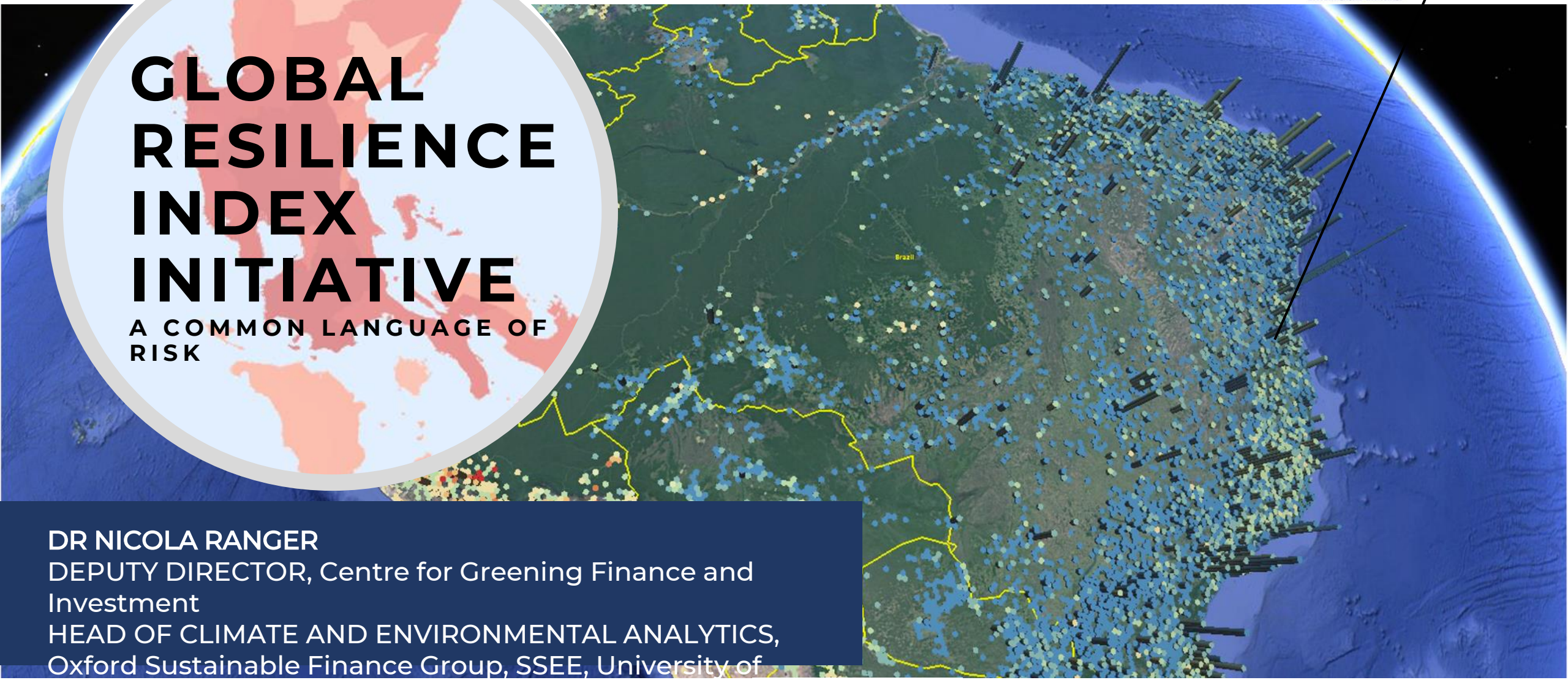
RACE TO RESILIENCE

UN CLIMATE CHANGE CONFERENCE UK 2021

IN PARTNERSHIP WITH ITALY

GLOBAL RESILIENCE INDEX INITIATIVE

A COMMON LANGUAGE OF RISK



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GEM GLOBAL EARTHQUAKE MODEL working together to assess risk

