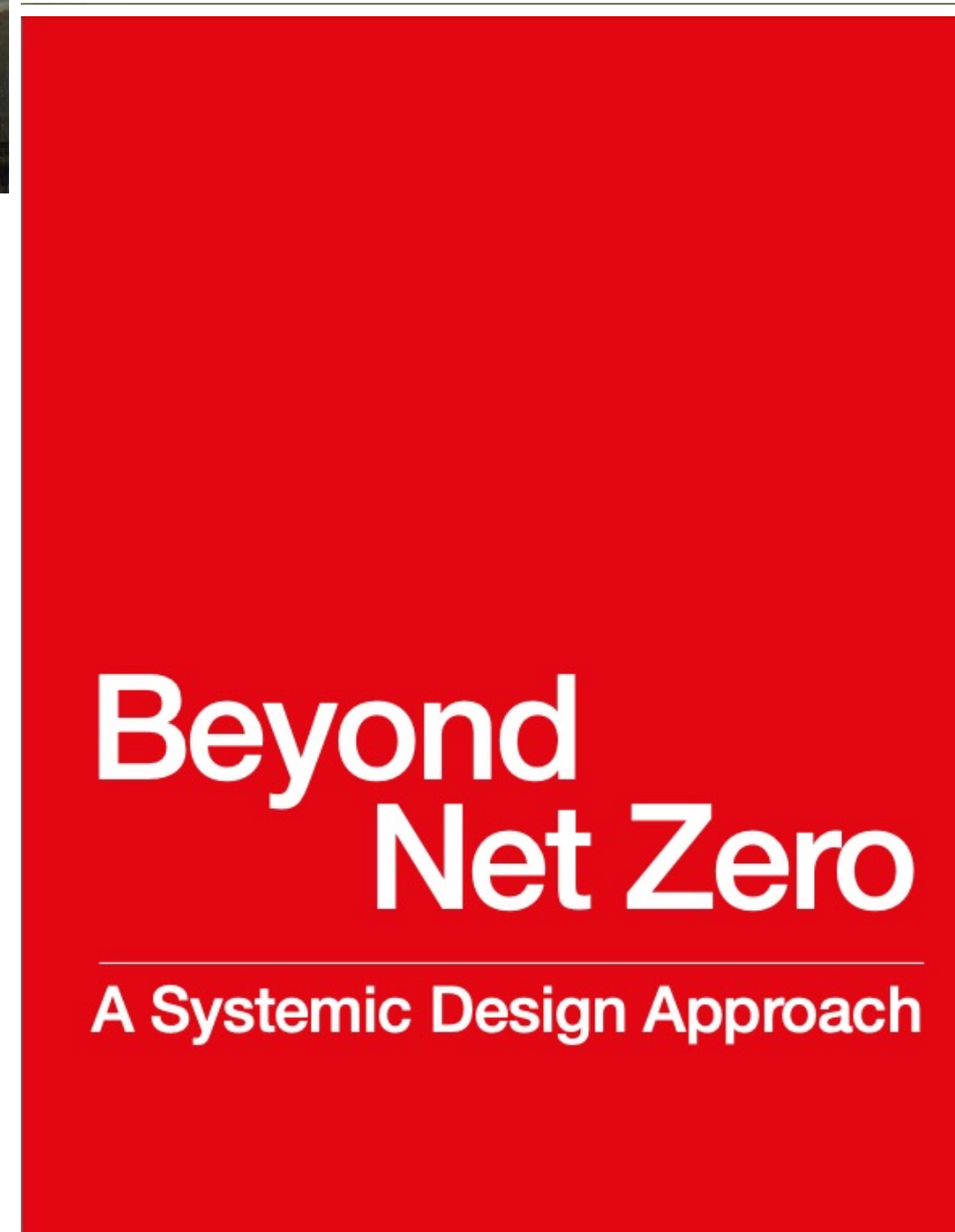
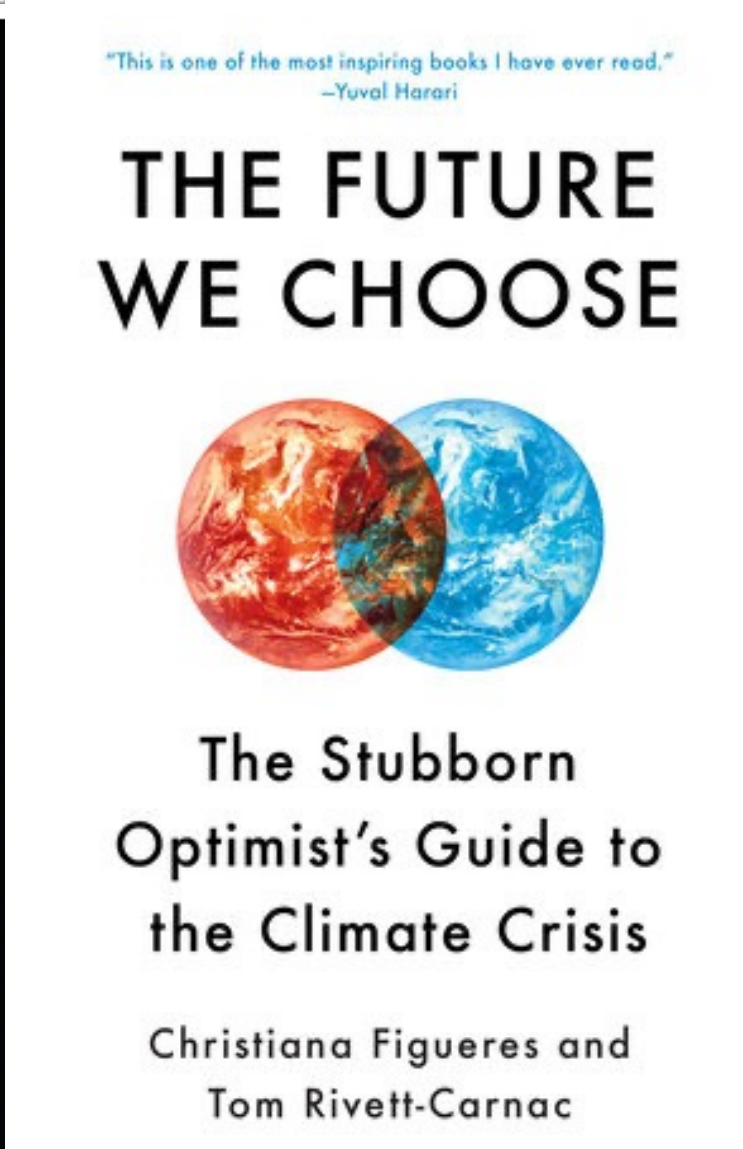
