



## **Arnaud Chrétien and Serge Darolles : «The objective of QuantValley is to become the calling card for French Quantitative management»**

**Challenges, positioning and quantitative management outlook in France. Arnaud Chrétien and Serge Darolles, respectively Chairman and deputy chairman of QuantValley, answer our questions and introduce us to their project aimed at promoting Paris' image as a city of quant.**



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*Set up in June 2010, QuantValley is a pioneering entrepreneurial initiative which brings together academic skills and market expertise in the world of quantitative management*

### **Next Finance: What were the reasons behind the creation of Quantvalley?**

*Arnaud Chrétien and Serge Darolles:* In a post-crisis context, professionals in quantitative management wanted to join forces in 2010 to create Quantvalley in order to promote quantitative finance and all its applications in the fields of research, risk management and value creation for investors. As of today, QuantValley has 20 founding members including eight management companies, university centers and research laboratories. The association has two main objectives:

- To facilitate the growth of independent asset managers and ensure greater transparency for French and international investors in order to create a long-lasting and responsible ecosystem.
- To gather the Asset Management's players around common research topics and to encourage the implementation of mutually beneficial research.

Quantvalley's mission is to develop sustainable co-operation between researchers and professionals and to establish collaborative ways to foster financial innovation. To this end, the project is supported by the Louis Bachelier Institute and the Global Competitive cluster: "FINANCE INNOVATION" under the wing of Paris Europlace.

“ We are lucky to have powerful French and international players among QuantValley's partners and the Research Initiative's sponsors. They are able to provide us with solutions. ”

**Arnaud Chrétien and Serge Darolles**

The list of asset management firm members, in alphabetical order, is Aequam Capital, Capital Fund Management, Cogitam, Finaltis, John Locke Investments, Numbers, Seven Capital et Rivoli Fund Management. The research units members include ENSAE , the

Louis Bachelier Institute and the Paris - Dauphine University. The last founding members are F.Iniciativas, Gide Loyrette Nobel, HedgeGuard, Mathworks, Morningstar, NYSE Liffe, Quanthouse, Teknys and Vae Soli.

**Quantitative management is often linked to alternative management as opposed to traditional management. However, the head of quantitative management within a large French bank told us last year that an asset management style which does not include any Quant element does not exist [1]. What is your view?**

All our members do provide quantitative investment strategies. It is a sine qua none condition of membership. Quantitative finance is, as a result, everywhere in Quantvalley.

More generally, we actually believe that the antithesis between traditional management and quantitative management is a thing of the past. Today, a traditional manager as well as an alternative manager, needs to monitor his risks. He can only do this effectively if he uses the right quantitative tools.

we do have a strong image in mind : that of embedded intelligence...



**Serge Darolles**  
Quantitative analysis is  
the DNA of  
QuantValley

Let's take an actual example: why do the majority of airline passengers feel so confident once comfortably installed in their seats? When we know that the risks that exist until a safe landing, are multiple... For the simple reason, the pilot is assisted during the flight: assisted in the take-off, there is an auto pilot and assistance during the landing. The technology: embedded intelligence comes to the assistance of man. In the same way, a manager will have to manage risks with the assistance of quantitative models which are "embedded".

**A study commissioned by AFG on alternative management in France [2] highlighted a lack of image, a restricted market and strong competition from international players. Can the same statement hold true for quantitative finance?**

Most of the member management companies of Quantvalley have made the same observation. Whether they are very established companies, or more recently created, they all face challenges which, today, slow down their development.

The first impediment is their size. A company is not easily visible to local or international investors if they do not manage enough assets. In the same way, the managed accounts are primarily interested in funds with established clientele. It is therefore paramount that these companies together present a strong front based on a brand-name.

**Just like Silicon Valley, Quantvalley, wants to foster innovation. However, as much as the concept of the certificate exists in the world of technology, the concept of intellectual property is completely absent in finance. So how are ideas protected? How do you envisage going forward on this? What boundaries are to be established in terms of the expectations of your management partners whose knowledge is**

## precisely what you are buying?

Research and innovation must be at the centre of all management. Canvassing new investors must go through the valorization of local natural resources. It is from this perspective, that management companies, with the help of two major partners GFI and UBS decided to promote exchange between quantitative asset management and the academic arena via the creation of the research initiative «Développement de la Gestion Quantitative» (Development of Quantitative Management).

