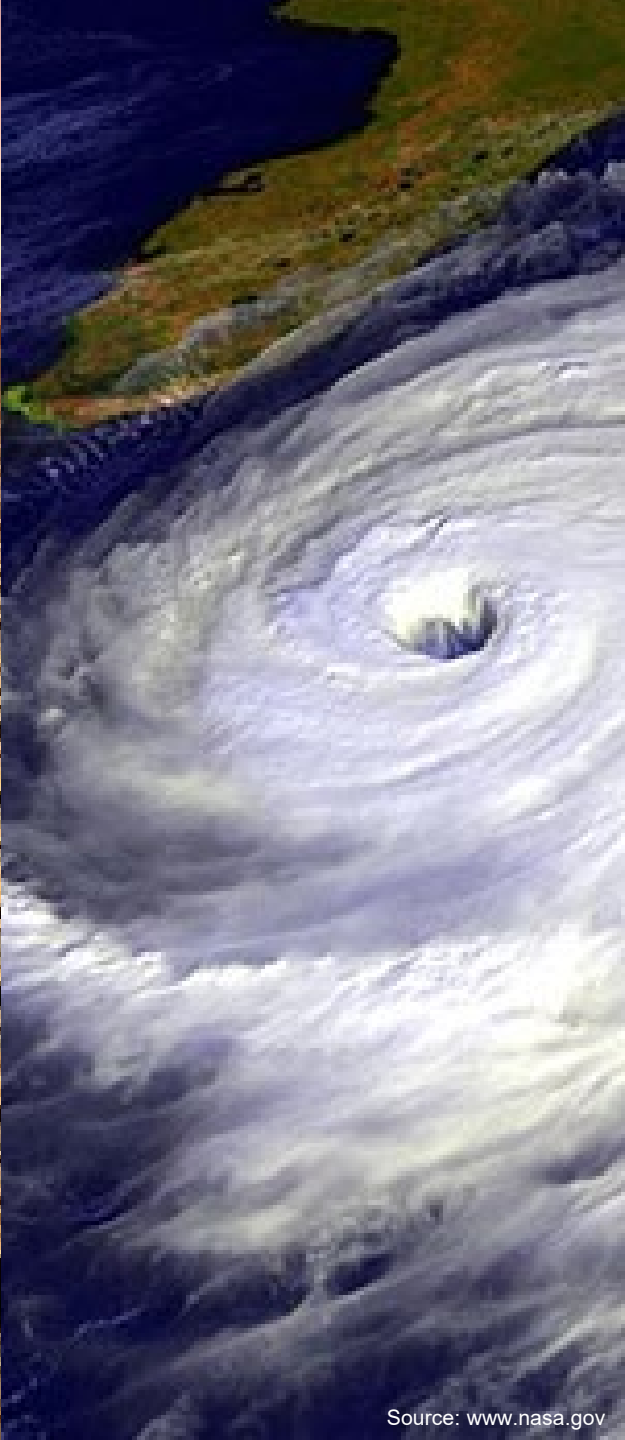
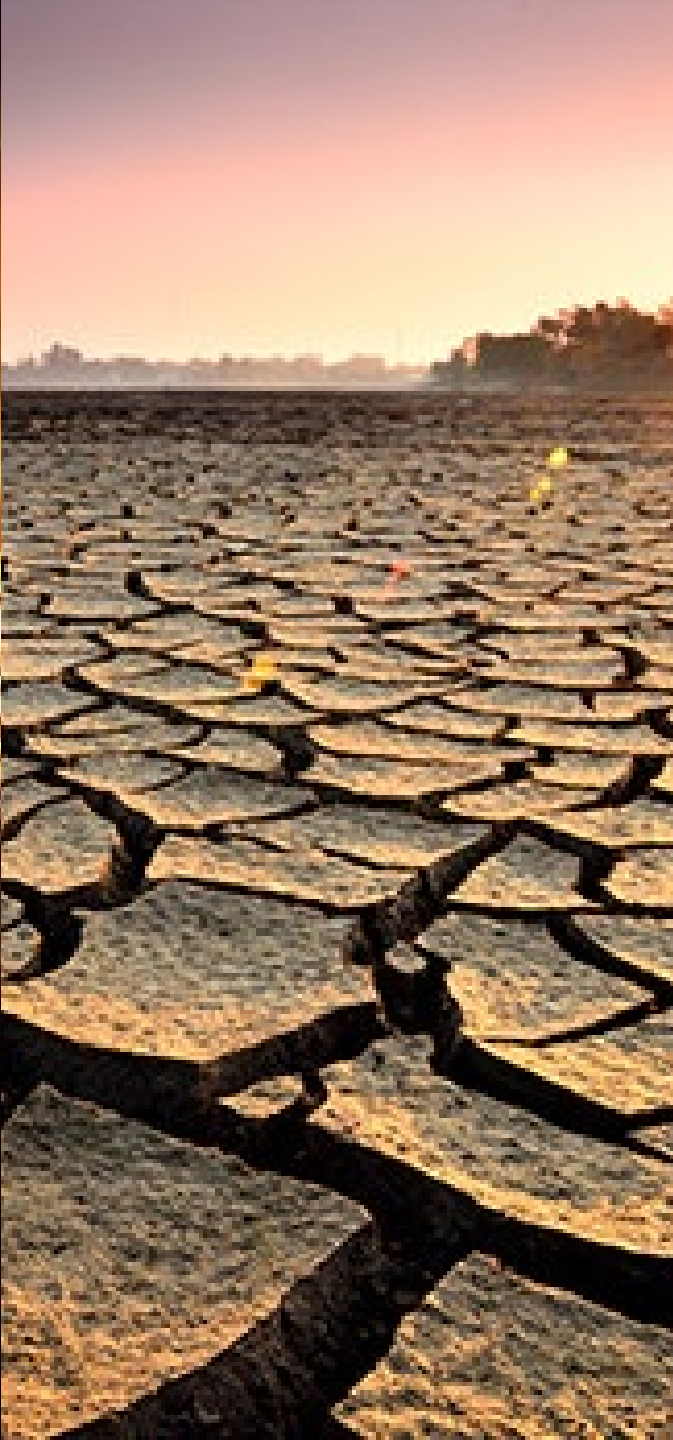