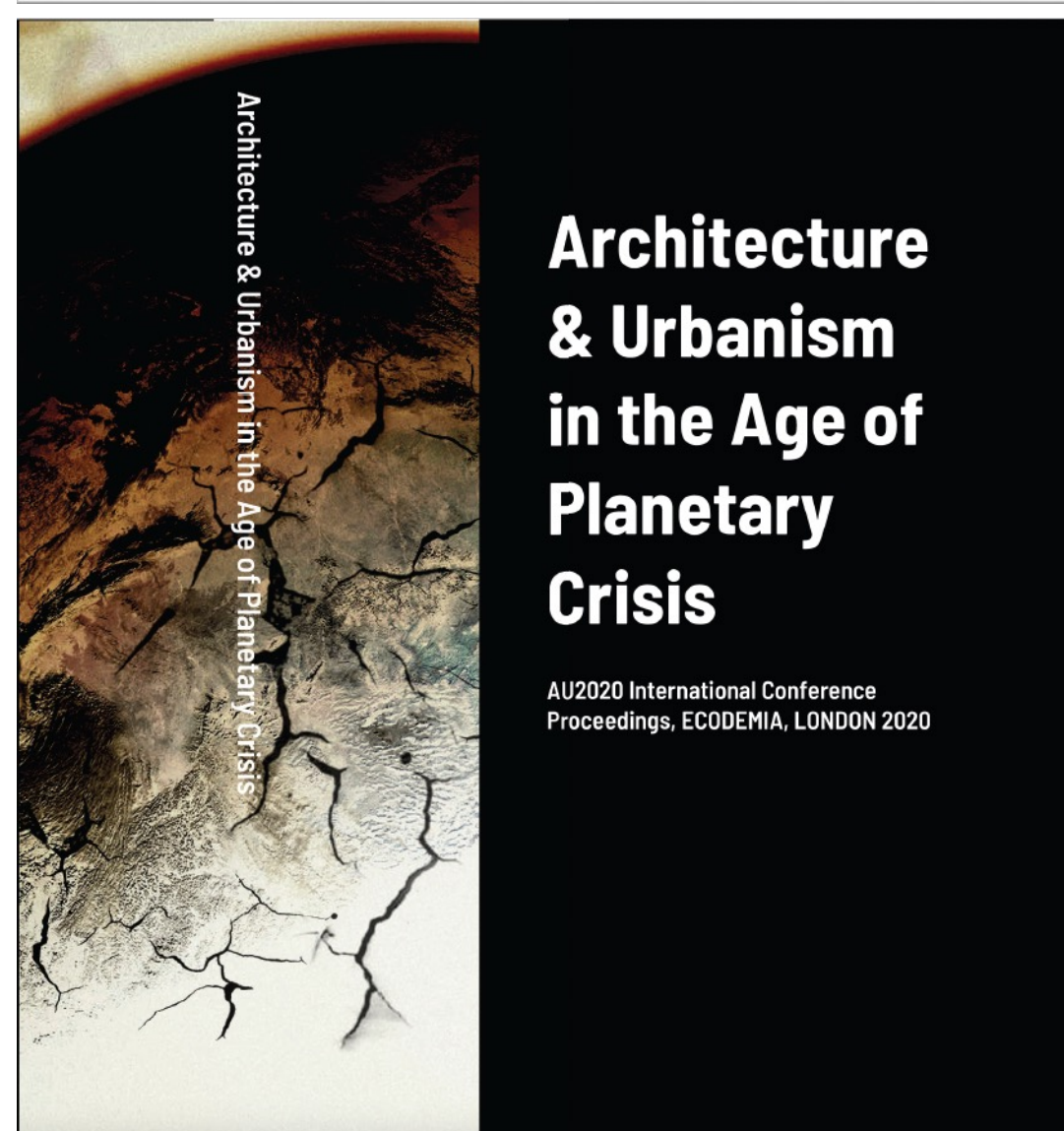