UNDRR UN Office for Disaster Risk Reduction

Coalition for Climate Resilient Investment

CDRI Coalition for Disaster Resilient Infrastructure

CGFI UK Centre for Greening Finance & Investment

IDF Insurance Development Forum

CGFI
UK Centre for Greening Finance & Investment

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FINANCIAL DECISIONS TODAY HAVE A SYSTEMIC IMPACT ON SOCIETAL RESILIENCE THAT CAN LOCK-IN RISK FOR DECADES ACROSS MULTIPLE DIMENSIONS

USD 49 billion for all (tracked) adaptation in 2019/20
TOTAL INFRASTRUCTURE INVESTMENT
GLOBALLY: ~ USD 2.7 TRILLION EACH YEAR

GLOBAL RESILIENCE INDEX (GRI) INITIATIVE

CREATING A COMMON LANGUAGE OF RISK

Embedding risk within global financial flows and decisions at all levels to drive resilience and resilient investment

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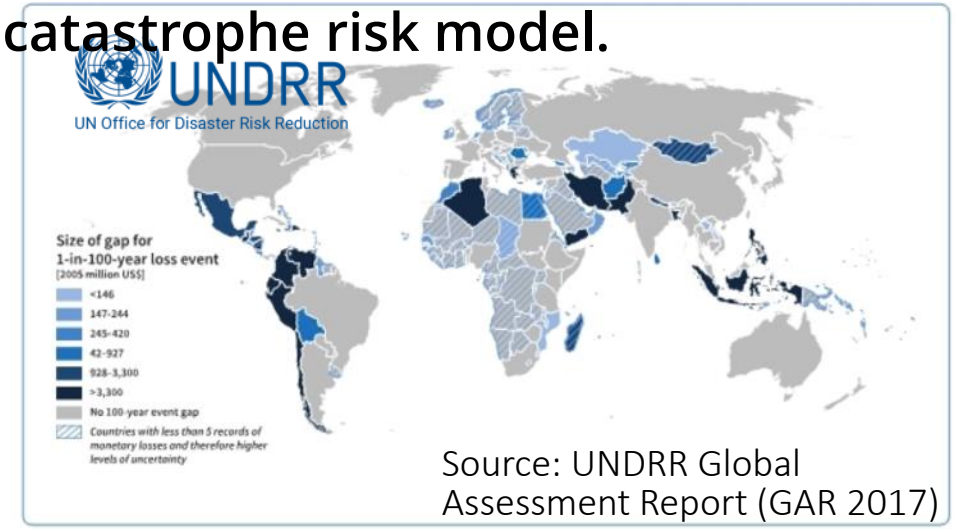
Builds upon the UN's GAR17. A multi-agency effort to create the first public good, globally consistent, multi-hazard catastrophe risk model.



Source: UNDRR Global Assessment Report (GAR 2017)

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GLOBAL RESILIENCE INDEX INITIATIVE

Proven public-private-academic model, focussed on standards and interoperability

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GLOBAL RESILIENCE INDEX INITIATIVE

PUBLIC – PRIVATE COLLABORATION TO BUILD A COMMON LANGUAGE AND UNDERSTANDING OF RISK

Insurance Development Forum

Public-private partnership co-chaired by World Bank – UNDP – Insurance Industry

CDRI Coalition for Disaster Resilient Infrastructure

Partnership of national governments, UN agencies, MDBs and private sector

Coalition for Climate Resilient Investment

Public-private partnership institutional investors, financial institutions, ratings agencies, knowledge organisations

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Open platform for collaboration

Contributing institutions to date:

SPATIAL FINANCE INITIATIVE

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Nasdaq

Fathom

eci

SUSTAINABLE FINANCE PROGRAMME SSEE

UNIVERSITY OF OXFORD

oasis

JBA risk management

Milliman

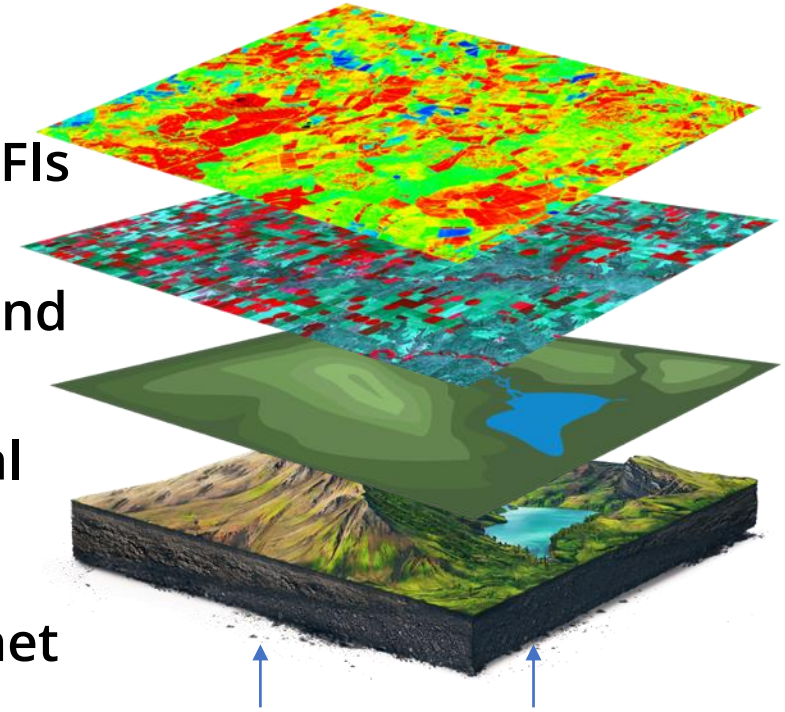
DAFNI Data & Analytics Facility for National Infrastructure

GLOBAL RESILIENCE INDEX (GRI) INITIATIVE
OPEN PHYSICAL RISK DATA AND ANALYTICS

Vision:

Finance and investment, IFIs government, civil society and firms able to access and use globally consistent, transparent acute physical risk data for:

- Every point on the planet
- Covering all material risks
- Present and future



Why is this different?

Acute risks: using insurance approaches

Globally-consistent, open data, standards and indices: An open platform of high-quality, consistent, hazard, exposure and risk data covering material risks.

Transparent & builds upon what is exists: combines best-in-class data from partners to generate sub-national/asset-level risk metrics: exposures, AALs, EPs

Strategically fills gap to cover material risks and represent uncertainties,

GRII COMBINES BEST-IN-CLASS DATA AND MODELS TO PROVIDE GLOBALLY CONSISTENT, BASELINE VIEW OF RISK REQUIRED TO SUPPORT THE RACE TO RESILIENCE