UNIVERSITY
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Engineering solutions to address the health effects of climate

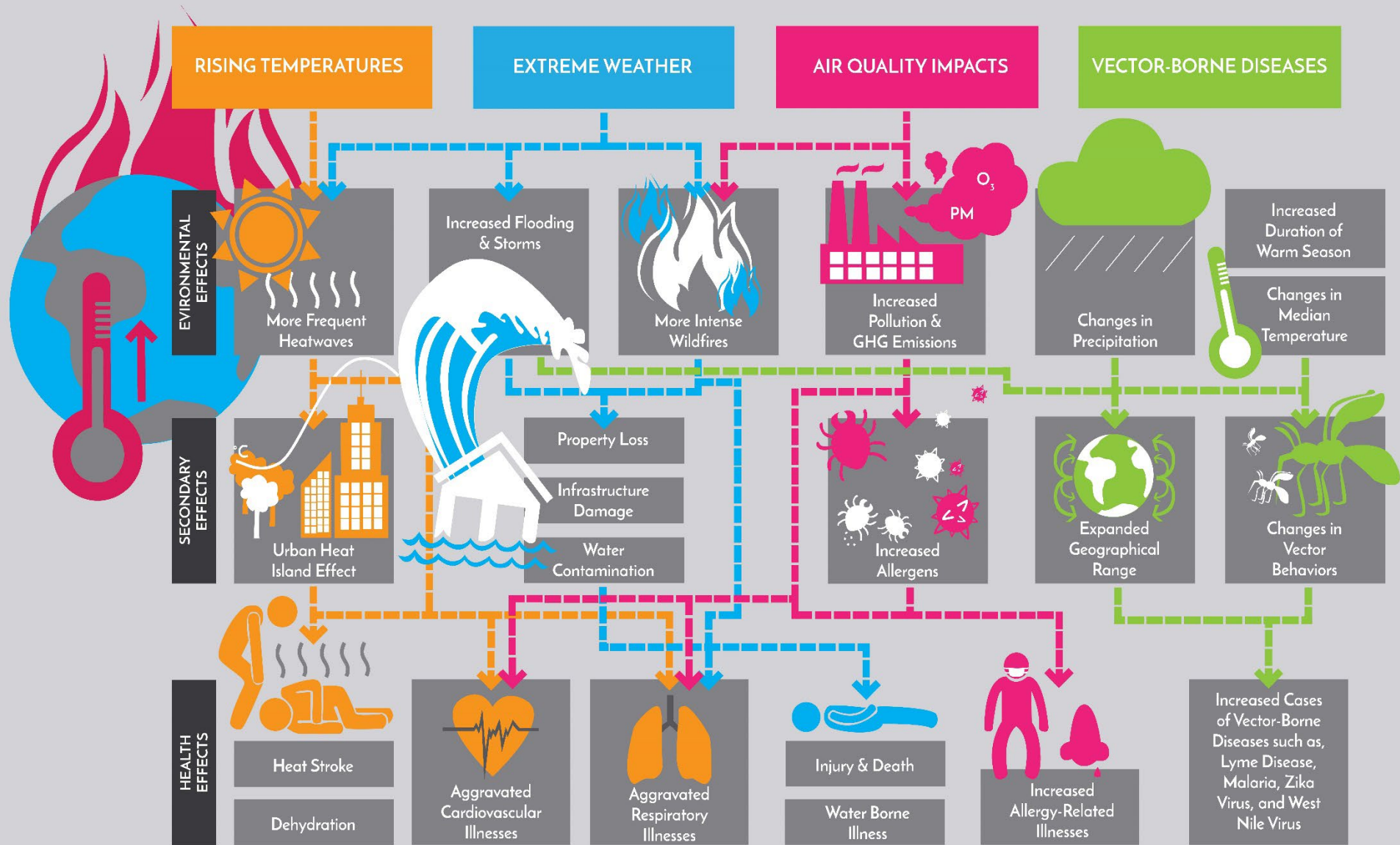
Landolf Rhode-Barbarigos
Civil & Architectural Engineering