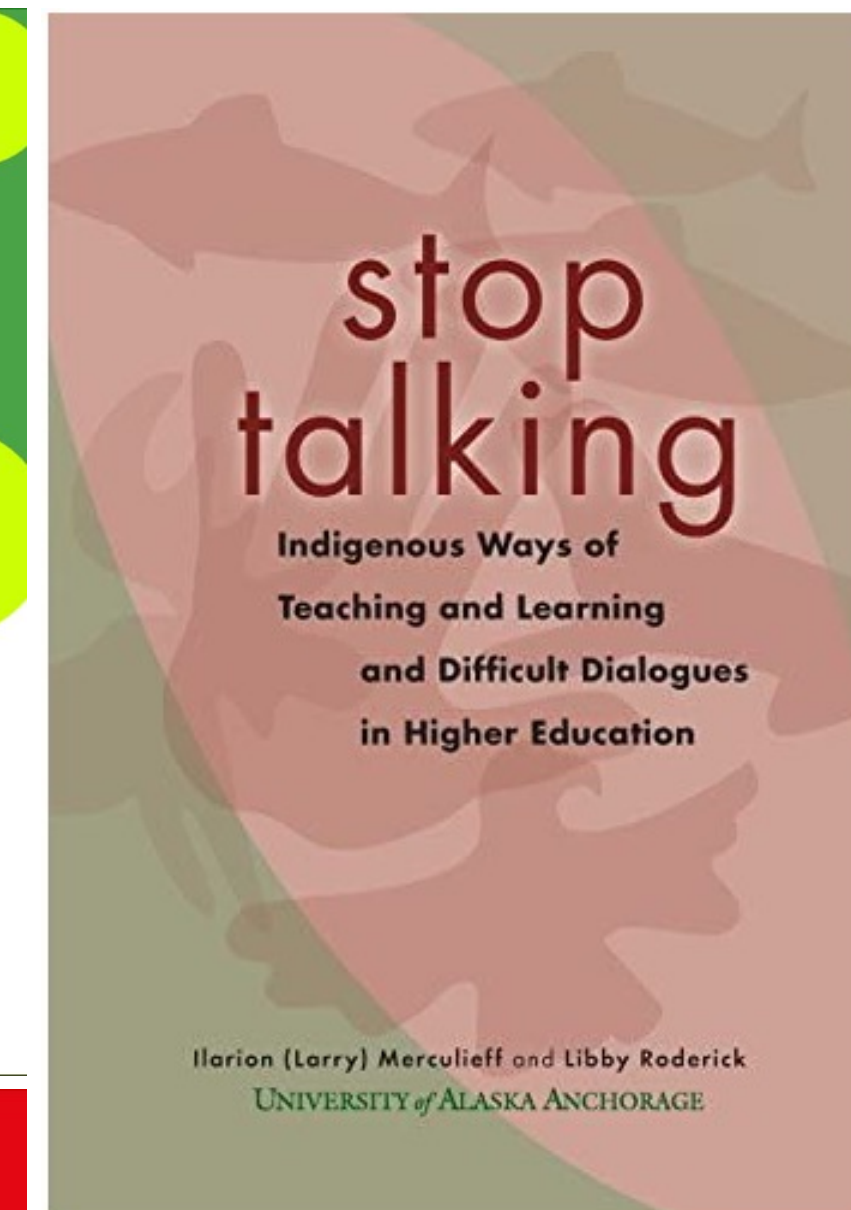
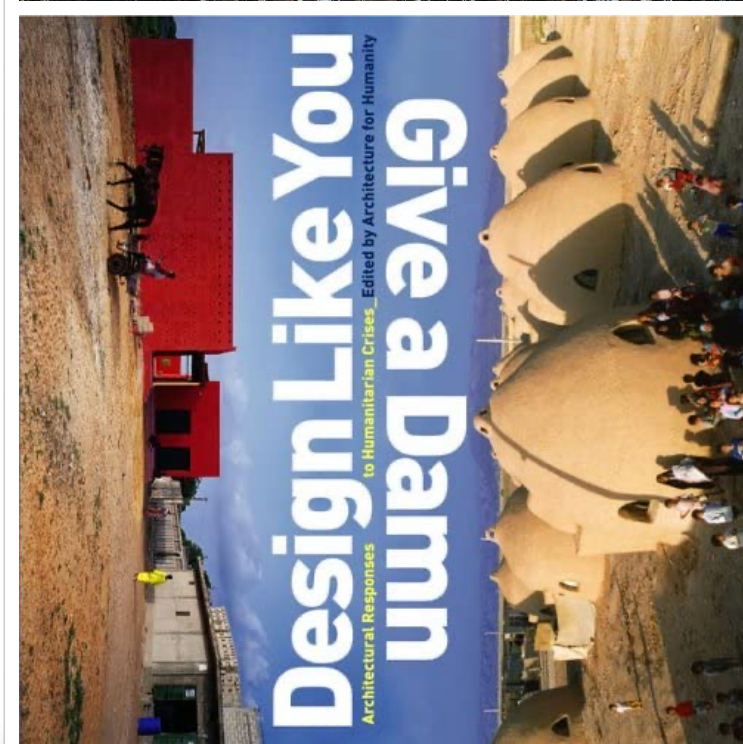
