

breathe in(novation)

UNCOVER INNOVATIONS THAT MATTER

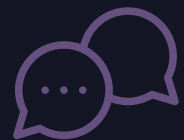


Francesco Starace
Chief Executive Officer
and General Manager
Enel



The CEO Corner

in discussion with



Aiman Ezzat
Chief Executive Officer
Capgemini







Francesco Starace

Chief Executive Officer and General Manager, Enel

Francesco has been Chief Executive Officer and General Manager of Enel Group since May 2014. From September 2017 to December 2019, he was a Member of the European Commission’s multi-stakeholder platform on Sustainable Development Goals. Since January 2020 he has been co-chair of the World Economic Forum’s Net Zero Carbon Cities initiative and, since January 2021, he has been co-chair of the European Clean Hydrogen Alliance roundtable on renewable and low-carbon hydrogen production. Since September 2021 he has been a Member of the Climate and Environment Advisory Council of the European Investment Bank (EIB) Group.

Enel is a multinational power company present in 30 countries worldwide and the largest renewable private player, the foremost network operator by the number of end users, and the biggest retail operator by customer base. ENEL revenues in 2021 amounted to over 88 billion euros with over 66,000 employees.



Aiman Ezzat

Chief Executive Officer, Capgemini

With more than 20 years’ experience at Capgemini, Aiman Ezzat has a deep knowledge of the Group’s main businesses. He has experience working in many countries, notably the UK and the US, where he lived for more than 15 years. Aiman was appointed CEO in May 2020. Before that, from 2018 to 2020, he served as the Group’s COO and, from 2012 to 2018, as CFO. Aiman is also on the Board of Directors of Air Liquide and is a Member of the Business Council.

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. Capgemini is a diverse organization of over 340,000 team members in more than 50 countries. The Group reported in 2021 global revenues of €18 billion.

The Capgemini Research Institute spoke to Francesco and Aiman to understand their views on innovation, its role in building a sustainable future, and how organizations can build an innovation culture.

INNOVATING FOR A SUSTAINABLE FUTURE

Enel has brought forward its net-zero target to 2040. Why?

— **Francesco:** Typically, utilities have significant levels of scope 1 emissions. We have a clear trajectory, including a larger share for renewables and phasing out coal and gas. This is already underway. Progress on this front is relatively easy to track and we know that by 2040 – probably earlier – we will have addressed our scope 1 issue.

Then we have to address scope 2 emissions. For us, this is not a significant challenge and involves decarbonizing our offices, looking at the cars our executives drive, things like that.

Scope 3 emissions are mostly related to customers and our supply chain. The most difficult part of mitigating scope 3 emissions is the supply chain. We have around 20,000 suppliers and contractors working for us all over the world – most with no idea of the size of their carbon footprints. There is a lot of educating to be done in this respect. We're asking our suppliers, with our help of course, to implement a program of gradual decarbonization in their operations.

Our scope 3 levels go down when we decarbonize the mix of energy that we produce; we are also in the process of trying to convince about 6 million gas customers worldwide to switch to electricity. We are helping our customers by selling them decarbonized electricity.

The real challenge with the 2040 deadline is not related to our energy generation, nor to our customers, but to the supply chain. It is challenging, but not impossible.



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Francesco Starace



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Aiman Ezzat

What do you see as being the role of innovation in the transition to sustainability?

— **Aiman:** Innovation is really one of the keys to a sustainable future. Achieving the necessary dramatic decreases in carbon emissions will require massive investment and a huge creative effort, notably in sectors such as energy, transportation, manufacturing, IT, and agriculture. Because sustainability will require rocket science. Just like vaccination needed rocket science to fight Covid. It will be hard to decarbonize some industries, and we do not have all the solutions today. But if we want to provide the same promise to consumers, we need to completely rethink and reengineer how things work, how businesses are run. Engines, powerplants, planes, cars... Our Fit for Net Zero report lists 55 high-impact technologies that can help Europe meet the 2050 net zero emissions target. Such as smart grids, battery recycling, or agriculture 4.0... It is these kinds of innovations, with both a strong technological content and a clear impact, that can really make a difference.