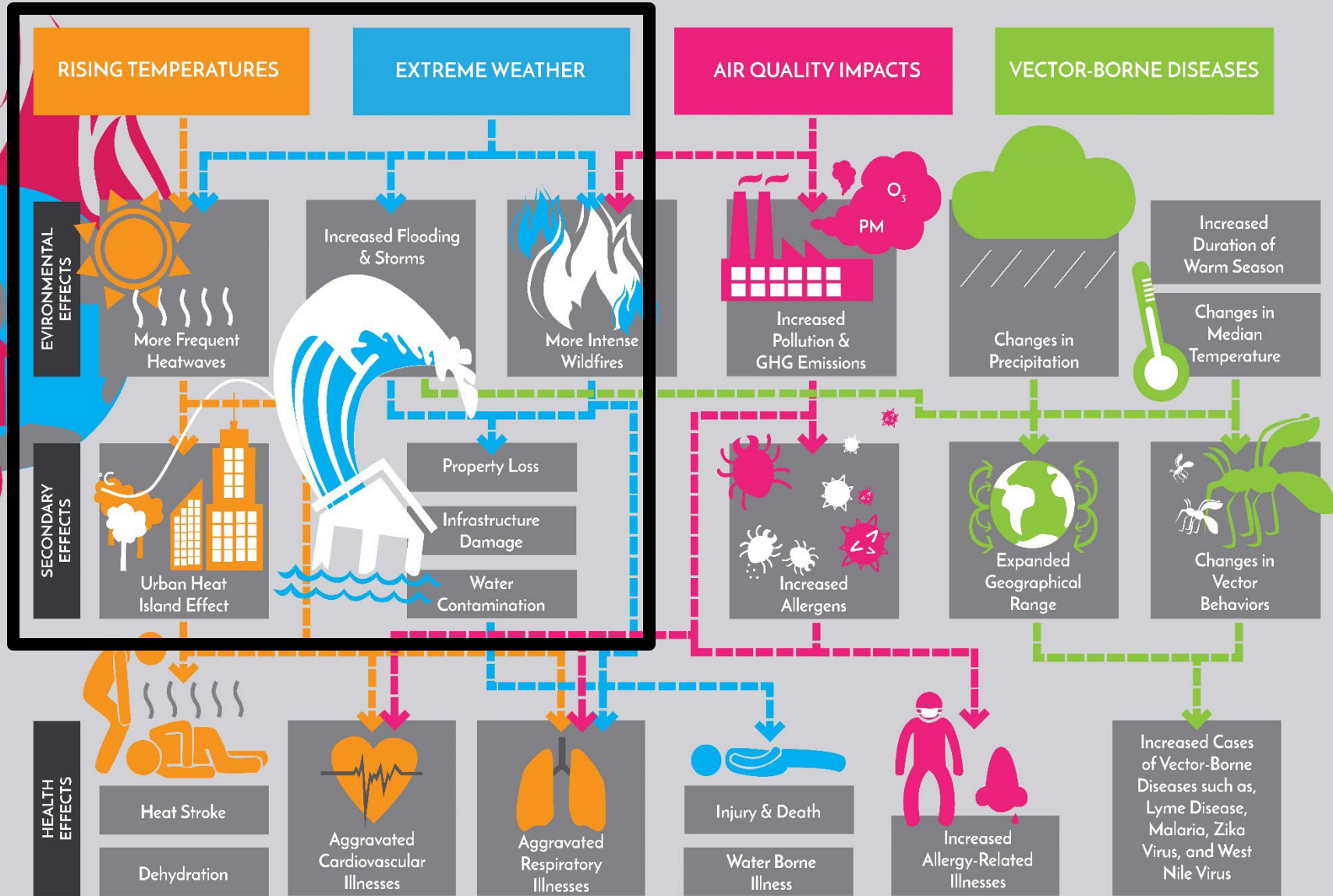
A collage of four black and white images illustrating climate change effects. The top-left image shows a storm with dark, swirling clouds. The top-right image shows a city skyline under a clear sky. The bottom-left image shows a large, powerful hurricane with a distinct eye. The bottom-right image shows a close-up of cracked, parched earth.