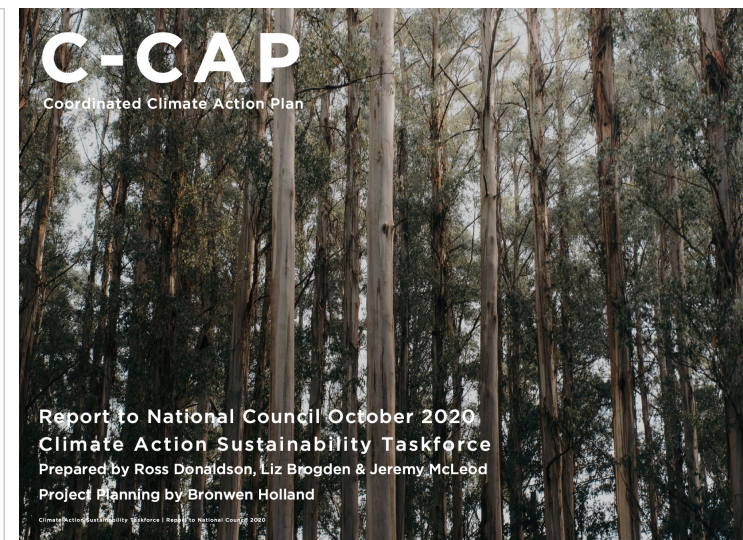
THE SOLUTION

