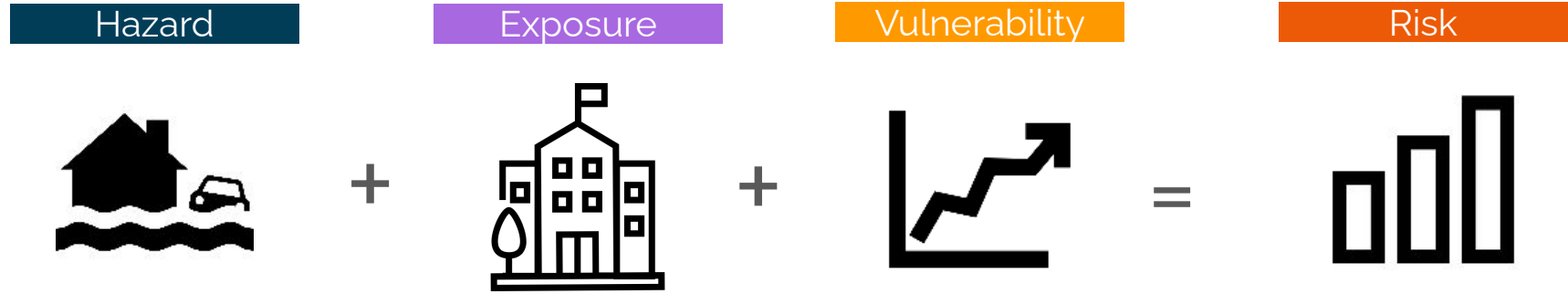# Risk of Doing Nothing

Max Evans
Client Solutions Architect
Jupiter Intelligence

Alan F. Blumberg
Co-Founder –Advisor
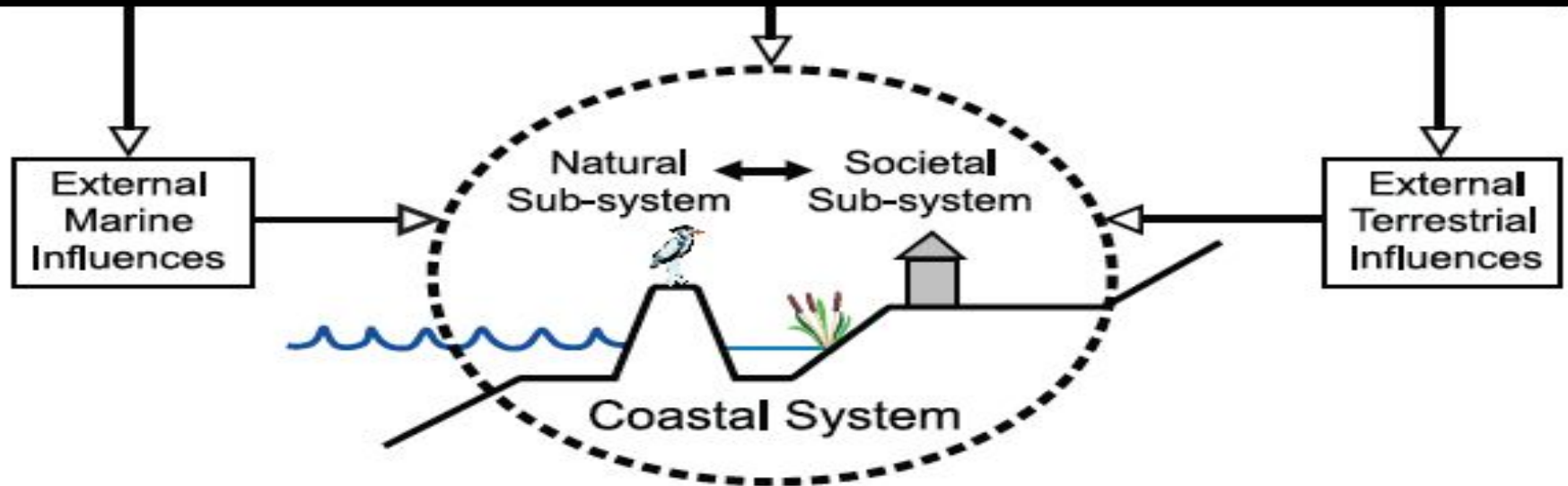**Jupiter Intelligence**