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GLOBAL EARTHQUAKE MODEL
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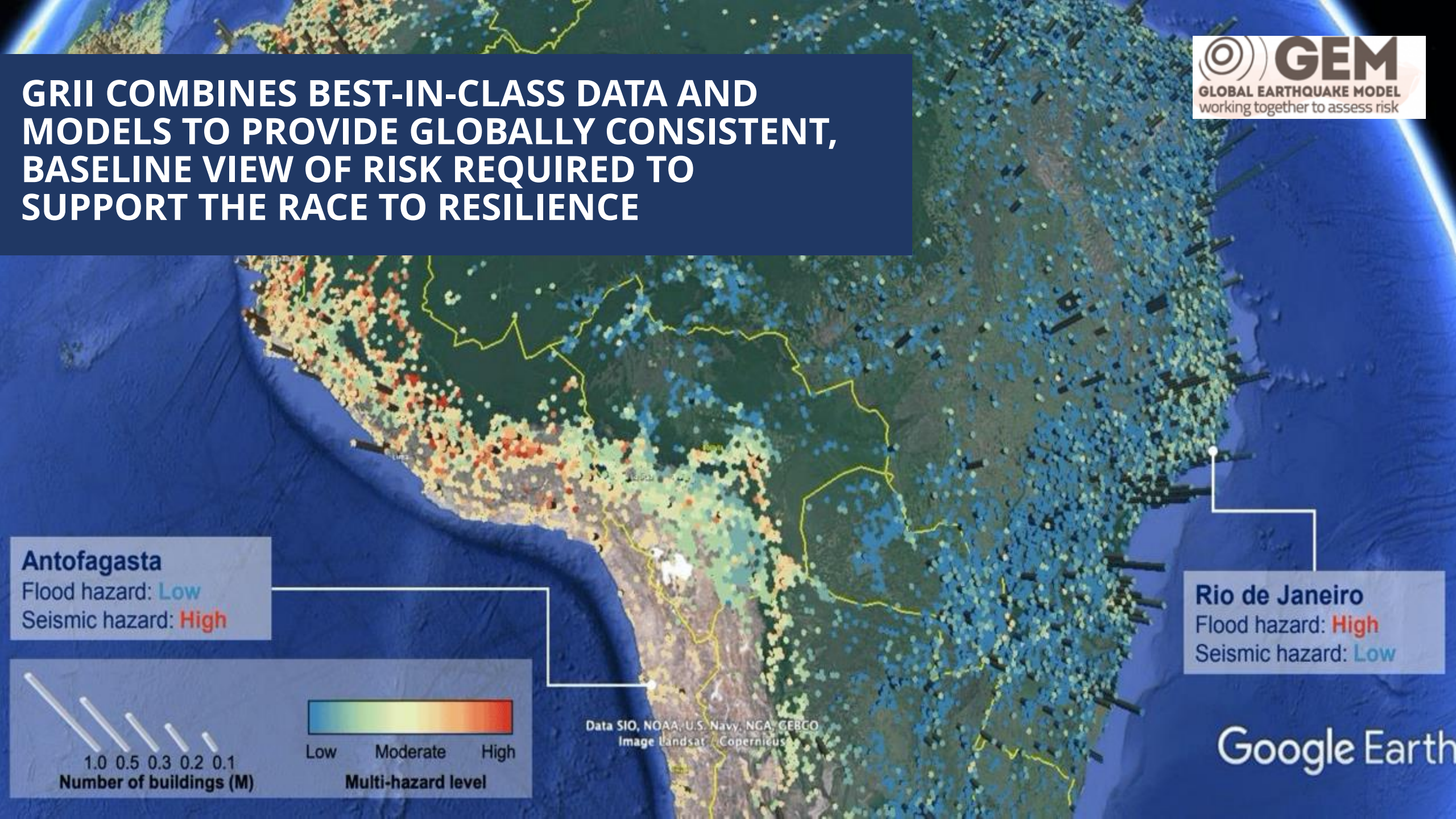


GLOBALLY-CONSISTENT, PROBABILISTIC RISK ANALYTICS

HAZARDS

FLOOD (SEA LEVEL RISE)

