

Parametric for people

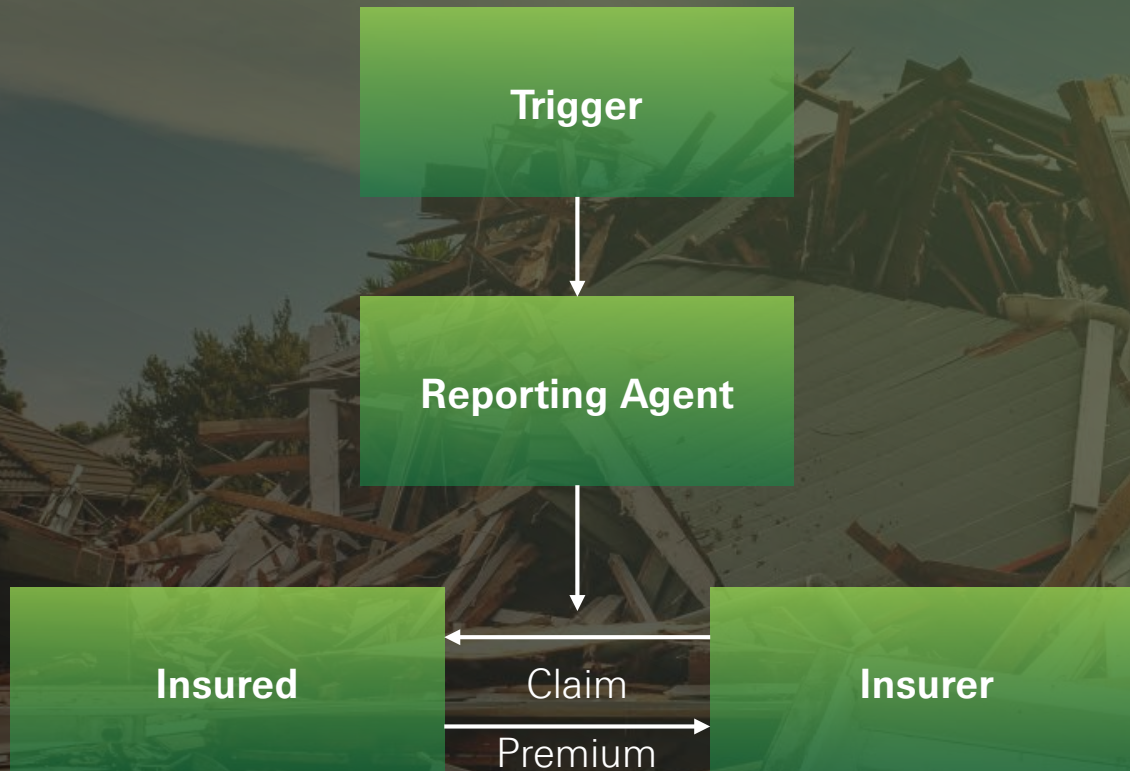
Swiss Re – CPCU Europe– June 29, 2019

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Head Property & Specialty Solutions



Parametric insurance

Simple, predictable, fully transparent with few exclusions



- **Parametric insurance** is a type of insurance that does settle on a pre-agreed, simple measure (the "parameter", or "index")
- Payout 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**"

"Simplification is the ultimate sophistication," Leonardo Da Vinci

Parametric insurance

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 acts as a **complement to traditional insurance, not a substitute**



