

Parametric solutions as a contributor to closing protection gaps

Parametric Solutions , how do they work,
example of products

Vipin K S

How parametric insurance works

Your quick and simple insurance solution

Quick payout

Swift

The payout depends on the **occurrence of a triggering event**, regardless of the actual loss.

The trigger can be activated by the event reaching or exceeding the predefined **threshold** intensity.
(e.g. wind speed \geq 100km/h or mag $>$ 6 etc.)

Pre-defined parameter

Simple

Parametric insurance settles on a pre-agreed, simple measure (the "**parameter**" or "**index**")
(e.g. windspeed for tropical cyclone, magnitude or intensity of earthquake etc.)

Reporting agent

Independent

An independent **third party** will assess the intensity of the event and hence the impact on the claim.
(e.g. local meteorological service like NHC, INGV, USGS etc.)

Parametric insurance can cover many perils...

... and serve different client needs



Emergency cash

Quick payment to cover immediate expenses such as evacuation, food, transportation.

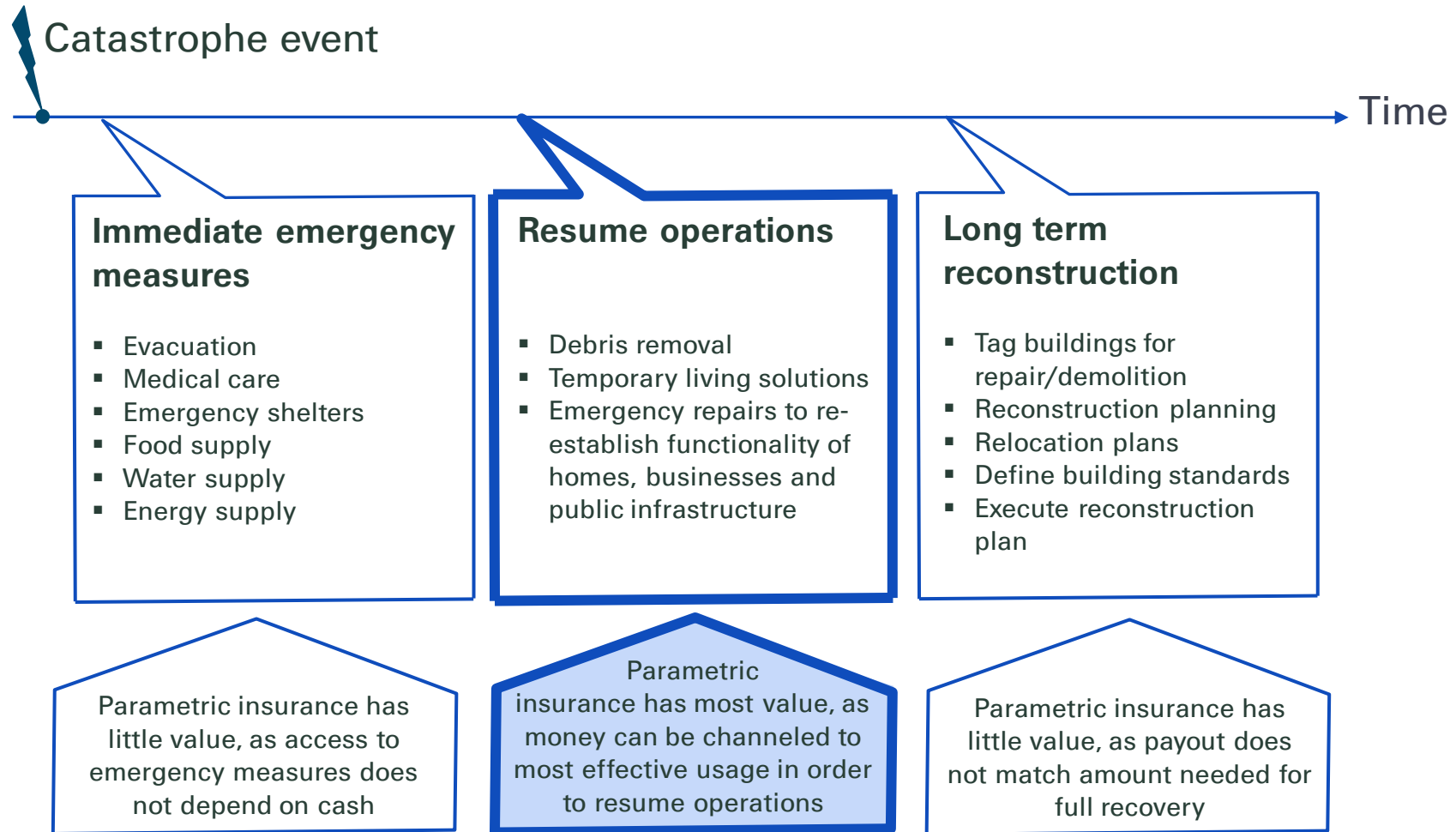


(Non-damage) business interruption

Quick payment to cover reduced revenue due to damage in nearby locations.

