



# StarQube

INVESTMENT DECISION IN A BOX

StarQube ESG #4

Using ESG data in research, portfolio management  
and construction



## Using ESG data in research, portfolio management and construction

As an extension of our articles relating to the operational challenges that ESG raises within asset management companies, we will assume here that they have been able to industrialize the collection and cleansing of their raw data; and organize them in such a way as to effectively transform them into proprietary ESG scores.

The challenge that remains is then that of the practical use of ESG information in the construction and management of portfolios.

### Portfolio management

- Portfolio managers must be able to visualize and analyze (in real time) the line-by-line ESG scores of their portfolios as well as aggregated metrics.
- They must be able to simulate the impact of their buy/sell decisions on the ESG profile of their portfolios or integrate this impact into their pre-trade constraints.
- The dissemination of ESG scores to all the portfolios under management requires a robust information system, in particular for the *asset manager* who manages several tens (hundreds) of portfolios or the *wealth manager* who sometimes manages several (tens of) thousands of private portfolios.

### ESG Research

- At the level of the ESG team, methodological changes can have major impacts on the portfolios under management. It is essential, before putting a new ESG model into production, to be able to simulate what its impact will be on the structure of the portfolios.
- It is also important to provide some transparency/granularity to portfolio managers so that they understand how ESG scores are formed; otherwise, they risk bombarding the ESG team with questions.

### Portfolio construction

- The ESG database must be easily callable by quantitative research teams to build investment signals and backtest strategies.
- ESG data must also be accessible as inputs of risk calculation models or as objectives or constraints in the optimization of portfolios.
- (Further downstream in the investment chain, ESG data must also be taken into account in performance attributions or in portfolio management reports, etc.).

## WHAT STARQUBE OFFERS

StarQube offers an integrated platform (1) for managing financial / extra-financial data and (2) for building and managing portfolios.

Raw ESG data can be easily transformed into proprietary scores/metrics. The ESG team can manage a multitude of models in parallel if necessary. All this data is then immediately accessible through the portfolio management and construction modules for the purposes of:

- *Backtesting*: SQ Backtester makes it possible to define the parameters of a backtest in a few clicks and to obtain the results in a few seconds, thus taking advantage of the computing power made possible in particular by the NoSQL database. Once validated, the investment strategy can be implemented almost instantly – with no marginal effort for the user.
- *Portfolio analysis*: SQ Analyzer makes it possible to create customized screens in order to display the relevant (ESG) information on the portfolios, but also to trigger their optimization and to generate the order baskets. Users have complete freedom to configure their own screens, store them, share them with their colleagues.
- *Portfolio Dashboard*: SQ Dashboard allows synthetic screens to be configured in order to monitor several portfolios simultaneously and, if necessary, rebalance them and send orders in bulk.
- *Risk Modeling and Optimization*: the SQ Risk Model Builder and SQ Optimizer modules make it possible to configure risk models and complex sets of constraints and optimization objectives. They can be called from the backtest engine and from the portfolio management interface (Analyzer), thus accelerating the journey from an idea to its backtest and its implementation.
- *API*: finally, StarQube has a large collection of APIs that allow you to import/export data from/to StarQube in order to use them, for example, through data science tools (Python and Matlab)<sup>1</sup>.

## [LINK TO FULL ARTICLE](#)

<sup>1</sup> Refer to [our website](#) for a detailed list of our APIs.

## About StarQube

Founded in 2013, StarQube develops an innovative and modular solution for asset management companies based on two pillars. The **data management** pillar industrializes the collection, cleansing and organization of all types of data useful for the investment process within a centralized NoSQL database. The **portfolio construction and management** pillar offers modules to analyze the research universe, build proprietary risk models, create model indices or portfolios, model and backtest investment strategies, optimize and rebalance portfolios. Graphical interfaces make it possible to view, analyze and manage portfolios using customizable screens to display the information which is relevant according to the investment style.

## Contact

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