Parametric insurance offers **immediate payout for emergency cash relief**

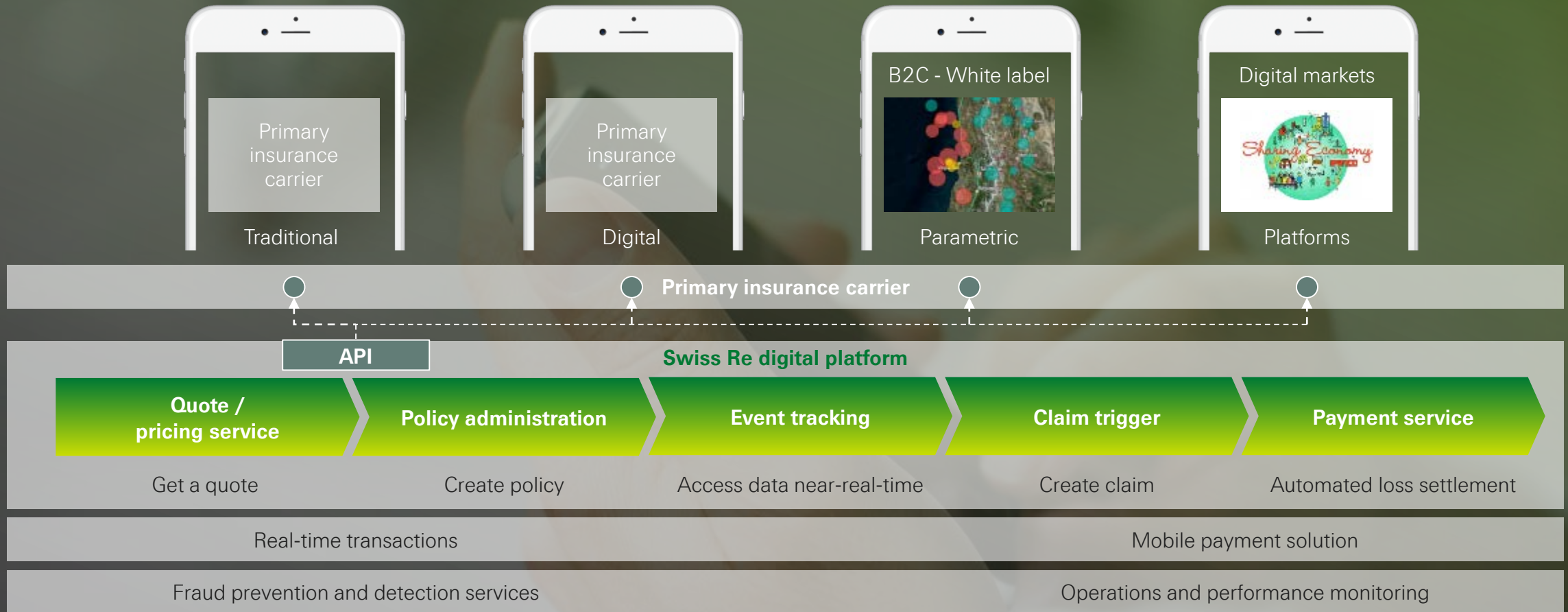
Parametric solutions

Powered by Swiss Re's fully automatic parametric insurance platform



Swiss Re parametric IT platform

A dynamic, easy-to-integrate, modular turnkey solution



Parametric insurance P&C solutions @ Swiss Re

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

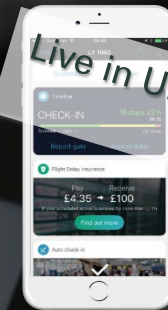


"Shake vouchers" provide quick cash after an earthquake for insureds to cover incidental losses and expenses. The policy complements property damage insurance with small monetary amounts based on the shake intensity of individual locations worldwide.

Tropical Cyclone



"Loss of income" covers combine business interruption and supplemental loss covers. For example, in the aftermath of a hurricane, 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 the insureds' discretion if a hurricane occurs within a predefined geographic area surrounding the insured property (e.g. within a 100 km radius of the hotel).



