

## One Week, One Tech *by Périclès*

ICA, Stéphane Rio



**Yanling Xi**, after graduating from ESCP Europe with a Master's degree in Management and a first work experience in IT sector in France, Yanling has joined Périclès Group in early 2015 as a consultant. In the Group, she has achieved several consulting missions in life insurance industry, especially in domains of operational efficiency and change management. Yanling has also worked on various studies particularly in insurance sector. Thanks to her double cultural background, she follows closely policy changes and market trends related to Chinese financial market and contributes to the Group's reflections on its development in China.



**Stéphane Rio**, After graduating from Ecole Polytechnique & ENSAE, Stéphane completed a specialisation through a Master in Stochastic financial modeling. Having starting as a quant, he then moved to trading and became global head of swap trading at Commerzbank.

His entrepreneurial spirit drove him to launch or contribute to startup companies in the space of innovative technology for the financial industry. His first experience started with Swapstream in 2003, an electronic trading platform for interest rate swaps, which he sold to the Chicago Mercantile Exchange in 2006.

He was then enrolled as part of the rescue team of Depfa/HRE in late 2008 (as Depfa board member responsible for portfolio management and treasury). When his mission was over, he worked with private equity to identify fintech investment opportunities.

He finally founded his own Capital Markets Fintech, ICA with the vision to provide solutions to the challenges posed by the regulation on derivatives and the increased requirements for risk computational resources.

*Yanling Xi - Hello, welcome to today's One Week One Tech, presented by Périclès Group, together with Finance Innovation. Today we are with Stéphane Rio (CEO & Co-Founder of ICA), in order to present to you the company ICA. Stéphane, could you introduce to us quickly about your company?*

**Stéphane Rio** - ICA is a capital market Fintech. Our clients are primarily investment banks. We are working in the space of pricing and calculating risks, initially for portfolios of derivative transactions. It's a lot of calculations! Regulations have massively changed the environment over the last 10 years. The products are becoming simpler but the number of calculations to perform risk-wise have increased exponentially. We are talking quickly about hundreds of billions of individual valuations. What we are trying to do is to make these complex calculations much cheaper and much quicker to operate.

*Yanling - What are the main difficulties that you have perceived from which the clients are suffering or that you aim to solve?*

**Stéphane** – During one of my experiences before founding ICA, I was the board member of Depfa responsible for treasury and portfolio management (with Dexia they were the two largest lenders to public authorities). Depfa had been rescued by the German state with Hypo Real Estate. I was mandated in particular to analyse the risk of the bank. I wanted to have a different perspective. But any new risk system, to be put in place, would take a number of months of procurement process (weeks if super-efficient!) but certainly many quarters if not years to be implemented. That's really

## One Week, One Tech *by Périclès*

ICA, Stéphane Rio

where I started to think that we shouldn't have such a barrier to get access to systems, it should not be that difficult. And that's why ICA wants to provide to the market a solution which would be as complete as the ones of the most sophisticated banks, but where the complexity will be hidden. One key reason for the calculations process to be very long is because you have always two components. One is the financial analytics developed by quantitative analytics teams, the other one is the implementation by IT teams, on hardware, big farms of computers with potentially tens of thousands of cores in play. And it takes a lot of time to make the two components work together as each team rarely speak the same language. We have decided to handle both components by ourselves, from the financial analytics to the delivery of the numbers. So the client gets the same package as before on the financial analytics side, except that the client can now virtually turn the key and start testing the next day. So by doing that we reduce the project time from years to weeks (or a couple of months work for the most complex projects). That is a very key difference compared to traditional risk software.

Our offer started with a Software as a Service: Risk and xVA as a Service. But we received a number of demands from large banks who often are satisfied by their own financial analytics, but are interested in the technology proposed by ICA. For this type of client, we incorporate our technical components with their own financial analytics, and our unique dual expertise (models and big data technologies) allows us to deliver very efficiently. As an example we work with a major European bank: rather than just use our packaged xVA solution, they ask to break it down in modules (e.g. our big data database, optimized orchestration, secure use of public clouds...) and create a new architecture based on those modules and their internal models to create their new generation xVA platform to deliver risk numbers they could not produce before and more generally boost their platform's efficiency. We widen our scope of our use cases by the day at the request of banks through special projects implementation leveraging on our technology and expertise: an FRTB solution, a live P&L monitoring tool, a big data result management system to enhance the understanding of corporates risks...

