

# Migration of economic scenario generator tool to Python

## Insurance – Risk Management

### Level of Intervention

- Consulting
- Finance

### Tools & programming

- Python

### Context & issues

A Belgian insurer needed help to migrate their ESG tool from an old proprietary language to Python. Detralytics supported the client with the migration and the definition of the architecture of the new tool. The client wanted strict reconciliation, no methodological changes.

### Detail of the intervention & realisations

- Translation of the risk factors models to Python including stochastic interest rate, stochastic equity return, stochastic infrastructure return, stochastic inflation.
- Projection of the market value of the asset portfolio along stochastic scenarios (Bonds, Equities, Frn, Property, ...).
- Projection of the market value of insurance liabilities along stochastic scenarios (Individual Life, Group Life).
- Computation of the profit-sharing cash flows for each scenario.

### Deliverables

- Python tool exactly reconciling the old tool.
- Documentation and user guide.