*in development

Value of Parametric Insurance in Disaster Recovery



Some Areas of Property Parametric Products – Bridging the protection gap

Business continuity cover for SME

- Covers NDBI
- Does not aim to cover all the losses.

Disaster Recovery for Public Entities

- Helps governments to lower their financial exposure to cat-risks
- Can cover costs like clean-up cost after flooding etc.

Indirect loss cover for homeowners

- Homeowners in high-risk areas
- Covering several indirect losses, which need to be paid out of pocket

Market risk cover for the tourism sector

- BI losses due to trip cancellations following a catastrophic event

Micro-Insurance Solutions

- The product is directed at the poorest customer segment
- A micro-entrepreneur (e.g. selling goods at a roadside stall) can lose entire inventory during a natural disaster

Un-insurable risks

- Risks which are not covered in traditional insurance
- Eg: Transmission lines, NDBI etc.

The way to success

Key-components of a parametric product



Distribution channel

A sound distribution channel is key for the success of parametric product:

- Integration in existing policies / add-on to existing policies
- Use of alternative distribution channels (such as banks, phone providers etc.)



Data sources

Two data sources are needed:

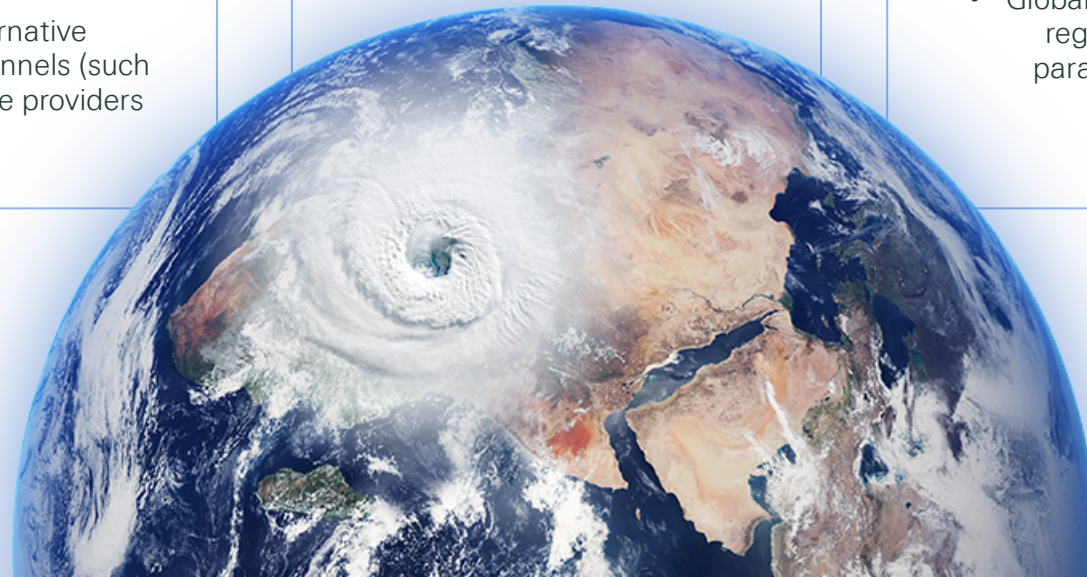
- Trigger - Independent third-party provider (e.g., USGS, NHC, government alerts)
- Historic loss data



Regulators approval

As a new product in the market, parametric insurance often seeks regulatory approval.

