SCOR
The Art & Science of Risk

SCOR Annual Conference
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Oasis Loss Modelling Framework:

What is it and how can I use it in my country

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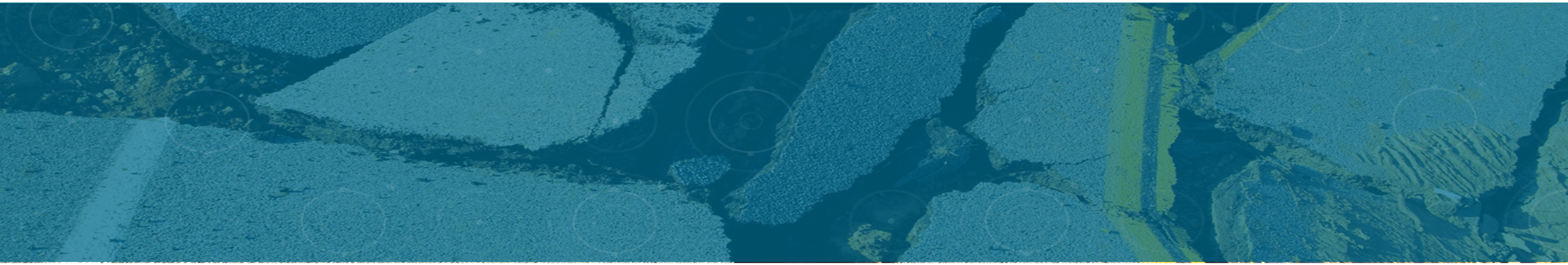
Breakout Session agenda

- Outline of where Oasis fits in the SCOR strategy around catastrophe risk modelling
- Review of the open challenges that the industry faces in the use of cat models
- Informal discussion in groups about cat model gaps and priorities for closing in local markets
- Wrap-up

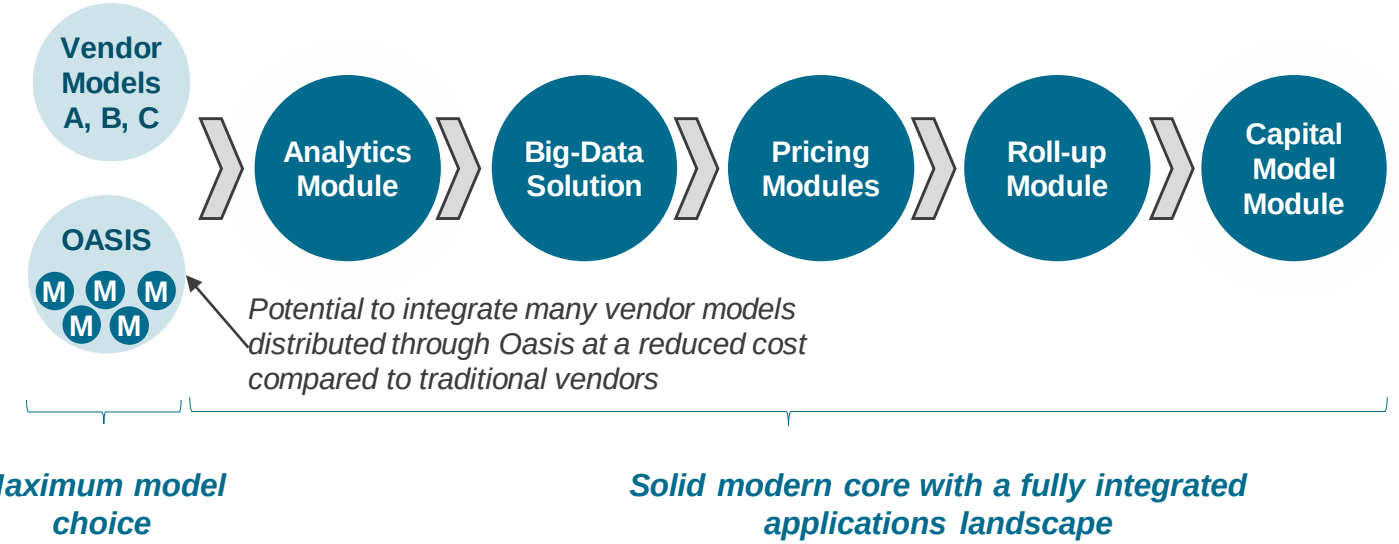


Themes from Day 1 that resonate with the Oasis initiative

- “insurability” is constrained by the ability to quantify risk
- The Protection Gap
- Increasingly interdependent risks => complexity
- “Systems-based” approach needed
- Collaboration in “pre-competitive” space
- Engagement with academia, regulators, politicians and civil society
- Public Private Partnerships

SCOR's strategic implementation

- A major re-engineering of systems/processes resulting in a "modern core" with a fully integrated applications landscape to drive efficiency, maximise access to models and drive down operational costs



- Oasis is a key part of the systems landscape, key benefits:
  - One modelling footprint brings operational efficiencies and reduction in cost
  - Simplifies model implementation and minimises user training
  - Allows efficient expansion into non-modelled regions and perils, supporting a more comprehensive representation of cat risk
  - Building a model is no longer limited to the main vendors, users can (with learning) build their own in Oasis format