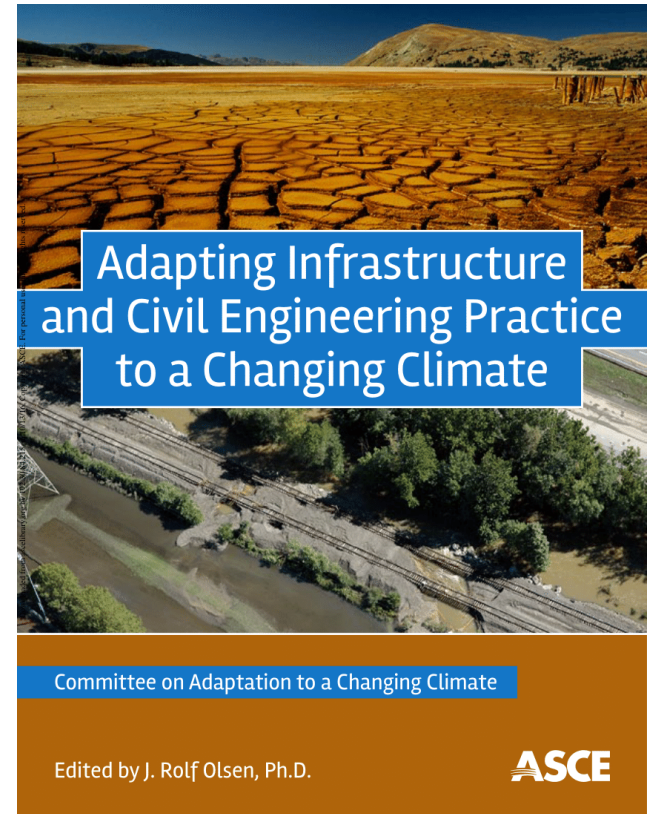
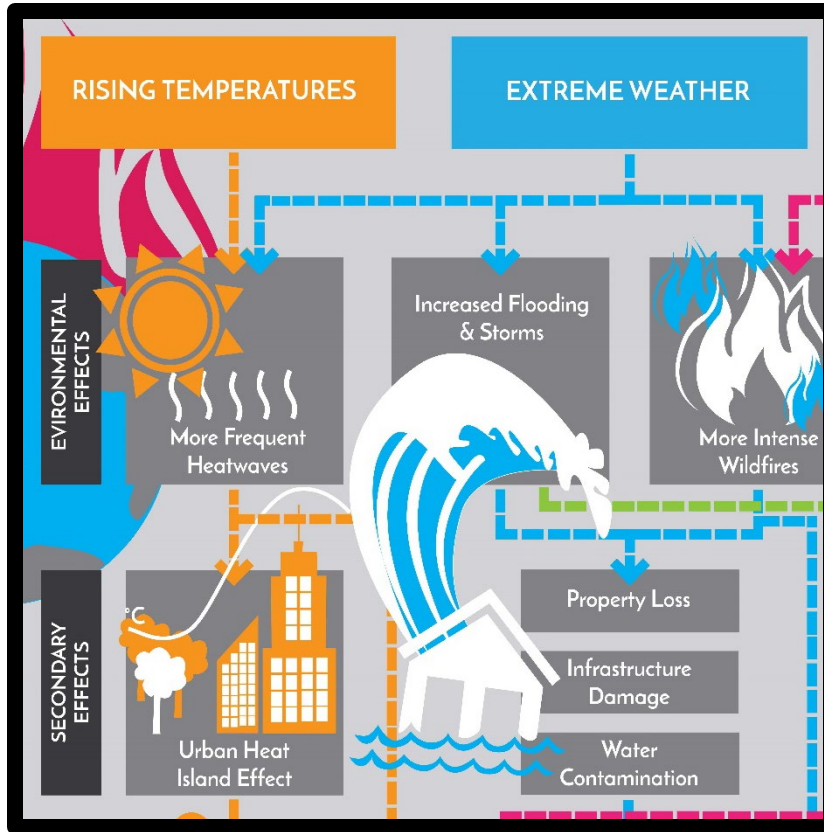
Climate change is the single biggest health threat
facing humanity.

