

# ICRM Symposium 2016

## *Plugging the Natural Catastrophe Data Gap – Thoughts to Action for NatCatDAX*

21 April 2016, Singapore

### SYNOPSIS

The Institute of Catastrophe Risk Management (ICRM) was launched by Nanyang Technological University, Singapore, in January 2010 with a vision to become Asia's leading research institute in catastrophe risk modeling and management. ICRM has conducted six Annual Symposia on important topics including food and water security and climate change, black swan events, extreme events in Asia Pacific, financing natural catastrophes in Asia, public-private partnership in managing catastrophe events, and mega-cities of Asia and their evolving risks.

This Seventh Annual Symposium will focus on data about the assets exposed to natural catastrophes (NatCat's) in Asia and in particular Southeast Asia. Both the public sector (the governments) and the private sector (the insurance industry – the Industry) are struggling to find sustainable solutions, as well as to build viable partnerships in managing the NatCat risk. Both need quality data across their respective enterprises. Governments need data to understand and relate to NatCat risk transfer solutions through re/insurance as shock absorber for the fiscal burden of NatCat's. The Industry needs robust, objective and independent data to offer innovative products (loss based and parametric) to traditional markets, open new markets with the governments, enhance risk assessment, and be able to carry out reliable benchmarking against the market. Data which enable solutions need to be developed through a newly formed regional data platform – Nat Cat Data and Analytics Exchange – NatCatDAX. This realization defines the theme of the Seventh Symposium as:

#### **Plugging the Natural Catastrophe Data Gap - Thoughts to Action for NatCatDAX**

The Symposium will be organized along two sub-themes:

1. **Perspectives on Existing Nat Cat Exposure and Loss Data**

This theme will be the venue for the Industry (insurers, reinsurers, brokers) and the Public Sector to address how data challenges are managed within the current environment and offer their perspectives and advice on improving it.

2. **NatCatDAX-Advanced Technologies to Bridge the Data Gap**

This theme will bring in the research, technology, and exposure modeling perspectives. Along this theme an advanced blue print for NatCatDAX, led by ICRM, and involving industry and technology partners will be presented. The purpose of the session will be to get the participants fully engaged and enable them to provide their valuable and critical feedback and advice in making an efficient NatCatDAX platform a reality.

No single entity, private or public, has all the data and all know-how, or has a complete perspective on all aspects of NatCatDAX. Multiple stakeholders have pieces, and an alliance to bring them together needs to be created and activated on the principles of mutual benefits. This Symposium is an important step in achieving this goal, and we hope that the invited speakers and participants will embrace this principle in their Symposium contributions.

It is our pleasure to invite you to attend the Symposium. We look forward to welcoming you at our Seventh ICRM Symposium 2016.

Professor PAN Tso-Chien  
Executive Director  
Institute of Catastrophe Risk Management  
Nanyang Technological University, Singapore



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# 7<sup>th</sup> International Symposium on Catastrophe Risk Management

## *Plugging the Natural Catastrophe Data Gap – Thoughts to Action for NatCatDAX*

Thursday, 21 April 2016

Nanyang Executive Centre, Nanyang Technological University  
Singapore

### PROGRAMME

#### Opening Session

0830	Registration and Arrival
0930	<b>Welcome Greetings</b> <b>Prof Tso-Chien Pan</b> Executive Director, Institute of Catastrophe Risk Management, NTU, Singapore
0935	<b>Opening Address</b> Guest-of-Honour: <b>Mr Bernard Wee</b> Executive Director, Financial Markets Development, and Payments and Technology Solutions, Monetary Authority of Singapore, Singapore
0945	<b>Presentation 1</b> <b>Challenges and Opportunities for NatCatDAX Establishment</b> <b>Prof Haresh Shah</b> Founding Chairman, ICRM International Advisory Board, NTU Emeritus Member, Board of Trustees, NTU Emeritus Professor, Stanford University Founder & Senior Advisor, RMS Inc., USA
1000	<b>Morning Refreshment</b>

1110	<b>Presentation 4</b> <b>Data Quality and Completeness for Cat Risk Management - A Global Insurance Company's View</b> <b>Dr Sibylle Steimen</b> Head, Global Cat Risk Management, Allianz Re, Germany
1130	<b>Presentation 5</b> <b>Financing Population Displacement Costs in Southeast Asia – Data Needs</b> <b>Dr Gordon Woo</b> Adjunct Professor, ICRM, NTU, Singapore Catastrophe Risk Consultant, RMS Inc., UK
1150	<b>Presentation 6</b> <b>Some Thoughts on Ways of Bridging the Insurance Protection Gap and Data Gap in Asia</b> <b>Prof Shaun Wang</b> Professor, Nanyang Business School (NBS), NTU, Singapore Director, Insurance Risk and Finance Research Centre, NBS, NTU, Singapore
1210	<b>Q&amp;A and Presentation of Mementos</b>
1240	Lunch