January 2023

Understanding Risk- Modeling the components

Hazard

Exposure

Vulnerability

Risk

+

+

=

The Urban Ocean

Storms   Sea Level Rise   Waves   Run-off   Walls   Berms   Marshes

Natural Sub-system ↔ Societal Sub-system

Coastal System

External Marine Influences

External Terrestrial Influences

Two domains:

Cities => Water – blacktop – people
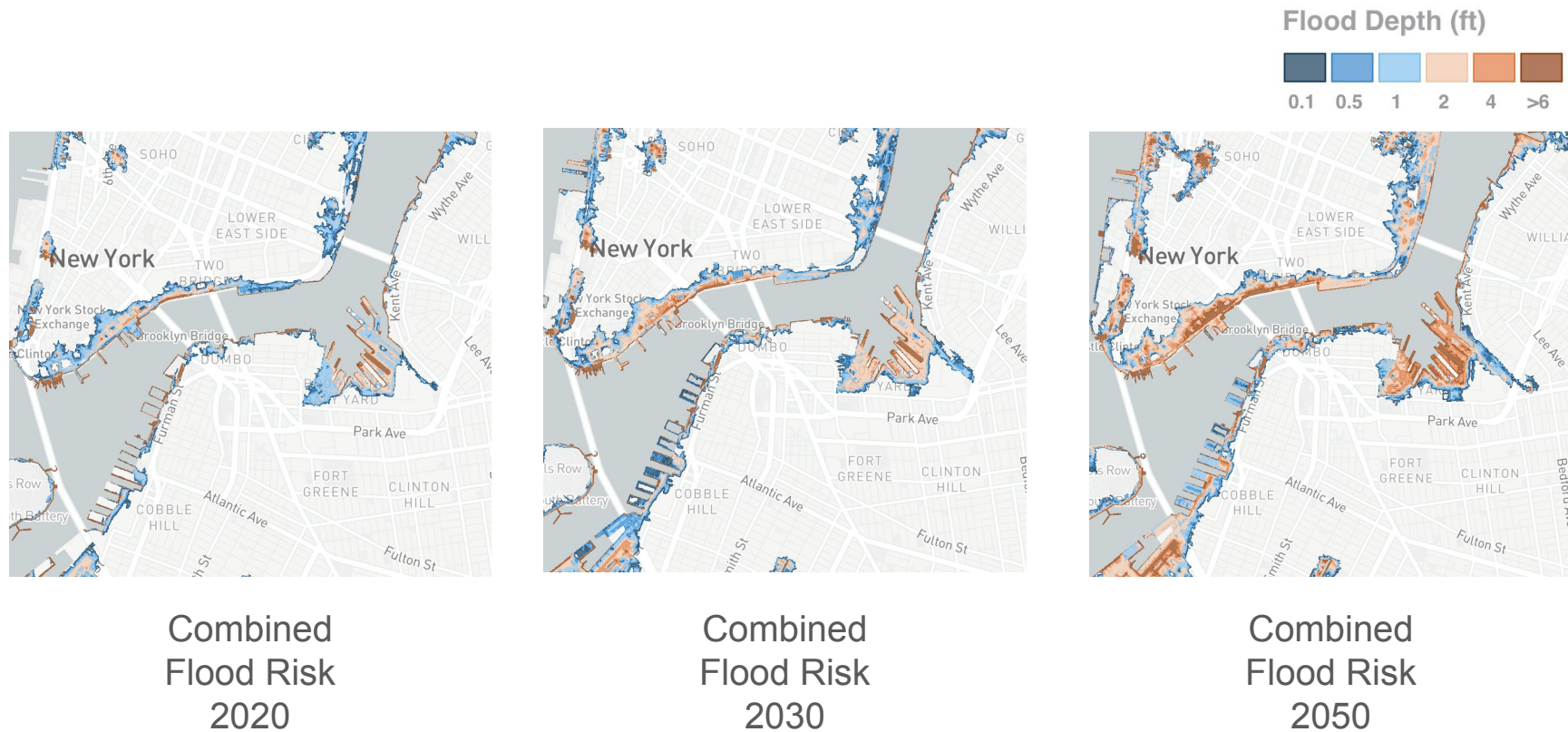
Beaches => Water – sand - people