Parametric Flight Delay

The On-time Guarantee Insurance in the news

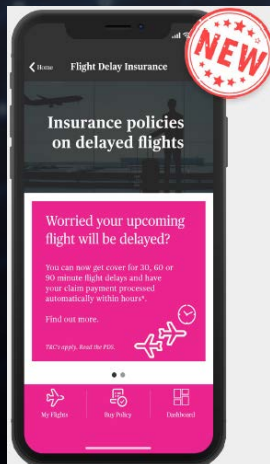


<https://www.youtube.com/watch?v=IOV3cEMi5OE>

Swiss Re
Winner 2017



Chubb Connect - Australia



PingAn - iGola - China

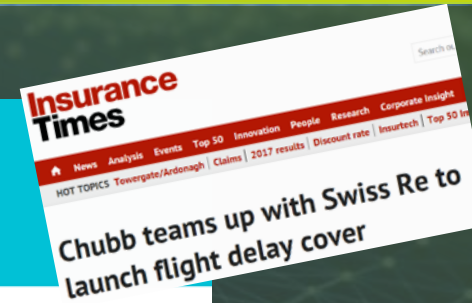


Chubb UK

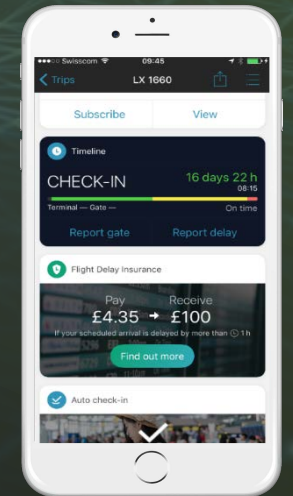
News Releases

Home News Releases In the News Email Alerts Media Contacts Digital Assets

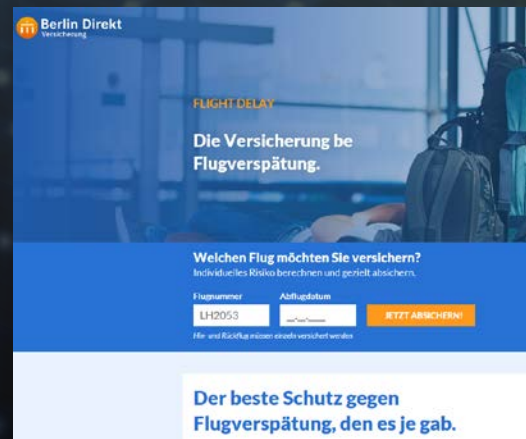
Chubb and App in the Air launch fully-automated and real-time Flight Delay Insurance in partnership with Swiss Re and FlightStats



Chubb - App in the Air - UK



BD24 - Germany



PingAn - WeChat - China



Why flight delay ?

Flight delays can mean extra time and costs for passengers

Flight traffic



- Airlines carried about 4.1 billion passengers in 2017 and are expected to carry more than **4.3 billion in 2018**.¹
- Departure and arrival delays are widespread. They stem from capacity **bottlenecks** in the airspace and at airports, operational issues as well as other events out of the operators control, such as **weather**.
- About **13%** of all flights have an arrival delay of **more than 30 minutes**, 6% have a delay of more than 1 hour and 2% have a delay more than 2 hours. Delays are unevenly spread across the time of day, weekdays, months and operators.

Current product



- Airlines domiciled in EU or flying to an EU country are legally obliged² to compensate for delays, but the claims process is complicated and tedious.
- Travel insurance products covering delays are available, but they typically bundle various risks (and are therefore rather expensive); delay triggers are usually high (typically compensation only happens for delays of more than 6 hours).

FDC offering



- Flight Delay Compensation (FDC) is an innovative, modern and consumer-friendly solution that improves customer experience by offering easy-to-buy, fully automated and near real-time delay compensation payment.
- FDC can be sold as a retail product by offering it as an option to travellers buying a flight online. FDC can also be sold as a bulk product, where a corporation buys FDC on behalf of their entire clientele or for a specific subgroup.

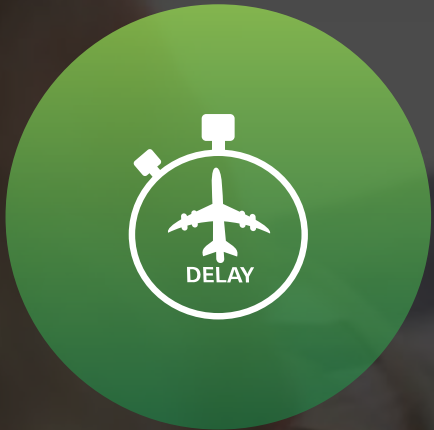
A simple, stand-alone Flight Delay Compensation (FDC) offering is likely to address many currently poorly served passenger needs

1) Based on IATA estimation

2) EU 261 Flight Delay Compensation Regulation

Flight delay insurance

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



- ✓ It is **fully automated** and fast. It pays a predetermined amount of money if a delay trigger is breached
- ✓ **No hassle** to claim the insurance benefits; passengers will get a notification making benefits available to pay for immediate needs right after delay is confirmed
- ✓ It is a **stand-alone delay product** on top of any other coverage from airlines and/or credit card companies and with few exclusion (e.g. terror, strikes, weather are all included)
- ✓ It covers **short delays/cancellations/diversions** – benefit trigger will be as low as 30 minutes delay
- ✓ It is **lean** focusing only on delay risk and hence crystal clear
- ✓ Product is **competitively** priced because it 1) is lean and 2) relies on a sophisticated pricing algorithm
- ✓ Product is very **flexible** and can be easily adjusted and targeted specifically to the distribution partners' consumer needs
- ✓ It makes life **easier** for stranded/delayed passengers

