

XI. Why Europe's Cloud Ambitions Have Failed

Interview by Mark Scott, with Francesco Bonfiglio

Francesco Bonfiglio had a front-row seat in Europe's previous attempts at digital sovereignty.

As the former chief executive of the GAIA-X, an association created in 2020 to develop decentralized networks of cloud computing services across the European Union, the Italian oversaw a project that has become a political priority for Europe's leaders – to create local digital alternatives to compete with international tech giants.

Not everything has gone to plan.

Five years into GAIA-X's work, and the association has been the center of bitter battles between its members, some of which, like Microsoft and Amazon, are US-hyperscalers. Europe's collective market share of the cloud computing industry has fallen. The political aspiration of creating EU alternatives remains unfulfilled.

In this interview, Bonfiglio explains what was achieved, what fell short of expectations and how cloud be done differently. He outlines why he is still optimistic Europe can offer something different in the world's cloud computing industry.

Bonfiglio's answers have been abbreviated for clarity and length.

What were your expectations for GAIA-X when you became chief executive of the association?

The ambitions of Gaia-X were big, but the clarity on the scope was not shared across all members. Everybody was projecting into Gaia-X their own, at times very different, hopes on how Europe can regain digital sovereignty: some wanted it to be an EU hyperscaler, others wanted it to lobby policymakers for US player market restrictions, some others wanted it to be a formal body of standard to define compulsory rules for Europe and thus reduce the freedom and super power of the non-EU data platforms providers.

The strategy we agreed on when I was selected as chief executive in 2020 was simple.

The goal was the creation of a trusted, federated and hyper-distributed cloud infrastructure to transform the weakness of European providers' fragmentation and limited capacity, into a cumulative strength for competitive advantage in the market.

What could Europe offer to separate itself from what was already offered by others?

Many believe European cloud service providers cannot keep up with their competitors in terms of innovation, capacity, and scalability. Also, at a political level, many believe Europe has lost the battle of cloud. I think such generic statements are incorrect and misleading. In fact, most private and public business do not require the kind of unlimited scalability offered by hyperscalers. and moreover, the low cloud uptake in Europe is due to lack of trust, not due to lack of capacity. No individual European company can offer the portfolio of services, capacity, and territory coverage to equal any hyperscaler, but the federation of them could. The goal should not be to simply grow capacity through aggregation, but to implement a completely different model of systolic, distributed, decentralized, interoperable, and trustworthy services.

American companies dominate the global cloud computing market. What was the plan for GAIA-X to compete?

Everyone still hopes for a true European alternative. But we must be realistic. While infrastructure-as-a-service can be replaced by European companies, many of the platform-as-a-service offerings are largely dominated by non-European players. In the 'collaboration' world (email, file-sharing, video-conferencing, messaging platforms or applications), the dominance of Microsoft O365 is total because everything is integrated into a single package.

Pulling together existing EU alternatives, licensed (like NextCloud) or OSS (like LibreOffice) in a platform that offers true service composition, avoiding any effort or hassle by the customer, is possible and could trigger at least some market changes.

A federated approach to cloud computing requires three things. A strong endorsement by Europe's political institutions to enable adoption by European companies, a higher degree of freedom from the constraints of European competition and state aid law since we are operating in an environment that is already non-competitive and dominated by an oligopoly, and a deep review of the investment strategies adopted so far by Europe.

Many non-EU companies became involved in the GAIA-X project. Was that a mistake?

Opening the association to all was not an option. To be compliant with competition rules, it was necessary. I still believe it was the right thing to do because if you want to win in the market, you must do something new – beating, not excluding, competition.

That would have worked if we had created a hyper-distributed, federated, transparent, controllable and interoperable cloud network. The mistake was not in the inclusive approach, but instead in allowing external and internal lobbies to remove or dilute requirements, and de-focusing from the main objective of building a real federated cloud infrastructure.

The European Commission has made 'digital sovereignty,' and maximizing European data for socio-economic benefit, a political priority. How was GAIA-X supposed to fit into that aim?

The Commission was a strong believer in Gaia-X. But since Gaia-X was set up as an association, it could not take a clear position in mandating Gaia-X as a standard.

The priority was there, but there was never a common definition of what digital sovereignty means. In Gaia-X, we gave a clear definition of how this could be achieved. But there was not a clear definition from the Commission for what digital sovereignty means and how to achieve it in a deterministic way.

Years after the GAIA-X project began, the market share in cloud computing remains mostly unchanged. What went wrong with the European Union's ambitions?

Actually, the market share of EU providers has shrunk. Between 2017 and 2020, it fell from 26 percent to 10 percent, cumulatively.

Halfway through the EU's 'Digital Decade,' it is necessary to ask why this has happened, especially after billions of euros have been spent.

The fundamental problem is that European politicians replaced industry in defining 'how' to do things instead of focusing on 'what' needs to be done, and relying on experts in the European market. The other problem is that our competition laws force any deliverables produced with tax-payer money to be open to all, and not just to benefit European players of the European economy. This is a good rule - if we were in a fair competition environment and not hostage to a cartel of American lobbies.

If you had an opportunity to go back and change how Europe approached its efforts around cloud computing, what would your priorities be?

There is no point in going back. But if by going back, you mean restarting Gaia-X, I would create two legal entities: a think-tank to define the standard, and an operating company to develop and deliver services to the market.

The think tank would have working groups with specific release and deliverable plans. The company would be initially funded through a portion of the members' fees but would then be open to private and public investors.

Why is it important for Europe to offer an alternative to local businesses and governments compared to what is already in the cloud market?

Europe is recognized as the best producer of digital regulation. If we only managed to transform that into the development of a set of trustworthy services, these would address a huge demand and have a unique opportunity within the global market.

Every hyperscaler developed its own proprietary concept of 'sovereign cloud.' But no one is offering the level of interoperability, reversibility, and controllability that Europe's new generation of digital rules like the DMA, the DSA, or the AI Act are asking for. In that sense, compliance can be a competitive advantage for EU companies.

Europe can also become the frontrunner in a new generation of a federated, hyper-distributed model of cloud. Such infrastructure does not exist, and the market opportunity would be global. Finally, Europe can capitalize on the European enterprise data ecosystem.

What needs to happen for European cloud companies to compete on the global stage?

The EU needs to move from investments in R&D only, to develop a 'euro stack,' or a European federation of cloud service providers, or any sort of protection from digital colonization from American providers that is buying every single available square meter of data center capacity and gigawatt of energy, means there soon will be no future for Europe's digital economy.

How do you view a Europe-centric cloud computing market fitting into the current political priorities of the incoming European Commission, including the recent competitiveness analysis from former European Central Bank president Mario Draghi?

'Super Mario's' report has been interpreted in different ways. Some read it as a surrender declaration to American technological supremacy. Others read it as a call to radical action.

Two aspects of the cloud chapter caught my attention: a stronger support for aggregations, including federations, and the demand to reduce regulatory barriers for collaboration, including between US and EU players, for the common good.

My concern is that investments will continue to be spent in the same old way, which would be a disaster. The reality is that existing investments are still going in different, and fragmented directions, in ways that absorb all financial resources of EU member states. The growth of European players can happen faster, and more effectively through the creation of commercial and technical federations of existing providers that combine at once the need for hyper-distribution with interoperability when necessary.