WHAT DOES THE RESEARCH SAY?



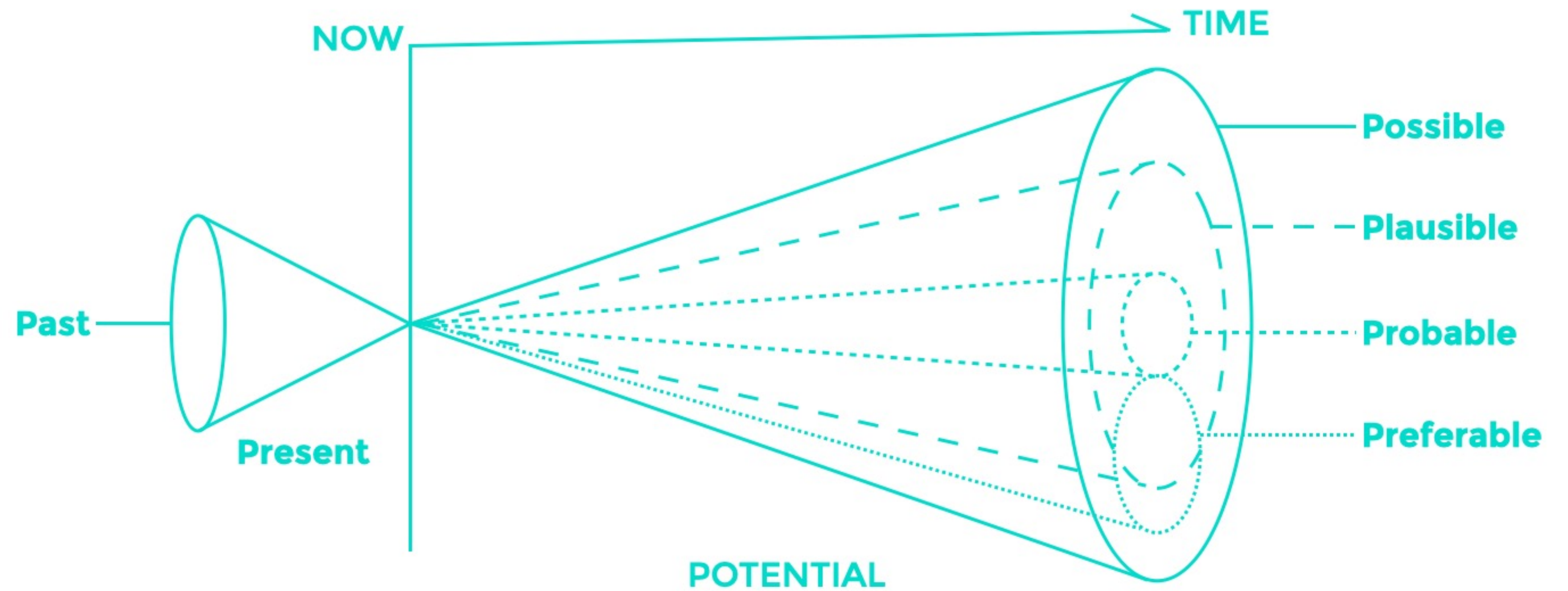


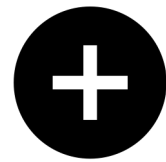
WE NEED RESOURCES TO BUILD CONFIDENCE



- BACKCASTING
- SPECULATIVE DESIGN
- DESIGN NARRATIVES
- ALTERNATIVE FUTURES
- QUESTIONING DOMINANT NARRATIVES

THE FUTURES CONE





WE NEED TO BE COLLABORATIVE ... AND INTERDISCIPLINARY

SYSTEM THINKING

- Seeing how everything is connected and interdependent
- Finding the root of the problem
- Bringing together marginalised voices and new perspectives, ensuring that all stakeholders - human and natural - are involved
- Holding complexity and expanding the brief
- Working at different levels
- Connecting to and learning from nature

LEADING AND STORYTELLING

- Encourage people to think more broadly and more hopefully
- Develop wider concepts of value and measure and demonstrate them
- Create stories about why these issues are important and relevant to the work and then to gain buy-in from all levels

DESIGNING AND MAKING

- Design products, places and services that make it easy and desirable to live sustainably - that are circular, regenerative and learn from nature
- Designing policies, clear frameworks and parameters for decisions, and that provide a more equal playing field for different voices
- Producing in depth knowledge about what works technically and from nature

CONNECTING AND CONVENING