Dynamic Flight Delay Pricing

Combining big data and machine learning



>10 Years

**Historical
weather data**



20 Million

**Historical flight
data refreshed
daily**



>540 Airports

**Global
airports**



>210 Operators

**Airline
operators**



>22'000 Routes

Daily routes

Earthquake parametric insurance product

Quick cash after an earthquake to pay for incidental losses and expenses



Limit

- Consumer can choose between several different face values



Premium

- Depends on the chosen limit and the geographic area of the insured object



Trigger

- Intensity of the EQ at the location of the insured
- Different possible measures (e.g. Mercalli intensity scale)
- A proof of loss might be required by the regulator



Reporting agent

- Independent, reliable and easily accessible event reports
e.g. U.S. Geological Survey (USGS) publishes near real-time ShakeMaps after an earthquake, reporting the event intensity on a high-resolution grid



Pay out

- How much of the limit is paid out depends on the event intensity
- Can be defined as a stepped % function of the face value

Earthquake “shake vouchers”

Simple, transparent customer journey



Quote and purchase¹

¹ For illustration purposes only



Claim trigger



Reporting agent

- **U.S. Geological Survey** for rest of the world
- **INGV** for Italy



Pay out

Dear Insured, your Earthquake policy has been put under observation.

According to the coverage details, you are eligible for a claim of \$ XYZ. To confirm, reply YES.

YES

Claim of \$ XYZ towards your policy id has been credited to your account.

A client story

Welcome to «business, uninterrupted» by Swiss Re

How we leveraged our partnerships to co-develop an innovative new business interruption product with a parametric trigger that helped a client enter a new line of business & paired the client to



The client

US insurer

US MGA

Focused on product innovation and simplification with a view to closing NatCat protection gap & filling a current void in the market



The challenge

Low take up rates for traditional earthquake insurance

Developing market needed easy consumer journey and fast claims pay out in case of severe NatCat event

First-of-its-kind regulatory sign off
Agent education on the product & how it fills the market void



Our support

Identification and design of a tailored business interruption product with a parametric trigger

Development of a proprietary pricing engine to support new product offering via cloud based API connection

Regulatory support to position the new product for optimal long-term success



The result

California SME earthquake business interruption product

New

Comprehensive solution including IT, product design, innovative distribution and reinsurance capacity



Created a new product for an untapped market



Tropical Cyclone Parametric insurance product

Loss of income cover for high risk areas with payout independent of sustained property damage at location



Quote and Purchase

Purchase

PROPERTY
Country
Dominican Republic


City
Sala Mujeres

Street
Avenida Rueda Medina 24

Lat
21.25

Long
-86.64

VALIDATE LOCATION



Zip Code
23003

Cresta Zone
DR-ROO

COVERAGE OPTIONS

Risk
Tropical Cyclone

Category	40 Km	60 Km	80 Km
2	0%	0%	0%
3	30%	0%	0%
4	75%	75%	0%
5	100%	100%	100%

Currency
US\$

GET QUOTE

Select option
☒ ☐ ☐

Premium	Max Payout
US\$ 3.30	US\$3,000.00
US\$ 5.50	US\$5,000.00
US\$ 11.00	US\$10,000.00

PAYMENT

Voucher number
BANCOCAT-138543

Card number

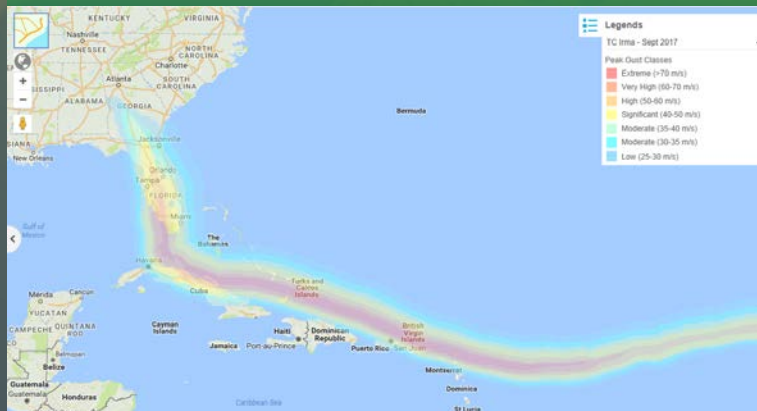
Expiration date
March 2018

CVC Code

PURCHASE



Claim Trigger



Reporting Agent

North Atlantic: National Hurricane Center

West Pacific: China Meteorological Administration

Rest of the world: Japan Meteorological Agency



Payout

Dear Insured, your Tropical Cyclone policy has been put under observation.