TROPICAL CYCLONE

EARTHQUAKE

DROUGHT

WILDFIRE

HEATWAVE

LANDSLIDE

CHRONIC HAZARDS

WITH CLIMATE CHANGE

EXPOSURE & VULNERABILITY

INFRASTRUCTURE

BUILDINGS

PEOPLE

INDUSTRY & AGRICULTURE

ENVIRONMENT & NATURE

SOCIAL VULNERABILITIES

FUTURE URBANISATION, DEVELOPMENT & CHANGING VULNERABILITIES

IMPACT & RISK

DIRECT ASSET LOSS/DAMAGE

BUSINESS INTERRUPTION

PRODUCTION LOSS

TRADE DISRUPTION

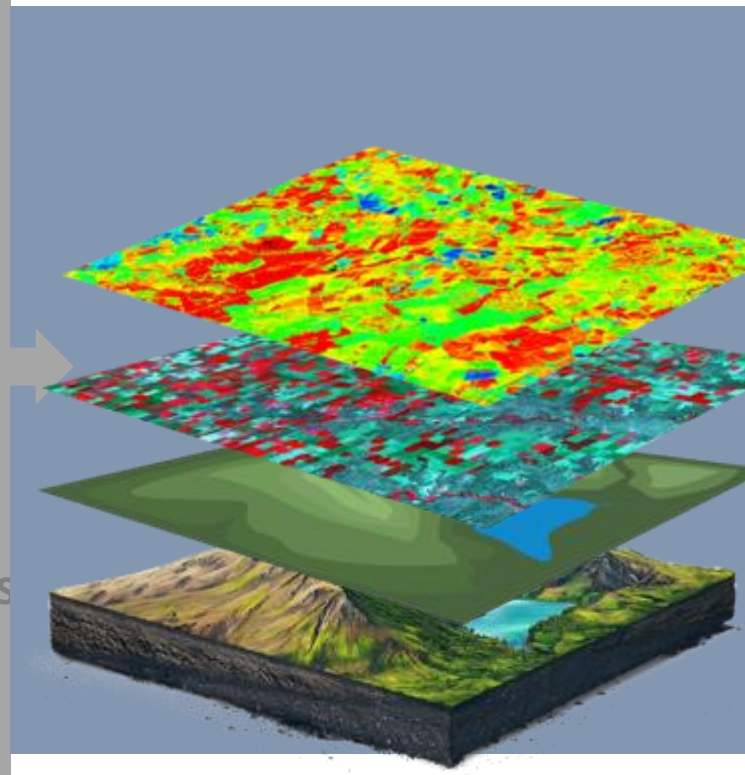
ECONOMIC LOSS

FINANCIAL & FISCAL IMPACTS

SUPPLY CHAINS

HUMAN DISPLACEMENT

ENVIRONMENT & NATURE



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WORLD BANK GROUP

UNIVERSITY OF OXFORD

- Railways
- Trunk Roads
- Motorways
- Primary Roads
- Secondary Roads
- Tertiary and Other Roads