Recap of the problems that the Oasis Framework is trying to address

Priorities differ by company - but key issues are:

- Choice
- Availability
- Openness and Transparency – no “Black Boxes”
- Affordability
- Standards

- An industry-led initiative, constituted as a *not for profit* company in 2012
- In essence, the Oasis Loss Modelling Framework is
  - A platform for running catastrophe models
  - a web based user interface and
  - an API for integration with other systems
- Oasis also provides Model Development Toolkit for developing, testing and deploying catastrophe models
- Over 30 subscribing re/insurance industry members

Future challenges - Model Completeness

Completeness where we already have models

- By Line of business
  - Agro
  - Marine
  - Engineering
  - Aviation

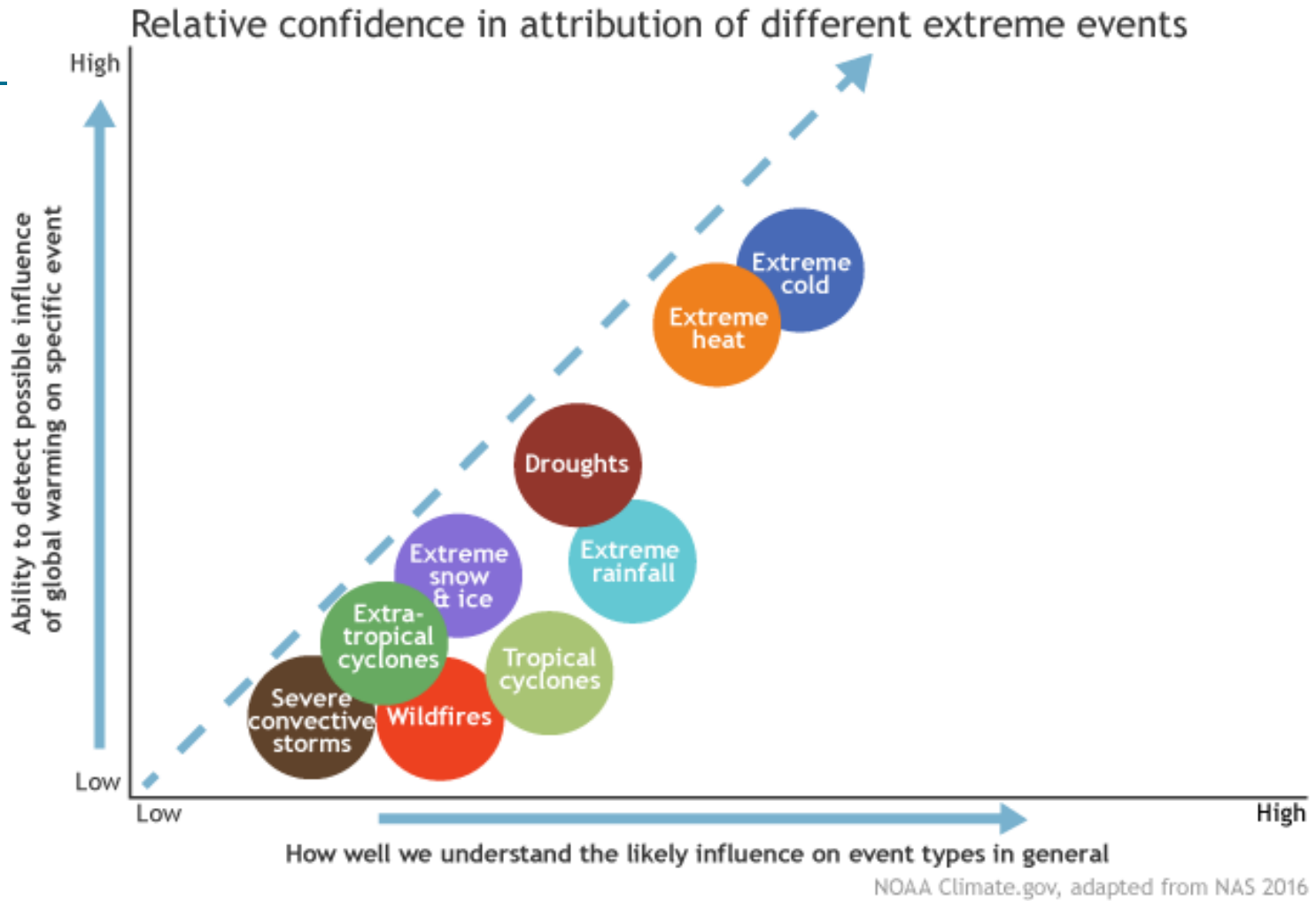
- By Coverage
  - Business Interruption
  - Contingent BI
  - Non damage BI
  - Supply chain modelling

- Secondary / Cascading perils
  - Tsunami
  - Landslide
  - Liquefaction
  - Coastal Surge / Inland flooding

