



Natural Catastrophes – A global protection gap with local solutions

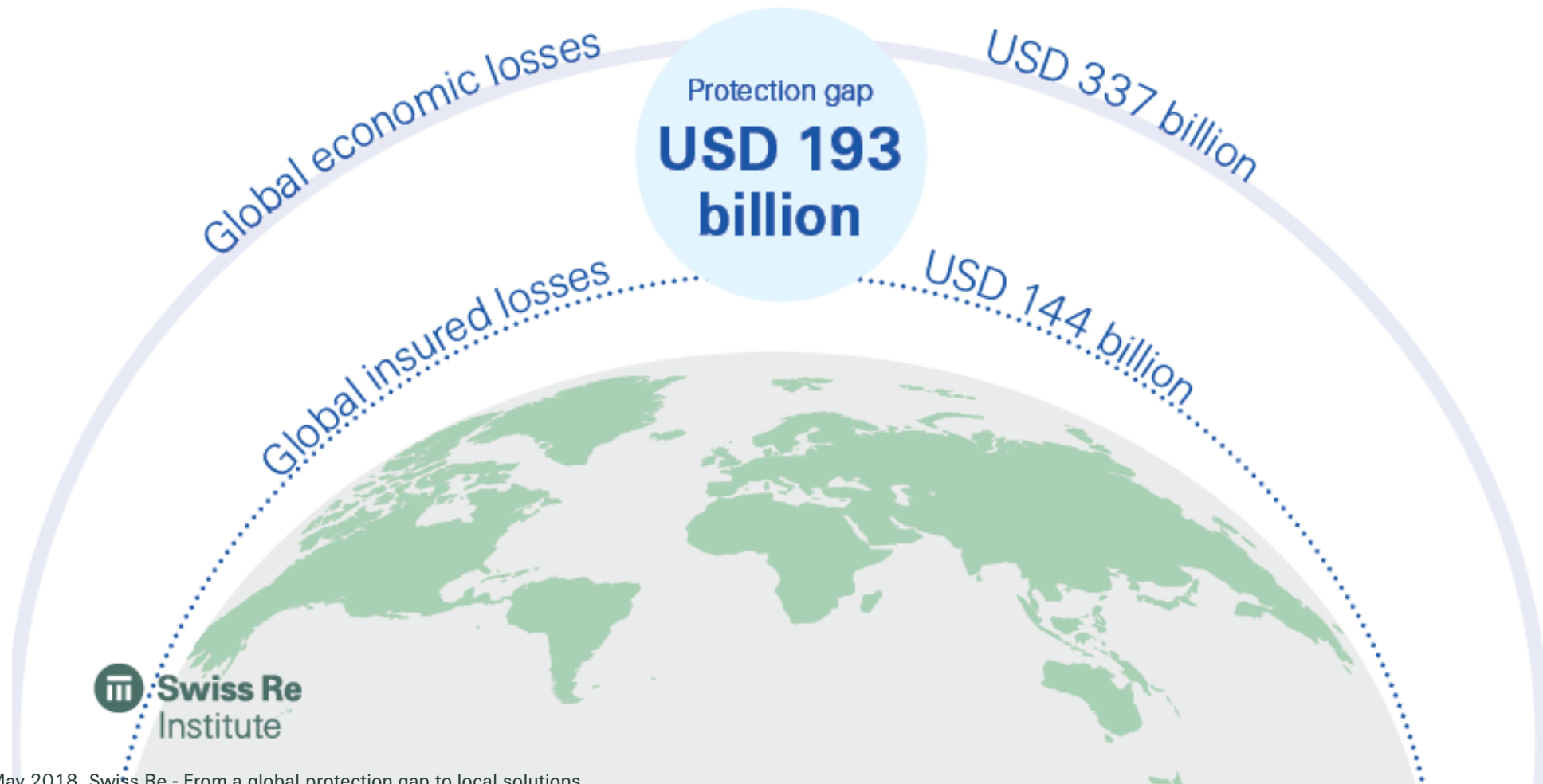


BEFORE



AFTER

USD 144 billion: global insured losses from disaster events in 2017

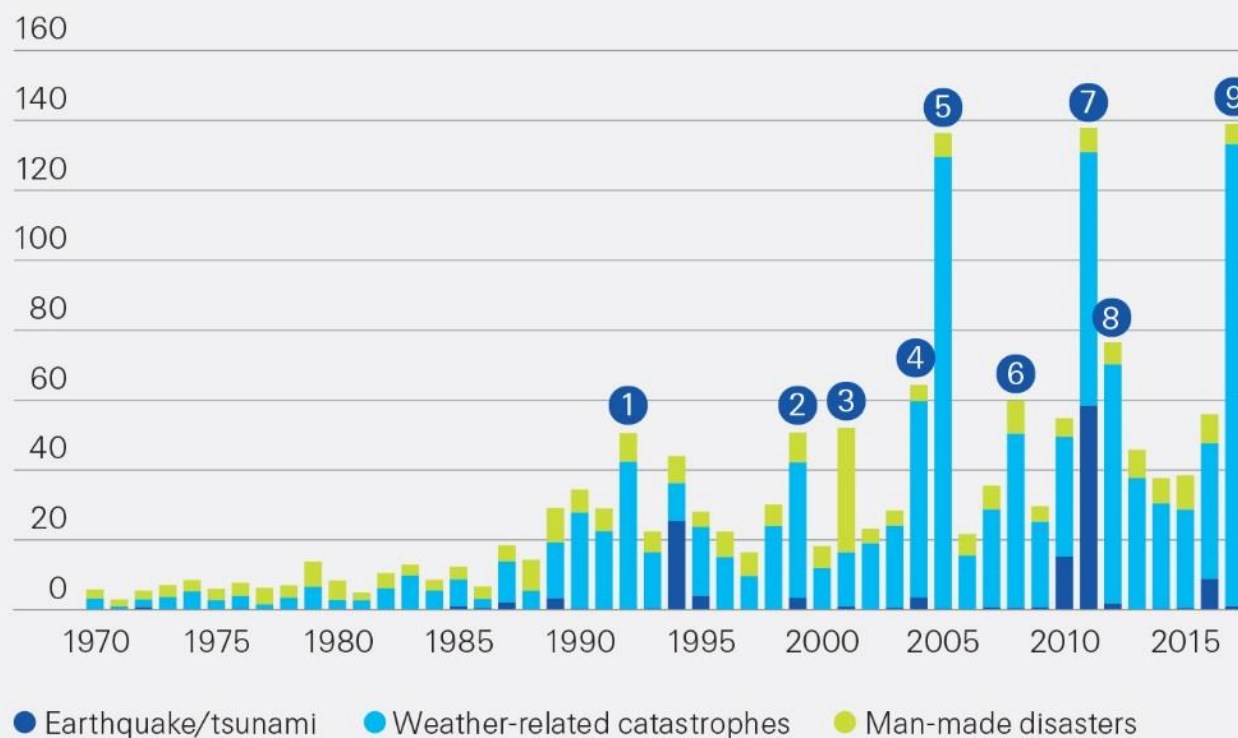


Insured losses in 2017: USD 144 billion

Figure 3

Insured catastrophe losses
1970–2017 in USD billion,
at 2017 prices

- 1 1992: Hurricane Andrew
- 2 1999: Winter Storm Lothar
- 3 2001: World Trade Center
- 4 2004: Hurricanes Ivan, Charley, Frances
- 5 2005: Hurricanes Katrina, Rita, Wilma
- 6 2008: Hurricanes Ike, Gustav
- 7 2011: Japan, NZ earthquakes, Thailand flood
- 8 2012: Hurricane Sandy
- 9 2017: Hurricane Harvey, Irma, Maria