HOW CLIMATE CHANGE AFFECTS YOUR HEALTH



HOW CLIMATE CHANGE AFFECTS YOUR HEALTH

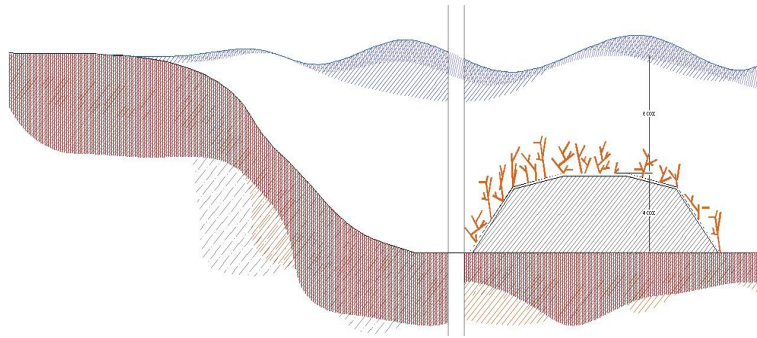




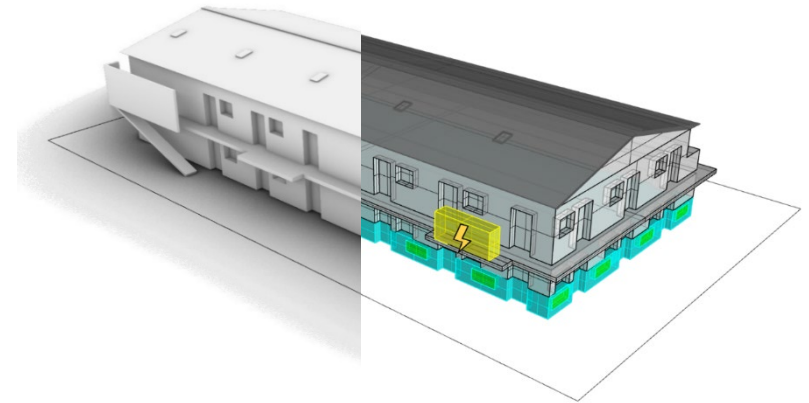
“A new paradigm for engineering practice in a world in which climate is changing”

ASCE

- Green/gray shoreline protection



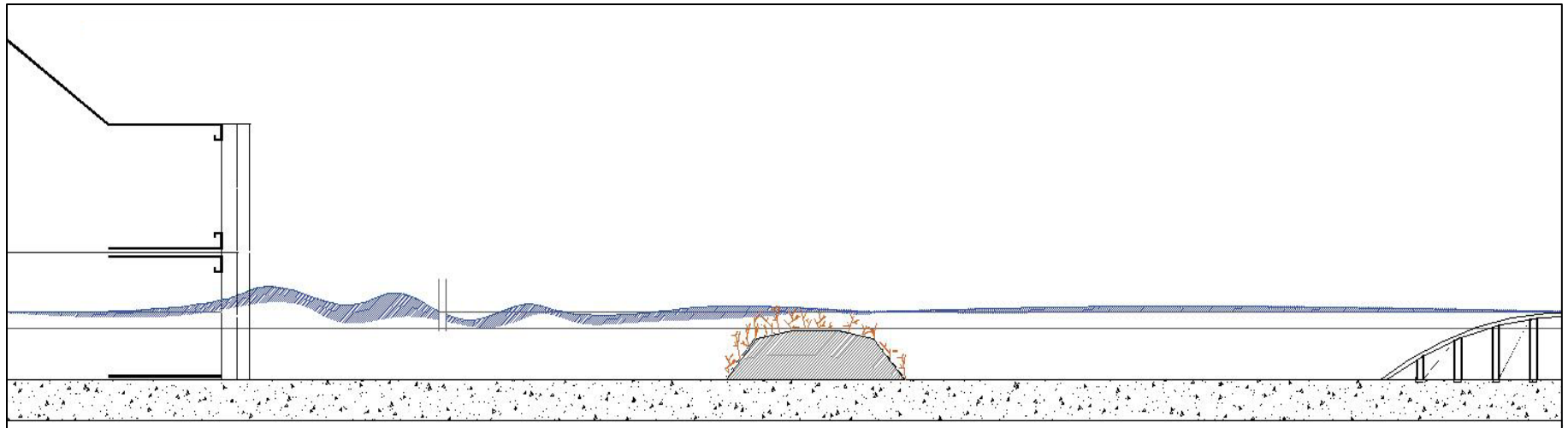
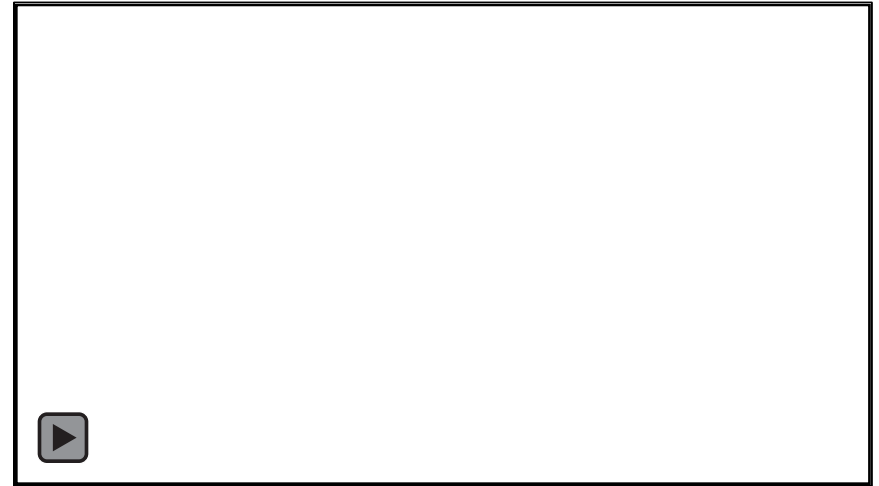
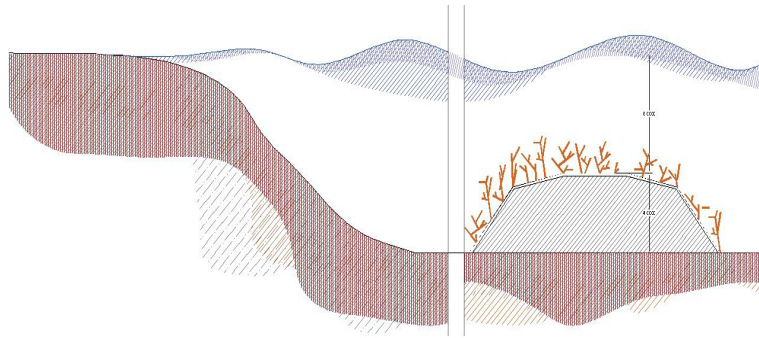
- Flood adaptation of affordable housing