Future challenges – Climate Change

Climate change is not a problem for 2050

- Hazards changing
  - Forward looking models
- New priorities ?
  - Wildfire
  - Flood
  - Hail
  - Drought
- Responsibilities as good corporate citizens
  - Principles of Sustainable Insurance
  - Environmental Sustainability and Governance
  - Reporting / TCFD



Future challenges – taking a “systems based” approach

Increasing complexity suggests a ‘model of models’

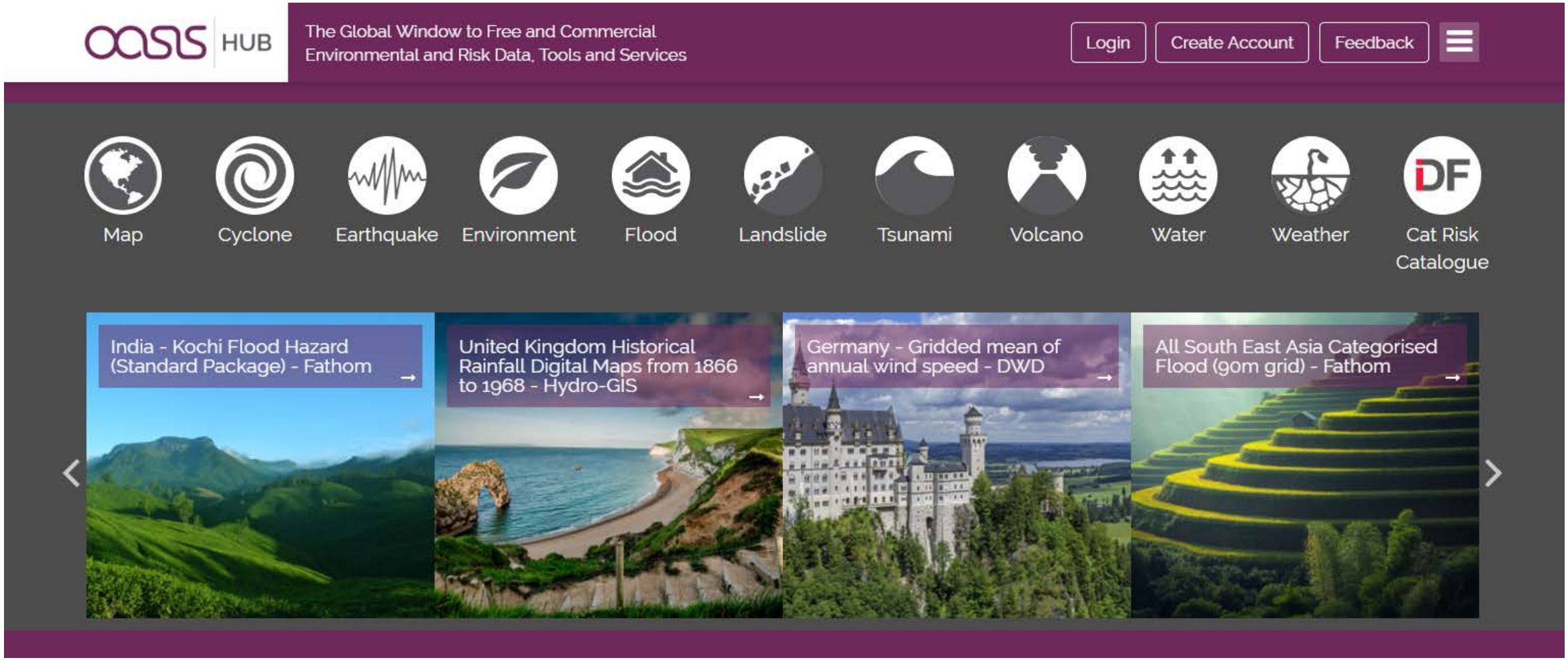
- Cascading hazards can create non-linear effects
  - Natural disaster triggers technological disaster
    e.g. Fukushima nuclear post Tohoku Earthquake/tsunami
  - Failure of critical infrastructure. Investing in resilience

- Wider economic context
  - Is there spare capacity in the economy to rebuild
  - Economic demand surge is hard to quantify
  - Feedback loops to GDP, investment portfolios

- Societal effects
  - Post-Disaster migration / Climate refugees
  - Breakdown in civil society in major events
  - New Orleans population did not recover post Katrina

- Tele-connections
  - E.g. El Nino, climate

Availability of models is increasingly – catalogue at https://oasishub.co/



Discussion themes

Current model issues

- Choice – more suppliers, increased competition
- Availability – many missing perils models
- Openness and Transparency – no “Black Boxes”
- Affordability – too expensive for too many
- Standards – Interoperability / automated processes

Future model challenges

- Completeness
  - By Line of business (Agro, Marine, Engineering …
  - By Coverage
  - Secondary / Cascading perils
- Climate change
  - Hazards changing
  - New priorities ?
  - PSI / ESG / TCFD
- Systems-based modelling
  - Cascading hazards
  - Wider economic context
  - Societal effects
  - Tele-connections, e.g. El Nino

Wrap-up