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**Arnaud Chrétien and Serge Darolles**

This research initiative has the intention of being a place to meet, a place of reflection and exchange where research themes emerge naturally and become motivation for research papers published in the best reviews. This research community will participate directly in the visibility of management companies, in the growth of assets and therefore of profits, and as an offshoot of this, in the budget increase, the size of research teams, and in developing the core business of each management company.

It is this virtuous circle that will allow ideas and achievements within the the collaborative project to be protected. The savoir-faire of the individual will always be the number one selling point of each of our partners and will be enhanced by membership of this quantitative management ecosystem

**The French ecosystem has produced numerous people in the quantitative world, and the theoretical ability of the French "quant" is well known overseas. However, besides structuring and pricing, French quantitative management still appears to be embryonic. Why is the change from the theory to actual implementation so difficult?**

Our observation is the following. The second impediment to the development of Parisian quantitative management after size, is the limited access that management companies have to academic research. Yet, this research exists and, furthermore, is highly developed locally. It is even structured around organisations such as the Louis Bachelier Institute whose role it is to promote visibility of both research work and the researchers.

However, it is often difficult, for the smaller management structures to identify academic partners to attract high profits - although many are trained in France, they prefer more often to relocate to London or New York. The model to follow must be that set by Anglo-Saxon quantitative management companies which manage several billions and which have always known how to form strong partnerships with large research centers at Oxford or in London. This is one of the primary objectives at QuantValley

**In contrast, the more that structurers and French quant on the trading floor have known the golden age, the more it would appear that they are giving into a certain**

**kind of demonization and one often speaks of mad scientists. What, according to you is the outlook for this quantitative sector?**

No confusion possible. The investment philosophy is different. The quantitative manager builds up a portfolio which is adapted to all his investors with an aim of absolute performance. On the contrary, structuring designs tailormade products to match investor need [3]. The risk: super-imposed layers of complexity which make the structured product difficult to control



**Arnaud Chrétien**

The individual expertise will be further enhanced by membership in this quantitative ecosystem

Quantitative managers offer investment funds trading listed securities on liquid and regulated markets. At the heart of the investment process, priority is almost always given to the modelling of risk management... our famous "embedded quant". It ensures transparency of both performance and risk. The myth of the black box has lived!

Finally, the majority of quantitative managers offer a level of transparency allowing clients to better assess the risks of their investment and to pool them with other risks in their portfolio.

In this way, quantitative management will naturally continue to expand

**An alternative quantitative manager complained on our site about the little support that institutions give to small companies [4]. What approach would you envisage adopting to engender a real "incubation" in the world of quantitative finance? What leverage do you have?**

The objective of Quantvalley is to become the calling card for French Quantitative management. And in order to be visible, we must offer products in which interested clients can directly and institutions must be party to this.



Some French institutional investors are already invested with our managers. We want to encourage more. They are our priority. We want them to be "comfortably installed" in QuantValley. The incubation will happen naturally with the advent/arrival of labelled products that we are going to suggest to them shortly: indexes, multi-management platforms, funds of funds... The partners in Quantvalley - the big French and international players - are working, as we speak, on putting these solutions in place.

**Following the recent crisis, we see a change in management. Beyond the traditional arguments for transparency and liquidity, traditional finance sees itself as being more socially responsible and quantitative finance seems to be evolving towards a more behavioural approach. At least, according to our observations. What do you think of this. What, according to you, will be the way quantitative finance will evolve in the future**

Behavioural finance [5] is the buzz word in quantitative finance, also with the the impact of networks on the financial markets [6]. It is also one of the research topics undertaken by the Research Initiative "Development of Quantitative Management"

The quantitative managers and the CTA in particular, have been practicing behavioural finance for years. They construct buy/sell signals based on the observation of prices which allows them to filter the behaviour of the agents and to capture the strong buy/sell trends. This practical experience will allow better interpretation of recent results of the research into behavioural finance

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## FOOTNOTES

[1] May 2010: [Interview of Nicolas Gaussel, Head of Quantitative Management, Lyxor](#)

[2] December 2010: [Reinhold & Partners Study](#)

[3] April 2010: [Interview of Sofiene Haj Taieb, Global Head of Cross Asset Solutions, SG](#)

[4] November 2010: [Interview of Thaddée Thyl, CEO Rivoli Fund Management](#)

[5] Next Finance: [Behavioral Finance](#)

[6] March 2011: [Social network: a new trading tool](#)