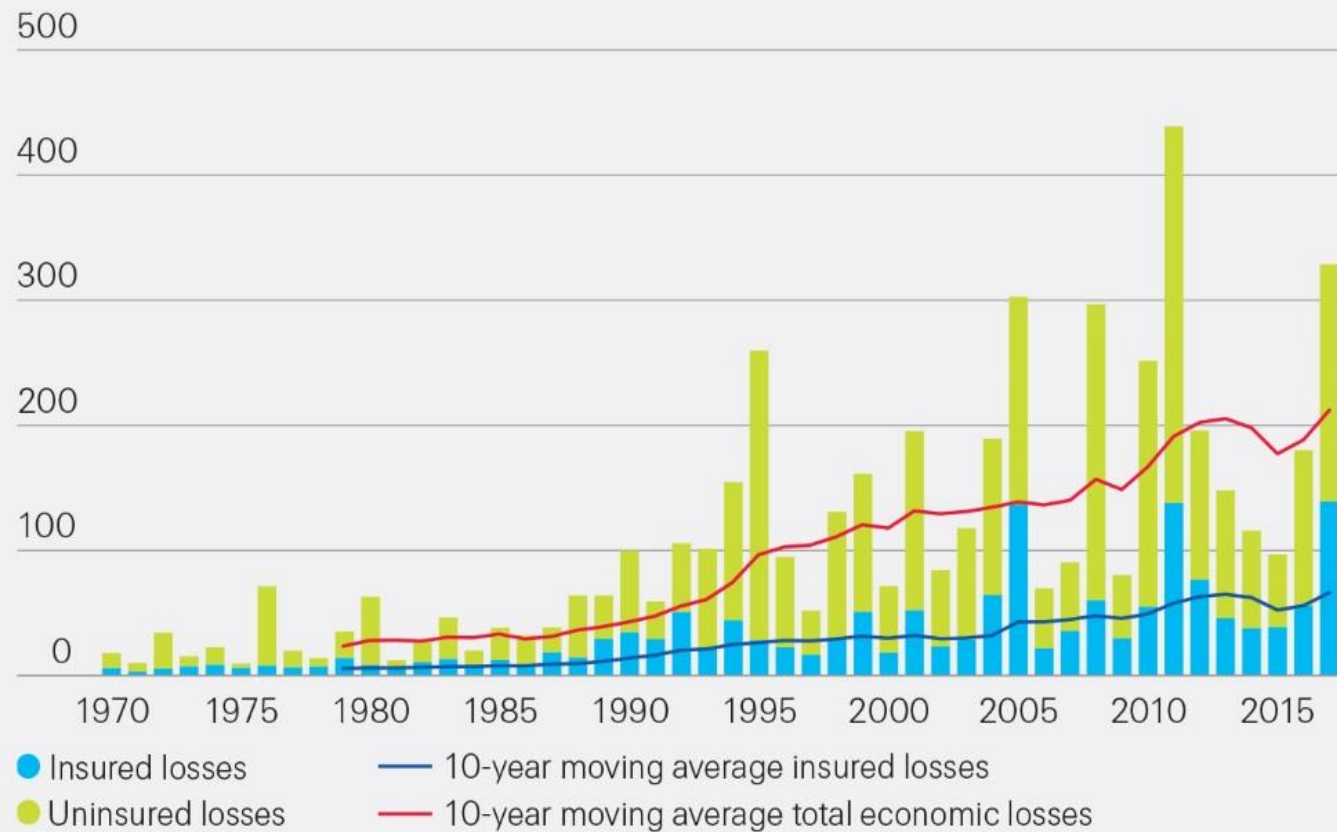
Source: Swiss Re Institute

Disaster losses still mostly uninsured

Figure 4

Insured vs uninsured losses,
1970 – 2017, in USD billion
at 2017 prices

Economic losses
=
insured +
uninsured losses



Source: Swiss Re Institute

2017: three North Atlantic hurricanes in quick succession

Combined Insured
losses of
**USD 92
billion**

1 Harvey

Insured losses
USD 30 billion

2 Irma

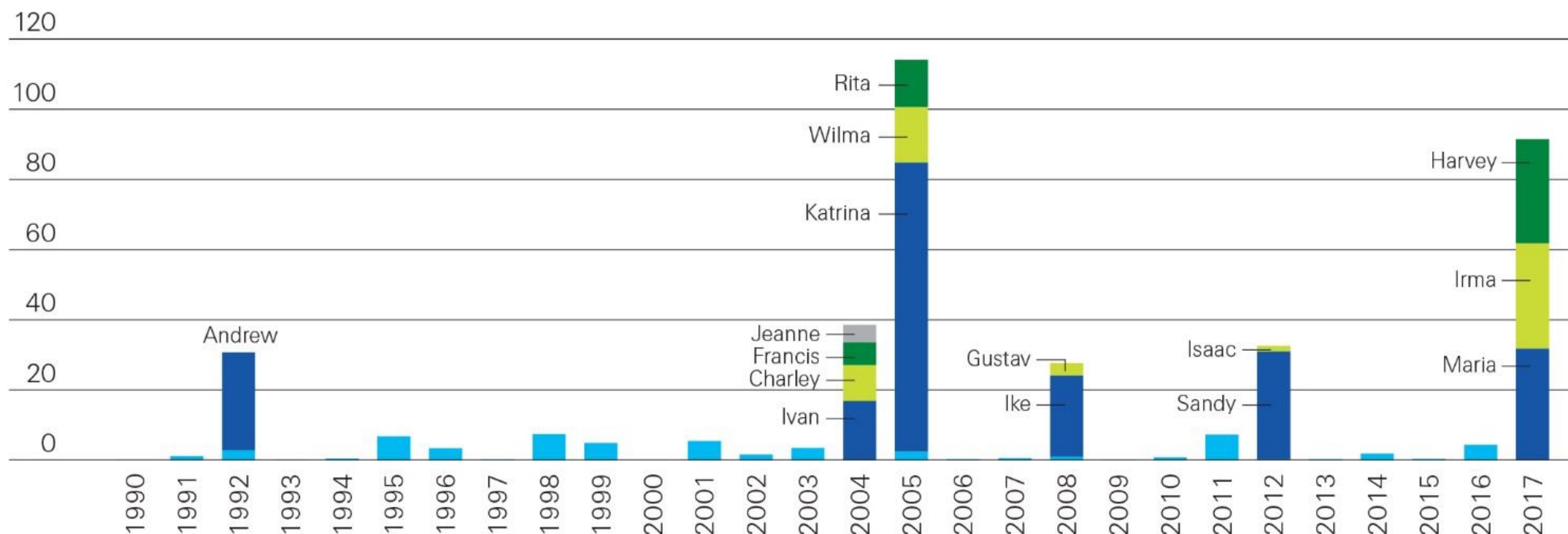
Insured losses
USD 30 billion

3 Maria

Insured losses
USD 32 billion

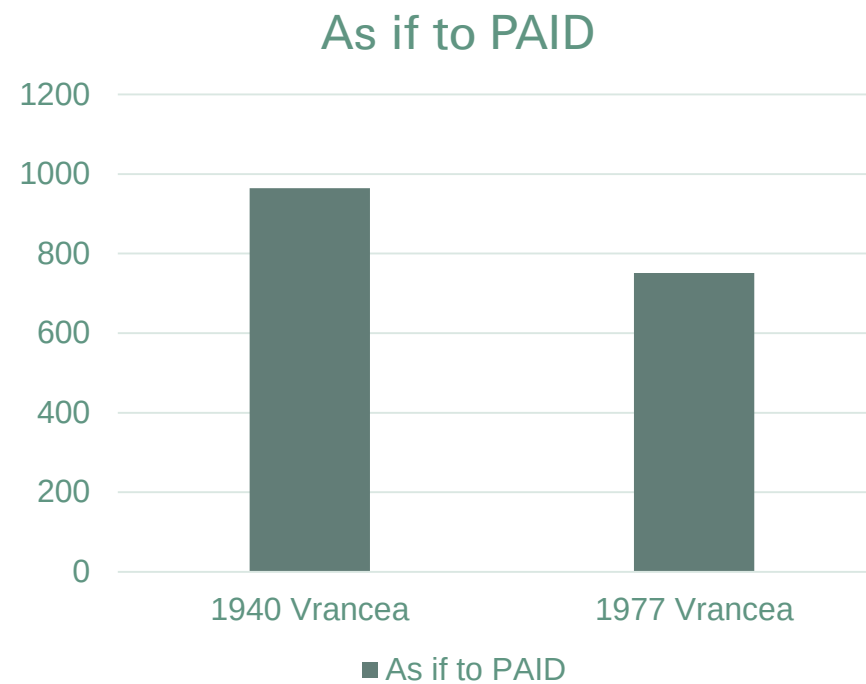
2017 hurricane season: second costliest ever

Insured losses from North Atlantic hurricanes 1990 – 2017 (USD billion) at 2017 prices



Source: Swiss Re Institute

Romania – Empiric events in today's world



Economic loss a multiple ?!

Parametric NatCat insurance products as a local solution?



A case for SOLUTIONS

New technologies are generating vast amounts of **new data** that can help us better manage risks and make better use of available resources.

But technology also brings about **new risks**, from cyber crime to new product liabilities from increasingly automated products and services.

At the same time, globalization and interconnectivity are making existing risks **more complex**, increasing the world's **protection gap**.

By harnessing the power
of technology, insurers
can be ready for the
future and build a more
resilient world.



Close the protection gap

Parametric Solutions

Swiss Re digital and fully automatic insurance platform for parametric products

WHAT IS IT?

Parametric product design and a scalable, fully automatic insurance offering embedded in a **lean cloud-based modular ecosystem** encompassing real time reporting, steering, dynamic pricing, automated claims payments and policy administration.