- Multi-trigger / Proof-of-loss capabilities
- Global expert network on regulatory affairs in parametric insurance



How Swiss Re supports you

Risk Knowledge

Risk Assessment:

- Proprietary risk models
- Risk analysis based on location input
- Exposure visualization



Product Design

Tailored offering:

- Definition of the index / proof of loss (incl. double trigger functionalities)
- Creation of hybrid products
- Quoting and pricing



Modular IT platforms

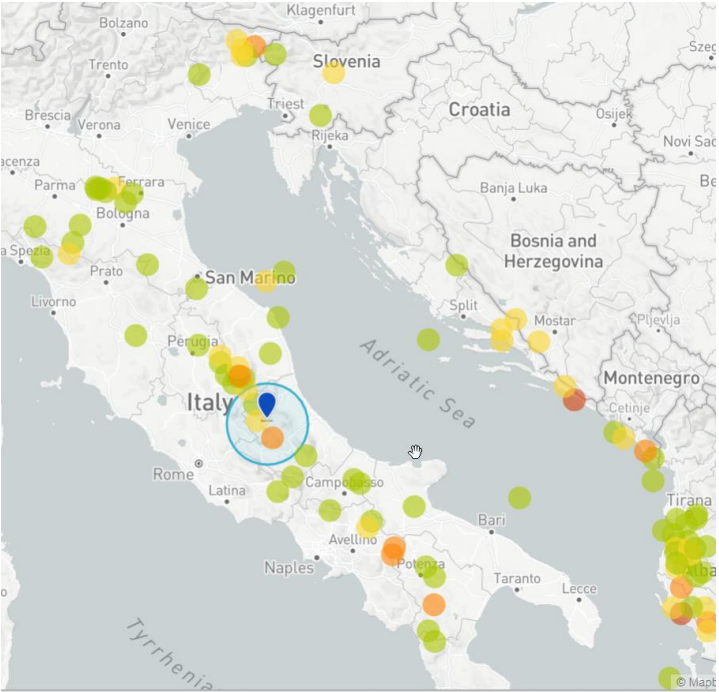
- **Parametric Costing Platform**
- **Parametric Policy Tracking Platform** incl. policy administration, real time event tracking & automated loss notification, proof-of-loss capabilities



Parametric Costing Platform (PCP): Nat Cat Perils

Accurate, speedy & modular costing capabilities at your fingertip

Example for Magnitude based EQ product design in Italy





Earthquake

1. Set location for quotation

3 Geometry and Payout pattern

Circle 1 Area: 7858.89 km²

Radius * km

Circle center *  

^ Payout scheme

Intensity from	Intensity to	Payout (%)
<input type="text" value="0"/>	<input type="text" value="5"/>	<input type="text" value="0"/>
<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="50"/>
<input type="text" value="6"/>	<input type="text" value="9"/>	<input type="text" value="100"/>

+ ADD ROW

+ ADD SHAPE

NEXT **BACK**

2. Define geometry & payout pattern

3. Add further policy details and limit

Results

(Calculation ID: SRENEU-6D344F5D01F844929581D1C16009FD28)

Risk Rate on Line	2.96%	Annual Expected Loss	€29,625.00
Total Insured Value	€1,000,000.00	Burning cost	€14,836.01

Intensity Frequency Curve (Earthquake)

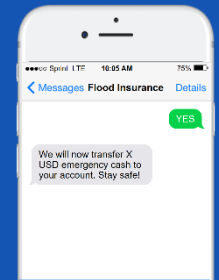
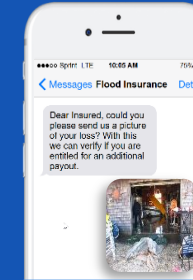
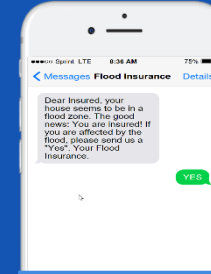
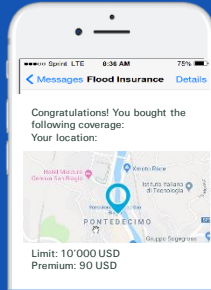


4. Output: Risk RoL, Annual Expected Loss, Limit, Burning cost

Swiss Re's Parametric policy distribution Platform

Insured

Insurer



Product design

Creating a smart index, deciding on (double)-trigger and proof of loss as well as pricing the product

Quoting and pricing (via PCP)

Platform provides instant quote based on location and selected limits

Policy administration

Platform can be used to administrate policies

Event tracking

Platform monitors constantly if independent third party reports an event

Event

If a reported event passes the pre-defined threshold, the platform checks if any policies are affected

Claims calculation

The platform automatically calculates the potential claim

Proof of loss

The platform automatically does additional checks, if there was a loss reaches out to the clients to ask for further proof

Pay-out

Automated pay-out to legitimate policyholders

Swiss Re Parametric IT Platform

Use case: Parametric wind insurance for SMEs in the US

Instant financial relief in the event of natural catastrophes

Our client's challenge

- Tap into **uninsured** catastrophe risks and **broaden their insurance** to cover emergency expenses and non-damage business interruption in the case of tropical cyclone
- Meeting needs of **digital generation**
- **Tool** needed for brokers **to sell** parametric insurance
- **Quoting, event tracking** and **claims handling** still carried out manually – which is time consuming

