



“We want to have a very important role in next-generation HPC platforms in Europe.”



As featured in *The CEO Magazine*
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FROM THE HEART OF NORTH-EAST ITALY, **FRANCESCO MORSIANI** AND HIS TEAM OF ENGINEERS AT E4 COMPUTER ENGINEERING ARE PROVIDING HIGH PERFORMANCE COMPUTERS TO SOME OF EUROPE’S MOST IMPORTANT INITIATIVES.

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A client portfolio that includes agencies such as CERN (the European Organization for Nuclear Research), ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development) and INFN (Italy’s National Institute for Nuclear Physics) is proof of the prowess of E4 Computing SpA (E4) in the fields of High Performance Computing (HPC), big data, AI, deep learning, data analytics and cognitive computing. »

Since 2002, the Italian computing company has been dedicated to providing innovative hardware, software and services for an array of applications, from university and research programs to government and defence initiatives, as well as the manufacturing, finance and bioinformatics industries.

“We have a very stable customer base,” Francesco Morsiani tells *The CEO Magazine* from his company’s headquarters in Scandiano, Emilia-Romagna. The Co-Founder and CEO is quick to redirect much of the credit for this achievement to his fellow Co-Founder and CTO, Cosimo Gianfreda. “He’s a maniac in his approach to customer satisfaction,” Francesco says. “And that’s what makes the difference.”

That even E4’s C-suite executives are prepared to jump on a plane at a moment’s notice – no matter the destination or cost – demonstrates just how entrenched in the company’s DNA this commitment to customer satisfaction is. “We make sure that any problem is solved in the fastest way possible,” he explains. “That is how you gain – and maintain – the confidence and trust of your customers.”

“We have other priorities in the company, but customer satisfaction is number one,” he continues. “We follow our products and services every single step of the process.” Until the customer is 100 per cent happy, the team at E4 will not rest. “It costs us something at the beginning,”



Francesco concedes, “but this dedication to our customers’ satisfaction is what brings them back.”

As does agility. “In terms of size, we may be a medium company, but we are very flexible and fast in our ability to deliver not only support and services but also innovation and technology to our customers,” he explains. “We also have the opportunity to gain access to new technologies earlier than the big players.” It’s a position underpinned by alliances with leading manufacturers such as AMD, IBM and Intel.

Until now the academic sector has been E4’s primary market, and Francesco believes the reason for this lies in the company’s flexibility and ability to be close to the real needs of the client, “especially because the educational sector really examines the technology itself”, he says. Since the budgets at research organisations and academic departments are often limited by government spending, E4’s hardware-independent approach, which offers budget-sensitive, user-friendly solutions without sacrificing performance, is highly valued in this market.

The company’s longstanding relationship with CERN has also provided E4’s reputation with a boost that no marketing strategy could ever match. In a partnership that Francesco refers to as “stimulating”, E4 has consistently delivered cutting-edge ICT solutions to the Swiss-based research organisation, which incorporate both technological leadership and solid, useable features. “It has given us a lot »

“E4 Computer Engineering’s competence and experience have led to incredible success stories. Our longstanding relationship with E4, combined with the superior technology of Supermicro’s products set the basis for a future of fantastic growth for both companies.” – Gian Luca Meroni, Senior Sales Manager, Supermicro

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of visibility, of course, and opened up many additional markets for us in Europe,” he says.

Although he intends to continue consolidating E4’s position in the academic world, Francesco is conscious of the risks of becoming a niche player. Yet, with an eye on increasing the firm’s share of the enterprise market, he is also acutely aware that this migration from “academic to academic plus enterprise” is not without its challenges. “The enterprise sector has a completely different set of needs, such as round-the-clock services and strict service-level agreements,” he explains. “We have to structure ourselves in a way that ensures we are capable of offering these solutions or outsourcing them if necessary.”

Francesco believes E4’s foundations – and proven ability – in providing high-performance analytics and AI solutions make the firm one of the few companies equipped to tackle these new challenges. “We’ve been validated in our field and that’s something unique in the marketplace,” he says. “By widening our offer, from both a system and solution point of view, we are bringing real value to the market and to our customers while upholding quality standards.”