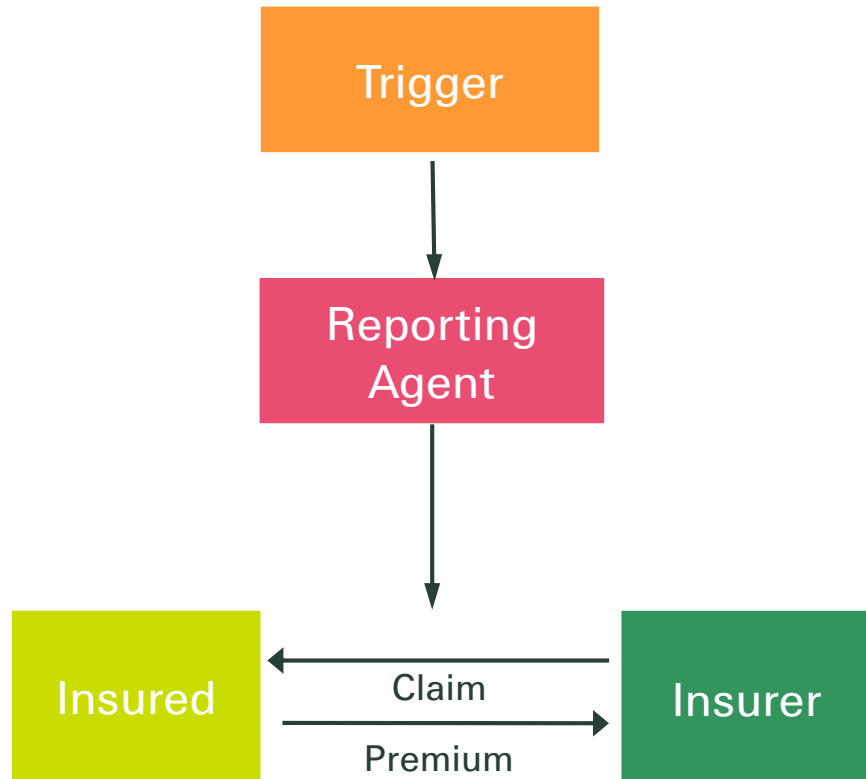
HOW DO YOU BENEFIT?

Gaining **access to a broader customer** base through innovative product design at **low investment** cost with **high consumer value** opening up new areas of growth across various distribution channels



Parametric insurance

"Simplification is the ultimate sophistication." - Leonardo Da Vinci



- **Parametric insurance** is a type of insurance that does settle on a *pre-agreed*, simple measure (the "parameter", or "index").
- Pay out depends upon the **occurrence of a triggering event**, regardless of the actual loss.

- An **independent third party** (e.g. USGS for EQ) determines the intensity of the event and hence the impact of the claim.

- The insured purchases a **maximum payout cover** from the insurer. The premium depends on the chosen limit as well as exposure of the insured.
- Even though large efforts are made to avoid it, the payout on a parametric product is unlikely to be exactly equal to the financial loss of an insured, the difference is known as "**basis risk**".

Parametric insurance is *simple, predictable, fully transparent, with little exclusions.*