Swiss Re

Our solution

Setup and customization of IT platform including

- Quoting / Non-binding indication
- Policy administration
- Event tracking – incl. integration of new reporting agents
- Portfolio steering: Accumulation control
- Claims calculation

The results

5

Number of **states** we are live

1''

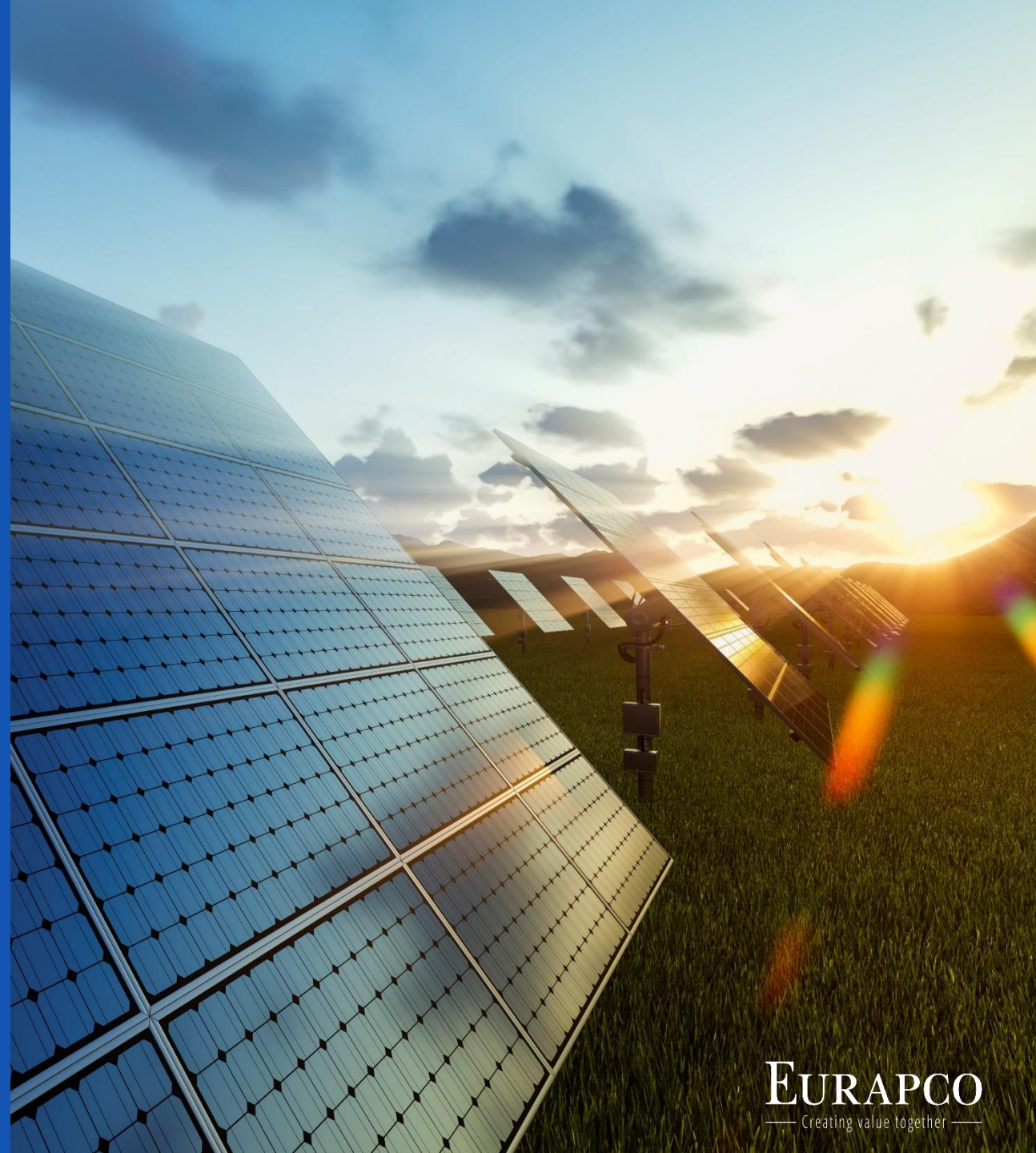
Time to send quote, enabled by **automated underwriting engine**

67%

Faster claims settlement process due to live event tracking and **automated claims process**

June 2023

Thank you for your
attention!





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