New directions are also being approached from a geographical perspective. “It’s no secret that our home market, Italy, is not the most advanced in the world,” he acknowledges, adding that it’s lagging behind other countries such as the US by months, even

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HOME GROWN

Emilia-Romagna, the Italian region where E4 is headquartered, is rooted in a deep tradition of learning and innovation. The capital, Bologna, is home to the world’s oldest university, the University of Bologna. Other brands to call the region home include Ferrari, Maserati, Lamborghini, De Tomaso, Ducati and Pagani, which have helped it acquire a reputation as a centre for automobile production. But there are also strong gastronomic roots – the province of Reggio Emilia has given the world the finest balsamic vinegar since 1046, while we can also thank the province of Parma for the eponymous Prosciutto di Parma ham and Parmigiano Reggiano cheese.

quarters. The strategy is twofold: “In certain cases, we are approaching the market directly,” he explains. “In other cases, we build alliances with companies similar to ours that need our competence.”

While longstanding partnerships, such as the relationship with American computer hardware manufacturer Supermicro, can be traced back to the establishment of E4 and have grown thanks to mutual respect, loyalty and a fair approach, Francesco says he’s always on the lookout for new alliances as well. “It’s about finding companies that share our goals or our mission,” he explains.

A two-way line of communication, especially with vendors, is also considered crucial. “When we talk with Supermicro, for example, it’s very open. Our conversations are centred around sharing experiences to see where we can go together,” he says. E4’s ability to transmit end-customer feedback to its supplier – and its desire to offer these same customers what they really need rather than simply what is available on the market – means that “vendors listen to our ideas and our plans for products, solutions, modifications or future announcements”, he continues. “It’s a sign of strong partnerships and shows that we are more than just a customer to them.”

Among various partnerships, Francesco also highlighted the one with Mellanox Technologies, a leader in high-speed connectivity for HPC. E4 and Mellanox are currently

planning to co-design infrastructures for demanding applications and customers, with E4 delivering field support to Mellanox’s customers around Europe. This collaboration demonstrates, once again, how important good relationships and mutual trust are to succeed in the market. Francesco also feels that E4’s team of employees are more than just workers (a term he prefers to replace with “colleagues” in any case). “It’s more like a long family history,” he laughs, adding that many have been with the company since the very beginning. Like many of the world’s leading software companies, the workplace environment is both relaxed and stimulating. “Our approach to employee engagement is very ethical, something we are always praised for.”

E4’s best-in-class system engineers, science-trained software developers and hardware specialists make up the backbone of the company, as they translate the most advanced technologies into market-ready, user-friendly products and services. “We have 10 locally based, full-time engineers who design solutions that can deliver high levels of customer satisfaction, using the very best technologies,” he says.

One of the latest innovations is E4 Analytics, a subsidiary that was founded last year. This ‘partner company’ is dedicated to consulting and professional services around application intelligence, deep learning and data analytics in the fields of manufacturing, business and retail 4.0, and promises to make data a concrete resource that provides

value, rather than being something viewed as an expense. “We have hired a dedicated team of data scientists and our aim is to bring this solution to the market this year,” Francesco explains.

Next up? “We are also working to recruit another group of engineers in Software-Defined Everything solutions,” he reveals. “Our mission is to have deep-rooted knowledge and a strong offer in this field as well.” R&D is an area he identifies as a company strength. “We invest heavily in the education of our R&D engineers,” he says.

Along with companies such as Bull SAS, Infineon, BMW, and Atos, E4 is also one of 26 partners from 10 EU countries that form the consortium of the European Processor Initiative (EPI). Established to promote the design and manufacture of a wholly European high-performance microprocessor, the project revealed its initial architectural designs to the European Union in June this year, less than six months after its launch. Francesco’s enthusiasm for the initiative – and its potential – is evident.

“As a member of the EPI, our intentions are clear: we want to have an active and very important strategic role for growing the HPC and AI community in Europe,” he affirms. Being a member of such an initiative, Francesco explains, is incredibly important to the company. “We love to play this role. We want to have a very important role in next-generation, HPC platforms in Europe.” ■

E4 company milestones

2002 – Founded

2005 – First Infiniband Cluster

2009 – First GPU Cluster

2012 – First ARM + GPU Cluster

2013 – First ARM Cluster deployment

2016 – First OpenPOWER server

2017 – First OpenPOWER Petaflop Cluster