

# Index Insurance – A new Business Opportunity?

The digital economy is not only shaking up many sectors but fundamentally changing them! The result is the emergence of new innovative business models and opportunities for those who are able to embrace the change. The insurance sector is no different and a new approach is being developed by Skyline Partners.

Index insurance changes the way in which the risk is managed. Traditional insurance works through loss adjusters who are visiting the site of the damage after the event, to inspect and calculate the extent of the loss. This is an expensive process especially where the damage has occurred in remote areas. When travel restrictions exist, for instance in times of a pandemic, travel may simply not be possible.

Mr. Laurent Sabatier, Co-Founder and Executive Director of Skyline Partners, explained the principles of index-based insurance to us in the EOcafe on 27th May. Earth Observation (EO) gives the possibility of remote inspection, at least partially, of any damage – depending on its nature but index Insurance goes one step further. Instead of relying on loss adjusters to assess the value of the damage, a trigger is identified, and then monitored. For example, a property may be insured against a natural hazard such as a hurricane. A crop may be insured against freezing nights. In each case, payment will be made if a hurricane occurs or if the night temperatures drop below zero degrees. No loss adjuster is involved as the parameters insured are monitored remotely. The use of index insurance is becoming increasingly popular and represents an opportunity for the geospatial services industry.

As far as [Skyline Partners](#) company is concerned, they have been pioneering this new approach through the use of EO data. Whether the peril is a natural catastrophe, a pandemic or other measurable risk, geospatial intelligence is helping to insure this risk of damage to crops, infrastructure or people. This is opening up new opportunities for EO service companies and data providers which we explored in the EOcafe.

So the cost of managing the insurance risk is reduced, but what is the advantage to the customers? Does faster pay-out means a reduced pay-out? Not necessarily. In France, for example, lots of farms and vineyards have lost much of their business. Index insurance in that case, can potentially help to get protected even before these risks happen. In fact, they are predictable. It is possible to build the infrastructure to protect the products under index insurance for preventing risks. The objective is to complement ex ante products with a proper infrastructure, this can even be possible with a pay-out based on a signed contract.

Spatial data is an integral part of index insurance by design. In fact, an index is based on data exploitation and satellite data is a fundamental part of it. Technical failure can be avoided with satellite data and imagery based on the index. An index is systematic and there is still some work to be done with collecting data and building new algorithms.

In terms of data differentiator, the most important and critical criteria is the granularity aspect of data, as the specification of the data is what makes the product possible and therefore the growth of the service of index insurance. Guaranteeing this, you ensure the growth of the business.

The competition aspect related to the business continuity is based on trust, as the risk is based on its performance. In the meantime, space institutions which are furnishing geospatial data, will not disappear. That is a very important aspect for the continuity of the business.

It is always preferable to use synthetic data as they are easier to scale up, but it also depends on the needs. In terms of timing for example, forecast and temperature data, at the moment being, are very predictable. An element of identification is available in the short term. Here the index industry has a role to play.

Buyers of index insurance are direct companies facing the risks, such as farmers; for each seller, there is a buyer. But the farmer is the one who is benefitting from the service even if it is not the buyer directly. In this case, the remote sensing industry has an important role to play as supplier and intermediate. This is how the market share could work and this is the customer base.

The aim is to create an upfront evaluation before the risk happens, this is why data collected on the ground is also very important to validate the index. This is why the basis risk can be very different.

Overall, index insurance looks to be an interesting area for EO suppliers to follow and opportunities should arise. One way to follow progress is through the FIRE project led by EARSC, where insurance is one of the focus topics. The FIRE forum, to be held next week at the time of writing will be a public opportunity to do so.

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