#### Session 1 – Perspectives on Existing Nat Cat Exposure and Loss Data

Session Chairman: **Mr Derek Wong**  
 Vice President, Renaissance Reinsurance Ltd, Singapore Branch

1030	<b>Presentation 2</b> <b>Big Data – Transforming Risk and Insurance</b> <b>Mr George Attard</b> Head, Aon Benfield Analytics, International, Aon Benfield, Singapore
1050	<b>Presentation 3</b> <b>Munich Re's NatCatSERVICE Database: New Methods to Normalize Losses and Classify Event Intensities</b> <b>Prof Peter Höppe</b> Head, Geo Risks Research/Corporate Climate Centre, Munich Re, Germany

#### Session 2 – NatCatDAX–Advanced Technologies to Bridge the Data Gap

Session Chairman: **Prof Domenico Giardini**  
 Chair, Seismology and Geodynamics, ETH, Zurich  
 President, International Association of Seismology & Physics of the Earth's Interior  
 Head, Swiss Competence Center on Energy Research – Supply of Electricity

1340	<b>Presentation 7</b> Data Development and Analytics at RMS – A Look into Industrial Clusters in East Asia <b>Mr Adrian Mark</b> Senior Product Manager, RMS Inc., UK
1400	<b>Presentation 8</b> <b>QLARM: A Tool to Estimate Earthquake Losses</b> <b>Prof Max Wyss</b> Science Expert, International Centre for Earth Simulation Foundation, Geneva, Switzerland Emeritus Professor, University of Alaska, USA

1420	<p><b>Presentation 9</b>  <b>Synthetic Aperture Radar Technology for Developing Urban Exposure Data</b></p> <p><b>Prof Fumio Yamazaki</b>  Department of Urban Environment Systems, Graduate School of Engineering, Chiba University, Japan</p>
1440	<p><b>Presentation 10</b>  <b>Challenges and Design of Parametric Triggers</b></p> <p><b>Dr Petr Puncochar</b>  Head, Flood Model Development, Impact Forecasting, Aon Benfield, Singapore</p>
1500	<p><b>Presentation 11</b>  <b>Natural Catastrophe Risk Data Acquisition, Analysis and Use: Indonesian Insurance Industry Perspective</b></p> <p><b>Dr Frans Sahusilawane</b>  President &amp; CEO, PT Reasuransi Indonesia Utama (Persero), Jakarta, Indonesia</p>
1520	<p><b>Presentation 12</b>  <b>Filling in the Gaps – What We Need to Know to Build Robust Global Exposure Models</b></p> <p><b>Mr Ronald Eguchi</b>  President &amp; CEO, ImageCAT Inc., USA</p>
1540	<p><b>Q&amp;A and Presentation of Mementos</b></p>
1600	<p>Afternoon Refreshment</p>

## Session 3 – NatCatDAX

Session Chairman: **Dr Pane Stojanovski**  
Adjunct Professor, ICRM, NTU, Singapore  
Founder, CatRisk Research, USA

1620	<p><b>Presentation 13</b>  <b>Plugging The Data Gap – The PERILS Experience</b></p> <p><b>Dr Eduard Held</b>  Head Products, PERILS AG, Zurich, Switzerland</p>
1640	<p><b>Presentation 14</b>  <b>NatCatDAX@ICRM</b></p> <p><b>Prof Tso-Chien Pan</b>  Executive Director, Institute of Catastrophe Risk Management, NTU, Singapore</p>
1700	<p><b>Panel Discussion</b></p> <p>Panel Chairman: <b>Assoc Prof Edmond Lo</b>, Deputy Director, Institute of Catastrophe Risk Management, NTU, Singapore</p> <p><b>Panelists:</b></p> <ol style="list-style-type: none"> <li><b>Prof Haresh Shah</b>, Founding Chairman, ICRM International Advisory Board, NTU; Emeritus Member, Board of Trustees, NTU; Emeritus Professor, Stanford University; Founder &amp; Senior Advisor, RMS Inc., USA</li> <li><b>Dr Frans Sahusilawane</b>, President &amp; CEO, PT Reasuransi Indonesia Utama (Persero), Jakarta, Indonesia</li> <li><b>Mr George Attard</b>, Head, Aon Benfield Analytics, International, Aon Benfield, Singapore</li> <li><b>Prof Peter Höpfe</b>, Head, Geo Risks Research/ Corporate Climate Centre, Munich Re, Germany</li> <li><b>Mr Ronald Eguchi</b>, President &amp; CEO, ImageCAT Inc., USA</li> <li><b>Mr Randy Liu</b>, General Manager, MS Frontier Re Modeling Research, Singapore</li> </ol>
1745	<p><b>Closing Remarks</b></p> <p><b>Prof Tso-Chien Pan</b>  Executive Director, Institute of Catastrophe Risk Management, NTU, Singapore</p>
1800 to 1900	<p><b>Cocktail (NEC Auditorium Foyer)</b></p>

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