According to the coverage details, you are eligible for a claim of \$ XYZ. To confirm, reply YES.

YES

Claim of \$ XYZ towards your policy id has been credited to your account.

The benefits

We offer a triple-benefit with a comprehensive solution



Insured

- Fast access to cash after event
- No-questions-asked. Flexible use of payout
- Access to new or complementing covers



Cedent

- Easily and cost-effectively launch new innovative products
- Unlock new areas of growth
- Position as technology leader in their market

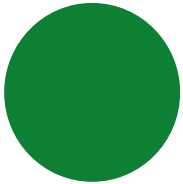


Distributor/Broker/Agent

- Create new revenue streams
- Broaden client offering
- Help build resilience for natcat events
- Excellent differentiator

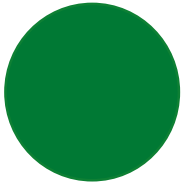
Challenges

Main challenges when offering parametric solutions



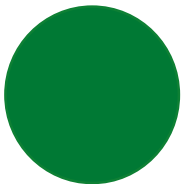
Distribution

What distribution channel can be used ?



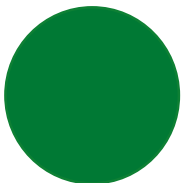
Regulation

How to cope with regulatory requirements ?



Basis risk

Can we minimize basis risk ?

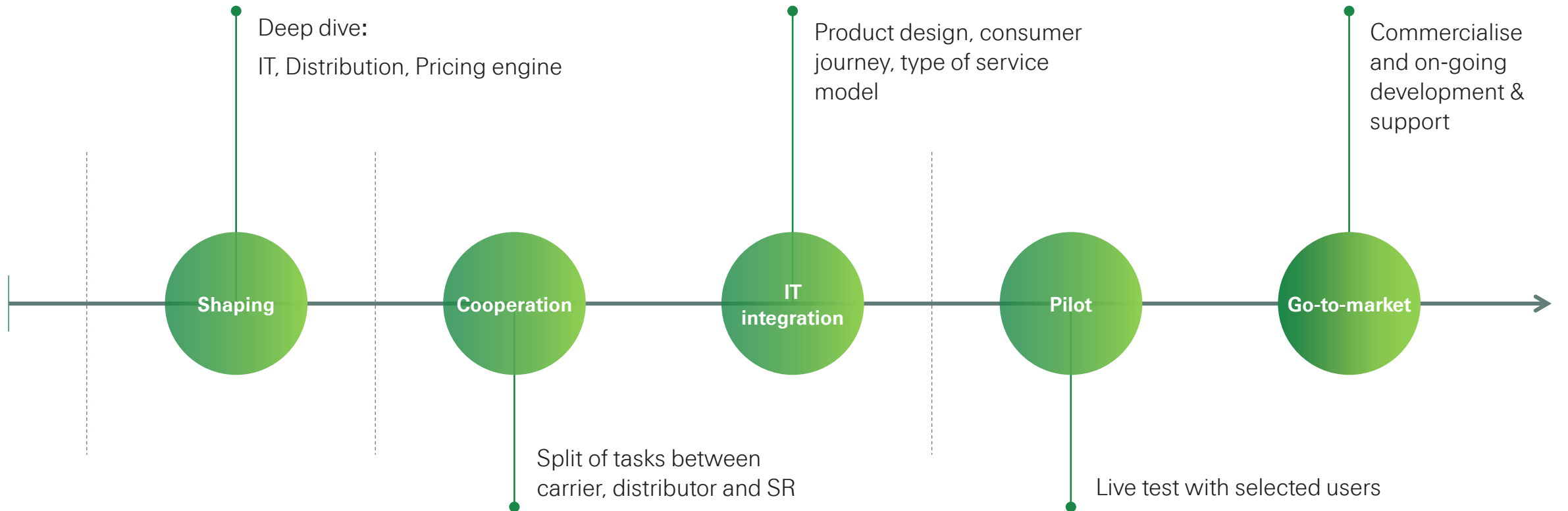


Product

Simplicity, transparency, price, cover ?

Scope and timeline

Project scope and duration tailored to your needs



Time to market: 3-12 month for new products (depends on covered risk), 3-4 weeks for existing products (subject to regulatory sign off)