Parametric insurance products

Value proposition

FAST
access to cash

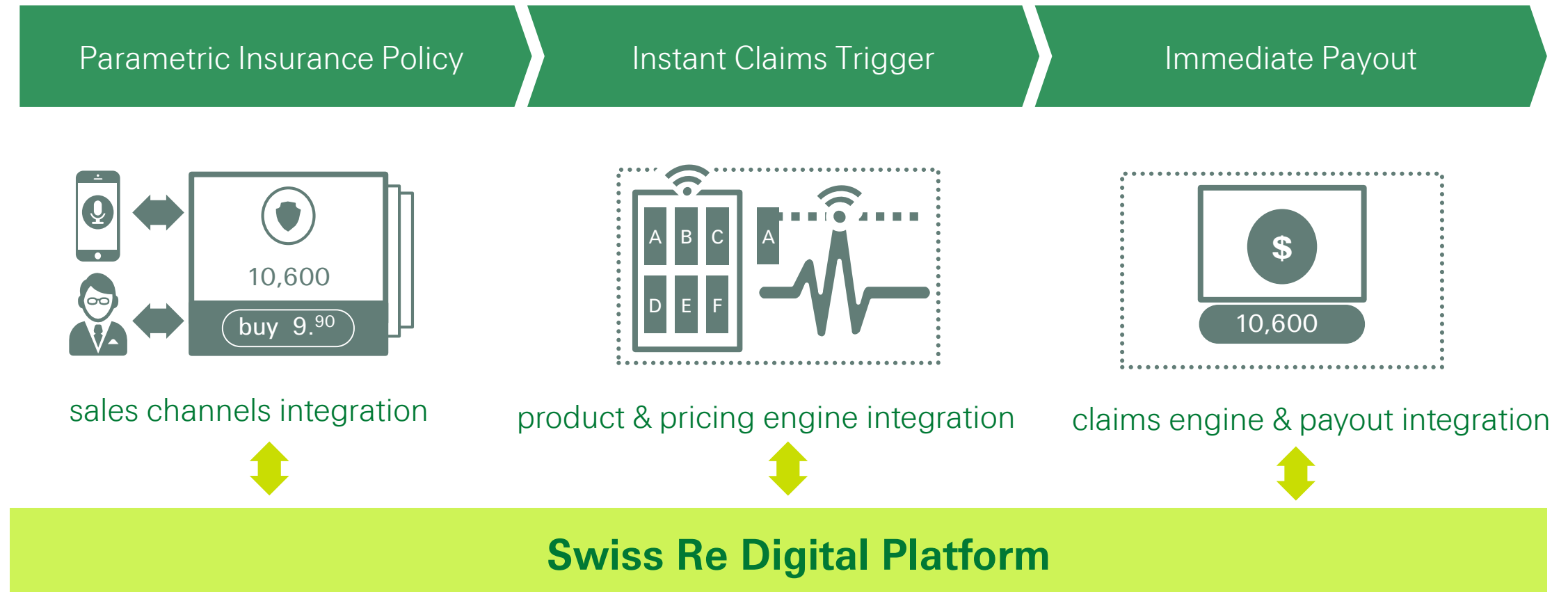
FLEXIBLE
usage of cash

AFFORDABLE
no claims process
low limits

- ✓ Parametric insurance makes sense **when traditional insurance is not accessible or affordable**
- ✓ Parametric insurance makes sense as a **complement to traditional insurance**
- ✓ Parametric insurance does **not** make sense as a **substitute for traditional insurance**

Swiss Re Solution

We can offer lean, modular digital ecosystems which enable fully automatic digital parametric insurance products



Parametric insurance products ideas

Innovative retail solutions that allow for simple and fast purchase and pay-out process

Flight Delay



The **parametric flight delay solution** offers insurers an end-to-end solution that is easy to customize and brings consumers instant, hassle-free payouts if their flight is delayed, based on a machine learning dynamic costing algorithm.



Earthquake



"Shake Vouchers" provides quick cash after an Earthquake to pay for incidental loss and expenses. The policy excludes property damage and covers small monetary amounts based on the shake intensity of individual locations worldwide.