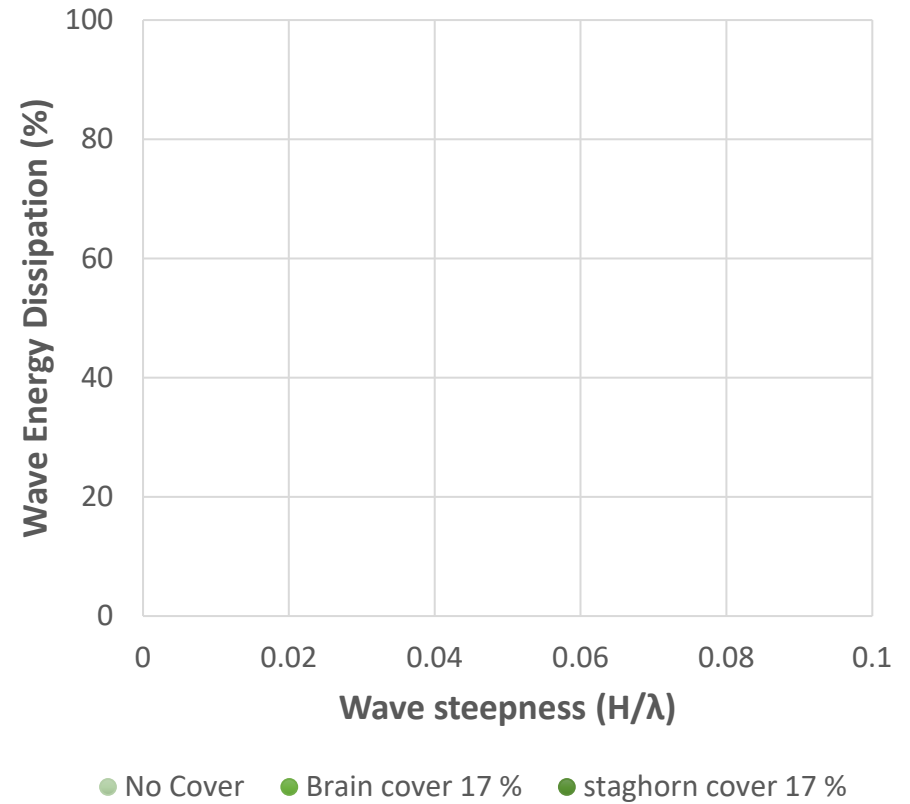
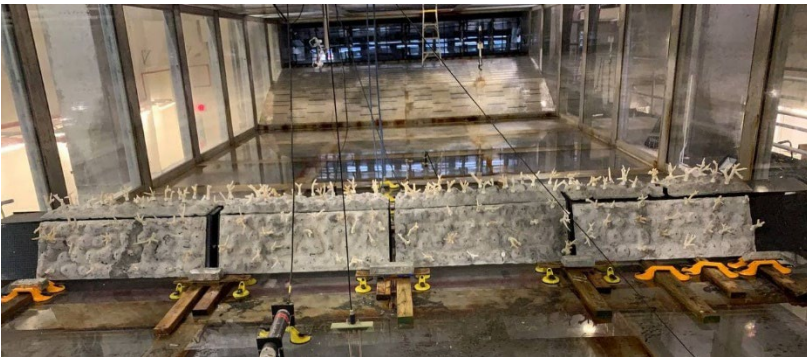
“A new paradigm for engineering practice in a world in which climate is changing”

