



# Oasis Loss Modelling Framework:

Where are we on this open source initiative?

**Paul NUNN, Head of Catastrophe Risk Modelling**

# The history of Catastrophe Modelling is *largely* a success story

## Cat Models = InsurTech 1.0 ?

- Pioneered over 30 years ago bringing major advances in the quantification of risk to Hurricanes and Earthquakes
- Multi-disciplinary approach combining :
  - Science
  - Engineering
  - Insurance
  - Software programming
- Simulation of thousands of hypothetical but plausible physical events to create 'synthetic experience'
- Re/insurance industry widely adopts a probabilistic framework for catastrophe risk management ...
- ... and embraces a whole new set of jargon and acronyms
- Record \$135bn industry catastrophe losses in 2017 managed in orderly way, demonstrate the value proposition of cat models



# so what are the problems that the Oasis Framework is trying to overcome?



## Priorities differ by company - but key issues are:

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

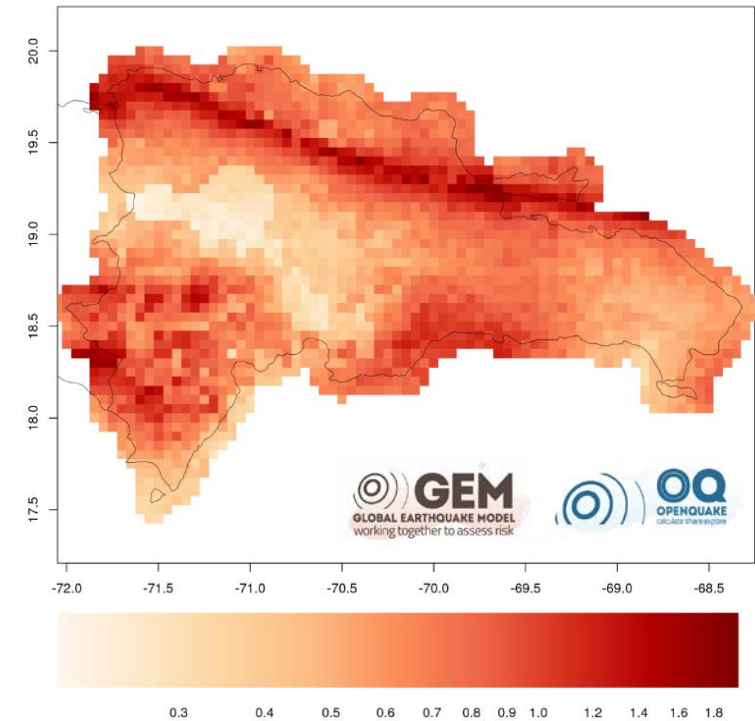
- An industry-led initiative, constituted as a *not for profit* company in 2012
- In essence, the Oasis Loss Modelling Framework is
  - A platform for running catastrophe models
  - a web based user interface and
  - an API for integration with other systems
- Oasis also provides Model Development Toolkit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

# Update on how Oasis LMF is doing

## Latest Oasis progress is positive, but certainly more to do

- Full Open Source code published and free to download from GitHub
- Accelerating Adoption and Operationalisation
- Increasing Model Choice in a Cost-Effective Way
  - All “independent” model providers commit to make models available on Oasis Platform, over 80 models available from 15 suppliers in 2018
- Reducing Deployment Costs
  - Deployment options become cheaper and more flexible
  - Free testing environment and shared service currently being offered for most models
- Working with Global Earthquake Model to integrate OpenQuake models
- Funding by German Govt to build freely-available cat models for Philippines and Bangladesh
- Building new Danube river flood model including climate change signals (funded by H2020)
- Climate KIC committed an additional €5m around Oasis for climate-risk applications

## GEM-OASIS Dominican Republic SA(0.3 s) 10% in 50-yr return period



# Breakout Session tomorrow morning on Oasis at 09:00

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## Discussion topics

- 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