Alan F. Blumberg   Michael S. Bruno

THE URBAN OCEAN
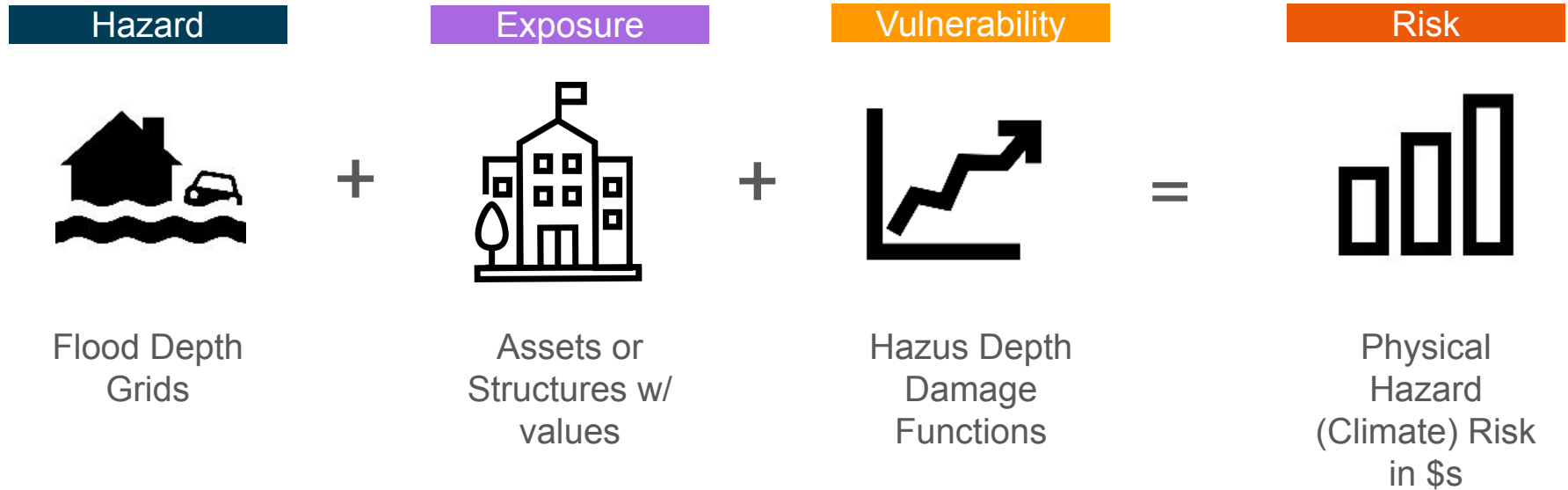
The Interaction of Cities with Water

Mapping the Hazard- With Climate Change

Flood Depth (ft)

0.1 0.5 1 2 4 >6

Combined
Flood Risk
2020

Combined
Flood Risk
2030

Combined
Flood Risk
2050

Example - Modeling Physical Hazard Risk

Hazard		Exposure		Vulnerability		Risk

Flood Depth Grids **+** Assets or Structures w/ values **+** Hazus Depth Damage Functions **=** Physical Hazard (Climate) Risk in $s