— **Francesco:** Regarding the role of innovation at company level, let me remind that our power-generation portfolio was built almost 40 years ago, with views of the world and decisions taken by the communities at that time. We had to overhaul the business model completely using an innovation mindset, putting everyone around this adventure: here the innovation is a key point. It took a while for us to grasp this, but now we are up to speed. The transition to a sustainable world demands this kind of innovation mindset of all traditional energy and utilities providers.

Can you highlight an innovation you are working on that could contribute to a more sustainable future?

— **Francesco:** One recent project aims at manufacturing advanced efficient solar cells, for which we won funding from the European Commission. This project uses a global approach to the eco-compatible design of photovoltaic systems, based on sustainability and circularity, with the goal of reusing a large quantity of materials across the entire value chain. This type of innovation will improve energy yield and costs, helping ensure a clean energy transition and a reduction in the EU's dependence on raw materials supplied from outside of Europe. Now we are innovating some basic concepts of the solar industry – for instance, can we use plastic instead of glass? The former is more resilient, performs better, and is easier to recycle. We are asking, how can it be made lighter and easier to transport? And how can we accelerate the transition to a productive model? Furthermore, we are very active in the energy storage area – either BESS or gravitational storage – which needs to be used for longer times.

— **Aiman:** We are collaborating with clients on several innovations. One example I am proud of is an intelligent data platform we developed to resolve the global food shortage. Global demand for food is anticipated to increase by 60% by 2050; the complex value chain and the lack of resources and connectivity result in agricultural inefficiency. Our platform uses artificial intelligence (AI) to detect farming patterns through big data, generating insights that can then be used as the basis for recommendations.



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It collects data from various public and private sources, which it then hosts in a cloud environment, running analytical models there as well. The platform provides data relating to crops grown, potential and realized yields, field perimeters, credit, and repayments. This information is combined with data from the Copernicus satellite. The data and analysis are shown on a dashboard that provides useful insights. For example, farmers can access tailor-made advice to optimize crop production.

CREATING AN INNOVATIVE ORGANIZATION

How do you create a culture of innovation in large organizations?

— **Francesco:** Firstly, eliminate fear of mistakes. You cannot innovate without error. We had to battle against that. Secondly, let's only innovate once we have clearly identified the problem that we need to solve. Innovation means nothing if it doesn't solve a problem or offer a marked improvement.

— **Aiman:** Nurturing an innovation culture is one of the hardest parts of any organization's transformation. Organizations should encourage a culture where employees are empowered to experiment, test, and learn, scaling their ideas at pace. There are several broad actions organizations can take to strengthen an innovative culture. But getting an innovative culture started is only half the task; maintaining it is the tricky part. But it's strategic to attract and retain talent.

"Innovation means nothing if it doesn't solve a problem or offer a marked improvement. "

Francesco Starace

MANAGING THE SKILLS SHORTAGE

How can organizations bridge the skills gap?

— **Francesco:** That's the most difficult problem we have today. The limiting factor for the energy transition is not money or opportunities or the technologies, it's a lack of the right people. You have to find them, train them, organize them, and then they go and work for somebody else. You have to instill your people with a unity of purpose.

There are two aspects to the skills gap. We have skill gaps in some business models, which companies have to fix internally; and then there is a worldwide, societal skills gap in digital capabilities, in particular at management level. In the next 5-10 years, there will be a lot of companies making very hard choices, affecting even good managers; those that fail to grasp the importance of digital going forward will be vulnerable.

— **Aiman:** There is a clear imbalance between the supply and demand of technology skills. Everybody is fishing in the same pool of resources. And I confirm: the lack of digital skills is the number one factor that slows down our economy.



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We need to invest significantly in upskilling; our eye is on the future, around 5G and edge, quantum computing, and more. Our research shows that less than half of organizations have an adequate supply of digital skills in areas such as AI and ML, or data analytics and data science. While organizations are accelerating their digital-transformation programs, they are not investing enough in upskilling. For example, we launched L'École, a skills-development program, together with leading academic institutions and our top technology partners. The good thing is that today, with digital platforms, we have a nearly unlimited training capacity.