Macau

PDR

China

Thailand

Cambodia

Vietnam

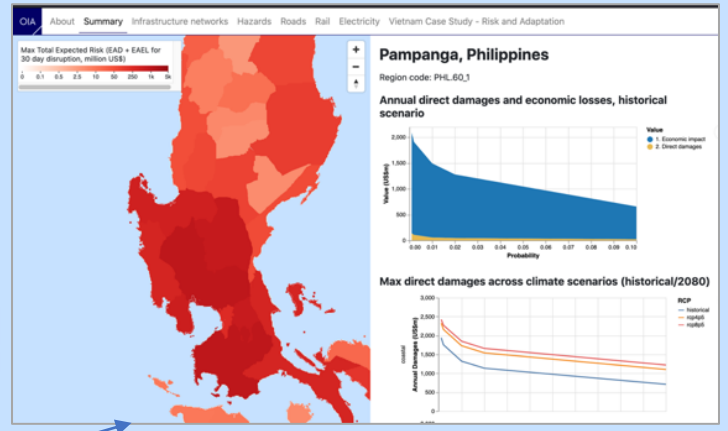
Philippines

Palau

Brunei

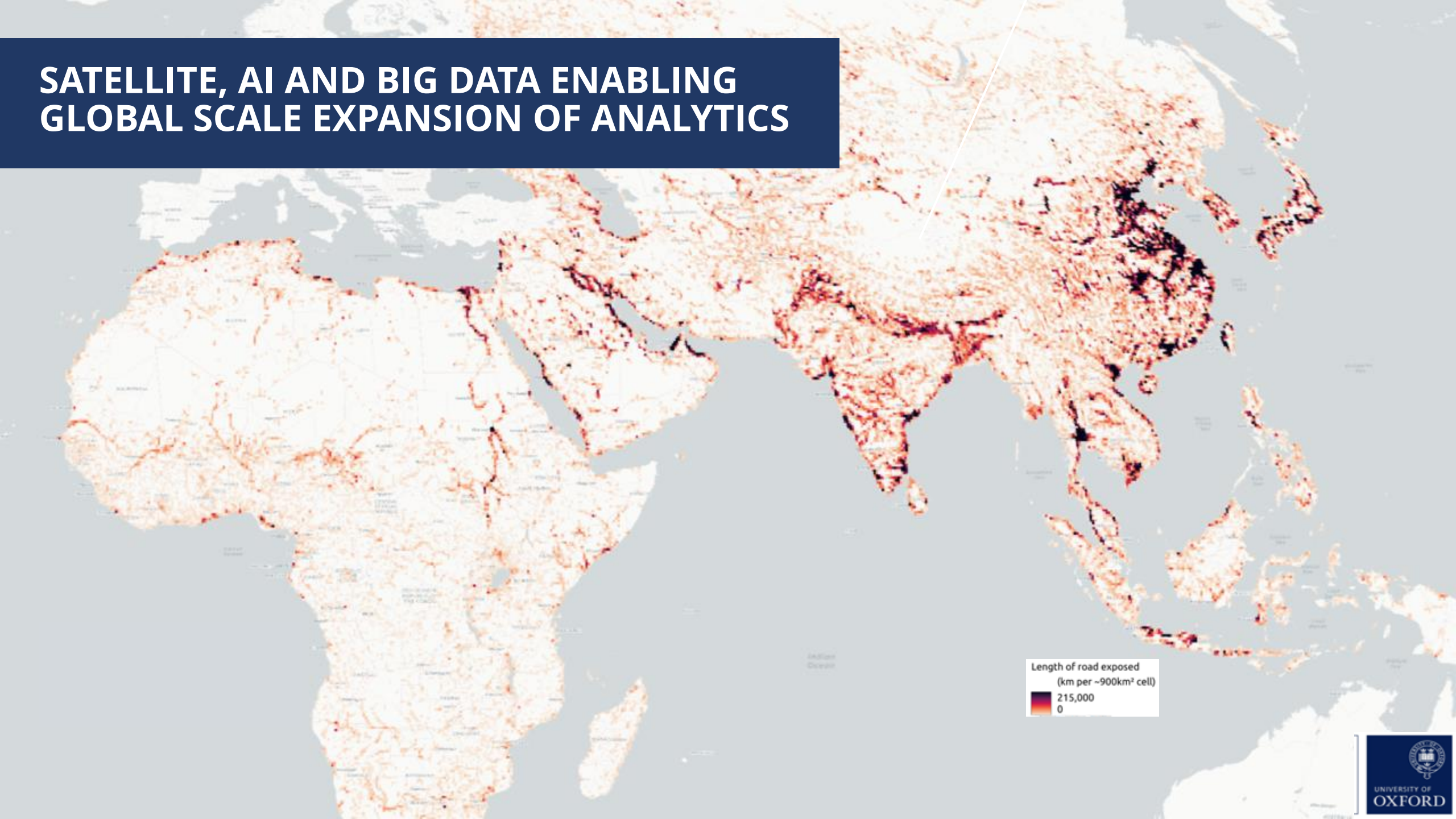
Singapore

Indonesia



NEXT GENERATION ANALYTICS: ECONOMIC & SYSTEMS-RISK MODELING TO BUILD TOWARD ASSESSING MACRO-LEVEL & SYSTEMIC PHYSICAL RISKS