Tropical Cyclone

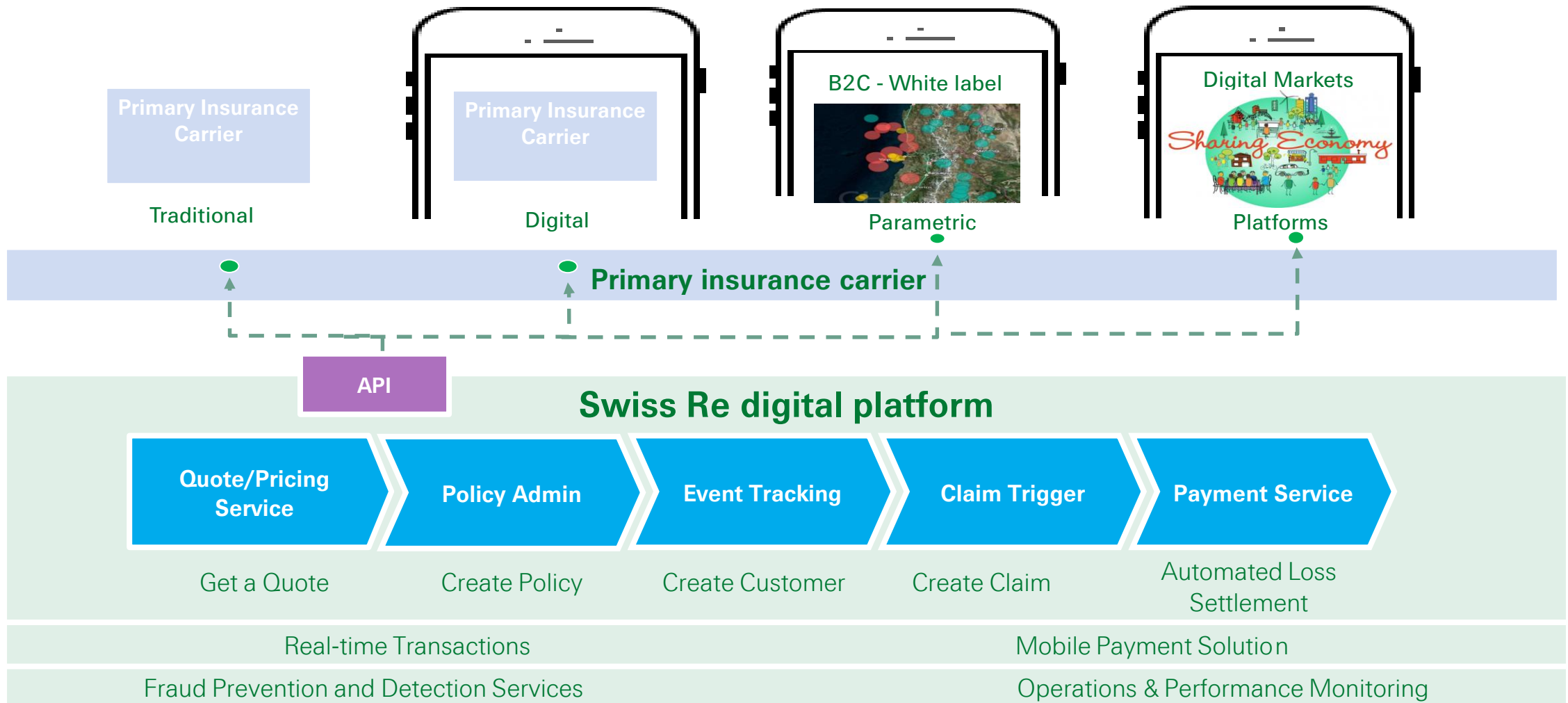


Loss of income cover combines BI and supplemental losses. In the aftermath of a hurricane e.g. beachfront hotels may experience losses due to cancellations even if they are not directly affected by the event. The policy pays out a lump sum to be spent at insureds own discretion if a hurricane occurs within a predefined geographic area surrounding the insured property (e.g. circle around the hotel with 100km radius).



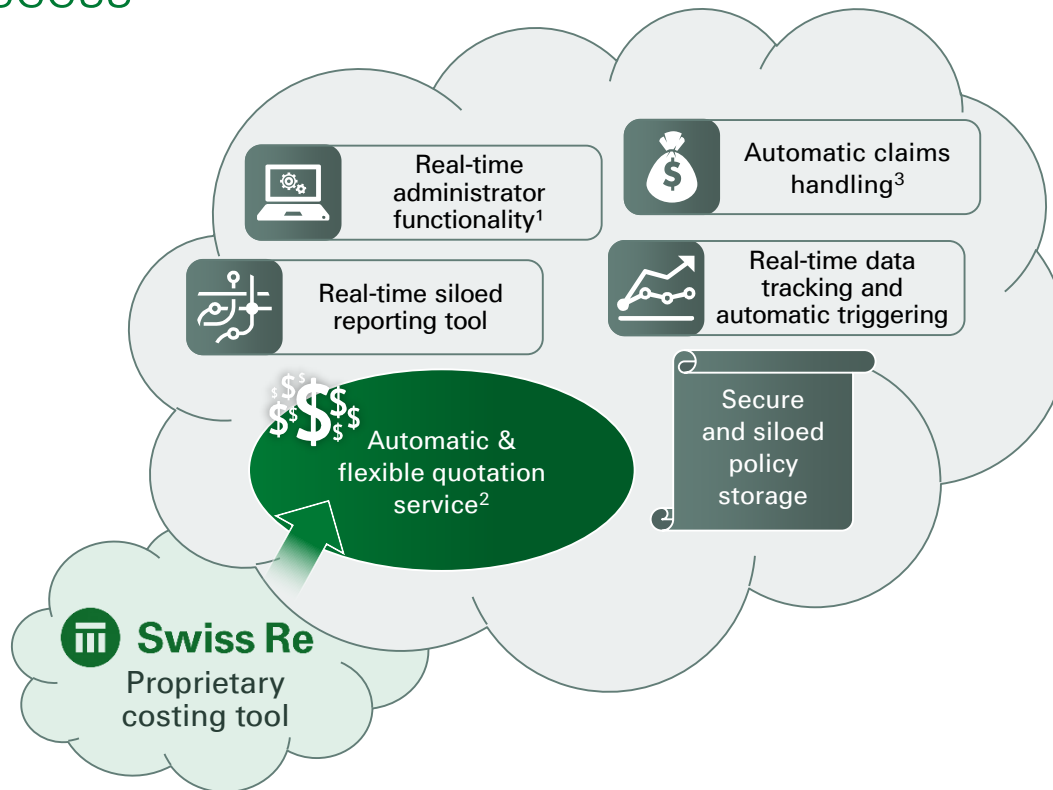
Swiss Re Parametric Solutions

Digital products require a dynamic, easy to integrate 'turn-key' solution



Digital ecosystem

A fully automated and scalable cloud application with public API for easy distribution partner access