*emmaYanling - So what do your clients say about the solutions proposed by ICA?*

**Stéphane** - Again we have two types of clients from very large banks to small ones. I would say that feedbacks that we have received from all clients include that it's a very innovative solution and much more efficient, not only from the IT and technical perspective, but also from the user experience perspective. Designed by business experts who understand IT, we have made big efforts to make our solution extremely user friendly even when it comes to perform very complex actions and clients praise us for that. Taking cars as example, both the engine and the shape (appearance) are important!

*Yanling - During the development of the company, what difficulties have you met?*

**Stéphane** - In addition to the technical challenges which are normal when you are in a R&D project, I would also mention the challenges at business level. The banks are very proactive in looking for solutions for their business and are often very interested in our offer. But it may take time for them to make decisions and make changes by transforming their interest into real contracts.

At this stage we progress when high level decision makers take the lead and push the rest of the organization through some –sometimes- quite radical changes. We are confident that our offer can meet the changes required to operate within the new regulations framework (with some still to come!), and reduce costs and time to market. But to realize this, banks need to open up and to try something different which is going to surprise them!

## One Week, One Tech *by Périclès*

ICA, Stéphane Rio

*Yanling - So during the launch of the company, did you receive any financial supports?*

**Stéphane** – Yes, it is a very significant project with 3 years of R&D. Firstly, we went straight to get financial support from a strategic partner, who gave us credibility and long term visibility. Secondly, we are very proud to have received financial supports from BPI France, who helped us along the way. We also received a grant from the French state, as we were laureate of the “Concours Innovation Numérique”. The French ecosystem has been very helpful to us. “Finance Innovation” has also granted us their label and put us in relation with potential clients and partners.

*Yanling - Tell us more about the team. How is the team composed?*

**Stéphane** - The team is the key. That's really where we make a difference and create value. Banks have been developing their pricing and risk environment for a long time and gradually as things evolved. Today there is an inevitable technological debt. It is not a sector where massive changes happen all the time, often for good reasons. Even if initiatives to change do exist, they are often slowly taking place. So we've decided to start from a blank sheet of paper and do something totally new. We've decided to put together two profiles of people that are totally different: a team of digital technologies experts who have never worked in banking sector (for example people from Google technologies world), and quantitative analyst from banks bringing the expertise in financial analytics. My partner, for example, is a very senior quant, who has spent 25 years heading quant and risk departments in very large financial institutions and who also participated in the rescue of a bank during the crisis: he was appointed CRO of Banque AIG after the 2008 crisis...

The new generation of IT experts comes with lots of fresh ideas and new technologies. The combination of these two profiles allows us to combine the financial analytics and the delivery, in a unique and very efficient way.

*Yanling - What is the team working on today to improve the customer experience and the product/offer?*

**Stéphane** - We have a very complete solution dedicated to the most complex computation on derivatives, for example xVA (the family of credit, debt, funding etc value adjustment), FRTB... that we offer as a service/turn-key solution to banks but also any users of derivatives (corporates, asset managers, insurances, advisory firms...). We have more recently abstracted the concept and the technology piece so that banks can use them in different areas. Taking big data management for example, our big data management result database may contain hundreds of billions of results and still let the user manipulate the data like he would use Excel and this in near real time. Banks are keen to use such kind of new solutions internally in very different areas. We are working on how to abstract other technical components we implemented in our own technical platform so that people can use them wherever they want. That's what we are mainly working on today.

*Yanling - And next step?*

**Stéphane** - Next step for us is to address the next wave of regulation which is coming in the year of 2021-22. There are some radical changes to come with the Fundamental Review of the Trading Book (FRTB) in particular. We want to be able to address that change by proposing a new tool with a complete perimeter, fully consistent and compliant with this new environment that banks will be able to access as a turn-key solution with our models or their own models.

## **One Week, One Tech by Périclès**

**ICA, Stéphane Rio**

*Yanling - How about the international exposure of your company?*

**Stéphane** - ICA by nature is international. Our clients -primarily investments banks- are not limited only to France. We have spent the vast majority of our marketing time outside of France. We have a representative office in London and a sales representative in Tokyo. Next step for us will be the US and Canada. I just came back from a visit in Montreal where we were invited by BPI France to represent start-ups involved in AI, where I had the chance to discover the AI ecosystem in Montreal and meet a number of the largest Canadian banks who were extremely friendly to our solution. I am returning next week with an official delegation from the French government.

*Yanling - Thank you so much for your participation in today's One Week One Tech and we will see you in the next session. Bye!*

**Stéphane** - Thank you very much!