In addition, I believe that we can only address the challenges of tomorrow with a more flexible, more hybrid, more transparent working model. There is no longer a rigid border between the company and the rest of the world. A company is now a platform involving a large variety of stakeholders: employees, freelancers, gigworkers, subcontractors... The workforce is becoming more fluid. Companies need to learn to live with talent ecosystems. You cannot fight what is happening in the market.

What is your top takeaway from the disruptions of the past 24 months?

— **Francesco:** In the past 20 years, global supply chains have not developed in a balanced way. We need more options built into supply chains. And these should not be designed for a perfect world but one that will see more disruptions like those of the past two years. It is important that we look not only at cost efficiency and convenience, but also security of supply and resilience. Going forward, there will be a lot of industrial investments in redesigning supply chains.

— **Aiman:** There are some very clear takeaways. Remote working is here to stay. We pursued the deployment of our “new normal” model, implementing our flex-work policy in most of our countries. Going digital has helped bring more freedom to the workplace and there is also more flexibility in hiring, training, and staffing in a hybrid-work world.

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BIOTECH

Which new technology are you most excited about?

— **Francesco:** I think the advances in biotech stand out above everything else. It’s due to miracles in biotechnology that we are emerging from the nightmare of the pandemic. Biotechnology can do a lot in the next few years to boost our wellbeing. You might be surprised that I don’t talk about energy, but I think, for mankind, biotechnology is much more important.

— **Aiman:** We are barely scratching the surface when it comes to synthetic biology. By giving us the ability to create genomes, synthetic biology allows us to create organisms that can help us achieve carbon-negative status. It can reduce toxic substances in the environment. Today, there are startups looking to lessen our reliance on trees for furniture or turn genetically engineered yeast into environmentally friendly fuel. The possibilities with synthetic biology are limitless; and we are looking at a trillion-dollar market, ripe for disruption.

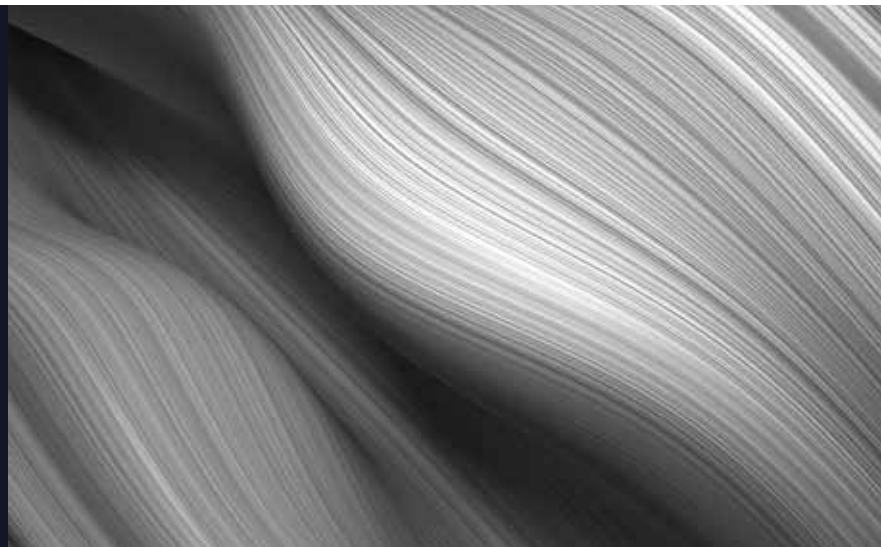
As CEO, which one piece of advice would you like to share with your peers?

— **Francesco:** Don't look at the energy transition as a future decision; it is happening already, and it is inevitable. Embrace it, because those who do so early on will reap the benefits. Understand the dynamics, the implications, the attributes, and the investments required. Leave denial and accept the future world.

— **Aiman:** To reimagine the future we want, we must act collectively and at scale. And innovation is our only way out. Net zero is a long road that will require deep changes and powerful innovations. But no one can achieve this challenge alone. Solutions can only be cross-industry.

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