- Scalable platform in Azure (Microsoft) cloud with “future-ready” IT architecture
- Easy accessible public API with fast access to automated client services and tailored reporting cockpit for distribution partners
- Proprietary Swiss Re costing tools to remain entirely within fully protected Swiss Re dedicated cloud environment

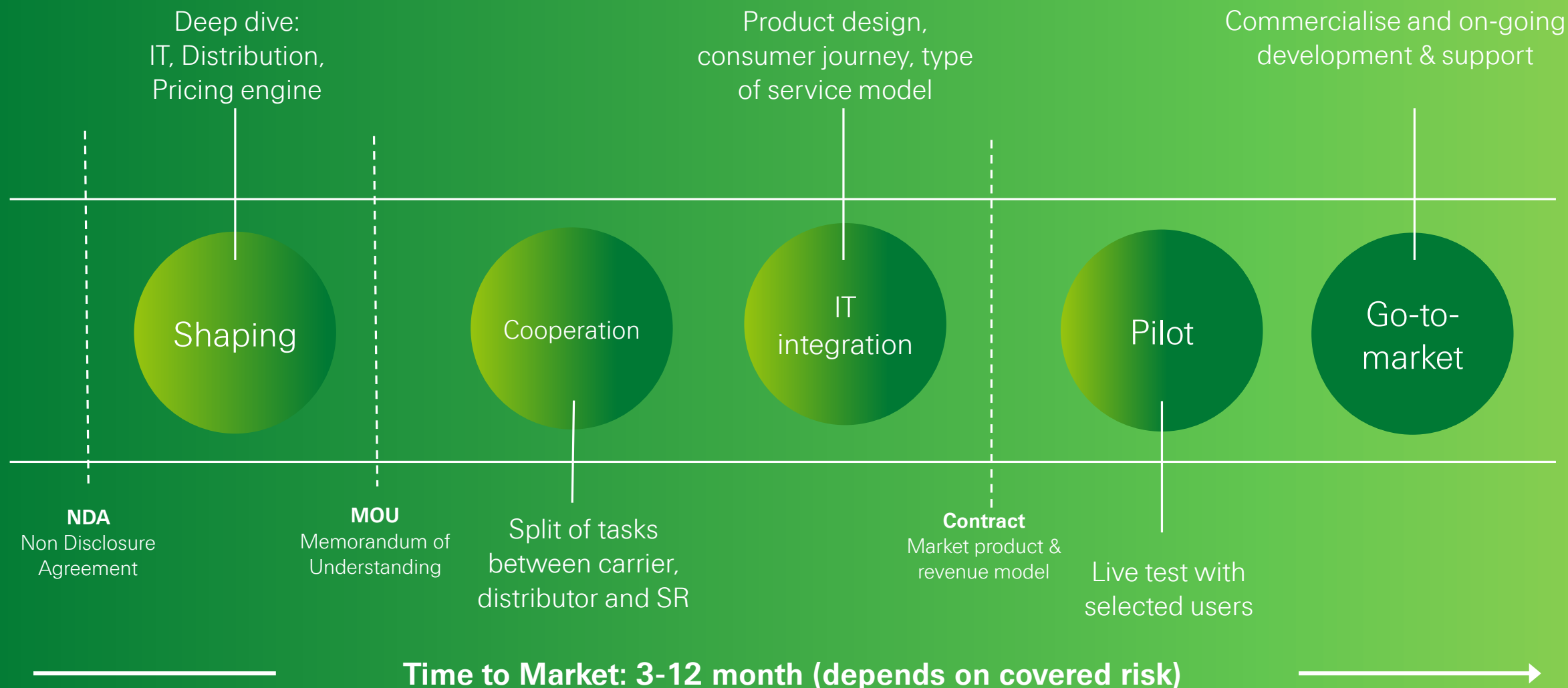
Turn-key solution for distribution partners offering fast time-to-market and low investment requirements

1) E.g. change parameters

2) E.g. customized pricing per distribution partner, costing updates

3) Including automatic client information (e.g. e-mail, sms) and payment

Roadmap: Implementing parametric solutions in your market





We're smarter together



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