SATELLITE, AI AND BIG DATA ENABLING GLOBAL SCALE EXPANSION OF ANALYTICS



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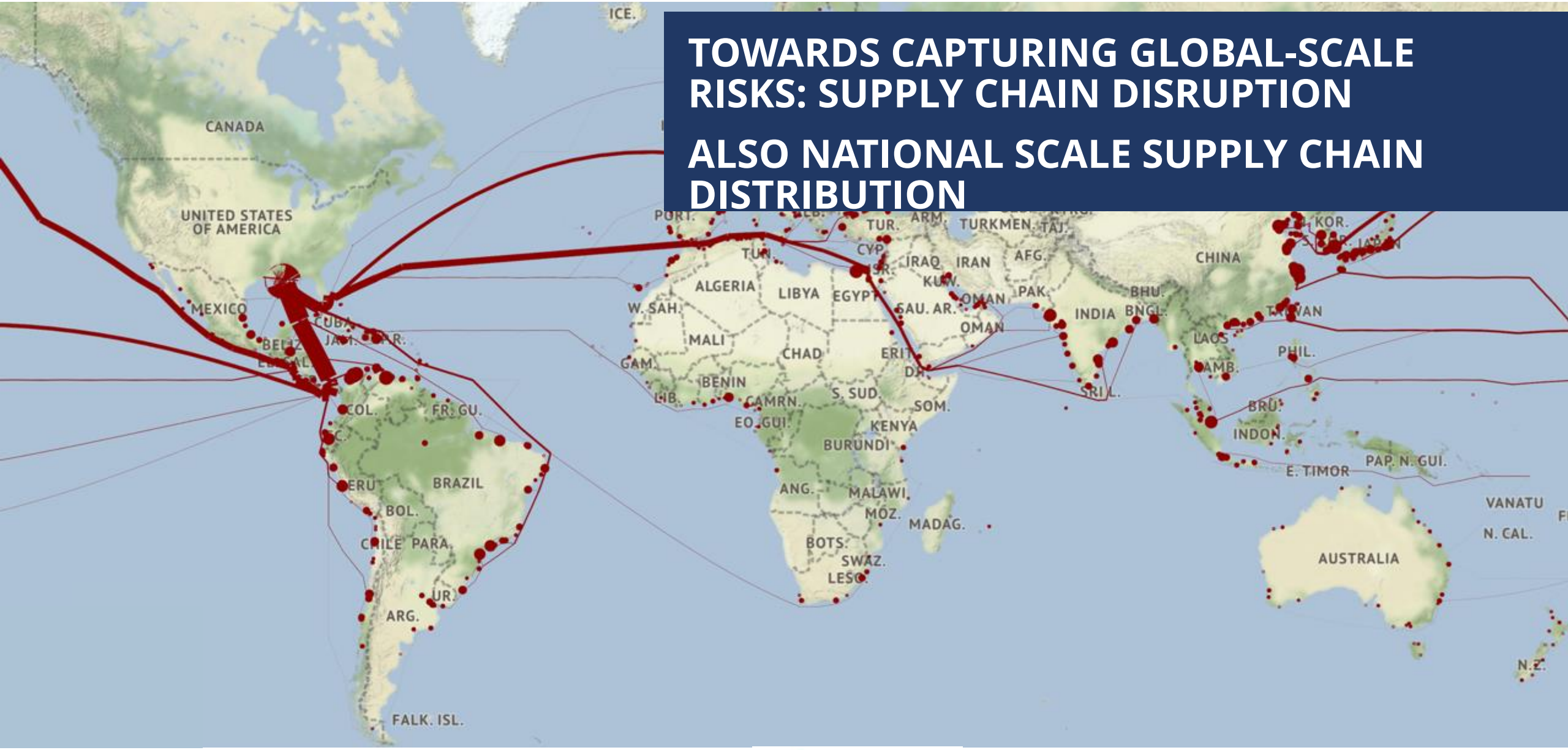
TOWARDS CAPTURING GLOBAL-SCALE RISKS: SUPPLY CHAIN DISRUPTION

ALSO NATIONAL SCALE SUPPLY CHAIN DISTRIBUTION



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ROADMAP AHEAD

GLOBAL RESILIENCE INDEX INITIATIVE

LAUNCH AT COP26

DEMONSTRATOR PLATFORM

FURTHER DEVELOPMENT & OPERATIONAL APPLICATION

SET-UP AND GOVERNANCE - SUMMER 2022

LAUNCH OF FULL OPEN REPOSITORY AND INDICES COP27

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www.globalresilienceindex.org

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