Cost Benefit Analysis

Costs	Benefits

Infrastructure Costs

Risks Avoided

Investments	Risk

Cost of New Infrastructure
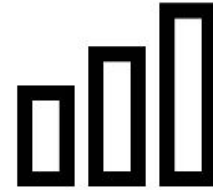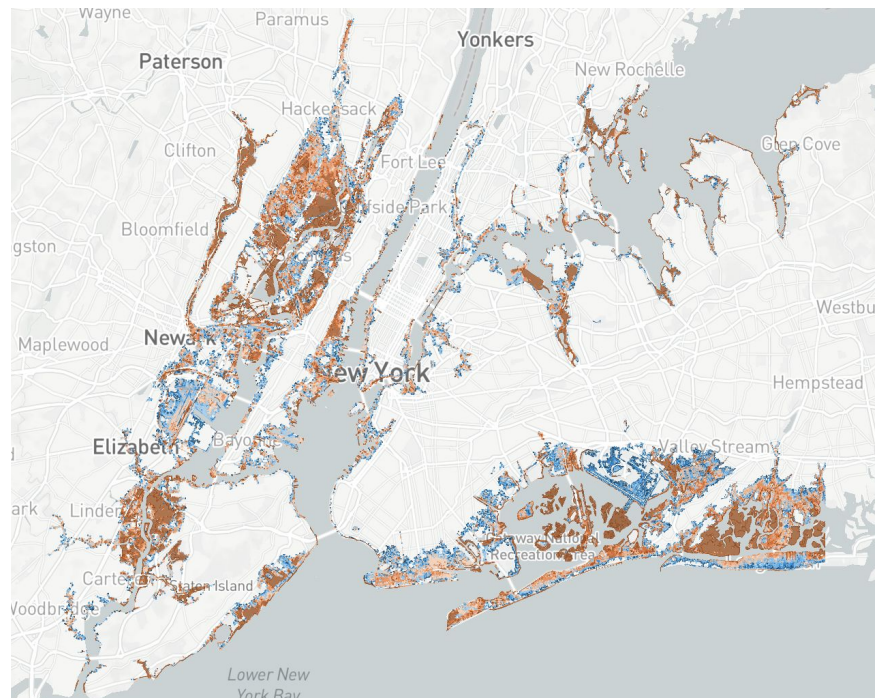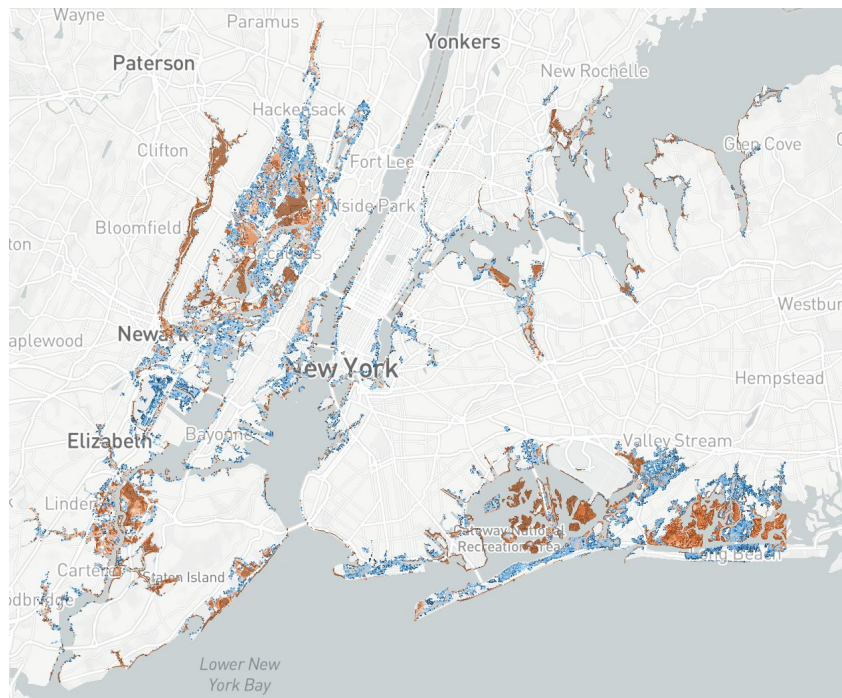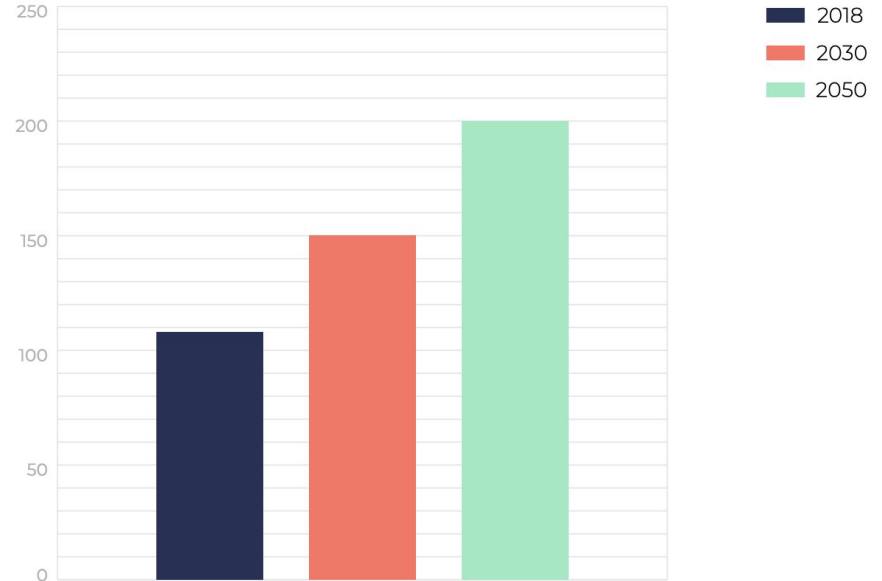
Physical Hazard (Climate) Risk in $s

What is at risk (economically) if we do not act?

The Cost of Doing Nothing

Number of people in need
of humanitarian assistance

better not miss the boat…

Thank you

JUPITER