ASCE

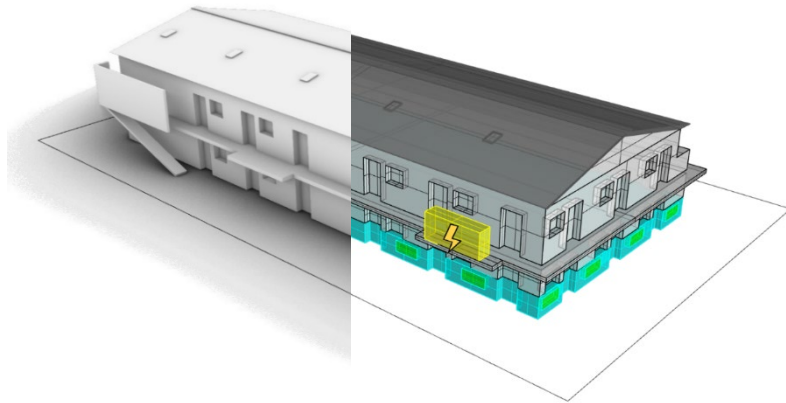
- **Green/gray shoreline protection**



- **Green/gray shoreline protection**

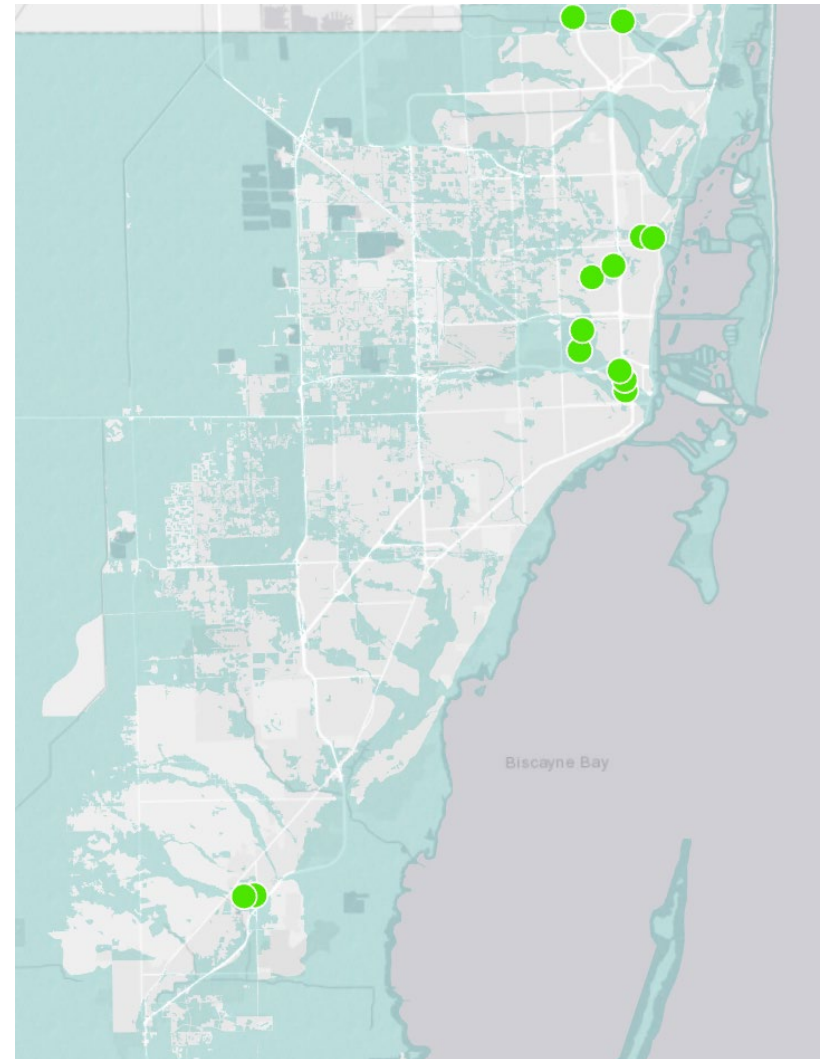


- **Flood adaptation of affordable housing**

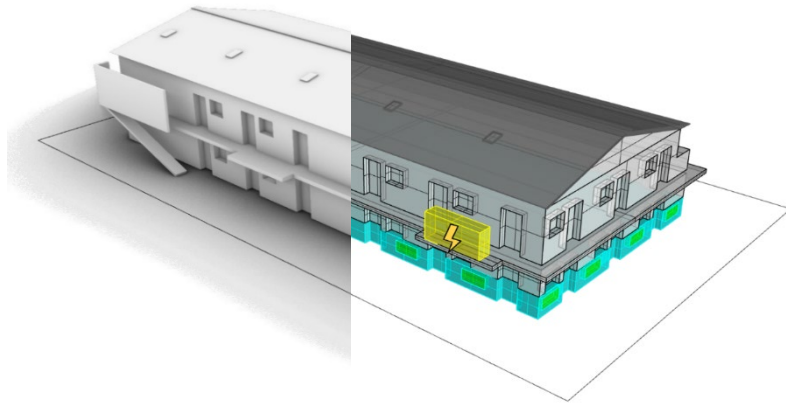


Cost-benefit analysis per building typology based on:

- a. property profile
- b. flood characteristic



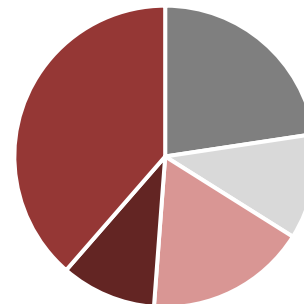
- **Flood adaptation of affordable housing**



Source: www.fema.gov

Cost-benefit analysis per building typology based on:

- a. property profile
- b. flood characteristic



- Building Damages
- Contents Damages
- Displacement
- Mental stress
- Lost productivity

Engineering solutions to climate change

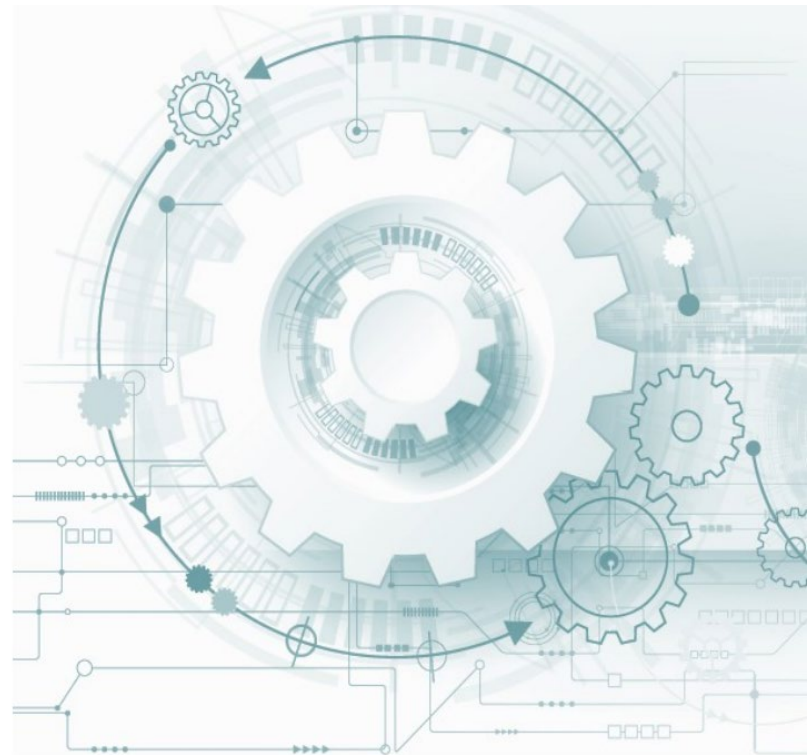


Source: www.nae.edu

1. Enhance our understanding of climate
2. Mitigate or remove emissions
3. Adapt to the impacts of climate change

Engineering solutions to the health effects of climate

1. Healthcare services, equipment, and systems
2. Pharmaceuticals and biotechnology
3. Healthcare consulting, support, and education



Source: www.fhea.org

Health tech



AI

Companies selling AI SaaS to healthcare clients or using AI to develop products for the healthcare market



TELEHEALTH

Companies developing or using information communication technology to aid the delivery of health & wellness services from a distance



MEDICAL DEVICES

Companies developing medical devices that aid in the diagnosis, cure, mitigation, treatment, monitoring, or prevention of disease



MENTAL HEALTH TECH

Companies applying technology to problems of emotional, psychological, and social well-being



DIGITAL THERAPEUTICS

Companies developing evidence-based, software-driven therapeutic interventions to prevent, manage, or treat medical conditions



OMICS

Companies involved in the capture, sequencing, and/or analysis of genomic, transcriptomic, proteomic, and/or metabolomic data



HEALTH IT

Companies that market software solutions to healthcare provider organizations

Climate tech



Electricity



Agtech + Water



Buildings



Transportation



Manufacturing



Resilience

Source: www.greentownlabs.com

- An emerging asset class, with a total of US\$87.5bn invested over H2 2020 and H1 2021
- A growing number of climate tech unicorns (78+)



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