- Connecting different interventions at different levels
- Connecting partners to create greater ambitious or market demand
- Connecting people with shared goals, designing the platform and movements that bring them together from which further innovations can emerge



SYSTEM THINKER



LEADER AND STORYTELLER



DESIGNER AND MAKER



CONNECTOR AND CONVENER

**Beyond
Net Zero**
A Systemic Design Approach



CLIMATE RESILIENCE

- + ZERO CARBON CONSTRUCTION
- + SUSTAINABLE MATERIALS
- + INDIGENOUS KNOWLEDGE
- + HISTORY AND THEORY
- + EQUITY AND INCLUSIVITY
- + ADVANCED MANUFACTURING
- + GOVERNANCE AND POLICY
- + BUILDING SCIENCE
- + ETC





NEXT STEPS

PHASE 2

CLIMATE LITERACY AND ACTION IN ARCHITECTURE EDUCATION

WHERE TO FROM HERE?

1 CLIMATE LITERACY & ACTION SURVEY

OPEN UNTIL TUESDAY 12TH OCTOBER

2 AASA WEBINAR SERIES

WEBINAR 1 FRIDAY 12TH NOVEMBER, 2021

GLOBAL CLIMATE LITERACY AND ACTION IN ARCHITECTURE EDUCATION

WEBINAR 2 FRIDAY 26TH NOVEMBER, 2021

AUSTRALIAN CLIMATE LITERACY AND ACTION IN ARCHITECTURE EDUCATION

3 PHASE 3

IN DEVELOPMENT:

CO-PARTNERSHIP WITH AASA & AUSTRALIAN INSTITUTE OF ARCHITECTS



CLIMATE LITERACY AND ACTION IN ARCHITECTURE EDUCATION

OVER TO YOU

WE ARE SEEKING RESPONSES FROM:

- + FACULTY STAFF
- + ARCHITECTURE STUDENTS
- + SESSIONAL ACADEMICS
- + PhD / POSTDOC RESEARCHERS



SEE LINK IN CHAT WINDOW

https://qsurvey.qut.edu.au/jfe/form/SV_eFf1pKXh9UqQuAC